



PJST – Journal Archives

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Volume 22, Number 2 (November/December 2021)

Engineering and Material Science

Jimoh, M.O. and A.A. Adeyinka. 2021. "Development and Quality Evaluation of Cubing Machine for Fermented African Locus Beans (*Parkia biglobosa*)". *Pacific Journal of Science and Technology*. 22(2): 5-14. (Keywords: design, fabrication, production, analysis, efficiency, capacity, statistical chart)

https://www.akamai.university/uploads/1/2/7/7/127725089/pjst22_2_5.pdf

Olubo, A.S., J.T. Stephen, O.O. Opadotun, J.A. Adebija, A. Adebayo, and G.J. Adeyemi.. 2021. "Design and Fabrication of a Low Cost Roasted Groundnut Seed Dehuller". *Pacific Journal of Science and Technology*. 22(2): 15-22. (Keywords: groundnut, dehuller, design, efficiency, throughput capacity, mechanical milling)

https://www.akamai.university/uploads/1/2/7/7/127725089/pjst22_2_15.pdf

Idu, H.K., N.E. Idenyi, E.I. Ugwu, and D.U. Onah. 2021. "Study of *Moringa oleifera* and *Vitex doniana* Sweet Leaf Extracts for use as Ecofriendly Corrosion Inhibitors in NaOH". *Pacific Journal of Science and Technology*. 22(2): 23-30. (Keywords: mild steel, corrosion penetration rate, corrosion inhibition, weight loss method, inhibitors)

https://www.akamai.university/uploads/1/2/7/7/127725089/pjst22_2_23.pdf

Energy and Power

Aliyu, H.B. and M.R. Odekunle. 2021. "Functional Relationship between the Energy Consumption and the Greenhouse Gas Emissions in Nigeria". *Pacific Journal of Science and Technology*. 22(2): 31-39. (Keywords: greenhouse gasses, energy, consumption carbon dioxide, methane gas, nitrous oxide, emission factor)

https://www.akamai.university/uploads/1/2/7/7/127725089/pjst22_2_31.pdf

Physics, Atmospheric Physics, and Health Physics

Fernandes, J.L.P.R. 2021. "No Sense of Einstein's Principles of Relativity and the Origin of a New Relativity". *Pacific Journal of Science and Technology*. 22(2): 40-48.

(Keywords: relativity, space, time, universe, potential, gravitational, velocity, energy, mass)

https://www.akamai.university/uploads/1/2/7/7/127725089/pjst22_2_40.pdf

Mathematics and Statistics

Ajisope, M.O., A.Y. Akinyele, C.Y. Ishola, A.A. Victor, M.L. Olaosebikan, and T. Latunde. 2021. "Application of Least Squares Method for Solving Volterra Fractional Integro-Differential Equations Based on Constructed Orthogonal Polynomials". *Pacific Journal of Science and Technology*. 22(2): 49-56. (Keywords: standard least squares method, SLSM, orthogonal polynomials, linear algebra, fractional integration, fractional calculus, differential equations, FIDE, MAPLE 18)

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Taiwo, S.A. and A.A. Akomolafe. 2021. "Complementary Generalized Transmuted Poisson Lomax Distribution with its Derived Properties and Application". *Pacific Journal of Science and Technology*. 22(2): 70-80. (Keywords: lifetime distribution, maximum likelihood estimation, Lomax distribution, hazard function, order statistics)

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Oyeyemi, G.M., D.A. Aji, A.B. Ibraheem, and A.O. Kareem. 2021. "Comparison of some Robust Estimators in Multiple Regression in the Presence of Outliers". *Pacific Journal of Science and Technology*. 22(2): 81-90. (Keywords: efficiency, outlier, parameter, rank, robust estimator)

https://www.akamai.university/uploads/1/2/7/7/127725089/pjst22_2_81.pdf

Edogbanya, H.O., S.O. Momoh, T.A. Ayoola, A.A. Victor, M.Sc., M.O. Ajisope, and A.A. Ayoade. 2021. "Transmission Dynamics of a SIR Infectious Disease Model using Multi-Step Homotopy Analysis Method". *Pacific Journal of Science and Technology*. 22(2): 91-100. (Keywords: mathematical biology, disease model, stability theory, differential equations, epidemic indicator, MHAM, multi-step homotopy analysis method)

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Information Technology and Communications

Olabisi, O., A.O. Adeniran, A.G. Ebisemiju, and S.O. Areo. 2021. "Investigation on Effect of Homogenous Multiple Lines of Trees on Wireless Communication System". *Pacific Journal of Science and Technology*. 22(2): 101-107. (Keywords: homogeneous, near field, LOS, line of sight, vegetation, communication systems, signal interference, path loss)

https://www.akamai.university/uploads/1/2/7/7/127725089/pjst22_2_101.pdf

Management, Economics, and Education

Omofunmi, O.E. and K.S. Ogunleye. 2021. "Precision Farming, Soil Conservation, and Irrigation as Veritable Impetus for Boosting Agricultural Productivity". *Pacific Journal of Science and Technology*. 22(2):108-116. (Keywords: agricultural productivity, irrigation, precision farming, sensors, soil conservation)

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Ayinde, I.A., A.O. Ayegbokiki, and F.O. Aminu. 2021. "Socio-Economic Factors Influencing Quantity of Insecticide Use in Cowpea Production in Nigeria". *Pacific Journal of Science and Technology*. 22(2): 117-129. (Keywords: cowpea, factors, influence, insecticide, production, socio-economic factors, agriculture management)

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Ifekwem, N.E., S.T. Olabosinde, and O.O. Amuah. 2021. "Sibling Rivalry and Succession Planning in Family Business in Nigeria". *Pacific Journal of Science and Technology*. 22(2): 130- 136. (Keywords: business succession, rivalry, family dynamics, family business, planning, crossgenerational, multi-generational business)

https://www.akamai.university/uploads/1/2/7/7/127725089/pjst22_2_130.pdf

Oladeji, A.D. and O.A. Afolabi. 2021. "The Challenges and Prospects of Secretarial Profession in this Modern Technology Era in Oyo State Nigeria". *Pacific Journal of Science and Technology*. 22(2): 137-144. (Keywords: challenges, prospects, secretarial profession, modern technology area, technological skills, employment skills, clerical activities)

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Emeka, I.D. and E.C. Thompson,. 2021. "Continuing Education: A Strategy for Achieving Educational Transformation for Sustainable National Development in Nigeria". *Pacific Journal of Science and Technology*. 22(2): 145-151. (Keywords: education, continuing education, sustainable development, sustainable national development)

https://www.akamai.university/uploads/1/2/7/7/127725089/pjst22_2_145.pdf

Chapman, T., P.A. Johnson, J.C. Johnson J.C. and A. Mardon. 2021. "Canadian Victory on Vimy Ridge: The Creation of the Creeping Barrage and the Defining Moment of a Nation". *Pacific Journal of Science and Technology*. 22(2): 152-158. (Keywords: artillery, Canadians, Canada, First World War, WWI, Vimy Ridge, military history, military science, tactical planning, flash spotting, sound ranging, creeping barrage)

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Situ, A. and F. Omilabu. 2021. "Assessment of Financial Reporting Quality of Federal Universities in Nigeria: A Case Study of the Federal University of Agriculture, Abeokuta". *Pacific Journal of Science and Technology*. 22(2): 159-166. (Keywords: financial reporting, economic audits, Benford's Law, economic reform, governance, accountability, financial report validation, public sector accounting standards)

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Chemistry and Biochemistry

Odika, P., M. Duru, C. Onyeabor, O. Nana, C. Nwadike, and P. Okafor. 2021. "Bioactive Profiling of *Vitex doniana* Leaf and its Effect on Rat Erythrocyte Membrane Stabilization Activity". *Pacific Journal of Science and Technology*. 22(2): 167-181. (Keywords: bioactive profiling, membrane stabilization, traditional medicine, *Vitex doniana* leaf)
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Busari, F.A., S.B. Adekoya, M.B. Adebo, S.R. Oyefeso, S.A. Sigbeku, and M.E. Oladele. 2021. "Kinetic, Isothermal, and Thermodynamics Studies of the Biosorption of Pb (II) from Aqueous Solution by White Star Apple (*Chrysophyllum albidum* G.) Seed Shells". *Pacific Journal of Science and Technology*. 22(2): 182-193. (Keywords: biosorption, metal ions, toxic, pH, initial metal ion concentration, kinetic study, thermodynamics, Freundlich and Langmuir models)
https://www.akamai.university/uploads/1/2/7/7/127725089/pjst22_2_182.pdf

Life Sciences and Medicine

Ogunjobi, K.M., K.O. Okunola, V.A. Jayeola, A.C. Adetogun, and O.F. Gakenou. 2021. "Evaluation of Density and Anatomical Properties of Stem Wood of Five Commercial Trees in Nigeria using a Non- Destructive Approach". *Pacific Journal of Science and Technology*. 22(2): 194-200. (Keyword: non- destructive, increment borer, density, anatomical properties, derived values, tree species, commercial wood, timber)
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Oduntan, O.O. and M. Morgan. 2021. "Proximate Composition and Public Perception of Variegated Grasshoppers (*Zonocerus variegatus*) as a Source of Animal-Based Protein". *Pacific Journal of Science and Technology*. 22(2): 201-206. (Keywords: entomophagy, grasshoppers, wildlife consumption, nutrition, utilization)
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Oduntan, O.O. and A.K. Taiwo. 2021. "Survey of Endo-Parasite Composition of Selected Wildlife Species and their Economic Importance". *Pacific Journal of Science and Technology*. 22(2): 207- 212. (Keywords: zoological garden, wildlife management, disease, parasitology, animal health, conservation)
https://www.akamai.university/uploads/1/2/7/7/127725089/pjst22_2_207.pdf

Tiamiyu, K.A. and B.O. Ajibola. 2021. "Self Efficacy, Emotional Intelligence, and Locus of Control as Predictors of Substance Abuse amount Undergraduates in Nigeria". *Pacific Journal of Science and Technology*. 22(2): 213- 220. (Keywords: self-efficacy, emotional intelligence, locus of control, substance abuse, university students)
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Environmental Science and Ecology

Bamigboye, S.O. and M.O. Jimoh. 2021. "Evaluating Threats and Conservation Status of South African Rhynchosia". *Pacific Journal of Science and Technology*. 22(2): 221-226. (Keywords: conservation, endemism, ethnobotanical uses, extinction risks, threats, biodiversity)

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Akintola, O.O., J.T. Arojojoye, M.O. Ojo, and R.T. Ibode. 2021. "Remediation Potential of *Jatropha integerrima* (Jacq) in Lead Contaminated Soil". *Pacific Journal of Science and Technology*. 22(2): 227-239. (Keywords: anthropogenic heavy metal pollution, lead, Pb, bioaccumulation, industrialization, bioaccumulation, bioremediation, sustainability)

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Usman, R., A.M. Kamal, E.I. Ugwu, I.M. Mustapha, A. Mamman, and A. Hudu. 2020. "Assessment and Analysis of the Presence of Heavy Metals in Water in Ara and Laminga of Nasarawa State, Nigeria: Health Implication on the Populace". *Pacific Journal of Science and Technology*. 21(2):240-246. (Keyword: water assessment, heavy metals, accumulation, public health, concentration, gastropods, Micro Plasma Atomic Emission Spectroscopy, MP-AES. potable water)

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Akintola, O.O., B.L. Olajiire-Ajayi, R.T. Ibode, and O.D. Ayeni. 2021. "Influence of Wastes on Some Properties of Soil around Ajakanga Dumpsite in Ibadan, Southwestern Nigeria". *Pacific Journal of Science and Technology*. 22(2): 247-256. (Keywords: dumpsites, soil properties, compost, re-use, nutrients, agricultural impact)

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Ogundiran, A.A., N.A. Adesola Babarinde, E.A. Ofudje, and O.O. Ogundiran. 2021. "Removal of Heavy Metals from Aqueous Solutions using Modified Irish Potato Leaf as Low Cost Biosorbent: Kinetic and Thermodynamic Studies". *Pacific Journal of Science and Technology*. 22(2): 257-271. (Keywords: biosorption, bioremediation, Irish potato leaf, kinetics, heavy metals, thermodynamics)

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Uche, J.J. 2021. "The Impact of Solid Waste Dumpsites on Ambient Air Quality in Obio/Akpor Local Government Area, Rivers State: A Case Study of Nkpolu Community". *Pacific Journal of Science and Technology*. 22(2): 272-279. (Keywords: air quality, dump sites, off-gassing, ozone, methane, carbon monoxide, nitrogen dioxide, sulfur dioxide, carbon dioxide, ammonia, hydrogen sulfide, volatile organic carbon, particulate matter, environmental monitoring, solid waste dumps)

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Badmus, A.M., B.B. Alhaji, and N. Abdullahi. 2021. "Mathematical Modeling of Ecological Restoration of Gully Erosion in Chukun Local Government Area in Kaduna State". *Pacific Journal of Science and Technology*. 22(2): 280- 294. (Keywords: mathematical modeling, ecological restoration, gully erosion)

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Geology, Geophysics, and Earth Science

Olorunfemi, M.O., A.G. Oni, T.K. Fadare, and O.E. Olajuyigbe. 2021. "On the Application of the Magnetic Method in the Mapping of Mineralized Pegmatites in Mica Schist underlain Basement Complex of Southwest Nigeria". *Pacific Journal of Science and Technology*. 22(2): 295-306. (Keywords: linear feature, mineralized pegmatites, magnetic lineaments, mica schist, Nigerian Precambrian Basement Complex)
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Volume 22, Number 1 (May/June 2021)

Engineering and Material Science

Nworie, S.I. and E.I. Ugwu. 2021. "The Effect of Annealing Temperature on Structural and Solid State Properties of Aluminum Zinc Oxide (AlZnO) Deposited by Chemical Bath Technique". *Pacific Journal of Science and Technology*. 22(1):5-13. (Keywords: AlZnO, thin films, annealing temperature, chemical bath deposition, structural and solid state properties)
http://www.akamaiuniversity.us/PJST22_1_5.pdf

Physics, Atmospheric Physics, and Health Physics

Ezeugo, J.C. 2021. "Jet Production in the More Extended Extragalactic Radio Sources and Unification with Compact Steep Spectrum Sources". *Pacific Journal of Science and Technology*. 22(1):14-19. (Keywords: jet, magnetization, radio sources, accretion, magnetic field)
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Ezeugo, J.C. 2021. "On the Components of Large Extended Extragalactic Radio Sources". *Pacific Journal of Science and Technology*. 22(1):20-23. (Keywords: radio sources, ambient density, radio jet, radio lobe, source age, galaxies)
http://www.akamaiuniversity.us/PJST22_1_20.pdf

Mathematics and Statistics

Akeyede, I., M. Kaka, and H.R. Bakari. 2021. "Estimation of Two-Sided Exponential Distribution Using the Maximum Likelihood Function". *Pacific Journal of Science and Technology*. 22(1): 24-29. (Keywords: exponential distribution, MLE, LSE)
http://www.akamaiuniversity.us/PJST22_1_24.pdf

Oyedepo, T., A.F. Adebisi, M.T. Raji, M.O. Ajisope, J.A. Adedeji, J.O. Lawal, and O.A. Uwaheren. 2021. "Bernstein Modified Homotopy Perturbation Method for the Solution of Volterra Fractional Integro-Differential Equations". *Pacific Journal of Science and Technology*. 22(1): 30-36. (Keywords: modified homotopy perturbation method, Bernstein polynomials, fractional integro-differential equations)
http://www.akamaiuniversity.us/PJST22_1_30.pdf

Adebisi, A.F., O.A. Uwaheren, M.O. Etuk, O.E. Abolarin, M.T. Raji, K.A. Bello, and J.A. Adedeji. 2021. "Standard Collocation Method by Legendre Basis Polynomial Function for Solving Integro-Differential Equations". *Pacific Journal of Science and Technology*. 22(1): 37-46. (Keywords: integro-differential difference equations, Gauss-Legendre polynomials)
http://www.akamaiuniversity.us/PJST22_1_37.pdf

Salisu, K.A., Y. Bala, A. Audu, and M.A. Ayinde. 2021. "Mathematical Model for the Dynamics of Drug-Abuse and Violence Co-Menace". *Pacific Journal of Science and Technology*. 22(1):47-60. (Keywords: mathematical model, drug abuse, violence, co-menace, mathematical model, basic reproduction number)
http://www.akamaiuniversity.us/PJST22_1_47.pdf

Information Technology and Communications

Oliha, F.O. 2021. "Bridging Technological Gulfs for Valuers in Fiscal Cadaster". *Pacific Journal of Science and Technology*. 22(1):61-67. (Keywords: property valuation, land use charge, system usability, fiscal cadaster, web solution, GIS)
http://www.akamaiuniversity.us/PJST22_1_61.pdf

Oliha, F.O. 2021. "Evaluating Usability of Academic Web Portals for Social-Academic Learning". *Pacific Journal of Science and Technology*. 22(1):68-76. (Keywords: collaborative learning, web portal usability, social academic platform, academic web portals)
http://www.akamaiuniversity.us/PJST22_1_68.pdf

Management, Economics, and Education

Ogunwolu, F.O., O.F. Odeyinka, and O.A. Oluwaji. 2021. "A Review of Lean Manufacturing, Six Sigma and Lean Six Sigma". *Pacific Journal of Science and Technology*. 22(1):77-90. (Keywords: Lean manufacturing, Six Sigma, Lean Six Sigma, LSS)
http://www.akamaiuniversity.us/PJST22_1_77.pdf

Bello, B.A., P. Ologbenla, and B.F. Sanusi. 2021. "Employee Welfare and Retention in Dangote Flour Mills PLC., Apapa Lagos". *Pacific Journal of Science and Technology*. 22(1):91-98. (Keywords: employee welfare programs, work-life balance, employee retention, employee management)
http://www.akamaiuniversity.us/PJST22_1_91.pdf

Babatunde, O.O., K.O. Babatunde, T.O. Babatunde, A.T. Ademigbuji, S.O. Okeleke, and A.A. Ekaun. 2021. "Marketing of Timber in Selected Sawmills in Ibadan North Local Government Area of Oyo State Nigeria". *Pacific Journal of Science and Technology*. 22(1): 99- 106. (Keywords: profitability, marketing, timber, Ibadan NGA, sawmills)
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Babatunde, O.O., K.O. Babatunde, T.O. Babatunde, A.T. Ademigbuji, S.O. Okeleke, and A.A. Ekaun. 2021. "Overview of Students' Topic Difficulties in Mathematics: A Case Study of Federal College of Forestry, Ibadan, Oyo State, Nigeria". *Pacific Journal of Science and Technology*. 22(1): 107-111. (Keywords: education, student views, overview, topics, difficulties, mathematics)
http://www.akamaiuniversity.us/PJST22_1_107.pdf

Aremu, A.O. and N. Ozurumba. 2021. "Measured Influence of Personal Factors on Academic Dishonesty among University Postgraduate Students in South-west, Nigeria". *Pacific Journal of Science and Technology*. 22(1):112-120. (Keywords: academic dishonesty, personal factors, University postgraduate students)
http://www.akamaiuniversity.us/PJST22_1_112.pdf

Zhang, Y., L.E. Lombo, J. Singh and A. Mardon. 2021. "How COVID-19 Will Affect the Future of Universities". *Pacific Journal of Science and Technology*. 22(1):121-124. (Keywords: COVID-19, higher education, blended or hybrid learning model)
http://www.akamaiuniversity.us/PJST22_1_121.pdf

Chemistry and Biochemistry

Dim, P.E., A.U. Iloka, M. Termtanun, and J.O. Okafo. 2021. "Isotherm and Kinetics Studies of Pb (II) Adsorption onto *Pandanus Candelabrum* Activated Carbon". *Pacific Journal of Science and Technology*. 22(1): 125-135. (Keywords: *Pandanus candelabrum*, activated carbon, chemical activation, adsorption, isotherm, kinetics)

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Oruma, U.S., P.O. Ukoha, and C.J. Ezeorah. 2021. "Synthesis, Characterization, and Biological Studies of Trinuclear Nd(III) Salen Capped Complex with 2,4,6-tris(4-carboxybenzimino)- 1,3,5-triazine". *Pacific Journal of Science and Technology*. 22(1): 136-153. (Keywords: synthesis, trinuclear Nd(III) salen capped complex, antimicrobial activity)

http://www.akamaiuniversity.us/PJST22_1_136.pdf

Tachie, N.B.S, O.A. Mosunmade, B. Habila, U. Ibeneme, and K.E. Ibe. 2021. "Investigating the Effect of Alkaline-Peroxide Treatment on the Chemical Composition and Mechanical Properties of Sisal Fiber". *Pacific Journal of Science and Technology*. 22(1):154-163.

(Keywords: alkaline treatment, mechanical properties, sisal fiber, FTIR, biofibers)

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Life Sciences and Medicine

Anotaenwere, C.C., P.A. Dele, B.T. Akinyemi, F.E. Enwete, J.I. Akinyode, D.S. Oyelola, O.A. Okukenu, and A.O. Jolaosh. 2021. "Effect of Soil Sampling Point and Age at Harvest on the Growth and Dry Matter Yield of Two *Panicum maximum* Varieties". *Pacific Journal of Science and Technology*. 22(1): 164-169. (Keywords: grasses, soil, tiller, varieties, yield)

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Akinyode, J.I., P.A. Dele, B.T. Akinyemi, F.E. Enwete, C.C. Anotaenwere, and V.O.A. Ojo. 2021. "Effect of Fertilizer Rate and Age at Harvest on the Growth and Dry Matter Yield of *Brachiaria ruziziensis*." *Pacific Journal of Science and Technology*. 22(1):170-177. (Keywords: fertilizer, grass, growth, nitrogen, yield)

http://www.akamaiuniversity.us/PJST22_1_170.pdf

Opadotun, O.O., F.B. Olotu, K.A. Iyalabani, F.M. Bolarin, and O.A. Ogunjirin. 2021. "Optimum Drying Temperature and Treatment for Commercial Production of Cocoyam Flour". *Pacific Journal of Science and Technology*. 22(1): 178-182. (Keywords: agriculture products, cocoyam, commercial production, optimum drying, treatment, utilization, post-harvest properties)

http://www.akamaiuniversity.us/PJST22_1_178.pdf

Ofoegbu, E.C. 2021. "Effect of Leaf Extract of *Psidium guajava* (Guava) on the Hematological Indices of Albino Rats." *Pacific Journal of Science and Technology*. 22(1): 183-189. (Keywords: haematological parameters, hematological indices, guava leaves)

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Enwete, F.E., O.S. Iyasere, P.A. Dele, B.T. Akinyemi, C.C. Anotaenwere, J.I. Akinyode, and O.S. Onifade. 2021. "Short-Term Grazing Behavior of White Fulani Calves as Affected by Grazing Cycle, Plant Spacing and Species." *Pacific Journal of Science and Technology*. 22(1): 190-196. (Keywords: calves, grooming, forages, grasses, tropical)

http://www.akamaiuniversity.us/PJST22_1_190.pdf

Nyajo, T.A., A.P. Annune, and O.V. Ayuba. 2021. "Effects of Tannic Acid on Stickiness Removal and Time of Hatching of African Catfish, *Clarias gariepinus* Eggs." *Pacific Journal of Science and Technology*. 22(1): 197-202. (Keywords: *Clarias gariepinus*, concentrations, hatchability, stickiness elimination, photophilic eggs, Tannic acid)

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Peer, L.S., L. Lombo, J. Singh, and A. Mardon. 2021. "The Pet Transience During the COVID-19 Pandemic". *Pacific Journal of Science and Technology*. 22(1): 203-206. (Keywords: COVID-19, animals, pets, non-human companionship, loneliness, isolation, mental health)

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Akintola, O.O., I.O. Abiola, E.K. Abodunrin, T. Adeniran, F.O. Agboola, and E.A Ekaun. 2021. "Comparative Analysis of Phytochemical Compounds in Ethanolic Extracts of Leaf, Bark, and Root of *Dacryodes edulis* (G. Don) and their Medicinal Importance". *Pacific Journal of Science and Technology*. 22(1): 207-217. (Keywords: *Dacryodes edulis*, phytochemical screening, reducing sugar, tannin, saponin, flavonoids)

http://www.akamaiuniversity.us/PJST22_1_207.pdf

Kang, N. and A.A. Mardon. 2021. "Pathogenesis of COVID-19". *Pacific Journal of Science and Technology*. 22(1):218-225. (Keywords: Coronavirus, COVID-19, SARS, Severe Acute Respiratory Syndrome, pathogenesis, virus, global pandemic)

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Environmental Science and Ecology

Uzor, A.O. 2021. "Assessment of Heavy Metals in Prawn (*Macrobrachium macrobrachium*) along selected stations of New Calabar River, Rivers State, Nigeria". *Pacific Journal of Science and Technology*. 22(1): 226-231. (Keywords: heavy metals, prawn, environmental pollution)

http://www.akamaiuniversity.us/PJST22_1_226.pdf

Ejiogu, I.K., U. Ibeneme, and O.M. Aiyejagbara. 2021. "Degradable Polymers - The Future for Environmental Management in Nigeria: A Review". *Pacific Journal of Science and Technology*. 22(1): 232-240. (Keywords: degradation, eco-friendly composite, biodegradation, plastic wastes, environment)

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Akintola, O.O., A.I. Bodede, A.T. Ademigbuji, E.A. Ekaun, and O.O. Adekoya. 2021. "Leachate Characteristics and Pollution Index Assessment of an Active Dumpsite in Ibadan, Southwestern Nigeria". *Pacific Journal of Science and Technology*. 22(1): 241-253. (Keywords: leachates, active dumpsite, Leachates Pollution Index, LPI, remediation, environmental hazards)

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Engineering and Material Science

Response Surface Regression Modelling of Orthogonal Cutting of Stainless Steel Using HSS Tool. Morakinyo Kehinde Onifade. (Keywords: stainless steel; HSS tool; response surface regression; tool life; surface roughness).

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Design of Single Effect Solar Still for Water Purification. Audu Ibrahim Ali; Ugwoke Emmanuel Eze; K.C. Onyeneho; I.C. Iloani (M.Eng In View); and A. Okpanachi. (Keywords: solar still, cover plate, distillate, design parameters, insolation).

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Energy and Power

Anaerobic Digestion of Potato Peel Waste for Methane Generation. Audu Ibrahim Ali; K.C. Onyeneho; I.C. Iloani (M.Eng In View); Ajibili Edibo Haruna; and E.C. Ugwuoke. (Keywords: anaerobic digestion, biogas, inoculum, potato peel, energy).

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Production of Biogas from Cassava Peels Blended with Goat Manure. K.C. Onyeneho; Okoh Promise Emeka; Audu Ibrahim Ali; I.C. Iloani (M.Eng In View); and Ajibili Edibo Haruna. (Keywords: Cassava peels, goat dung, biogas, waste management, inoculum).

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Physics and Atmospheric Physics

Radial Basis Function - Finite Difference (RBF-FD) Approximations for Two Dimensional Heat Equations. M.O. Durojaye and J.K. Odeyemi. (Keywords: Radial Basis Function, Gaussian (GA), Multiquadratics (MQ), Inverse Multiquadratics (IMQ) and Inverse Quadratic (IQ)).

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Verification of the Accuracy of an Instrument Landing System's Localizer: A Study of an International Airport in Nigeria. P.C. Amalu; C.O. Okonkwo; and O.M. Olayiwola. (Keywords: accuracy, ILS localizer, transmitter and receiver, runway centerline, course line, DDM deviation, frequency, equi-signal, in-flight, electromagnetic, and radiation).

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Mathematics and Statistics

On Hybrid Block Methods for the Solution of Optimal Control Problems. A.M. Alkali, Ph.D.; B.D. Shalom, M.Sc.; and D. Umar, M.Sc. (Keywords: optimal control, interpolation, collocation, convergent).

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Mathematical Modeling of Algae Population Dynamics on the Surface of Water. Nurat O. Abdurrahman M.Tech.; Ninuola I. Akinwande, Ph.D.; and Samuel A. Somma, Ph.D. (Keywords: exponential growth, phytoplankton, diffusion, source term, sink term).

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Information Technology and Communications

Cyber Insecurity: End User Vulnerability Awareness and Perception Assessment. Dorothy E. Akpon-Ebiyonare, Ph.D. and Susan Konyeha, Ph.D. (Keywords: cyber security, threat, user awareness, vulnerability, cyber crime, security breach, social engineering).

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Use of Mobile Devices in Teaching and Learning in Traditional Higher Institutions in Nigeria. Susan Konyeha, Ph.D. and Dorothy E. Akpon-Ebiyonare, Ph.D. (Keywords: e-learning, smart phones, mobile devices, digital aids, m-learning).

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Augmented Reality: User Perception on Effectiveness in Educational Delivery Assessment in Kaduna. Martins E. Irhebhude, Ph.D.; Abdullahi, Fatima B.Sc.; Agwi, U. Celestine, M.Sc.; Adeola O. Kolawole, B.Sc.; and Lydia Mohammed, B.Tech. (Keywords: technology, augmented reality, AR, virtual reality, VR, teaching and learning, education).

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Management, Economics, and Education

An Evaluation of the Failure Pattern of Defunct Airlines in Nigeria. Akin Babatunde Adeoye and Abdulrahman Musa. (Keywords: airlines, operations, defunct, transport, aviation).

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Employee Retention Strategies and Organizational Performance in Selected Private Universities in Ogun State Nigeria. Linus I. Okafor; Nkiruka E. Ifekwem; and Adedoyin O. Adeyi. (Keywords: career growth, retention, training and development, rewards).

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Strategic Management Practices and Performance of Small and Medium Scale Enterprises (SMEs). Ola O. Oyedele, Ph.D.; Adenike F. Oyedele, Ph.D.; Olalekan A. Sotunde, M.Sc.; Kazeem O. Makinde, B.Sc. (Ed); Babatunde T. Fabinu, M.Sc.; and Oluwakemi O. Oladokun, M.Sc. (Keywords: strategic management practices, small and medium scale enterprises, performance and profitability).

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The Relationship of Strategy Formulation, Adoption, and Implementation to Small Scale Market Share Performance. Adenike F. Oyedele, Ph.D.; Olalekan A. Sotunde, M.Sc.; Ola O. Oyedele, Ph.D.; Oluwakemi O. Oladokun, M.Sc.; Kazeem O. Makinde, B.Sc. (Ed); and Babatunde T. Fabinu, M.Sc. (Keywords: strategy formulation, adoption implementation, business performance, and small business enterprises).

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Maximum Daily Cash Transaction Limit Enforcement in Nigeria Cash-Lite Economy. Oluwasogo Adekunle Okunade, M.Sc. (Keywords: multiple financial transaction, Bayes' Theorem, Central Bank of Nigeria, CBN, electronic payment).

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Entrepreneurship Education: A Viable Tool in Mitigating Rural-Urban Migration in Anambra State. Chinedu J. Ayolugbe; Ngozi J. Igwe; and Innocent U. Ishiwu. (Keywords: education, entrepreneur, entrepreneurship education, migration, and ruralurban migration).

http://www.akamaiuniversity.us/PJST20_2_161.pdf

Challenges of Teaching and Learning of Marketing in Secondary School in Nsukka

Educational Zone, Enugu State Nigeria. Chinedu J. Ayolugbe; Innocent U. Ishiwu; and Amaka S. Ugodinamba. (Keywords: education, secondary education, marketing curriculum, teaching and learning).

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Assessment of Apprenticeship Training on Entrepreneurship Development in Illobu, Osun State.

Oyeniyi Aderonke Agnes, Ph.D. and Abdulsalam Kabirat Adenike, B.Sc. (Keywords: training, entrepreneurship, apprentice program, apprenticeship).

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Enhancing Quality University Education for Sustainable Development in Nigeria: Private Sector Roles and Challenges.

Sarafadeen Segun Salami and Kamoru Abidoye Tiamiyu. (Keywords: private university, roles, challenges, sustainable development, higher education).

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Chemistry and Biochemistry

Extraction, Purification, and Preliminary Characterization of Dyestuff from *Adansonia digitata* Root (Baobaba).

T.N. Alumona; N. Ekere; S.I. Ogbuefi; and I.I. Otunomo. (Keywords: Adansonia digitata, dye extraction, characterization, dyestuff, purification).

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Physicochemical Analysis of a Local Clay and its Utilization in Ceramic Tiles.

G.N. Chikwelu ; T.U. Onuegbu; K.G. Akpomie; and E.L. Onyeyilim. (Keywords: physicochemical analysis, water absorption, apparent porosity, Mbaukwu clay, ceramic tiles).

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Life Sciences and Medicine

Variational Iteration Method for Solving an Infectious Disease Model.

A.A. Ayoade, Ph.D.; T.F. Aminu M.Sc.; M.O. Ajisope, Ph.D.; A.I. Abioye, M.Sc.; A.A. Victor, M.Sc.; and S. Amadiegwu, M.Sc. (Keywords: infectious disease, Variational Iteration Method, Runge-Kutta method).

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Evolution of Exon 3 Region of Interferon Regulatory Factor-5 Gene in Nigerian Indigenous Chickens.

Samuel Olutunde Durosaro, Ph.D.; Babatunde Moses Ilori, Ph.D.; David Oluwafemi Oguntade, M.Agric.; Ayotunde Olutumininu Adebambo, Ph.D.; and Michael Ozoje, Ph.D. (Keywords: chickens, evolution, exon, interferon regulatory factor-5, phylogeny, purines, genetic analysis).

http://www.akamaiuniversity.us/PJST20_2_211.pdf

Effect of Moisture Content and Drying Methods on the Thermal Properties of African Walnut Flour.

Anita C. Ezeagba, M.Eng.; Ike S. Oluka, P.Eng.; and Ejike P. Ide, M.Eng.

(Keywords: specific heat, thermal conductivity, thermal diffusivity, African Walnut flour).

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Effect of Temperature Variation by Forced Air Dryer on Solar Drying of Okra.

Ugwoke Emmanuel Eze; Audu Ibrahim Ali; I.C. Iloani (M.Eng In View); K.C. Onyeneho; and E.C Ugwoke. (Keywords: okra, drying, preservation, temperature, solar drying).

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Effect of Feather Color on Heat Tolerance Traits and Growth Performance of Nigerian Indigenous Turkey. Babatunde Moses Ilori, Ph.D.; Samuel Olutunde Durosaro, Ph.D.; Clement Ebanehitah Isidahomen, Ph.D.; Nafisah Abiola Uthman, B.Agric.; David Temitayo Komolafe, B.Agric.; Kayode Akano, Ph.D.; and Prof. Michael Ohiokhuaobo Ozoje. (Keywords: poultry production, heat stress, heat tolerance, growth performance, Nigerian indigenous turkey).

Environmental Science and Ecology

Impact of Waste Dumpsite on Groundwater Quality in Ibadan, Southwestern Nigeria. Oluwatoyi Opeyemi Akintola, Ph.D. and Bodede Adewunmi Idayat. (Keywords: Anthropogenic influence, Dumpsite, Groundwater quality, Leachates, Public health).
http://www.akamaiuniversity.us/PJST20_2_242.pdf

Investigation of Groundwater Quality in parts of Onitsha, Southeastern Nigeria. B.A. Igboror and A.N. Amadi. (Keywords: groundwater, assessment, Onitsha, southeastern Nigeria).
http://www.akamaiuniversity.us/PJST20_2_266.pdf

Effects of Trace Metal Compositions of Igneous Intrusions on Public Health in Ishiagu Area of the Southern Benue Trough, Southern Nigeria. I. Nwachukwu; V.U. Ukaegbu; and N. Egesi. (Keywords: geochemistry, geostatistical studies, environmental chemistry, bioaccumulation, health effects, trace metals).
http://www.akamaiuniversity.us/PJST20_2_276.pdf

Geology, Geophysics, and Earth Science

A Review of the Heavy Mineral Provinces of the Paleogene Sediments, SouthEastern Nigeria: Factors Controlling the Distribution of the Heavy Minerals. Ogechi C. Ekwenye, Ph.D. and Ogechukwu C. Onyemesili, Ph.D. (Keywords: high resolution, heavy minerals, ultrastable, ultra-stable minerals, provinces, Paleogene, Niger Delta).
http://www.akamaiuniversity.us/PJST20_2_289.pdf

Reservoir Permeability Prediction Using Artificial Neural Network; A Case Study of “XZ” Field, Offshore Niger Delta. Vitalis C. Ozebo, Ph.D. and Chuks C. Ezimadu, M.Sc. (Keywords: artificial neural networks, reservoir permeability, petrel, Niger delta).
http://www.akamaiuniversity.us/PJST20_2_309.pdf

Integrated Geophysical Investigation of Suspected Structurally Controlled Valleys within the Basement Complex Underlain Federal University, Oye-Ekiti, Southwestern Nigeria. Olaniyi D. Abiye, B.Sc.; Ademakinwa G. Oni, Ph.D.; and Martins O. Olorunfemi, Ph.D. (Keywords: integrated geophysics, geomorphic valleys, structure control, basement complex terrain).
http://www.akamaiuniversity.us/PJST20_2_319.pdf

Geophysical Evaluation of Foundation Soils in a Basement Complex Terrain: A Case Study of LAUTECH Campus, Ogbomoso, Southwestern Nigeria. Ismaila Abiodun Akinlabi, Ph.D.; Titilope Adegoke, B.Tech.; and Olusola Bolatan, B.Tech. (Keywords: geoelectric parameters, subsoil characteristics, foundation integrity, engineering structures, overburden thickness, bedrock relief).
http://www.akamaiuniversity.us/PJST20_2_332.pdf

Geoelectrical Prospecting for Shallow Aquifers in Otukpo, North-Central Nigeria. Ameh I. Mark, M.Tech. and Amadi A. Nwanosike, Ph.D. (Keywords: geoelectrical, resistivity, profile, Otukpo, 2D, well, Wenner, groundwater).
http://www.akamaiuniversity.us/PJST20_2_352.pdf

Geotechnical Investigation of Soils and Underlying Basement Rock for the Construction of Southern Parkway Bridge at Federal Capital Territory (FCT), Abuja, Northcentral Nigeria.

Waheed Gbenga Akande; Olumuyiwa Temitope Akinsanpe; Adeyemi Israel Oyeniran; Yahaya Baba Alkali; Adekola Amos Alabi; and Ibrahim Asema Abdulfatai. (Keywords: Southern Parkway Bridge, federal capital territory, Nigeria, geotechnical survey, geotechnical analyses, strength, basement rock).

http://www.akamaiuniversity.us/PJST20_2_360.pdf

Lineament Analysis and Inference of Geological Structures in Bansara-Boki Area, Southeastern Nigeria. M.A. Agbebia and N. Egesi. (Keywords: lineament, topography, planar and linear structures, index parameters, SE Nigeria).

http://www.akamaiuniversity.us/PJST20_2_372.pdf

Integration of *in-situ* Susceptibility and Petrographic Data in Study of the Magnetic Properties of some Rocks of Parts of Anambra Basin and Southern Benue Trough, Nigeria.

Martina O. Eze, Ph.D. and Ikechukwu B. Ijeh, Ph.D. (Keywords: magnetism, magnetic susceptibility, aeromagnetic, Benue trough).

http://www.akamaiuniversity.us/PJST20_2_387.pdf

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Engineering and Material Science

Solar Energy as an Alternative for Poultry Brooding in Nigeria and Chick Brooding

Requirements: A Review. E.C. Ugwuoke; Audu Ibrahim Ali; Isah Edibo Alhaji; C.P. Ezeigwe; and N.P. Oputa. (Keywords: brooding, alternative energy, temperature, humidity, chicks, poultry rearing)

http://www.akamaiuniversity.us/PJST20_1_5.pdf

Small Scale Solar-Powered Brooder. N.P. Oputa; Audu Ibrahim Ali; E.C. Ugwuoke; C.P. Ezeigwe; and Muhammed Shaibu. (Keywords: solar brooder, chicks, temperature, humidity, poultry farming)

http://www.akamaiuniversity.us/PJST20_1_13.pdf

Solar Powered Refrigeration: Technical Challenges and Uses - A Review. Audu Ibrahim Ali; E.C. Ugwuoke; Muhammed Shaibu; C.P. Ezeigwe; and N.P. Oputa. (Keywords: solar refrigeration, absorption, electricity, cooling, photovoltaic technology)

http://www.akamaiuniversity.us/PJST20_1_21.pdf

A Paint Mixer for Small Scale Paint Production. D.I. Ntunde; E.C. Ugwuoke; N.P. Oputa; and F.A. Folaranmi. (Keywords: paint mixer, electric motor, production quality, fabrication)

http://www.akamaiuniversity.us/PJST20_1_29.pdf

Automatic Rain Activated Wiper for Tricycle. D.I. Ntunde; E.C. Ugwuoke; F.A. Folaranmi; A. Okpanachi; and N.P. Oputa. (Keywords: motorized tricycles, Keke Napew, windshield wipers, automatic wiper, transportation, safety, visibility)

http://www.akamaiuniversity.us/PJST20_1_49.pdf

Energy and Power

Analysis of Power Plan Capabilities in Nigeria's Electric Grid System for Energy Security.

C.U. Okoye. (Keywords: forecast values, installed capacity, peak generation, available capacity)

http://www.akamaiuniversity.us/PJST20_1_66.pdf

Mathematics and Statistics

An Efficient Hybrid Algorithm for the Computation of Second-Order Fredholm Integro-Differential Equations. J. Sunday; Y. Skwame; O. Sarjiyu; I. Manga; J.A. Mohammed; and B.J. Neils. (Keywords: algorithm, Fredholm equations, hybrid integro-differential equations, second-order) (AMS Subject Classification: 65L05, 65L06, 65D30)

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Least Squares Method and Homotopy Perturbation Method for Solving Fractional Integro-differential Equations. T. Oyedepo, M.Sc.; O.A. Taiwo, Ph.D.; A.F. Adebisi, Ph.D.; C.Y. Ishola, M.Sc.; and O.E. Faniyi, M.Sc. (Keywords: Bernstein polynomials, numerical studies, least squares method, homotopy perturbation)

http://www.akamaiuniversity.us/PJST20_1_86.pdf

Beta-Hjorth Distribution and its Properties. A.A. Akomolafe; A. Maradesa; and H.O. Hassan. (Keywords: Beta-Hjorth, hazard rate function, survival rate function, reliability)

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On the Doubly Truncated Exponential Pareto Distribution. A.A. Akomolafe and A. Maradesa. (Keywords: doubly truncated exponential Pareto distribution, reliability function, hazard function, maximum likelihood estimation)

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An Alternative Solution to Hotelling T Square under the Heteroscedasticity of the Dispersion Matrix. P.O. Adebayo and G.M. Oyeyemi. (Keywords: variance, co-variance matrix, linear combination, type 1 error rate, power the test, heteroscedasticity, R statistical package)

http://www.akamaiuniversity.us/PJST20_1_112.pdf

A Mathematical Study to Obtain a True Numerical Value of “e” used for Exponential Expression and as a Base for Napierian or Natural Logarithms. John James Essien and Umana Thompson Itaketo. (Keywords: mathematics, series, exponential expression, “e”, logarithm, binomial theorem, infinity, limit)

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Comparison of Some Spike-and-Slab Priors for Bayesian Variable Selection in Multiple Linear Regression. G.M. Oyeyemi; Y.A. Olanrewaju; and R.O. Kolawole. (Keywords: covariates, posterior distribution, precision, regression coefficients, spike-and-slab priors)

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Management, Economics, and Education

Barriers to Lean Adoption for Construction Projects. Benedict Amade, Ph.D.; Charles Nnamdi Ononuju, Ph.D.; Dominic Obodoh, M.Sc.; and Chris Ejimkonye Okorie, B.Tech. (Keywords: barriers, construction projects, lean, RII construction management, relative importance index)

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Access to Land for Sustainable Agriculture Practices in Nigeria. Olugbenga Adewale Adewoye. (Keywords: agricultural practices, land, land tenure, sustainable economic development)

http://www.akamaiuniversity.us/PJST20_1_167.pdf

Households' Demand for Fruits and Vegetables in Urban Nigeria. Adekemi A. Obisesan, Ph.D. (Keywords: fruits, vegetables, expenditure, elasticity, urban, Nigeria, dietary components, food economics)

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Assessment of Level of the Knowledge, Utilization and Barriers of Nursing Process as a Tool for Effective Nursing Care Among Nurses in University of Maiduguri Teaching Hospital, Maiduguri, Nigeria. A. Inuwa, M.Ed./M.Sc.; H. Habu, MHPM; O.C. Emmanuel, M.Sc.; B. Maigari, M.Sc.; H. Dathini, M.Sc.; A. Haruna, M.Ed. (in view); and N. Lola, M.Sc. (Keywords: nursing process, level of knowledge, utilization, barriers, nursing education)

http://www.akamaiuniversity.us/PJST20_1_182.pdf

Maximum Daily Cash Transaction Enforcement in Nigeria Cash-Lite Economy. Oluwasogo Adekunle Okunade, M.Sc. (Keywords: multiple financial transactions, Bayes' theorem, Central Bank of Nigeria, CBN)

http://www.akamaiuniversity.us/PJST20_1_192.pdf

Government Policy and the Growth of Small and Medium Scale Enterprise in Lagos State. Nkiruka E. Ifekwem. (Keywords: monetary policy, fiscal policy, supply side economics, taxation, business environment)

http://www.akamaiuniversity.us/PJST20_1_201.pdf

The Logistics Strategy and the Growth of E-Commerce in Nigeria. Bashiru Akande Bello, Ph.D.; Ifelara Adebola Rotimi; and Boluwatife O. Omoniyi. (Keywords: logistics, electronic commerce, economic activities, competency assessment, questionnaire research, Jumia Nigeria)
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Assessment of Urban Households' Involvement in Micro-Enterprises in Ibadan Metropolis, Oyo State, Nigeria. Roseline J. Akinlade, Ph.D. (Keywords: micro-enterprises, urban households, involvement, Ibadan metropolis, Nigeria)
http://www.akamaiuniversity.us/PJST20_1_225.pdf

A Review of the Nigerian Business Environment and its Support for Small and Medium Enterprises. Linus Izediuno Okafor (Keywords: business, entrepreneurship, small business, medium business, business environment, business climate, SMEs)
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Gender Differences in the Technical Efficiency and Profitability of Yam Production among Farmers in Ikole-Ekiti Local Government Area, Ekiti State, Nigeria. Oluwakemi Oduntan, Ph.D. (Keywords: efficiency, Ekiti State, farmers, profitability, yam production, Nigeria)
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Effectiveness of Social Media Applications on Improvement of Technical Education Lecturer-Student Relationships in Nigerian Universities. Bamidele Michael Efuwape, M.Sc. Ed. and Oluwabunmi Asake Efuwape, M.Ed. (Keywords: effectiveness; social media applications; technical education lecturers; technical education students; Nigeria, Nigerian universities)
http://www.akamaiuniversity.us/PJST20_1_254.pdf

The Role of Vocational Training on Entrepreneurship Development. Aderonke Agnes Oyeniyi, Ph.D.; Oluseyi. A. Adeyemi, Ph.D.; and Kanyinsola Cole, B.Sc. (Keywords: entrepreneurship development, vocation, education, Nigeria)
http://www.akamaiuniversity.us/PJST20_1_266.pdf

Chemistry and Biochemistry

Application of Solar-Irradiated Photocatalyst (Periwinkle Shell Ash) for the Degradation of Ethylbenzene in Aqueous Solution. Felix A. Aisien, Ph.D. and Jude O. Osarumwense, Ph.D. (Keywords: ethylbenzene, periwinkle shell ash, degradation, photocatalysis, L-H model)
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Life Sciences and Medicine

Length Base Structure and Growth Parameters of *Sarotherodon galilaeus* (Pisces: Cichlidae) in Tropical Coastal Estuary, Nigeria. W.O. Abdul; I.T. Omoniyi; A.O. Bashir; A.A. Makinde; E.O. Adekoya; T. Owoade; and J.T. Oriyomi. (Keywords: Bhattacharya's, length distribution, growth index, *Sarotherodon galilaeus*, tropical, fisheries, stock assessment, cichlids, big man fish)
http://www.akamaiuniversity.us/PJST20_1_289.pdf

Estimating the Age of Toll-Like Receptor 5 Variants in N'Dama and Other Taurine Cattle. Babatunde Moses Ilori, Ph.D.; David Oluwafemi Oguntade, (M.Agric. in view); Samuel Olutunde Durosaro, Ph.D.; Clement Ebanehitah Isidahomen, Ph.D., and Adebisi Adeleye, (M.Agric. in view) (Keywords: allele, age, linkage disequilibrium, Toll-like receptor 5, taurine cattle, genetic analysis)
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Proximate and Fiber Composition of Different Parts of *Tephrosia bracteolate* as Affected by Phosphorus Application Rate and Sowing Date. Oluwafemi Okukenu, Ph.D.; Peter Dele, Ph.D.; Bolanle Akinyemi, Ph.D.; Abiola Olajide, Ph.D. (in-view); Olufemi Onifade, Ph.D.; Oluwatoyin Ogunrombi, M.Agric.; Aanuoluwapo Adekale, M.Agric.; and Michael Kolade, M.Agric. (Keywords: *Tephrosia bracteolata*; phosphorus fertilizer; application rate; plant parts)
http://www.akamaiuniversity.us/PJST20_1_308.pdf

Proximate and Fiber Composition of Four Sorghum Cultivars as affected by Age at Harvest. Bolanle Akinyemi, Ph.D.; Oluwafemi Okukenu, Ph.D.; Peter Dele, Ph.D.; Alaba Jolaosho, Ph.D.; and Tomisin Odebode, B.Agric. (Keywords: sorghum, cultivars, age at harvest)
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Sensory Evaluation of Chicken Sausage as Influenced by Levels of Inclusion of African Basil (*Ocimum gratissimum*) Leaf Powder. Olufunke Dele, M.Agric.; Olufemi Akinola, Ph.D.; and Samuel Abiola, Ph.D. (Keywords: African basil leaf powder, ABLP, seasoning, chicken sausage, food science)
http://www.akamaiuniversity.us/PJST20_1_321.pdf

Effects of Seed Weights on Germination Rate and Seedling Vigor of Cashew (*Anacardium occidentale* L.). J.I. Oyekale, M.Tech. and A.I. Okunlola, Ph.D. (Keywords: cashew seed, weight, germination rate, seedling vigor)
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Studies on the Yield and Nutritional Properties of some Local Seeds: Effects of Drying Systems. F.U. Asoiro; C.J. Ohagwu; U.C Abada; and L.O. Okafor (Keywords: flavonoid, phenolic content, oil yield, hot air oven, drying methods, protein content, Soxhlet extractor)
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Isolation, Characterization and Identification of Bacterial isolates from Auto-mechanic Workshop contaminated with Hydrocarbon. Jude O. Osarumwense, Ph.D.; Francis A. Igiebor, M.Sc.; and Daniel E. Idahosa, B.Sc. (Keywords: engine oil, hydrocarbon, microorganisms, degradation, bioremediation, bacteria)
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Geology, Geophysics, and Earth Science

Petrography and Structural Features of Migmatites, Granites and Granite Gneisses at Osokom and its Environs Bansara area Southeastern Nigeria. N. Egesi Ph.D. (Keywords: rock features, petrographic analysis, basement/sedimentary rocks contact, Bansara area, southeast Nigeria)
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Geotechnical Properties and Effects of Palm Kernel Shell Ash and Cement on Residual Soils in Pavement Construction along Owo-Ikare Road, Southwestern Nigeria. Omowumi Ademila, Ph.D. (Keywords: Stabilization, residual soil, palm kernel shell ash, cement, road pavement, geotechnical properties)
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Structural Characteristics of Parts of the Abakaliki Area South-Eastern Nigeria. N. Egesi, Ph.D. (Keywords: Abakaliki anticlinorium, rock types, structures, deformation, magmatism, SE, Nigeria)
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Engineering and Material Science

Cylindrical Laplacian on 2D FD for Computational Electromagnetics. M. Nuruzzaman, Ph.D.

(Keywords: Laplace equation, 2D FD, cylindrical FD)

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Determination of Temperature Variation of a Box-Type Solar Cooker. E.C. Ugwuoke; C.M.

Aburu; I. Ofili; N.P. Oputa; and Muhammed Shaibu. (Keywords: conventional fuel, solar cooker, radiation, renewable energy and food)

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Energy and Power

Anaerobic Digestion of 500 Gallons of Reactor Wastewater Sewage Sludge. E.C. Ugwuoke;

S.A. Ogunjobi; N.P. Oputa; I. Ofili; and A. Okpanachi. (Keywords: wastewater, sewage sludge, inoculum, biogas, anaerobic digestion)

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Factors Affecting Biogas Production: A Review. S.A. Ogunjobi; E.C. Ugwuoke; C.P. Ezeigwe;

I. Ofili; and N.P. Oputa. (Keywords: biogas, nutrients, temperature, loading rate, inhibitors)

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Mathematics and Statistics

Solution of Cholera Disease Model by Parameter Expansion Method. A.A. Ayoade, Ph.D.;

O.J. Peter, M.Tech.; S. Amadiegwu, M.Sc.; A.I. Abioye, M.Sc.; A.A. Victor, M.Sc.; and A.F. Adebisi, Ph.D. (Keywords: nonlinear problems, analytic methods, cholera model, parameter expansion method)

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Information Technology and Communications

Automatic Tuning of Proportional–Integral–Derivative Controller using Genetic Algorithm.

Joseph Stephen Bassi, Ph.D. and Emmanuel Gbenga Dada, Ph.D. (Keywords: PID Tuning, genetic algorithm, evolutional computation, Siegler-Nichols method, optimization)

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A Survey Analysis of Recognition-Based Graphical Password Art-form Design Attributes.

Annie O. Egwali, Ph.D.* and John B. Odetayo, M.Sc. (Keywords: graphical password models, art-forms, interfaces, design, usability, security, authentication)

http://www.akamaiuniversity.us/PJST19_2_58.pdf

Appraising Software Product Quality Models Involving Users Perspective: (A Case Study of Authentication Models). Annie O. Egwali, Ph.D.* and Winifred R. Sule, M.Sc. (Keywords: authentication, quality, software product, user, biometrics, software quality, WEBUSE)

http://www.akamaiuniversity.us/PJST19_2_74.pdf

A Proposed Method of Biometric Authentication System using Multi-Modal Features. Dele W.S. Alausa, M.Sc. (Keywords: biometric authentication system, multimodal, fusion, classifiers, trait, security)

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Logistic Model Tree Induction Machine Learning Technique for Email Spam Filtering. Emmanuel Gbenga Dada, Ph.D. and Joseph Stephen Bassi, Ph.D. (Keywords: machine learning, spam filtering, Logistic Model Tree Induction, neural networks, decision trees, naïve Bayes)

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Safety-Critical Model for Process Validation in Paracetamol 500mg Tablet Manufacturing. Annie O. Egwali, Ph.D. and Kingsley C. Nwaekwu, M.Sc. (Keywords: safety, Paracetamol, fuzzy pattern recognition, performance, quality, simulation)

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Projecting Student Population Using Artificial Neural Network. Annie O. Egwali, Ph.D. and Macdonald I. Enabulele, M.Sc. (Keywords: prediction, education, expansion, population, neural network, growth, projection)

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Development of an Android-Based E-Learning System for the Hausa Language. Yakub K. Saheed, Ph.D.; Mustapha Aisha, B.Sc.; and M.O. Alimi, Ph.D. (Keywords: e-learning, PHP, Android, Hausa language)

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Social Networking Challenges and Evaluation. Annie O. Egwali, Ph.D. and Veronica I. Osubor, Ph.D. (Keywords: usability, website, electronic media, social networking, social media, Facebook, Twitter)

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Management, Economics, and Education

Quality and Quality Control in Production: A Review. N.P. Oputa; I.C. Iloani; E.C. Ugwuoke; S.A. Ogunjobi; and I. Ofili. (Keywords: production, quality, quality control, quality assurance, reliability)

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Productivity Improvement in Manufacturing Sector. I. Ofili; I.C. Iloani; E.C. Ugwuoke; N.P. Oputa; and S.A. Ogunjobi. (Keywords: productivity, improvement, efficiency, effectiveness, and production)

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Demographic Factors and Organizational Citizenship Behavior in the Wire and Cable Industry in Southwestern Nigeria. Bashiru Akande Bello; Adedayo Mathias Opele; and Caleb I. Orukotan. (Keywords: citizenship, behavior, demographic, employees, productivity)

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Determinants of Technical Efficiency of Shoemaking Enterprises among Small Scale Entrepreneurs in Ondo State, Nigeria. Olubukola Omotinuke Ehinmowo, Ph.D. (Keywords: technical efficiency, TE, shoemaking, stochastic frontier production, Ondo State, Nigeria)

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An Assessment of the Causes and Effects of Abandonment of Road Construction Projects in Osun State Nigeria. Olumide F. Odeyinka; Olalekan Adedamola Oluwaji; and Falade Omokolade D. (Keywords: construction management, road development, project abandonment, public works)

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Preparing Successor and Family Business Sustainability in South-East, Nigeria. Nkiruka E. Ifekwem. (Keywords: family business, small business, successor planning, business sustainability, continuity of operations)

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Assessment of Transformational Leadership and Leadership Style on Business Organizations' Significant and Positive Change. Oluwakemi O. Oladokun, M.Sc.; Anthony O. Sotunde, M.Sc.; and Kazeem O. Makinde, B.Sc.(Ed). (Keywords: visionary leaders, transformational leadership, transitional leadership, leadership style, business organization, positive and significant change)

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Essentials of Strategic Change Management and Employees Resistance on the Operations of Business Organizations. Oluwakemi O. Oladokun, M.Sc.; Anthony O. Sotunde, M.Sc.; and Kazeem O. Makinde, B.Sc.(Ed). (Keywords: strategic change management, employee resistance, operations, business organizations, decision making)

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A Study of Customers' Assessment of Quality Practices of Fast Food Entrepreneurs in Southwestern Nigeria. Tolutope O. Fakokunde, Ph.D. ((Keywords: quality assurance, ratings, total quality management, standards, fast food, entrepreneurs)

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Automated Revenue Collection System: A Case Study of Edo State Jobs Initiative. Annie O. Egwali, Ph.D. and Kareem Otokiti, M.Sc. (Keywords: revenue, Oredo, Egor, automated, epayments, non-tax)

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Influence of Social Capital on Performance of Micro and Small-Scale Enterprises in Osun State, Nigeria . R.J. Akinlade, Ph.D. (Keywords: social capital, business performance, micro-scale, small-scale enterprise, Nigeria)

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Skills Development Needs of Technical Education Lecturers in use of Technology Facilities and Social Media for Instructional Activities in Nigeria. Kehinde I. Omoniyi; Nsidibeabasi C. Nwokem; Yusuf O. Usman; and Olanipekun O. Idowu. (Keywords: date palm seed, lignocellulosic, bioalkali, plantain peel, reducing sugars)

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Chemistry and Biochemistry

An Assessment of the Potential of Plantain Peel Ash as a Potash Biocatalyst for Producing Reducing Sugar from *Phoenix dactylifera* Seed Pit. Kehinde I. Omoniyi; Nsidibeabasi C. Nwokem; Yusuf O. Usman; and Olanipekun O. Idowu. (Keywords: kinetic studies, equilibrium, zinc, lead, bioremediation, heavy metals)

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Total Alkaloids, Tannin Content, and Antiulcer Assay of Four Selected Medicinal Plants in Nigeria. Benjamin E. Ezema; Chidimma N. Ezema; Priscillia N. Abuekwu; Matthias O. Agbo; and Kovo G. Akpomie. (Keywords: *Acanthospermum hispidum*, *Pachypodanthium staudtii*, *Phaseolus lunatus*, *Euphorbia deightonii*, antiulcer, cytoprotective ability)
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Life Sciences and Medicine

Botanical Composition, Dry Matter Yield, and Soil Physio-Chemical Properties of Natural Grazing Areas under Sedentary Pastoral System at Different Seasons in South-West Nigeria. Oluwafemi Okukenu, Ph.D.; Peter Dele, Ph.D.; Bolanle Akinyemi, Ph.D. (in-view); Abiola Olajide, M.Agric.; Oluwatoyin Ogunrombi, B.Agric.; and Aanuoluwapo Adekale, B.Agric.. (Keywords: natural pasture, location, season, forage quality, range land, feed resources)
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Proximate and Fiber Composition of *Pennisetum purpureum* Varieties in *Stylosanthes guianensis* Mixed Sward Fertilized with Two Manure Types. Taiwo Oyekunle, M.Agric.; Oluwafemi Okukenu, Ph.D.; Peter Dele, Ph.D.; Oluwayemisi Aderinboye Ph.D.; Abiola Olajide, M.Agric.; Oluwatoyin Ogunrombi, B.Agric.; Alaba Jolaosho, Ph.D.; and Aanuoluwapo Adekale, B.Agric. (Keywords: elephant grass, napier grass, cook stylo, fertilizer, manure, grass, legume, intercrop, nutritive quality, fodder plants)
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Nutrient Intake and Digestibility of West African Dwarf Rams Fed Toasted *Enterolobium cyclocarpum* based Multi-Nutrient Feed Blocks. Adekunle Akinlolu, (Ph.D. in view); Oluwasanmi Arigbede, Ph.D.; Dele Peter, Ph.D.; Ayotunde Ogunsakin, (Ph.D. in view); Olumuyiwa Ogunbote, (M.Agric. in view); and Micheal Kolade (M.Agric. in view). (Keywords: toasted Enterolobium cyclocarpum seed meal, TECSM, E. cyclocarpum foliage meal, ECFM, feed block)
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Chemical Composition of *Panicum maximum* as Influenced by Poultry Manure Rate and Age at Harvest. Peter Dele, Ph.D.; Bolanle Akinyemi, Ph.D.; Oluwafemi Okukenu, Ph.D.; Tunde Amole, Ph.D.; Adekunle Akinlolu Ph.D. (in-view); Gideon Sarumi, M.Agric. (in-view); Foluke Salawu, B.Agric.; and Chika Anotaenwere, B.Agric. (Keywords: manure, salinity, chelate, fiber, guinea grass)
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An Analysis of the Consequences of the Herdsmen-Farmers Crisis in North Central Nigeria using Agent - Based Modelling. Jonathan A. Enokela, Ph.D. (Keywords: herdsmen, farmers, crisis, conflict, agent based modeling)
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Comparative Studies on the Chemical Composition of *Chrysophyllum albidum* Seed and Five Different Melon Seeds. A.A. Taiwo, Ph.D.; J.O. Ayeni, B.Sc.; O. Osifeso, Ph.D.; and J.A Oyedepo, Ph.D. (Keywords: *Chrysophyllum albidum*, Curcubit species, nutrients, anti-nutrients)
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Social Exchange Theory: The Transactional Nature of the Quandary Situation Between Poverty and Adolescents' Sexual Behavior. Olukemi Grace Adebola, Ph.D. (Keywords: adolescents, poverty, sexual behavior, social exchange, teenagers)
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Teenage Pregnancy in Nigeria: An Offshoot of the Social Structure. O.G. Adebola, Ph.D. (Keywords: adolescent, teenage pregnancy, prevalence, puberty, sexual health, sexuality)
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Environmental Science and Ecology

Application of Project Management Techniques to Environmental Impact Assessment (EIA) Methodologies: A Case Study of the Installation of Solar Panels in Afe-Babalola University Ado-Ekiti, Ekiti State. Olumide F. Odeyinka; Adeleke Akinyele; and Onosetale Aiwanose Okpamen. (Keywords: Environmental Impact Assessment, EIA, methodologies, critical path method, Gantt chart, exposit facto technique, project management tools and techniques)
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GIS in Modern Zoological Park Management: Case Study of the Federal University of Agriculture, Abeokuta, Nigeria. John A. Oyedepo, Ph.D. and M.O. Oyatogun, Ph.D. (Keywords: geographical information systems, GIS, zoological park, environmental data, spatial data modeling)
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GIS-Supported Survey and Biodiversity Assessment in a Derived Savannah Ecosystem. V John A. Oyedepo, Ph.D.; Moses O. Oyatogun, Ph.D.; Abimbola O. Jayeola, Ph.D.; and Olusegun Oladoye, Ph.D. (Keywords: ornamental gardens, ornamental plants, exotic species, native species, Southwest Nigeria)
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Geology, Geophysics, and Earth Science

Hydrocarbon Potential of Late Miocene to Early Pliocene Source Rocks of Shallow Offshore, Niger Delta Basin, Nigeria. Oladotun Afolabi Oluwajana, Ph.D. (Keywords: source rock, shallow offshore, hydrocarbon potential, Niger Delta Basin)
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Palynostratigraphy and Palynoenvironmental Study of Adeobak-2 Well, Offshore Niger Delta, Southern Nigeria. O.C. Adeigbe, Ph.D. and K.A. Obakhume, B.Sc. (Keywords: palynomorphs, paleoenvironments, palynozones, Oligocene, Miocene, PMI)
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Engineering and Material Science

Control Modeling of Fluid Temperature in Heat Exchangers. I.E. Ohue, M.O. Petinrin, O.E. Zebulun; and R.A. Kazeem. (Keywords: feed-forward controller, MATLAB, heat exchanger, SIMULINK)

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Environmental Waste Management through the Utilization of Waste Plastics Polyethylene Terephthalate (PET) and Low Density Polyethylene (LDPE) as Partial Replacement of Sand in the Production of Concrete Blocks. I.K. Ejioagu, P.A. Mamza, P.O. Nkeonye, and A.S. Yaro. (Keywords: waste plastics, environmental waste management, concrete blocks, compressive strength)

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Comparative Study of Various Methods for Designing and Proportioning Normal Concrete Mixture. I.K. Ejioagu, P.A. Mamza, P.O. Nkeonye, and A.S. Yaro. (Keywords: ACI method, aggregate cement ratio, DOE method, IS method, normal concrete)

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Energy and Power

Optimal Allocation of SVCs in Transmission Networks Considering System Loadability using Exponential Adaptive Bacterial Foraging Algorithm. U. Musa, A.A. Mati, S.M. Aminu, and A. Mohammad. (Keywords: Static Var Compensator, Exponential Adaptive Bacterial Foraging Algorithm, Loadability, Newton-Raphson Power Flow)

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The Effect of pH, Volatile, and Total Solid in Cumulative Yield of Methane. I. Ofili, E.N. Anike, C.B. Ugwuodo, K.C. Onyeneho, and F.C. Umunna. (Keywords: biogas, cow dung, anaerobic digestion, slurry temperature, ambient temperature)

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Trade-Off between Gas Production and Gas Flaring in Nigeria. F.B. Adebola and E.I. Olamide. (Keywords: gas flaring, gross domestic product, per capita income, investment, econometric model, statistical inference)

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A 100 Liter Capacity Solar Water Heater for a Household of Three Individuals. C.B. Ugwuodo, E.C. Ugwuoke, E.N. Anike, K.C. Onyeneho, and F.C. Umunna. (Keywords: solar water heater, insolation, ambient temperature, collector, water)

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Physics and Atmospheric Physics

Estimating the Time of Death using the Lump System Analysis. G.I. Olatona and A.O. Popoola. (Keywords: time of death, lump system analysis, forensic science, heat transfer, coroner, police)

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Mathematics and Statistics

A Study of Asymptotic Distribution of Tau (τ) Agreement Index. A.A. Akinloye, A.O. Adejumo, O.O.M. Sanni, and E.T. Jolayemi. (Keywords: agreement, confidence bound, beyond chance, asymptotic distribution, Tau statistic, raters, inverse theorem)
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On Bayesian Analysis of Univariate Longitudinal Clinical Data (ULCD). G.A. Dawodu, O.M. Olaiwola, and O.E. Asiribo. (Keywords: Bayesian analysis; ULCD; Markov Chain Monte Carlo, MCMC simulations; probability density distribution, PDF, rjags)
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Some Robust and Classical Nonparametric Procedures of Estimations in Linear Regression Model. F.B. Adebola, E.I. Olamide, and O.O. Alabi. (Keywords: least absolute deviation, least trimmed squares Monte Carlo simulation, ordinary least squares, regression analysis Theil's non-parametric, weighted Theil's non-parametric procedures)
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A New Robust Method for Estimating Linear Regression Model in the Presence of Outliers. T. Alanamu and G.M. Oyeyemi. (Keywords: robust regression, case indicator, Ridge regression, outlier)
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Homotopy Perturbation Method for Solving SIR Infectious Disease Model by Incorporating Vaccination. O.J. Peter and A.F. Awoniran. (Keywords: SIR infectious disease model, epidemic model, homotopy perturbation method, HPM)
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Stand-in Procedure to Multivariate Behrens-Fisher Problem. G.M. Oyeyemi and P.O. Adebayo. (Keywords: multivariate Behrens-Fisher problem, Type 1 error rate, power of the test, heteroscedasticity)
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Local Stability Analysis of a River Blindness Disease Model with Control. F.A. Oguntolu, G. Bolarin, S.A. Somma, and A.O. Bello. (Keywords: basic reproduction number; disease free equilibrium; river blindness; stability)
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Information Technology and Communications

Application of RFID Technology and GSM Network to Control Maintenance Activities of Radio Networks. S. Moradi and E.S. Eneyo. (Keywords: GSM, global system for mobile communication, BTS, base transceiver station, RFID, radio-frequency identification, preventive maintenance)
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Arduino UNO Microcontroller Based Automatic Fish Feeder. E.G. Dada, N.C. Theophine, and A.L. Adekunle. (Keywords: Arduino UNO, automatic fish feeder; aquarium; fish ponds; feeding)
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A Stochastic Collocation Algorithm Method for Processing the Yoruba Language Using the Data Context Approach Based on Text, Lexicon, and Gramma. O.A. Enikuomehin and O.O. Adewumi. (Keywords: Yoruba, lexicon, part of speech, collocation algorithm, WordNet, hidden Markov model)

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Derivation of Reliability Estimation Model for Metrically Reliable Software Product Development. O.M. Alimi, F.E. Usman-Hamza, I.O. Mustapha, and B.S. Ogida. (Keywords: software, reliability, serial-module, parallel-module, critical systems)

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Individual and Organizational Acceptance of Technology Theories and Models: Conceptual Gap and Possible Solutions. A.E. Evwiekpaefe, S.C. Chiemeke, and M.Z. Haruna. (Keywords: acceptance, gap, individual, model, organizational, technology)

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Management, Economics, and Education

Technology Transfer and Entrepreneurial Development in the Value Chain System of the Nigerian Oil and Gas Industry. Z. Abu, I.I. Aun, and O.O. Oluwasanmi. (Keywords: technology transfer, oil and gas entrepreneurship, value chain)

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A Genetic Neuro Fuzzy Approach for Handling the Nurse Rostering Problem. F.I. Amadin. and M.E. Bello. (Keywords: nurse rostering; genetic algorithm; neuro-fuzzy system)

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University Education vs Students' Productivity in Computing: The Environment as a Judge. A.C. Obieno and F.I. Amadin. (Keywords: computer science, learning environment, school activities, guardian support, student productivity)

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A Principal Component Analysis of Lean Six Sigma Tools and Techniques. O.F. Odeyinka. and C. Nwoye. (Keywords: Lean Six Sigma, LSS, principal component analysis, PCA)

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Customer Relationship Management and Customer Retention of Bus Rapid Transit (BRT) In Lagos State, Nigeria. T.A. Onifade, L.I. Okafor, and A.M. Opele. (Keywords: customers, customer relationship management, customer retention, ambient condition, transit system, public transportation)

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Chemistry and Biochemistry

Kinetic and Equilibrium Studies of the Adsorption of Pb (II) and Zn (II) from Aqueous Solution onto Plantain Stalk (*Musa paradisiaca*). E.O. Benson. (Keywords: kinetic studies, equilibrium, zinc, lead, bioremediation, heavy metals)

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Effect of Fermentation on Nutritional Composition of African Oil Bean Seed. G.O. Mbah, U.A. Onyeabo, and B.C. Udeh. (Keywords: oil bean seed, fermentation, nutritive values, physico-chemical properties)

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Characterization of Mbaukwu Clay from Awka-South Anambra State Nigeria for Industrial Purpose. G.N. Chikwelu, T.U. Onuegbu, C.C. Ezeofor, and K.G. Akpomie. (Keywords: Mbaukwu clay, refractory, industrial use)
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Life Sciences and Medicine

Proximate and *In Vitro* Gas Production of Toasted *Enterolobium cyclocarpum* based Multi-Nutrient Feed Block. A. Akinlolu, O. Arigbede, P. Dele, and A., Ogunsakin. (Keywords: toasted *Enterolobium cyclocarpum* seed meal, TECSM, *E. cyclocarpum* foliage meal, ECFM, feed block)
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Proximate and Fiber Composition of *Panicum maximum* and *Centrosema molle* Silage as Affected by Different Proportions and Ensiling Periods. O. Okukenu, O. Ogunrombi, P. Dele, B. Akinyemi, A. Olajide, O. Onifade, and A. Jolaosho. (Keywords: *Panicum maximum*, *Centrosema molle*, forage proportion and ensiling periods)
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Effect of Replacing Back Fat of Cattle with Abdominal Fat on Quality Characteristics of Beef Sausage. O. Dele, O. Sogunle, T. Saka, and S. Abiola. (Keywords: abdominal fat, back fat, beef sausage, food science)
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Solar Drying of Potato using Solar Dryer. C.M. Aburu, U.E. Nsuabia, E.I. Ugwoke, J.C. Abia, and C.P. Ezeigwe. (Keywords: solar drying, open air drying, crops, energy, wet weight, dry weight)
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Nanotechnology in Medical Practice. O.D. Oladimeji and A. Adedoyin. (Keywords: nanotechnology, medicine, medical practice, stratified random sampling survey)
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Relationship between Occupational Stress, Job Satisfaction, Alcohol Consumption, and Domestic Violence among Police Officers in Ikeja, Lagos State, Nigeria. S.A. Odedokun. (Keywords: law enforcement, police officers, occupational stress, job satisfaction, alcohol consumption, domestic violence, physical health, mental health)
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Increasing Trend in Rape cases in Asian Subcontinent: A Review. V.P. Gupta. and D.B. Shrestha. (Keywords: sexual violence, rape, India, law enforcement, gender specific violence)
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Environmental Science and Ecology

Desalting of Brackish Water. E.N. Anike, C.B. Ugwuodo, K.C. Onyeneho, F.C. Umunna, and F.A. Folaranmi. (Keywords: desalting, desalinization, brackish water, solar radiation, temperature, distillate)
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Bioremediation Potentials of a Petroleum Hydrocarbon Polluted Soil by *Aspergillus oryzae* (JQ675305.1) Isolated from Diseased *Irvingia gabonensis* Seeds. A.A.A. Sanyaolu, A.A. Adekunle, and A.A. Osuntoki. (Keywords: mycoremediation, *Aspergillus sp.*, oil pollution, total petroleum hydrocarbon (TPH), *Irvingia gabonensis*, soil macronutrients)
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A Survey of the Most Common Ornamental Plants in Southwest Nigeria. V.T. Sanyaolu, R.O. Awodoyin, and S. Ogunyemi. (Keywords: ornamental gardens, ornamental plants, exotic species, native species, Southwest Nigeria)
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With Inclusion and Equity, can Sustainable Development Goals (SDGs) Flower within the Planetary Boundaries? N. Havaligi. (Keywords: Sustainable Development Goals, SDGs, Planetary Boundaries, biodiversity, water resources, climate change, agriculture, environmental management, sustainability, inclusivity)
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Geology, Geophysics, and Earth Science

Tectonic Lineament Patterns from Geological and Ground Magnetic Study of Western Part of Adamawa Massif, North Eastern Nigeria. A. Yusuf, N.E. Bassey; J. Barka, and U.Y. Yaro. (Keywords: Adamawa Massif, lineaments, magnetic anomalies, tectonic)
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"Hydrogeochemical Investigation of Groundwater Resources in Umunya and Environs of the Anambra Basin, Nigeria. M.E. Egbunike. (Keywords: groundwater, quality, physico-chemical analyses, lithostratigraphic, formation, geochemistry)
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Unravelling the Sedimentary Facies of the Tidal Channel and Tidal Flat Deposits within a Macrotidal Estuarine Setting: The Nanka Formation, South-Eastern Nigeria. O.C. Ekwenye and O.C. Onyemesili. (Keywords: tide generated sedimentary structures, tidal range, hydrodynamic processes)
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Engineering and Material Science

Dynamic Behavior of Brushless DC Motor under the Application of PI, PD, PID, and Fuzzy Logic Controllers. Philip A. Adewuyi, M.Sc. and Emmanuel O. Lawani, B.Eng.
(Keywords: PI controller, PD controller, PID controller, fuzzy logic controller, brushless DC motor, BLDC)
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Development of an Intelligent Obstruction Detection System for Automobiles. O.O. Shoewu; S.O. Olatinwo; and D.D. Olatinwo (Keywords: obstruction and intrusion detection, sensors, microcontroller, MPLAB)
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Shrinkage Characteristics of Cassava Peel Ash Concrete. Efe Ewaen Ikponmwosa, Ph.D. and Kolawole Adisa Olonade, Ph.D. (Keywords: shrinkage strain, cassava peel ash concentrate, CPAC, pozzolanic reaction, shrinkage deformation rate)
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Energy and Power

X-Ray Digester Types and Anaerobic Digestion of Pig Manure. C.B. Ugwuodo; E.C. Ugwuoke; B.I. Onyia; I. Ofili; and P.I. Okoh. (Keywords: bio-digester, pig manure, total solid, pretreatment, biogas, renewable energy)
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Optimization of the Fermentation Conditions for the Production of Bioethanol from Cane Sugar Molasses using *Saccharomyces cerevisiae*. C.O.B. Okoye; O.L. Alum; K.G. Akpomie; and T.N. Alumona. (Keywords: bioethanol, fermentation, *Saccharomyces cerevisiae*, substrate, sugar molasses)
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Physics and Atmospheric Physics

Influence of Magnetic Field on Couple Stress Flow through Porous Channel with Entropy Generation. Jacob A. Gbadeyan and Abiodun A. Opanuga. (Keywords: magnetohydrodynamic, porous channel, entropy generation, differential transform method, DTM, Adomian decomposition method, ADM)
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Design and Development of a 2.4 GHz Slot Antenna. L.A. Akinyemi; O.O. Shoewu; A.A. Ajasa; and W.A. Alao. (Keywords: slot antenna, MathCAD, antenna parameters, electric field, radiation pattern)
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Mathematics and Statistics

A Four-Stage Gauss-Lobatto Integral with Accurate Error Estimation Formula for ODES.

S.A. Agam, Ph.D. (Keywords: Gauss-Lobatto polynomials, quadrature points, collocation method, Runge Kutt f-evaluations, error estimation, highly efficient, Astable)

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A Bootstrap Method for Box-Jenkins Models with Application on Brent Crude Oil

Prices per Barrel. Adebowale Olusola Adejumo and James Daniel. (Keywords: autocorrelation, partial autocorrelation, autoregressive integrated moving average, ARIMA, autoregressive moving average, ARMA, autoregressive, AR, moving average, MA, differencing, Brent crude oil, stationary series, bootstrap, block bootstrap, nonoverlapping block bootstrap, moving block bootstrap, circular block bootstrap, stationary block bootstrap, sieve bootstrap)

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Stability Analysis of Disease Free Equilibrium (DFE) State of a Mathematical

Model of Yellow Fever Incorporating Secondary Host. Samuel Abu Somma, M.Tech.; Ninuola Ifeoluwa Akinwande, Ph.D.; Mohammed Jiya, Ph.D.; and Sirajo Abdulrahaman, Ph.D. (Keywords: PI controller, PD controller, PID controller, fuzzy logic controller, brushless DC motor, BLDC)

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Information Technology and Communications

Object Resizing: A Subtle Tool in Digital Animation. M. Nuruzzaman, Ph.D. (Keywords: image animation, image scaling, image resizing)

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Generative Power of Context-Conditional Grammars. R.O. Oladele and B. Yusuf. (Keywords: formal languages, generative power, context-conditional grammars)

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Wireless Network Modelling and Analysis using Path Loss Models. S.O. Olatinwo; L.I.

Oborkhale; and O.O. Shoewu. (Keywords: path loss, COST231 model, COST WI model, free space model)

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Analysis of Outdoor Path Loss Measurements for Triple Frequency Spectrum in

Lagos State. O.O. Shoewu; L.I. Oborkhale; N.O. Salau; and O.O. Bashorun. (Keywords: global system for mobile communication, GSM, modelling, propagation environment, KPI, Rxlev, RSSI, pathloss)

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Analysis and Prediction of Indoor wireless Propagation Using adaptive NeuroFuzzy

Inference System. O.O. Bashorun; O.O. Shoewu; W.A. Alao; L.I. Oborkhale; and N.O. Salau. (Keywords: RSSI, ANFIS, RMSE, Chi-Square, SNR, Path-Loss)

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Gap Analysis of the Service Quality of a University ICT Centre in Nigeria. O.V. Mejabi,

Ph.D.; Ismaeel A. Sikiru, B.Sc.; and O.D. Agbeti, B.Sc. (Keywords: quality of service, QOS, information, communications, technology, university, center)

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Management, Economics, Education, and Philosophy

Critical Success Factors for Corporate Entrepreneurship Development in Selected Organizations in South-west Nigeria. Johnson O. Adeoti, Ph.D.; Oludele Matthew Asabi; Yinusa A. Olawale; and Mulikat Abdulrahim. (Keywords: entrepreneurship training, organizational survival, management support, industry)
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Modeling and Forecasting the Production Volume of 7up Bottling Company Nig. PLC: A SARIMA Models Approach. A. Maradesa* and A.A. Akomolafe. (Keywords: Akaike' Information Criterion, AIC, Bayesian Information Criterion, BIC, white noise, Kwiatkowski-Phillips-Schmidt-Shin, KPSS, Jarque Bera test, Augmented Dickey Fuller, ADF)
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Organizational Reward and Job Tension among Nigerian Agriculture Researchers: Implications on Personnel Work-Attitudes. Oluwatoyin Aduke Oso, Ph.D.; Richard Akinwunmi Oyeyinka, Ph.D.; Okanlade Adesokan Lawal-Adebawale, Ph.D.; and Dare Akerele, Ph.D. (Keywords: agriculture researchers, job satisfaction, job tension, organizational commitment, organizational reward)
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Impact of Economic Recession on the Marketing of Pharmaceutical Products in Kwara State, Nigeria. Isaac Iortimbir Aun, Ph.D.; Zakeri Abu, Ph.D.; Taiwo Ganiyu Oladipo, Ph.D.; and Sunday John Akpan, Ph.D. (Keywords: economic recession, marketing, pharmaceutical products)
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Non-Parametric Testing: A Case Study of Extended Analysis for Ranked Data with Ties. A.A. Akomolafe; F.B. Adebola; and O.I. Oseghale. (Keywords: rank effect, linear constant, Friedman analysis, nonlinear effect, umbrella effect)
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Socio-Economic Impact of Road Traffic congestion on Urban Mobility: A Case Study of Ikeja Local Government Area of Lagos State, Nigeria. Oluwaseyi Joseph Afolabi, Ph.D. (In View); Olalekan Adedamola Oluwaji, Ph.D. (In View); and Olawunmi K. Fashola, Ph.D. (In View). (Keywords: traffic, passengers, congestion, public transport)
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Discrimination of People Living with HIV/AIDS by Health Care Students of Islamic University in Uganda. A. Inuwa, M.Ed.; L.A. Nafiu, Ph.D.; H. Habu, MHPM; B. Maigari, M.Sc.; A. Haruna, BNSc.; A.A. Gagare, Ph.D.; M.K. Aisha, BNSc.; and N. Sarah, D.Med.. (Keywords: HIV/AIDS, knowledge, attitude, discrimination, PLWHA, people living with HIV/AIDS, health care students)
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Determinants of Women Empowerment in Rural Households in Kwara State, Nigeria. Kemi. F. Omotesho, Ph.D.; Azeez Muhammad-Lawal, Ph.D.; Oluwaremilekun Jimoh, M.Sc.; Ivie L. Olaghene Ph.D.; and Nimat M. Abdulraheem, Ph.D. (Keywords: women empowerment index, determinants, rural households, Nigeria)
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Chemistry and Biochemistry

Assessment of Stabilities of Two Local Plant Dyes as Colorants for Petroleum Products (Petrol, Kerosene, and Diesel). C.A. Nwadinigwe; O.M. Ilojeme; A.O. Nwadinigwe; T.N. Alumona; and K.G. Akpomie. (Keywords: Pterocarpusosun, Lawsonia inermis, petroleum products, colorants, stability)
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Investigation of Bioactive Phytochemical Compounds from Aqueous Ethanol Extracts of Leaves of *Phyllanthus amarus* Schum and Thonn by Gas Chromatography-Mass Spectrometry (GC-MS). Patience O. Adomi. (Keywords: aqueous ethanol extract, GC-MS analysis, 3, 7, 11, 15-tetramethyl-2-hexadecen-1-ol, *Phyllanthus amarus*)
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Life Sciences and Medicine

Evaluation of Demographic Pattern of Asthma Patients in Nigeria: Insight from a Multilevel Analysis. A.A. Akomolafe and C.A. Awogbemi. (Keywords: asthma disease, demographic pattern, gender influence, risk factors, age, predictive model)
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Zika Virus Disease: A Global Health Challenge. F.A. Kuta; A.S. Adedeji, N.U. Adabara, J.D. Bala, and A. Hamidu. (Keywords: MR766 cluster, Flaviviridae, Zika virus infection, sentinel rhesus monkey, Asian genotype)
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Co-Infection of Hepatitis B and C Surface Antigens among Secondary School Students in Jos-North Local Government Area of Plateau State, Nigeria. Hero Godwin; Happiness Johnson; and Emmanuel Fasasin. (Keywords: prevalence, co-infection HBV, HCV)
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In Vivo Trace Element Determination: Acute Toxicity Test and Effect of Unripe *Cocos nucifera* Fluid on Body Organs. E.L. Onyeyilim; B.E. Ezema; K.G. Akpomie; F.K. Ojo; and O.L. Alum. (Keywords: albino mice, unripe coconut water, malaria parasite (Mp+), trace elements, ALT, AST, creatinine, urea, uric acid, acid phosphate)
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Analysis of Poultry Farmers' use of Pests and Disease Control Strategies in Kwara State, Nigeria. Gbolagade B. Adesiji, Ph.D.; Kemi F. Omotesho, Ph.D.; A.O. Kayode Ph.D.; and Kabirat Ahmed, B.Agric. (Keywords: poultry, pests, disease, management, control)
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Nutritional Evaluation of Processed Cassava Root Meal using Albino Rats. O.A. Akapo; W.A. Olayemi; A.O. Oso; R.A. Olorunsola; and A.M. Bambose. (Keywords: cassava meal, process, broiler, fermented ensiled, nutritive value, *Manihot esculenta* Crantz)
http://www.akamaiuniversity.us/PJST18_2_346.pdf

Environmental Science and Ecology

Assessment of the Effects of Industrial Effluents on the Water Resources in

Challawa Industrial Area, Kano, Nigeria. V.N. Okolo; A.W. Butu; and E.A. Olowolafe.

(Keywords: upstream, downstream, river samples, surface water, groundwater, sludge, heavy metals)

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Organochlorine Pesticides Residues in Water, Sediment, and Various Species of

Fish from Komadugu River Basin, Yobe State, Nigeria. Zakari Mohammed; Joseph C. Akan;

Shamsu Ahmad; and Abba Hassan. (Keywords: Komadugu River basin, water, sediment,

fish, extraction, cleanup, contamination)

http://www.akamaiuniversity.us/PJST18_2_364.pdf

Assessment of the Effects of Deforestation using GIS and Remote Sensing Applications in

Shendam District, Plateau State Nigeria. Buba Yenhor Alfred; Prof. Ayuba K. Haruna; Dr. Jibrin

Sule; and Lawan Surajo Abdullahi. (Keywords: GIS, remote sensing, deforestation, land

degradation, tree planing)

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Engineering and Material Science

Development and Performance Evaluation of Jominy End-Quench Apparatus. Jacob O. Aweda, Ph.D.; Sunday O. Abegunde, B.Eng.; and Raheeqat M. Mahamood, Ph.D. (Keywords: Jominy end-quench apparatus, hardenability, Brinell hardness, water, brine)
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Design and Development of a Gas Fired Reverberatory Furnace: In View of Huge Gas Reserves in Nigeria. B.C. Chukwudi and M.B. Ogunedo. (Keywords: reverberatory, furnace, gas, aluminum, recycling, non-ferrous metals)
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Design of Cylinder Block of an 80cc Spark Ignition (SI) Aluminum Engine. Raphael Sylvester Ebhojiaye, M.Eng. and Godwin Ejuvwedia Sadjere, Ph.D. (Keywords: internal combustion, IC, cylinder block, swept volume)
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Experimental Investigation of Low Global Warming Potential Refrigerant Blends in Domestic Vapor Compression Refrigeration System. M.E. Uwadiae, M.Eng.; M.A. Akintunde, Ph.D.; and T.I. Ogedengbe, Ph.D. (Keyword: coefficient of performance, COP, vapor compression refrigeration system, flammability, global warming potential, GWP, refrigerant, refrigerant blend)
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Production of Drinking Water by Solar Distillation Process. I. Ofili, M.Eng.; E.C. Ugwuoke, M.Eng. (in view); H.O. Orah, M.Eng.; B.I. Onyia, M.Eng (in view); and H.I. Edeh, Ph.D. (in view). (Keywords: distillation, brackish water, seawater, distillate, solar energy)
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Design of Portable High Density Polyethylene (HDPE) Biogas Digester. E.C. Ugwuoke, M.Eng. (in view) and I.C. Illoani. (Key terms: biogas, anaerobic digestion, digester, solar, temperature)
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Energy and Power

Solar PV System Utilization in Nigeria: Failures and Possible Solutions. V.N. Dike; C.A. Opara-Nestor; J.N. Amaechi; D.O. Dike; and T.C. Chineke. (Keywords: photovoltaic, renewable energy, PV system, PV failures, possible solutions, Nigeria.)
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Effects of Thermo-Chemical Pre-Treatment of Maize Leaves on Methane Production. E.C. Ugwuoke, M.Eng. (in view); H.I. Edeh, Ph.D. (in view); S.T. Ukwuani, M.Eng. (in view); B.I. Onyia, M.Eng. (in view); I. Ofili, M.Eng. (Keywords: thermos-chemical pretreatment, hydrolysis, acidogenesis, anaerobic digestion, biogas)
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Effect of Cow Manure to Rice Straw Ratio on Methane Production in Batch Anaerobic Co-Digestion of Concentrated Cow Manure and Rice Straw. N.N. Eze, M.Eng. (in view) ; E.C. Ugwuoke, M.Eng. (in view); I. Ofili, M.Eng.; H.I. Edeh, Ph.D. (in view); and B.I. Onyia, M.Eng. (in view). (Keywords: bio-waste, rice straw, cow manure, anaerobic digestion, biogas)
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Strategic Plan Analysis for Integrated Renewable Generation to Smart Grid Technologies in Nigeria. Engr. Akanbi. (Keywords: smart grid, renewable energy sources, system dynamics, power grid, electrical grid)
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Mathematics and Statistics

On Empirical Power of Univariate Normality Tests under Symmetric, Asymmetric, and Scaled Distributions. Lukman Abiodun Nafiu, Ph.D.; Lanlege David Ibitayo, Ph.D.; and Solomon Matovu Muyombya, M.Sc. (Keywords: empirical distribution function, correlation/regression tests, moment-based normality test, statistical power)
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On Some Notes on the Engel Expansion of Ratios of Sequences Obtained from the Sum of Digits of Squared Positive Integers. Hilary I. Okagbue; Abiodun A. Opanuga; Pelumi E. Oguntunde; and Grace Eze. (Keywords: Engle expansion, Pierce expansion, digit sum, ratios)
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Positive Numbers Divisible by their Iterative Digit Sum Revisited. Hilary I. Okagbue; Abiodun A. Opanuga; Pelumi E. Oguntunde; and Grace Eze. (Keywords: iterative digit sum, digital root sequences, Nivens numbers, NDIDS)
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A Note on Some Basic Statistical Properties of Transmuted Burr X Distribution. Adebowale O. Adejumo; Pelumi E. Oguntunde; and Oluwole A. Odetunmibi. (Key terms: Burr X distribution, estimation, properties, transmuted family of distributions)
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Information Technology and Communications

Reduction of Simple Semi-Conditional Grammars. R.O. Oladele, Ph.D. and S.N. Isah, M.Sc. (Keywords: descriptive complexity, simple semiconditional grammar, formal languages)
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Performance Analysis of Network Traffic Models for DiffServ QoS Router. A.O. Ameen; D.D. Olatinwo; and S.O. Olatinwo. (Keywords: TCP, multimedia application, time sliding window, TSW2CM, TSW3CM, IETF, differentiated service, DiffServ, QoS router, quality of service)
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Halstead Complexity Analysis of Bubble and Insertion Sorting Algorithms. T.R. Awode; D.D. Olatinwo; O. Shoewu; S.O. Olatinwo; O.O. Omitola; and Mary Adedoyin. (Keywords: Halstead complexity, bubble sort, insertion sort)
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E-Commerce in a Closed System: Development of an E-Marketspace for a University Community. O.V. Mejabi, Ph.D.; B.A. Okai, B.Sc.; R.A. Oyekunle, Ph.D.; and R.G. Jimoh, Ph.D. (Key terms: closed system commerce, consumer to consumer, C2C, electronic commerce, e-commerce, emarketspace, university, web-based system)
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Enhanced Resource Scheduling Approach for Cloud Computing. E.O. Oyebode, MSc.; O.A. Ojesanmi, Ph.D.; O. Folorunso, Ph.D.; and I.K. Ogundoyin, Ph.D. (Keywords: host, virtual machine, workflows, scheduling, time sharing, space sharing)
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A Cloud-Based Model for Computer Network Threats Management. I.K. Ogundoyin, Ph.D.; C.O. Akanbi, Ph.D.; A.A. Adigun, Ph.D.; and S.A. Akinboro, Ph.D. (Key terms: threats, cloud, model, cyberspace, management, UML, unified modeling language, ANN, artificial neural network)
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Management, Economics, Education, and Philosophy

An Assessment of Motorcycle Operation in Ado-Odo Ota Local Government Area of Ogun State, Nigeria. T. Gbadamosi Kolawole and Oluwaseyi Joseph Afolabi. (Keywords: motorcycle, passengers, traffic accidents, traffic safety)
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Impact of Small and Medium Scale Enterprises on Poverty Alleviation in Kwara State, Nigeria. O.F. Osemene, Ph.D.; R.T. Salman, Ph.D.; and K.D. Kolawole. (Key terms: SMEs, small-scale enterprise, mid-scale enterprise, poverty, unemployment, income, Kwara State, Nigeria)
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Acquisition and Performance of the Nigerian Banking Sector. Yusuf I. Mustapha, Ph.D. and Damilola O. Akinsanya, M.Sc. (Key terms: banking sector, financial performance, acquisitions)
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An Application of the Analytical Hierarchy Process to Determine Benchmarking Criteria for Identifying Product Vendors. Afolabi Oludele. R, Tella Oluwaseyi. F, Ibitoye Ayotunde. P. and Bamigbala Olateju A. (Keywords: AHP, AHP calculation, product priority, vendor, distribution)
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A Comparative Analysis of Effects of Firms' Strategic Factors on Performance in Nigeria. Gunu Umar Ph.D. and Sylvanus S. Adamade Ph.D. (Key terms: business resources, strategy, firms, manufacturing, competition)
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Comparing Effects of Traditional and Multimedia Teaching of Vital Signs Assessment on Knowledge Acquisition of Nursing Students at Islamic University in Uganda. A. Inuwa, M.Ed.; L.A. Nafiu, Ph.D.; H. Habu, MHPM; M. Matovu, Ph.D.; and B. Maigari, M.Sc. (Keywords: comparing effects, traditional and multimedia teaching, vital signs assessments, knowledge acquisition)
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The use of Social Skill Training in Fostering Pro-Social Behavior of Secondary School Adolescents in Gombe State, Nigeria. Muraina Kamilu Olanrewaju, Ph.D. and Gambo Adamu Aliyu. (Keywords: social skill training, pro-social behavior, self-esteem, secondary school adolescents)
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Chemistry and Biochemistry

The Kinetics and Mechanisms of Alcohol Oxidation in Alkaline 12-Tungstocobaltate(III).

D.F. Latona. (Key terms: 12-tungstocobaltate(III), ethanol, butanol, pentanol, isopropylalcohol)

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Utilizing the Sorption Capacity of Local Nigerian Sawdust for Attenuation of Heavy Metals from Solution: Isotherm, Kinetic, and Thermodynamic Investigations. K. Ezeh; I.C. Ogbu; K.G. Akpomie; N.C. Ojukwu; and J.C. Ibe. (Key terms: environmental pollution, heavy metals, adsorption, Nigerian sawdust, isotherm, kinetic, thermodynamics)

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Cadmium Uptake by Biomass of Lysinibacillus sphaericus KY203810 and Enterobacter cloacae KY203811 from Steel Company Dumpsite. Saka A. Balogun, Ph.D.; A.O. Gbadebo, M.Sc.; Sharaf O. Kareem, Ph.D.; and Sherif Adewuyi, Ph.D. (Key terms: biosorption, environmental conditions, metal tolerant bacterial strains, cadmium ions, Lysinibacillus sphaericus, Enterobacter cloacae, equilibrium isotherm model, heavy metal)

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Life Sciences and Medicine

Local Stability Analysis of a Tuberculosis Model incorporating Extensive Drug Resistant Subgroup F.Y. Eguda, Ph.D.; N.I. Akinwande Ph.D.; S. Abdulrahman Ph.D.; F. A. Kuta, Ph.D.; and S.A. Somma, M.Tech. (Keywords: Tuberculosis, extensive drug resistant tuberculosis, effective reproduction number, DFE, XDR, stability)

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Modeling of a Cure Rate Model for TB with HIV Co-Infection. Oluwafemi Samson Balogun, M.Sc. and Prof. Emmanuel Teju Jolayemi. (Key terms: epidemiology, cure fraction, BCH model, bounded cumulative hazard, left censored, EM algorithm)

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Densitometric Estimation of Radiation Absorbed Dose to Patients Undergoing X-Ray Examination in Five Government Owned Hospitals in Nigeria. O.A. Ojo, Ph.D.; M.A. Ibrahim, Ph.D.; and P.A. Oluwafisoye, M.Sc. (Keywords: absorbed dose, radiation, exposure, exposed, optical density, radiographic film, health physics, ionizing radiation)

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Assessment of Collimation on Adult Plain Chest Radiographs as a Radiation Protection Measure in a Nigerian Teaching Hospital. Alhamdu Silas Moi; Zainab Ado; Joseph Dlama Zira; Samuel Shem; Njoku Ginkanwa; Fati Malgwi; Prince Ogenyi; and Mohammed Sani Umar. (Key terms: chest radiograph, collimation, radiation protection)

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Pattern of Lesion Depicted on Plain Knee Radiographs in a Negroid Population. Alhamdu Silas Moi; Ebuka Anyasor; Joseph Dlama Zira1; Samuel Shem; Njoku Ginkanwa; Fati Malgwi; Prince Ogenyi; and Mohammed Sani Umar. (Key terms: lesion, knee joint, plain radiograph, radiography, Radiography)

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Geology, Geophysics, and Earth Science

Integrated Geophysical and Geotechnical Evaluation of Foundation Failure in Parts of Ikere-Ekiti, Southwestern Nigeria. O.O. Olutomilola; O.O. Afolabi; and J. Yakubu. (Keywords: geophysical, geotechnical, evaluation, Ikere-Ekiti, foundation failure)

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Environmental Science and Ecology

Vulnerability Assessment of Shallow Aquifer Hand-Dug Wells in Rural Parts of Northcentral Nigeria using AVI and GOD Methods. Ibrahim K. Olojoku, M.Tech.; Gomo Modreck, Ph.D.; Oke S. Adeyinka, Ph.D.; and Yusuf M. Adebayo, M.Sc. (Key terms: hand-dug wells, aquifer vulnerability index, AVI, groundwater occurrence, overall lithology, depth to groundwater, GOD, GIS)

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Hydrogeochemical Characterization of Groundwater in Afe Babalola University, Ado-Ekiti Southwestern Nigeria. O.O. Afolabi; S.O. Olatunji; and E.D. Wategire. (Keywords: groundwater, hydrochemical assessment, ABUAD, geogenic, anthropogenic)

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Physico-Chemical Properties of Wastewater within Agbara and Impact on Ologe Lagoon, Lagos. Abayomi David Folawewo, M.Sc.; Alexander Nnamdi Madu, Ph.D.; Adekemi Omolayo Faboyede, Ph.D.; and Olaitan Bamidele Muyideen. M.Sc. (Keywords: industrial effluent discharge, heavy metals, river pollution)

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Extension Information Needs of Commercial Poultry Farmers on Environmental Management in Kogi State, Nigeria. I. Ogunlade; M.O. Oduwaiye; K.F. Omotesho; and S.E. Komolafe. (Keywords: poultry farming, agriculture extension information needs, environmental management, environmental pollution, waste management)

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Engineering and Material Science

Dynamic Simulation of a 4 Degree of Freedom (4DOF) Robotic Arm for Small and Medium Scale Industry Packaging. S.P. Ayodeji, Ph.D.; T.J. Owoyemi, M.Eng.; O.O. Martins, M.Eng.; and A.A. Adekunle, Ph.D. (Keywords: dynamic simulation, virtual prototype, robotic arm, Autodesk Inventor, 3D modeling)

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Development of Models for the Prediction of Responses from Fine Tuning EN8 Mild Steel using HSS Tool. Morakinyo Kehinde Onifade; Anthony Clement Igboanugo; and John Osadolor Osarenmwinda. (Keywords: HSS tool-life, surface roughness, fine cutting of mild steel)

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Energy and Power

Extraction and Physicochemical Characterization of Walnut (*Juglansregia. L*) Seed Oil for Biodiesel Production. G.B. Folaranmi; C.U. Ibeji; and N. Oji. (Keywords: walnut seed, physicochemical parameters)

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Physics and Atmospheric Physics

Empirical Modelling of Very High Frequency Radio Propagation Loss in Tropical Forest. P.C. Amalu, Ph.D. and M.O. Alade, Ph.D. (Keywords: high frequency, radio propagation, Lateral ITU-R, Wiessberger)

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Radiation Effect of Jeffery Fluid on Heat and Mass Transfer in a Vertical Channel with Chemical Absorption, Dufour and Variable Thermal Conductivity. E. Omokhuale and I.J. Uwanta. (Keywords: Dufour effect, heat and mass transfer, radiation, Jeffery fluid, porous medium, variable thermal conductivity)

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Effect of Thermal Radiation on the Entropy Generation of Hydromagnetic Flow Through Porous Channel. A.A. Opanuga; J.A. Gbadeyan; S.A. Iyase ; and H.I. Okagbue. (Keywords: thermal radiation, entropy generation, MHD, Bejan number, Adomian decomposition method, differential transform method)

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Propagation of a Pressure Change in a Non-Viscous Fluid Edward O. Osagie, Ph.D. (Keywords: pressure change, non-viscous fluid, sound propagation, continuum mechanics)

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Mathematics and Statistics

An Orthogonal Based Self-Starting Numerical Integrator for Third Order IVPs in ODEs. Rotimi Oluwasegun Folaranmi, M.Sc.; Raphael Babatunde Adeniyi, Ph.D.; and Emmanuel Oluseye Adeyefa, Ph.D. (Keywords: approximation schemes, numerical solutions, third order, ordinary differential equations, ODE)

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A Fifth Stage Runge-Kutta Method for the Solution of Ordinary Differential Equations. D.W. Mshelia; A.M. Badmus; D.G. Yakubu; and N.H. Manjak. (Keywords: LMM, linear multi-step method, fifth stage, Runge-Kutta, first order initial value problem)
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A Numerical Study of Partial Differential Equations using Variational Iteration Method. M.O. Olayiwola. Ph.D. and O.O. Alabi, Ph.D. (Keywords: partial differential equations, Lagrange multiplier, variational iteration method)
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On Integration of $y'' = f(x, y, y')$ using New Class of Orthogonal Polynomials as Trial Function. Emmanuel O. Adeyefa, Ph.D. (Keyword: continuous two-step hybrid linear multistep method, CTHLMM)
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Information Technology and Communications

Memorability Interference Level for Multiple Modes of Authentication. A.O. Egwali, Ph.D. and Prof. Emmanuel A. Onibere. (Keywords: graphical password, authentication, passwords, fingerprint biometrics, mnemonic password)
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QoS – Comparative Management and Evaluation of GSM Telephone System in Nigeria. A.O. Ogunlewe; O. Shoewu; and N.T. Makajuola. (Keywords: communications, mobile, Nigerian Communications Commission, NCC, penalties, service providers, quality of service)
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Design and Development of an effective and secure Fingerprint based Biometric Attendance Device (ESFB2A). O. Shoewu; O.A. Ogunlewe; F.A. Adebari; and A.A. Fasedemi. (Keywords: fingerprint module, enrollment, database system, class attendance)
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Management, Economics, Education, and Philosophy

Design and Implementation of Hostel Management System (HOMASY): LASU as Case Study. O. Shoewu; S.A. Braimah; and O. Duduyemi. (Keywords: allocation, hostel, management, MySQL, porter, records, registration, accomodation)
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Design and Implementation of a Laundry Management System. O. Shoewu; N.T. Makajuola; D.A. Phillips; and A. Emmanuel. (Keywords: customer satisfaction, database, HTML, laundry, management, SQL)
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Development of OSEG: A FOREX Expert Advisor. V.I. Osunbor, Ph.D. and A.O. Egwali, Ph.D. (Keywords: trade, foreign exchange, TradeStation, FOREX, currency market)
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Stochastic Signal Modeling of Economic Indicators. Abosede A. Akintunde, M.Sc.; Olaniyi M. Olayiwola, Ph.D.; Samuel O. Agwuegbo, Ph.D.; and Ganiyu A. Dawodu, Ph.D. (Keywords: stochastic processes, random walk, structural model, economic indicators)
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Agricultural Information Needs of Rural Women: A Case Study of Iwo Local Government Area of Osun State, Nigeria. Oyefunke Olayemi Adebayo. (Keywords: information needs, women, agriculture, farming, rural, extension information)
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Attendance Management System Using Barcode Identification on Students' Identity Cards. Y.K. Saheed, Ph.D. (in view); Moshood A. Hambali, M.Sc.; Abdulmumeen A. Adedeji, B.Sc.; and I.A. Adeniji, M.Sc. (Keywords: attendance management, barcode scanner, ID card, academic institution, examination management)
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Chemistry and Biochemistry

Kinetics and Mechanism of KMnO₄ Oxidation of Ketones in NaOH Medium. D.F. Latona. (Keywords: butanone, 2-pentanone, potassium nitrate, potassium permanganate, propanone and sodium hydroxide)
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Full Factorial Experimental Design Analysis of Acid Blue 147 Dye Removal from Aqueous Solution by Carbon Adsorption. Friday G. Okibe, Ph.D.; Elaoyi D. Paul, Ph.D.; Yakubu A Dallatu, Ph.D.; Stephen E. Abechi, Ph.D.; and Adekunle A. Osunlaja, Ph.D. (Keywords: factorial experimental design, adsorption, activated carbon, optimization, Acid Blu3 147)
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In Vitro Decontamination of Lead from Human Blood Plasma using *Syzygium aromaticum* Biosorbent. Patricia A. Ekwumemgbu, Ph.D.; Gideon A. Shallangwa, Ph.D.; Sheba M. Paul, B.Sc.; and George I. Ndukwe, Ph.D. (Keywords: biosorption, lead, *Syzygium aromaticum*, isotherm, kinetics)
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Life Sciences and Medicine

Effect of Fermentation on Nutrient and Anti-nutrient Composition of Rice (*Oriza sativa*) and Mucuna (*Mucuna pruriens*) Blend Flours. Anthony Ojokoh, Ph.D.; Babatunde Bello, Ph.D.; and Fiyinfojuwa Adegbenle, PGD. (Keywords: fermentation, rice, mucuna, lactobacillus, proximate, antinutrient)
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Characterization of Acetone-Water Extract, Fractionated with Ethyl Acetate Isolated from *Phyllanthus amarus* (Schum and Thonn). Patience O. Adomi. (Keywords: *Phyllanthus amarus*, isolation, 9, 12, 15 – octadecatrienoic acid, Abraka, Delta State, Nigeria)
http://www.akamaiuniversity.us/PJST17_2_273.pdf

Performance and Nutrient Digestibility of West African Dwarf Goats Fed Corncob-Poultry Dropping Silage. Festus Temitope Ajayi, Ph.D.; Sunday Oloruntoba Omotoso, M.Sc.; and Taofik Oyedele Dauda, Ph.D. (Keywords: cassava peel, corncob, nitrogen balance, performance, poultry dropping, silage, animal feed)
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Study of Correlation between Different Fingerprint Patterns, Blood Groups, and Social Behavior among Medical Students (Nepalese Citizens). Dhan B. Shrestha; Prof. Vijay P. Gupta; Prem S. Chaurasiya; Suhana Shrestha; Santosh Chaudhary; and Laxmi Aryal. (Keywords: fingerprint pattern, Nepal, correlation, blood group, behavior)
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Comparison between Quasi-Poisson and Negative Binomial in Handling OverDispersion: A Study of Risk Factors Associated with Malaria among Children Younger than Five Years.

Olateju A. Bamigbala, B.Sc.; Adesupo A. Akinrefon, M.Sc.; and Oludele R. Afolabi, M.Tech.

(Keywords: malaria, quasi-Poisson, deviance, negative binomial, goodness of fit)

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Pneumonia Prevalence among Under-Five in Nigeria: A Poisson Regression Model Approach. Adesupo A. Akinrefon, M.Sc.; Olateju A. Bamigbala, B.Sc.; and S.S. Abdulkadir, Ph.D. (Keywords: pneumonia, Chi-square, quasi-Poisson, deviance, Poisson regression, negative binomial, odds)

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Risk Factors for Maternal Mortality in Nigeria. Dr. Lukman Abiodun Nafiu; Mr. Usman Kurfi Kabir; and Dr. Roseline Nwawure Adiukwu. (Keywords: maternal, mortality, age at birth, education, antenatal care)

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Determinants of Maternal Mortality in Somalia. Dr. Lukman Abiodun Nafiu; Ali Aser Aau'ud; and Dr. Roseline Nwawure Adiukwu. (Keywords: maternal mortality, gross domestic product, GDP, fertility rate, HIV, AIDS)

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A Study of the Technology used in Community Pharmacy Practice in Nigeria. Kanayo P. Osemene, Ph.D. and Wilson O. Erhun, Ph.D.

(Keyword: technology, innovations, information, community pharmacy, Nigeria)

http://www.akamaiuniversity.us/PJST17_2_329.pdf

Determination of Computed Tomography Diagnostic Reference Levels in North-Central Nigeria. Muhammad Kabir Abdulkadir, M.Phil.; Cyril Schandorf, Ph.D.; and Francis Hasford, Ph.D. (Keywords: computed tomography, CT, diagnostic reference levels, radiological examinations, dose)

http://www.akamaiuniversity.us/PJST17_2_341.pdf

Environmental Science and Ecology

Desalinization of Brackish Water. E.C. Ugwuoke, M.Eng. (In View); H.O. Orah, M.Eng; B.I. Onyia, M.Eng. (In View); I. Ofili, M.Eng.; and H.I. Edeh, Ph.D. (In View). (Keywords: desalinization, salt water, drinking water, potable water, pond, hygiene)

http://www.akamaiuniversity.us/PJST17_2_350.pdf

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Engineering and Material Science

12V Portable Battery Charging System. C.N. Udezue, M.Eng. (in view); Joy Eneh, Ph.D.; Amaka Unachukwu, M.Eng.; Ifeoma Onyemelukwe, M.Eng. (in view); and Haris Onyeka, M.Eng. (Keywords: AC power supply, rectification, charging, deactivation, full charge)
http://www.akamaiuniversity.us/PJST17_1_5.pdf

Water Purification by Solar Distillation Process. I. Ofili; E.C. Ugwuoke, M.Eng. (in view); N.N. Eze, B.Eng.; S.T. Ukwani, B.Eng.; and S.A. Ogunjobi. (Keywords: drinking water, domestic purposes, potable water, solar distillation, salt water)
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Anaerobic Plan for Waste Treatment. S.T. Ukwani, B.Eng.; E.C. Ugwuoke, M.Eng. (in view); N.N. Eze, B.Eng.; M.U. Ude, M.Eng.; and I. Ofili. (Keywords: waste management, disease, anaerobic digestion, temperature, biogas)
http://www.akamaiuniversity.us/PJST17_1_17.pdf

Energy and Power

100% Renewable Energy Based Electricity Production in the Philippines: A Real Possibility or a Political Pipe Dream?. Stefan Thiesen. (Keywords: energy transition, renewable energy, sustainability, development economics, country studies, regional studies, environmental policy)
http://www.akamaiuniversity.us/PJST17_1_23.pdf

Physics and Atmospheric Physics

Flow and Heat Transfer Analysis of a Second Grade Fluid with Newtonian Heating in the Presence of Elastic Deformation in a Porous Medium. M.A. Olanrewaju, Ph.D. (in view); J.A. Gbadeyan, Ph.D.; and A.S. Idowu, Ph.D. (Keywords: Runge-Kutta method, flow, heat transfer, convective boundary conditions, transverse magnetic field, heat generation, viscous dissipation, elastic deformation, porous medium)
http://www.akamaiuniversity.us/PJST17_1_30.pdf

Mathematics and Statistics

Assessing the Flexibility of the Exponentiated Generalized Exponential Distribution. Pelumi E. Oguntunde; Adebowale O. Adejumo; and Kazeem A. Adepoju. (Keywords: exponential distribution, exponentiated generalized exponential distribution, generalization, maximum likelihood estimation)
http://www.akamaiuniversity.us/PJST17_1_49.pdf

On the Estimation of Parameters of Nonlinear Model in the Presence of Variance Homogeneity and Variance Heterogeneity. J.O. Ojedokun; F.J. Ayoola; and J.O. Iyaniwura. (Keywords: variance, homogeneity, heterogeneity, parameters, Newton-Raphson algorithm)
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Performances of Ordinary and Generalized Least Squares Estimators on Multiple Linear Regression Models with Heteroscedasticity. Adebowale Olusola Adejumo; Obalouw Job; Titilayo Dorcas Isaac; and Benjamin Agboola Oyejola. (Keywords: heteroscedasticity, ordinary least squares, generalized least squares, stochastic error term, magnitude, characterization, Monte Carlo, simulation)

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Estimation of Bivariate Exponentiated Gamma Distribution. Gafar Matanmi Oyeyemi, Ph.D. and Kamil Damola Ajagbe, M.Sc. (Keywords: non-monotone event, increasing failure events, decreasing failure events, proportion reversed hazard rate model, percentile estimator, PCE)

http://www.akamaiuniversity.us/PJST17_1_79.pdf

Influence of Social Demographic Characteristics on Respondents' Responses in a Longitudinal Survey. O.M. Olayiwola, Ph.D.; A.A. Adewara; and H.O. Bisira. (Keywords: longitudinal survey, response predictors, non-response rate)

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Management, Economics, Education, and Philosophy

Master/Slave Dialectics, Negativity, and the Quest for Sovereignty. Ljubisha Petrushevski, DBA. (Keywords: master, slave, Hegel, Marx, Bataille, ontology, epistemology, aesthetics, noise, anthropology, alienation)

http://www.akamaiuniversity.us/PJST17_1_98.pdf

State and Pre-State Economies. Ljubisha Petrushevski, DBA. (Keywords: enlightenment, Protestantism, George Bataille, Homo Economicus, political economy, Karl Marx, G.W. Hegel, Adam Smith, George Gilder)

http://www.akamaiuniversity.us/PJST17_1_105.pdf

Prediction of Returns on All-Share Index of Nigeria Stock Exchange. O.M. Olayiwola, Ph.D.; A.A. Amalare; and S.O. Adebessin. (Keywords: All-Share Index, Ljung-Box statistics, ARIMA model)

http://www.akamaiuniversity.us/PJST17_1_114.pdf

Gauging the Volatility Level of Stock Returns in the Nigerian Stock Market. Samson Ogege, Ph.D. (Keywords: GARCH, volatility, stock returns)

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Supply Chain Management Practices and Market Performance: Evidence from Selected Major Marketers of Petroleum Products in Nigeria. Bayode Olusanya Babatunde, Ph.D.; Rotimi A. Gbadayan, Ph.D.; and Joseph A. Bamiduro, Ph.D. (Keywords: supply chain, management practices, market performance, petroleum, major marketer)

http://www.akamaiuniversity.us/PJST17_1_129.pdf

Effectiveness of Motivational Enhancement Therapy in Enhancing Mathematics Learning Gains among School-Going Adolescents in Oyo State, Nigeria. Adebayo David Oluwole, Ph.D. and Muraina Kamilu Olanrewaju. (Keywords: motivational enhancement therapy, mathematics learning gains, school-going adolescents)

http://www.akamaiuniversity.us/PJST17_1_140.pdf

Prediction Analysis on Student Library Usage: A Case Study at Eastern Mediterranean University (EMU), Gazimagusa, Turkey. Ademola E. Babalola, M.Sc. (Keywords: linear regression models, sample data, correlation coefficient, influential point, SPSS, EMU, Eastern Mediterranean University, library usage)

http://www.akamaiuniversity.us/PJST17_1_152.pdf

Chemistry and Biochemistry

Green Synthesis of Ag, Au, and Au-Ag Bimetallic nanoparticles using *Chrysophyllum albidum* Aqueous Extract for Catalytic Application of Electro-Oxidation of Methanol. Kehinde Oluseun Sodeinde; Olugbenga Dare; Adebayo Aliyu Lasisi; Patrick Ndungu; and Neerish Revaprasadu. (Keywords: *Chrysophyllum albidum*, green nanoelectrocatalyst, nanostructures, catalytic properties, X-ray diffraction, transmission electron microscopy, TEM)
http://www.akamaiuniversity.us/PJST17_1_156.pdf

Biosynthesis, Characterization and Material Applications of Gold, Silver, and Palladium Nanoparticles using Aqueous Extract of *Basella alba* Leaves (Basellaceae). Kehinde Oluseun Sodeinde, M.Sc.; Enock Olugbenga Dare, Ph.D.; Adebayo Aliyu Lasisi, Ph.D.; and Neerish Revaprasadu, Ph.D. (Keywords: biosynthesis, *B. alba*, metal nanoparticles, TEM, XRD, Basellaceae)
http://www.akamaiuniversity.us/PJST17_1_170.pdf

Kinetics and Mechanism of Sugar Oxidation by KMnO₄ in NaOH Medium. D.F. Latona. (Keywords: potassium permanganate, ferrous ammonium sulfate, glucose, fructose, xylose, sodium hydroxide)
http://www.akamaiuniversity.us/PJST17_1_177.pdf

Chemical Constituents and Antibacterial Evaluation of *Deinbollia pinnata* (Schum and Thonn) Sapindaceae. Aliyu Adebayo Lasisi, Ph.D.; Muyideen Olaitan Bamidele, M.Sc.; Saka Balogun, Ph.D.; and Segun Akanmu Adebisi, Ph.D. (Key words: *Deinbollia pinnata*, chemical constituents, antibacterial activity, isolated compounds)
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Production of Alkylbenzenes from Pure Polythene Wastes. Abdulghaniyy Olawale Ilias and Abdulkabir Oladele Oladimeji. (Keywords: recycling, polythene, polythene wastes, alkylbenzenes)
http://www.akamaiuniversity.us/PJST17_1_219.pdf

Life Sciences and Medicine

Determinants of Under-Five Mortality in Abim District, Uganda. Lukman Abiodun Nafiu, Ph.D.; Moses Okello, M.Sc.; and Roseline Nwawure Adiukwu, Ph.D. (Key words: maternal age, maternal education, maternal occupation, water source, latrine use and under-five mortality)
http://www.akamaiuniversity.us/PJST17_1_223.pdf

Effect of pH on Oil Extraction from *Chlorella spp.* F.U. Asoiro, Ph.D. (in view) and V.C. Okonkwo, B.Eng. (Keywords: microalgae, bubble-column photobioreactor, *Chlorella spp.*, oil extraction, optical density, specific growth rate)
http://www.akamaiuniversity.us/PJST17_1_229.pdf

Estimation of Cancer Risks Arising from Medical Exposure to Ionizing Radiation of a Population in Southwestern Nigeria. C.J. Olowookere; N.N. Jibiri; T.O. Bello; and C. Aborishade. (Keywords: cancer risk index, medical x-ray examination, dosimetry, health physics)
http://www.akamaiuniversity.us/PJST17_1_241.pdf

Effects of Smoking Methods on Quality, Microbial, and Chemical Safety of Traditional Smoked Silver Catfish (*Chrysichthys nigrodigitatus*). S.A.O. Adeyeye M.Sc.; O.B. Oyewole Ph.D.; A.O. Obadina Ph.D.; A.M. Omemu Ph.D.; and A.O. Adebayo-Oyetoro, Ph.D. (Keywords: silver catfish, smoking, quality, PAHs, heavy metals)
http://www.akamaiuniversity.us/PJST17_1_258.pdf

Production and Evaluation of Ginger Spiced Cookies from Wheat-Plantain Composite Flour. Abiodun O. Adebayo-Oyetoro, Ph.D.; Oladeinde O. Ogundipe, M.Sc.; Chispel G. Azoro, HND; and Samuel A.O. Adeyeye. M.Sc. (Keywords: plantain flour, composite flour, nutritional analysis) Geology, Geophysics, and Earth Science
http://www.akamaiuniversity.us/PJST17_1_280.pdf

Geology, Geophysics, and Earth Science

Petroleum Potential of Paleogene-Neogene Age Sediments in Well TN-1, Western Niger Delta Basin, Nigeria. Jerry Osokpor, Ph.D.; Frank A. Lucas, Ph.D.; Omawumi J. Osokpor, (M.Sc. in view); Brume Overare (Ph.D. in view); G.I. Alaminokuma, Ph.D.1; O.B. Ogbe (Ph.D. in view); T.S. Daniya (Ph.D. in view); and Oghenero E. Avwenagha (Ph.D. in view). (Keywords: Niger Delta, petroleum generation, Akata Formation, Agbada Formation, source rock maturity)
http://www.akamaiuniversity.us/PJST17_1_288.pdf

Hydro-Geochemical Attributes of Quaternary Sands in Warri, Western Niger Delta, Nigeria. Brume Overare (Ph.D in View); Enivwenaye Oghenero Avwenagha (Ph.D in view); Ejiro Okpara (M.Sc in View); Jerry Osokpor, Ph.D.; Ovie Benjamin Ogbe (Ph.D in view); Areghehefe Elfreda Overare (M.Sc in View); and Edeh Desiree Ogueh (Ph.D. in view). (Keywords: groundwater chemistry, hydrochemical facies, infiltration, dissolution)
http://www.akamaiuniversity.us/PJST17_1_301.pdf

3D Structural Interpretation and Volumetric Analysis of Reservoir 'X' over Dara Field, Onshore Niger Delta. M.A. Ayuk, Ph.D.; S.J. Abe, M.Tech.; and A.O. Daramola, B.Tech. (Keywords: reservoir, amplitude map, anticlinal structure, horizon)
http://www.akamaiuniversity.us/PJST17_1_311.pdf

Prediction of Reservoir Energy Shale Water Drive in a Reservoir Adjacent to Overpressure Shale: A Case Study of Niger Delta. S.O. Salufu Ph.D. (in view) and A. Sulaimon Ph.D. (Keywords: overpressure shale, shale water influx, natural pressure disequilibrium, reservoir energy drive, Niger Delta)
http://www.akamaiuniversity.us/PJST17_1_315.pdf

Hydrogeophysical Assessment of Aule Area, Akure Southwestern Nigeria. Olatokunbo-Ojo Ifedayo Olufunke, M.Tech. and Akintorinwa Olaoluwa James, Ph.D. (Keywords: vertical electrical sounding, electrical resistivity, potable water, ground water potential)
http://www.akamaiuniversity.us/PJST17_1_323.pdf

Recognition and Evaluation of Low Resistivity Pay-Zones: A Case Study of "Amo-Field" in the Tertiary Niger Delta Basin, Nigeria. M.O. Eze, M.Sc.; A.W. Mode, Ph.D.; and A.O. Anyiam, Ph.D. (Keywords: low resistivity pay sands, volume of shale, wireline logs)
http://www.akamaiuniversity.us/PJST17_1_337.pdf

Environmental Science and Ecology

Comparative Analysis of Different Physical and Chemical Components on Different Horizons of Soil Profile Pit in Challawa Industrial Area and Adjacent Area not Affected by Industrial Effluent. V.N. Okolo and E.A. Olowolafe. (Keywords: soil contamination, industrial effluent, physical and chemical profile, environmental analysis)
http://www.akamaiuniversity.us/PJST17_1_345.pdf

Geochemical Assessment of Anthropogenic Influence on Pollution Status of Cobalt, Chromium, and Copper in Sediments of some Rivers in Lokoja, Kogi State, Nigeria. Patricia A. Ekwumemgbo, Ph.D.; Israel K. Omoniyi, Ph.D.; and B. Isuwa, PGD. (Keywords: river sediment, heavy metals, pollution, anthropogenic, River Niger, River Benue, Confluence Point)
http://www.akamaiuniversity.us/PJST17_1_352.pdf

Inspection of the Impact of Vehicular Emissions on some Air Quality Parameters in Zaria Metropolis, Kaduna, Nigeria. Patricia A. Ekwumemgbo, Ph.D.; Israel K. Omoniyi, Ph.D.; Okibe F. Godwin, Ph.D.; and Okon I. Edem, M.Sc. (Keywords: air pollutants, impact, determination, traffic, density, vehicular emissions)
http://www.akamaiuniversity.us/PJST17_1_364.pdf

Impact of Palm Oil Mill Effluent on Physico-Chemical Parameters of a Southwestern River, Ekiti State, Nigeria. Josephine Bolaji Edward, Ph.D.; Eunice Opeyemi Idowu, Ph.D.; Abeni Adejoke Adewumi, Ph.D.; James Abayomi Oso, Ph.D.; and Oyebola Oluwatoyosi Eniola. (Keywords: physico-chemical parameters, POME, Ayanyan River, pollution, remediation)
http://www.akamaiuniversity.us/PJST17_1_374.pdf

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Engineering and Material Science

Modeling and Event Based Simulation of an Earthmoving Digger Using SolidWorks Premium 2014®.

B.C. Chukwudi, Ph.D.; H.E. Opara, Ph.D.; and M.B. Ogunedo, B.Eng.

(Keywords: earthmoving digger, SolidWorks, event based motion, simulation, Newton-Euler, Kane, CAD, computer aided design).

http://www.akamaiuniversity.us/PJST16_2_5.pdf

Performance Evaluation of a Solar Water Distillation System. E.C. Ugwuoke, M.Eng. (in view); M.U. Ude, M.Eng.; L.C. Osondu; N.N. Eze; and S.T. Ukwuani. (Keywords: solar still, solar distillation, potable water, absorptivity, purification).

http://www.akamaiuniversity.us/PJST16_2_17.pdf

Energy and Power

Investigating the Problems of Prepaid Metering Systems in Nigeria.

N.T. Makanjuola; O. Shoewu; L.A. Akinyemi; and Y. Ajose. (Keywords: EKEDC, electricity metering, kWh, distribution, IPP, electricity generation).

http://www.akamaiuniversity.us/PJST16_2_22.pdf

The Need for Tariff Adjustment by the Distribution Companies in Nigeria. N.T. Makanjuola; O. Shoewu; L.A. Akinyemi; and E.O. Imohimi. (Keywords: MYTO, electricity tariff, KWH, exchange rate, inflation).

http://www.akamaiuniversity.us/PJST16_2_32.pdf

The Effect of Total Solid Concentration on Biogas Production. Ugwuoke C. Emmanuel, B.Eng.; Ukwuani T. Stanislus, B.Eng.; Eze N. Nixson, B.Eng.; Chikelu C. Celestine, B.Eng.; and Osondu C. Loveday, B.Eng. (Keywords: total solid, anaerobic digestion, biogas production, temperature, digester, agricultural waste).

http://www.akamaiuniversity.us/PJST16_2_43.pdf

Physics and Atmospheric Physics

Analysis of Unsteady MHD Thin Film Flow of a Third Grade Fluid with Heat Transfer Down an Inclined Plane.

Y.M. Aiyesimi; G.T. Okedayo; and O.W. Lawal. (Keywords: non-Newtonian fluid, MHD flow, magnetohydrodynamic, thin film flow, third grade fluid, no slip boundary condition, heat transfer, eigenfunction expansion).

http://www.akamaiuniversity.us/PJST16_2_46.pdf

Mathematics and Statistics

A Concrete Adomian Decomposition Method for Quadratic Riccati's Differential Equations.

E.U. Agom and A.M Badmus. (Keywords: Adomian decomposition method, quadratic Riccati differential equations).

http://www.akamaiuniversity.us/PJST16_2_57.pdf

Using Modified Euler Method (MEM) for the Solution of some First Order Differential Equations with Initial Value Problems (IVPs). D.I. Lanlege, Ph.D.; U.M. Garba, B.Sc.; and A. Aluebho, B.Sc. (Keywords: Modified Euler Method, MEM, Exact Solutions, ES, Initial Value

Problem, IVP, convergence rate, analytical solution, numerical solution, error estimate, First Order Differential Equation, FODE).

http://www.akamaiuniversity.us/PJST16_2_63.pdf

A Modified Exponential Ratio-Type Estimator in Stratified Ranked Set Sampling. O.M. Olayiwola, Ph.D.; A.A. Adewara, Ph.D.; and T.O. Ayeleso, M.Sc. (Keywords: stratified ranked set sampling, exponential ratio type estimators, co-efficient of variation, coefficient of kurtosis and efficiency).

http://www.akamaiuniversity.us/PJST16_2_82.pdf

Finite Element Method on Derivative Least-Square and Semi-Standard Galerkin for Solving Boundary Value Problems. K. Rauf, Ph.D.; J.O. Omolehin, Ph.D.; S.A. Aniki (Ph.D. in view); and O.T. Wahab (Ph.D. in view). (Keywords: boundary value problem, derivative leastsquare method, exact solution, finite element method, residue, semi-standard Galerkin method).

http://www.akamaiuniversity.us/PJST16_2_90.pdf

Integrated Decomposed Fourier Transform Method for Convergence Analysis of Some Hyperbolic Schemes. S.A. Aniki (Ph.D. in view) and K. Rauf, Ph.D. (Keyword: conditionally stable, convergence, decomposition method, Fourier transform, hyperbolic schemes).

http://www.akamaiuniversity.us/PJST16_2_98.pdf

On Linear Transformation in Linear Orthogonality Spaces. K. Rauf, Ph.D. and R.U. Kanu (Ph.D. in view). (Mathematics Subject Classification: 39B55, 39B62). (Keyword: orthogonal additive mapping, orthogonality space, linearity).

http://www.akamaiuniversity.us/PJST16_2_103.pdf

Modified Ratio Estimator Using Multiple Auxiliary Variables. O.M. Olayiwola, Ph.D.; F.S. Apantaku, Ph.D.; A.A. Adewara, Ph.D.; and A.F. Gboyega, M.Sc. (Keywords: ratio estimator, mean square error, MSE, principal component, auxiliary variable).

http://www.akamaiuniversity.us/PJST16_2_108.pdf

Information Technology and Communications

Performance Quality of WIMAX Technology in Nigeria: A Case of Lagos and Abuja. N.T. Makajuola; O. Shoewu; L.A. Akinyemi; L.A Saliu; and K.A Sodiq. (Keywords: WIMAX, quality of service, data service, Lagos, Abuja, cellular network, user expectations).

http://www.akamaiuniversity.us/PJST16_2_114.pdf

Predicting Adaptability Level of Object-Oriented Software Using Metrics and Threshold Values. Veronica V.N. Akwukwuma, Ph.D. and Edward N. Udo, M.Sc. (Keywords: adaptability level, software metrics, internal software attributes, threshold values, software analyzer).

http://www.akamaiuniversity.us/PJST16_2_124.pdf

The Impact of Information Technology on Health Sector Performance: Case Study – Saudi Arabia Health Sector. Dr. Minwer M. AL-Adwan. (Keywords: health sector, health information systems, HIS, technology in health care, centralized data systems, electronic health records, EHR).

http://www.akamaiuniversity.us/PJST16_2_135.pdf

Management, Economics, and Education

The Interactive Effects of Organizational Commitment and Qualifications on Teaching Productivity among Selected Secondary School Teachers in South-Western Nigeria. Dr. Monsuru Babatunde Muraina and Kamilu Olanrewaju Muraina. (Keywords: organizational commitment, educational qualifications, teaching productivity, secondary school teachers).
http://www.akamaiuniversity.us/PJST16_2_147.pdf

Product and Technology Innovation and Organizational Performance: Evidence from the Telecommunication Industry. Mukaila Ayanda Aremu, Ph.D.; Yusuf Ismaila Mustapha, Ph.D.; Yahaya Nageri; and Moriam Adeyemi Aremu, Ph.D. (Keywords: product, technology, innovation, quality, organizational performance, telecommunication industry).
http://www.akamaiuniversity.us/PJST16_2_156.pdf

On Comparison of Temporal Disaggregation Methods in Flow Variables of Economic Data. Isaac O. Ajao; Femi J. Ayoola; and Joseph O. Iyaniwura. (Keywords: Chow-Lin-maxlog, Fernandez, GDP, Temporal disaggregation, Litterman-maxlog).
http://www.akamaiuniversity.us/PJST16_2_166.pdf

The Impact of Micro-finance Institutions Credit on the Survival of Small- and Medium-Scale Enterprises in Irepodun LGA of Kwara State, Nigeria. Johnson Olabode Adeoti, Ph.D.; Rotimi Ayodele Gbadeyan, Ph.D.; and Yinusa Alabi Olawale. (Keywords: impact, microfinance, credit, survival smallscale business, entrepreneurship).
http://www.akamaiuniversity.us/PJST16_2_180.pdf

Proposed Hybrid System of Electronic Learning and Content Management Systems for Higher Education: Case Study Blackboard and MARZ Systems at King Abulaziz University. Dr. Minwer M. AL-Adwan. (Keywords: learning management system, Blackboard system, content management system, MARZ, integrated E-learning system).
http://www.akamaiuniversity.us/PJST16_2_189.pdf

Chemistry and Biochemistry

Biochemical, Toxicological, and Histological Changes associated with the use of *Croton zambesicus* as Anti-Malarial Decoction. O.A. Akinloye; E.A. Balogun; O.M.O. Idowu; H. Njoku; and R.N Ugbaja. (Keywords: biochemical, toxicological, histological, Croton zambesicus, antimalaria)
http://www.akamaiuniversity.us/PJST16_2_198.pdf

Life Sciences and Medicine

Kikuchi-Fujimoto Disease (KFD): A Case Report. Dr. Mansoor Quli Khan, MBBS, MD (Path & Hemat), Ph.D. (Hemat). (Keywords: Kikuchi-Fujimot Disease, Bangalore, India, diagnostics, lymph nodes, corticosteroid therapy).
http://www.akamaiuniversity.us/PJST16_2_216.pdf

Evaluation of the Adequacy of Completion of Radiology Request Forms in a Tertiary Hospital, Northeast, Nigeria. Mathew G. Abubakar; Chigozie Nwobi Ivor; Aisha Waziri; Dlama Zira Joseph; Geofrey Luntsi; Abasiama Obotiba; and Esther Mathew. (Keywords: radiology, request forms, evaluation, adequacy).
http://www.akamaiuniversity.us/PJST16_2_219.pdf

On the Stability of Endemic Equilibrium State of HIV/AIDS Model with Irresponsible Infective Immigrants. Ayoola Emmanuel Lekan; A.A. Momoh; A. Tahir; and U.M. Modibbo. (Mathematics Subject Classification: Primary 92D40, 92D25; Secondary: 34D20) (Keywords: AIDS epidemic, infective immigrants, numerical solution, heterogeneous, stability).

http://www.akamaiuniversity.us/PJST16_2_225.pdf

Mathematical Model for the Dynamics of Tuberculosis Disease with Vaccination.

Agagwalatu Chiedozie Ferdinand; A.A. Momoh; and A. Tahir. (Keywords: Tuberculosis, mathematical model, vaccination, endemic equilibrium, disease freeequilibrium, basic reproduction number).

http://www.akamaiuniversity.us/PJST16_2_234.pdf

Phytochemical and Antimicrobial Assessment of *Ceiba pentadra* Spines. Abdulkabir O.

Oladimeji, Ph.D.; Ibrahim A. Oladosu, Ph.D.; and Oluwatoyin Babatunde. (Keywords: Ceiba pentadra, phytochemical, antimicrobial, cytotoxicity).

http://www.akamaiuniversity.us/PJST16_2_244.pdf

Quality and Sensory Properties of Pounded Cocoyam from Different Varieties of Cocoyam.

S.A.O. Adeyeye, M.Sc. and O.J. Oluwatola, Ph.D. (Keywords: cocoyam, pounded cocoyam, quality, variety acceptability, protein, fiber, fat content, nutritive value, Colocasia sp., Xanthosoma sp.).

http://www.akamaiuniversity.us/PJST16_2_251.pdf

Geology, Geophysics, and Earth Science

The Hydrogeology of Delta State, Nigeria. Ernest A. Orji, M.Sc. and Prof. Boniface C.E.

Egboka, Ph.D. (Keywords: aquifers, groundwater, well logs, Fence diagram, Delta State).

http://www.akamaiuniversity.us/PJST16_2_257.pdf

3D Structural Interpretation and Volumetric Analysis of Reservoir “X” Over Dara Field, Onshore Niger Delta. M.A. Ayuk, Ph.D.; S.J. Abe, M.Tech.; and A.O. Daramola, B.Tech.

(Keywords: reservoir, amplitude map, anticlinal structure, horizon, petroleum, natural gas, hydrocarbon).

http://www.akamaiuniversity.us/PJST16_2_270.pdf

Integrated Geophysical Survey for Post-Foundation Studies in a Typical Basement

Complex of Southwestern Nigeria. Omowumi Ademila, M.Sc. (Keywords: electromagnetic, electrical resistivity, depressions, rock instability, dipole-dipole array).

http://www.akamaiuniversity.us/PJST16_2_274.pdf

Palynozonation and Lithofacies Cycles of Paleogene to Neogene Age Sediments in PML-1 Well, Northern Niger Delta Basin. Jerry Osokpor, Ph.D.; Frank A. Lucas, Ph.D.; Omawumi J.

Osokpor, (M.Sc. in view); Brume Overare (Ph.D. in view); Izeze Ovie Elijah (Ph.D. in view); and Oghenero E. Avwenaghah (Ph.D. in view). (Keywords: palynozones, lithofacies, Niger Delta, Oligocene, Miocene, Ameki Formation).

http://www.akamaiuniversity.us/PJST16_2_286.pdf

Geoelectrical Investigation of a Proposed Dam Site in Okin Village near Ogbomoso, Southwestern Nigeria. I.A. Akinlabi and E.T. Akinmulewo. (Keywords: vertical electrical sounding, dipole-dipole, dam axis, foundation characteristics).

http://www.akamaiuniversity.us/PJST16_2_298.pdf

Environmental Science and Ecology

Bioaccumulation of Metals in Selected Aquatic Organisms in Lake Asejire, Nigeria.

Ademuyiwa H. Oladele and Adetola Jenyo-Oni. (Keywords: metals, aquatic organisms, Lake Asejire).

http://www.akamaiuniversity.us/PJST16_2_309.pdf

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Engineering and Material Science

Influence of Power Quality Problem on the Performance of an Induction Motor. Amaze A.

Peter; Ignatius K. Okakwu; Akintude S. Alayande; Emmanuel S. Olowasogo; and Abel E. Airoboman. (Keywords: MATLAB®, Simulink, induction motor, power quality, unsymmetrical voltage)

http://www.akamaiuniversity.us/PJST16_1_5.pdf

Cement Bonded Particle Board from *Musa paradisiaca* Stalk. Babatunde O. Ogunsile, Ph.D. and Jamiu A. Adepegba, M.Sc. (Keywords: Musa paradisiaca, plantain, particle board, board density, mixing ratio, particle size)

http://www.akamaiuniversity.us/PJST16_1_12.pdf

Acceptable Zone for Reddish Brown Tropical Soil as Liner Material. A.A. Bello, Ph.D.

(Keywords: compactive effort, reddish brown tropical soil, design parameters, hydraulic barrier)

http://www.akamaiuniversity.us/PJST16_1_21.pdf

Energy and Power

Comparative Study of Solar Radiation Models for Ibadan (7.23°N, 3.52°E), South West Nigeria. G.I. Olatona and A.E. Adeleke. (Keywords: solar radiation, sunshine hours, linear

equation models, error analysis, predictive abilities)

http://www.akamaiuniversity.us/PJST16_1_33.pdf

Multifactorial Short-Term Load Forecasting for Enugu Load Center using Artificial Neural Network Concept. Chika O. Ikaraoha, M.Eng. and Adegoke O. Melodi, Ph.D. (Keywords: short-term load forecasting, artificial neural network, back propagation algorithm, Enugu, Nigeria)

http://www.akamaiuniversity.us/PJST16_1_38.pdf

Alternate Method of Estimating Nigerian Hydrocarbon Reserves. Jeffrey O. Oseh, M.Sc.; Ifeanyi A. Oguamah; and Charles U. Omohimoria. (Keywords: Nigerian hydrocarbon reserves, petroleum production, estimation model, linear least squares regression method, completed wells)

http://www.akamaiuniversity.us/PJST16_1_50.pdf

Physics and Atmospheric Physics

Numerical Study of Unsteady Free Convective Heat Transfer in Walters-B Viscoelastic Flow over an Inclined Stretching Sheet with Heat Source and Magnetic Field. Abdulwaheed Jimoh; Moses S. Dada; Amos S. Idowu; and Samson A. Agunbiade. (Keywords: Crank-Nicolson equation, velocity, temperature, coefficient of skin-friction, Nusselt number, non-Newton fluid flow)

http://www.akamaiuniversity.us/PJST16_1_60.pdf

The Effect of Geomagnetic Storm in the Ionosphere using N-h Profiles. J.C. Morka; D.N. Nwachukwu; and D.A. Ogwu. (Keywords: ionosphere effects, geomagnetic storms, ionograms, electron density)

http://www.akamaiuniversity.us/PJST16_1_77.pdf

Mathematics and Statistics

A Zero-Stable Block Method for the Solution of Third Order Ordinary Differential Equations. K. Rauf, Ph.D.; S.A. Aniki (Ph.D. in view); S. Ibrahim (Ph.D. in view); and J.O. Omolehin, Ph.D. (Keywords: block method, linear multistep method, selfstarting, special third order, differential equations)

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Correlation of Adomian Decomposition and Finite Difference Methods in Solving Nonhomogeneous Boundary Value Problem. E.U. Agom, M.Sc. and A.M. Badmus, Ph.D. (Keywords: Adomian decomposition method, finite difference method, second order non-homogenous differential equation)

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Simplified Methods of Fitting the Truncated Negative Binomial Distribution: A Model that Allows for Non-Users. Abayomi A. Akomolafe and Atinuke Akinyele. (Keywords: buying behavior, negative binomial distribution, heterogeneity, conditional trend analysis)

http://www.akamaiuniversity.us/PJST16_1_110.pdf

Survey Error: It's Implication on Research and Possible Remedies. Abayomi A. Akomolafe; Timothy O. Olatayo; and Atinuke Akinyele. (Keywords: survey error, sampling error, non-coverage error, non-response error, measurement error, true score model)

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Statistical Analysis of an Alternative von Bertalanffy Model for Tree Growth. S.O. Oyamakin and A.U. Chukwu. (Keywords: height-diameter, von Bertalanffy growth model, hyperbolic, forest research, sustainability)

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Consumer Purchase Behavior in a Frequently Bought Product Category: Investigation and Measure of Brand Loyalty. Abayomi A. Akomolafe; Atinuke Akinyele; and Olanrewaju A. Oladimeji. (Keywords: heterogeneity, mover-stayer loyalty, hazard function, marketing mix)

http://www.akamaiuniversity.us/PJST16_1_134.pdf

Information Technology and Communications

Analysis of Diffraction Losses Using the Geometric Theory of Diffraction (GTD) over Varying Heights. N.T. Makanjuola; L.A. Akinyemi; O.O. Shoewu; and F.O. Ojeyemi. (Keywords: radiowaves, wave, diffraction, losses, Fresnel zones, frequency, propagation)

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Design and Development of a Microcontroller Based Digital Wattmeter (MIDIWAT). N.T. Makanjuola; O. Shoewu; L.A. Akinyemi; and A.A. Ajasa. (Keywords: microcontroller, sensors, operational amplifier, LCD)

http://www.akamaiuniversity.us/PJST16_1_147.pdf

Comparative Analysis of GSM Network and IS-95 CDMA Network Using Signal Strength. N.T. Makanjuola; O.O. Shoewu; L.A. Akinyemi; and A.A. Ajasa. (Keywords: CDMA, code division multiple access, GSM, global system for mobile communications, signal capacity, Ec/Io, energy per chip, interference energy)

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Design and Development of Microcontroller Based Liquid Level Detector with Graphical Output. N.T. Makanjuola; O.O. Shoewu; L.A. Akinyemi; and A.A. Ajasa. (Keywords: sensors, microcontroller, MAX 232, personal computer, PC)
http://www.akamaiuniversity.us/PJST16_1_173.pdf

Management, Economics, and Education

Promoting Effective Organizational Structure as a Means of Enhancing Disaster Management in Nigeria. Moriam Adeyemi Aremu, M.Sc.; Mukaila Ayanda Aremu, Ph.D.; and Hameedat Bukola Olodo, M.Sc. (Keywords: organizational structure, disaster management, NEMA, NERA, information dissemination, government)
http://www.akamaiuniversity.us/PJST16_1_182.pdf

A Multi-Factor Student Assessment Methodology. Annie O. Egwali, Ph.D. and Igusaduwa M. Enabulele M.Sc. (Keywords: examination, learning, student tests, department, course, faculty, pass, tertiary education)
http://www.akamaiuniversity.us/PJST16_1_192.pdf

Efficiency of Discriminant Analysis in Identifying Performance of Students at Risk in Nigerian Private Universities. Abayomi A. Akomolafe and G.N. Amahia. (Keywords: discriminant analysis, student performance, predictor variable, traditional measure, mathematics education)
http://www.akamaiuniversity.us/PJST16_1_201.pdf

Research Topic Development Five-Step Cycle. Dr. Anand Bajpai. (Keywords: research design, factors in research planning, research development cycle)
http://www.akamaiuniversity.us/PJST16_1_206.pdf

Real Rigidity of Prices of Goods. Katarina Dukoska, Ph.D. (Keywords: New Keynesianism, micro economy, market imperfections, factors of production, price rigidity)
http://www.akamaiuniversity.us/PJST16_1_210.pdf

Marketing Management Activities of the Tourist Destination. Katarina Dukoska, Ph.D. (Keywords: marketing management, tourist destination, promotion, marketing mix, tourists' needs)
http://www.akamaiuniversity.us/PJST16_1_217.pdf

Chemistry and Biochemistry

Synthesis, Characterization, and Antimicrobial Activity of Carboxylate-Bridged Homodinuclear Schiff Base Metal(II) Complexes. Temitope E. Olalekan, Ph.D. and Ibrahim O. Shoetan, M.Sc. (Keywords: Schiff base; carboxylate-bridged, homodinuclear metal complexes; antimicrobial).
http://www.akamaiuniversity.us/PJST16_1_224.pdf

Synthesis of 2-Aminobenzoic Acid Metal(II) Complexes by Schiff Base Hydrolysis and the Antimicrobial Potency Studies. Temitope E. Olalekan, Ph.D. and Temitope E. Bakare, M.Sc. (Keywords: Schiff base, 2-aminobenzoic acid, metal(II) complexes, hydrolysis products, antimicrobial studies)
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Potential of Oxalic Acid Treated Saccharum officinarum Bagasse as Adsorbent to Remove Cd (II) from Aqueous Solution. Olubunmi K. Akiode, M.Sc.; Abideen I. Adeogun, Ph.D.; and Mopeleola A. Idowu, Ph.D. (Keywords: cadmium, adsorbent, S. officinarum bagasse, isotherm, kinetics, thermodynamics)

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Life Sciences and Medicine

An Adaptive Neuro-Fuzzy Inference System for Diagnosis of EHF. Annie O. Egwali, Ph.D. and Jonathan C. Obi M.Sc. (Keywords: Ebola, fuzzy sets, diagnosis, neural network, expert system, fuzzy logic, neuro fuzzy system)

http://www.akamaiuniversity.us/PJST16_1_251.pdf

Productivity of Sesame (*Sesamum indicum L.*) Varieties as Influenced by Irrigation Scheduling. U.A. Umar, M.Sc.; A.M. Falaki, Ph.D.; I.U. Abubakar, Ph.D.; and H. Mani, Ph.D. (Keywords: irrigation scheduling, sesame, variety, agriculture, savanna)

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The Dangers of Aflatoxin Contamination to the Growth and Survival of Nigeria's Sesame Industry. U.A. Umar, M.Sc.; A.M. Falaki, Ph.D.; I.U. Abubakar, Ph.D.; and H. Mani, Ph.D. (Keywords: aflatoxin, contamination, sesame seed, agricultural commodities, fungi metabolites)

http://www.akamaiuniversity.us/PJST16_1_270.pdf

Performance, Nutrient Utilization and Rumen Fermentation Characteristics of West African Dwarf Goats Fed Concentrate Diet with Corncob in Varying Inclusion Levels. Festus T. Ajayi, Ph.D. and Funmilayo O. Ogunleke Ph.D. (Keywords: corncob, nutrient utilization, performance, rumen fermentation characteristics, livestock feed)

http://www.akamaiuniversity.us/PJST16_1_274.pdf

Quality Assessment of Fresh Milk from Traditionally Managed Nigerian Bunaji and Bokoloji Breeds of Cattle. Oladapo A. Fasae and Ogunekun T. Olusesan. (Keywords: bacteria count, cattle, milk, dairy products, chemical composition)

http://www.akamaiuniversity.us/PJST16_1_280.pdf

Evaluation of Microbial Safety and Quality of Traditional Smoked Bonga Shad (*Ethmalosa frimbriata*) Fish from Lagos State, Nigeria. S.A.O. Adeyeye, M.Sc.; O.B. Oyewole, Ph.D.; A.O. Obadina, Ph.D.; and A.M. Omemu, Ph.D. (Keywords: bonga shad, traditional foods, quality, microbiological safety, Staphylococcal, Listeria monocytogenes)

http://www.akamaiuniversity.us/PJST16_1_286.pdf

Geology, Geophysics, and Earth Science

Geophysical Investigation for Foundation Studies at Ogudu River Valley Estate, Lagos, Southwestern, Nigeria. Aderoju A. Ademola M.Sc. and Adebayo O. Ojo, M.Sc. (Keywords: foundation studies, Ogudu River Valley Estate, 2D resistivity imaging, gradient array)

http://www.akamaiuniversity.us/PJST16_1_295.pdf

Well Log and Synthetic Seismogram Analysis of the Kish Oil Field, Dorset, UK. Fredrick Ogochukwu Okocha, M.Sc. and Emmanuel Umoren, M.Sc. (Keywords: Kish oil field, Mercia mudstone, Ricker wavelet, Sherwood sandstone, zero phase wavelet)

http://www.akamaiuniversity.us/PJST16_1_316.pdf

Characterization of Rock Fabric and Fluid Fairway for Hydrocarbon Imprint and Lateral Prediction. O.J. Rotimi, Ph.D.; Zhenli Wang, Ph.D.; and B.D. Ako, Ph.D. (Keywords: Lambda, mu, acoustic impedance, elastic impedance, reservoir characterization, RGB, alluvial fan, density)
http://www.akamaiuniversity.us/PJST16_1_323.pdf

Source Rock Assessment and Hydrocarbon Prospects of Anambra Basin: Salient Indications for Maturity. S.O. Salufu, Ph.D. (in view) and T.F. Ogunkunle, Ph.D. (in view). (Keywords: subsidence rate, Anambra Basin, oil generating window, maturity, source rock)
http://www.akamaiuniversity.us/PJST16_1_336.pdf

Environmental Science and Ecology

A Study of the Perceived Effects of Climate Changes on Commercial Layer Egg Industry with Respect to Total Production, Egg Price Behavior, and Diseases among Layer Poultry Farmers at Namakkal District, Tamilnadu, India. Mr. P. Ravichandran and Dr. A. Khan Mohamed. (Keywords: poultry, layer farms, egg price, climate factors, poultry production)
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Engineering and Material Science

Flexural Behavior of Reinforced Concrete Beams Containing Polyvinyl Waste Powder

(PWP) as Replacement of Cement. Efe Ikponmwosa; Christopher Fapohunda; Emeka Aniebona; and Folasade Lasoju. (Keywords: compressive strength, deflection, polyvinyl waste, stiffness, ultimate moments)

http://www.akamaiuniversity.us/PJST15_2_5.pdf

Misrepresentations (and Corrections) of Routh's Stability Criterion. Umana Thompson Itaketo, Ph.D. (Keywords: Routh's stability, criterion, control, systems, Ogata, Hurwitz)

http://www.akamaiuniversity.us/PJST15_2_14.pdf

Assessment of Mechanical Strength Properties on Automotive Gas-Oil (AGO) Polluted Artisanal PVA Synthetic Fishing Twine. S.A. Abdulsalami, M.Sc.; M.I. Abubakar, Ph.D.; D.O.

Odulate, Ph.D.; O.J. Olaoye, Ph.D.; O.C. Odebiyi, M.Sc.; and A.A. Akinkunmi, B.Sc. (Keywords: mechanical strength, automotive gas-oil, AGO, PVA synthetic fishing twine, fishing gear, Oyan Lake, Lagos Lagoon, seawater)

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Degradation Effects of Automotive Gas-Oil Pollution of Oyan-lake, Lagos Lagoon and Sea Waters on Elongation (cm) of Unknotted Artisanal PVA Synthetic Fishing Twine. S.A.

Abdulsalami, M.Sc. and M.I. Abubakar, Ph.D. (Keywords: degradation, elongation, automotive gas-oil pollution, AGO, unknotted PVA twine, fishing gear, fresh water, brackish water, marine water)

http://www.akamaiuniversity.us/PJST15_2_28.pdf

Modeling and Evaluation of Palm Nut Drying Rate during Mechanical Cracking. M.O. Jimoh,

M.Eng. (Keywords: palm, kernel, modeling, drying rate performance evaluation)

http://www.akamaiuniversity.us/PJST15_2_36.pdf

Effects of Process Parameters on the Yield of Oil from Melon Seed (*Colocynthis citrullus*). G.O. Mbah, Ph.D.; N.F. Amulu, M.Eng.; and M.I. Onyiah, M.Eng. (Keywords: ANOVA,

oil extraction, process variables, factorial design, melon seed, proximate analysis.)

http://www.akamaiuniversity.us/PJST15_2_43.pdf

Energy and Power

An Expository on Energy with Emphasis on the Viability of Renewable Energy Sources

and Resources in Nigeria: Prospects, Challenges, and Recommendations. J.A. Ajobo and

A.O. Abioye. (Keywords: renewable energy potential, solar power, wind power, small hydropower)

http://www.akamaiuniversity.us/PJST15_2_50.pdf

Densification Characteristics of Groundnut Shell. J.A. Ajobo. (Keywords: briquettes,

groundnut residues, alternative fuel, renewable fuel, crop residue, biomass, compaction, ASEA,

ASTM)

http://www.akamaiuniversity.us/PJST15_2_66.pdf

Heterogeneous Catalyzed Transesterification of Refined Cottonseed Oil to Biodiesel. C.N.

Ude, M.Eng.; E.J. Ahmed; M.I. Onyiah, M.Eng.; O.E. Anisiji, M.Eng.; and E.N. Ude. (Keywords:

heterogeneous catalysis, transesterification, biodiesel, calcium oxide, magnesium oxide)

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Physics and Atmospheric Physics

Estimation of Solar Radiation using Air Temperature and Geographical Coordinates over Nigeria. Olusola Samuel Ojo and Babatunde Adeyemi. (Keywords: solar radiation, contour, correlation, variability, regression)

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Mathematics and Statistics

Derivation of Five Step Block Hybrid Backward Differential Formulas (HBDF) through the Continuous Multi-Step Collocation for Solving Second Order Differential Equation. Umaru Mohammed, Ph.D. (in view) and Raphael Babatunde Adeniyi, Ph.D. (Keywords: block methods, self-starting integration scheme, second order ordinary differential equations, backward differential formulas)

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Sophistication versus Performance: The Case of Time Series Modeling. Bushirat T. Bolarinwa and Femi Ayoola. (Keywords: temperature, forecasting, Holt-Winters, decomposition, additive, multiplicative, SARIMA)

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Comparison of Estimators in Simple Random and Stratified Samplings. D.I. Lanlege, Ph.D.; A.A. Wanchin, M.Tech.; and A. Ababakar, M.Sc. (Keywords: estimation, variable, sampling, stratification)

http://www.akamaiuniversity.us/PJST15_2_109.pdf

Information Technology and Communications

Configuration, Interfacing, and Networking of Wireless IP-Based Camera for Real-Time Security Surveillance Systems Design. Vincent A. Akpan, Ph.D. and O.A. Osakwe, Ph.D. (Keywords: closed-circuit television (CCTV), internet protocol (IP), security surveillance, wireless networking)

http://www.akamaiuniversity.us/PJST15_2_115.pdf

A Syntactically Enriched Tool Enabling Dynamic Binding to Web Services. Oyebode Kazeem Oyeyemi and Esenogho Ebenezer. (Keywords: web services, dynamic binding, D-Web Service, GMT)

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The Design and Implementation of an Adaptive Intelligent Multi-Agents for Network Protection. Ihekweaba Ogechi, M.Sc.; Ihekweaba Chukwugoziem, Ph.D.; and H.C. Inyama, Ph.D. (Keywords: agent, dynamic host configuration protocol, access control list, context based access control, data flow diagram, agent oriented software engineering)

http://www.akamaiuniversity.us/PJST15_2_132.pdf

National Database as Core Field of National Security. Ogechikanna Linda Ihekweaba; Chukwugoziem Ihekweaba; and Prof. H.C. Inyama. (Keywords: national database, attacks criminals, terrorists, law enforcement, security, digital evidence information overload, intelligent agents)

http://www.akamaiuniversity.us/PJST15_2_145.pdf

Machine Learning Application for Stock Market Price Prediction. C. Ugwu and C. Onwuachu Uzochukwu. (Keywords: machine learning, supervised learning, regression value, mean square error)

http://www.akamaiuniversity.us/PJST15_2_155.pdf

Design and Development of a Mobile Phone Signal Detector. A.A. Ajasa; O. Shoewu; and P.O. Nwamina. (Keywords: signal detection, light emitting diode, operational amplifier, LC circuit, printed circuit board)

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Effects of Base Transceiver Station (BTS) on Humans in Ikeja Area of Lagos State. L.A. Akinyemi; O. Shoewu; O.A. Pinponsu; J.O. Emagbetere; and F.O. Edeko. (Keywords: base transceiver station, BTS, antenna, electromagnetic radiation, power density, distance, radiating power, electric field)

http://www.akamaiuniversity.us/PJST15_2_173.pdf

Path Loss in Nigerian Rural Vegetation Area: A Case Study in Igbaraoke, Ondo State. O. Shoewu; L.A. Akinyemi; J.O. Emagbetere; and F.O. Edeko. (Keywords: pathloss, TEMS, model, vegetation, environment, radio signals)

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Management, Economics, and Education

Methods, Goals, and Organizing for the Business Planning for Selection of the Entrance Strategy on the Selected Foreign Market. Zlatko Mucunski. (Keywords: globalization, business planning, growth, business policy, international markets)

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Significance of the Business Policy for Formulating the Corporate Strategy of the Enterprise for Entry on the Foreign Market. Zlatko Mucunski. (Keywords: formulation of a strategy, competitive advantage, strategic planning, business goals)

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Globalization and E-Recruiting Staff in the Modern Time. Marija Stojanova and Savo Efremovski. (Keywords: management studies, organizational recruiting, staffing, human resource policy)

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Review of Sesame Seed Production and Export in Nigeria (2003 to 2012). U.A. Umar, M.Sc.; A.H. Muntaqa, B.Sc.; M.B. Muhammad, M.Sc.; and H.J. Jantar, M.Sc. (Keywords: sesame, production, land area, yield, export, prices, and value)

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Report on a Feasibility Study: A Case Study of Ratcon Quarry Limited. A. Olasehinde, M.Sc. and S.I. Bute, B.Sc. (Keywords: feasibility, Sokuro, cashflow, Ratcon)

http://www.akamaiuniversity.us/PJST15_2_204.pdf

Development of a Flexible Plant Layout System for Small and Medium Scale Industries in Nigeria. Tiamiyu I. Mohammed, Ph.D. and Gbenga A. Odesanmi, M.Eng. (Keywords: facility arrangement, flexibility, future expansion)

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Chemistry and Biochemistry

A Novel 2-Aminobenzoylthiosemicarbazide Metal Complexes and their Biological Activities. J.F. Adediji, Ph.D.; E.O. Olatunji, B.Sc.; F.O. Hoseph, B.Sc.; and A.S. Olaitan, B.Sc. (Keywords: chelates, Mannich base, anti-plasmodial, anti-microbial, anti-tubercular, toxicological activities)

http://www.akamaiuniversity.us/PJST15_2_219.pdf

Amino Acid Quality and Performance Characteristics of “ji-oto” Traditional Food of Ikwerre of Rivers State, Nigeria. B.A. Amadi, Ph.D. and M.K.C. Duru, Ph.D. (In view).

(Keywords: amino acid quality, chemical score, “ji-otor”, protein efficiency ratio, performance characteristics)

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Effects of Freezing Point Depression on Molecular Weight Determination of Hydrocarbon Mixtures. Ifeanyi A. Oguamah, M.Sc.; Jeffrey O. Oseh; and Peter N. Yekeen. (Keywords: freezing point depression, hydrocarbon mixtures, mixing rule, molecular weight)

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Life Sciences and Medicine

Biochemical Changes in Non-Diabetic and Diabetic Wistar Rats with the Administration of Stem-Bark Extract of *Anacardium occidentale* Linn (Cashew). Chisom F. Eliakim-Ikechukwu, Ph.D.; Goodwin Avwioro, Ph.D.; and Patrick S. Igbigbi, M.D. (Keywords: Anacardium occidentale Linn, cashew extract, diabetes, streptozotocin, biochemical parameters, Wistar rats)

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Studies on the Microbiological, Proximate Composition, and Anti-nutritional Content of Fermented Groundnut and Plantain Blends. Anthony Okhonlaye Ojokoh; Modupe Khadijat Daramola; and Agbi Deborah Ochukwa. (Keywords: fermentation, groundnut flour, plantain flour, proximate analysis, anti-nutrient)

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Productivity of Sesame (*Sesamum indicum* L.) Varieties as Influenced by Seed Rate. U.A. Umar, M.Sc.; A.H. Muntaqa, B.Sc.; M.B. Muhammad, M.Sc.; and H.J. Jantar, M.Sc. (Keywords: sesame, seed rate, variety, productivity)

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Geology, Geophysics, and Earth Science

Modeling and Suppression of Undesirable Rayleigh Surface Waves in Seismic Data from Onshore Niger Delta Using the Frequency-Wave Number (F-K) Technique. Okechukwu F. Adizua, Ph.D. (in view) and Michael C. Ohakwere-Eze, M.Sc. (Keywords: F-K Domain, F-K Spectrum, Rayleigh surface waves, low cut filter, muting and primary reflections)

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Geophysical and Geotechnical Investigation of a Proposed Dam Axis of the River Butulu, Northwestern Nigeria. Ojulari Y. Abdulmalik, M.Sc.; Oluwatoyin Ologe, M.Tech.; and Oyinloye Shola, M.Sc. (Keywords: resistivity profiling, joints, bedrock fractured basement, earth dam, seepage)

http://www.akamaiuniversity.us/PJST15_2_270.pdf

Determination of Empirical Relations between Geoelectrical Data and Geotechnical Parameters in Foundation Studies for a proposed Earth Dam. I.A. Akinlabi and G.O. Adeyemi. (Keywords: electrical resistivity, site characterization, dam axis, correlation)
http://www.akamaiuniversity.us/PJST15_2_278.pdf

Mapping of Near-Surface Intrusives in Abakaliki: A Seismic Refraction Method. F.O. Odii; S.O. Agha; and C. Augustine. (Keywords: velocity, compressional (P) waves, nearsurface intrusives, seismic refraction, three-channel seismograph, geophone)
http://www.akamaiuniversity.us/PJST15_2_288.pdf

Qualitative Delineation of Hydrocarbon Bearing Reservoir from Preliminary Study of Well Log Data over an Offshore Niger Delta Field. Michael C. Ohakwere-Eze, M.Sc. and Okechukwu F. Adizua, Ph.D. (in view). (Keywords: hydrocarbon, reservoir, well logs, gamma ray, porosity, saturation)
http://www.akamaiuniversity.us/PJST15_2_293.pdf

Mining Activities and Its Hydrogeochemical Implication: A Case Study of Ijero Mining Site Southwestern Nigeria. O. Ologe; O.S. Ogungbemi; and O.O. Alu. (Keywords: physicochemical, hydrochemical, electrical conductivity, mining activities, bacteriological analysis, Ijero-Ekiti)
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Environmental Science and Ecology

Occurrence and Levels of Acetonitriles as Emerging Disinfection By-Products in a Community Drinking Water Supply. E.M. Shaibu-Imodagbe; C.A. Okuofu; A. Ismail; J.A. Otun; J.P. Unyimadu; A.B. Williams; and D.B. Adie. (Keywords: acetonitriles, Ahmadu Bello University, ABU, community water supply, potable water, drinking water)
http://www.akamaiuniversity.us/PJST15_2_309.pdf

A Methodology for Proper Waste Disposal, Treatment, and Management Enhancing Sustainable Development in the Third World. J.A. Ajobo and A.O. Abioye. (Keywords: biological waste management, developing world, sustainability, development, sewage, biosolids)
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Engineering and Material Science

Design and Construction of De-Totle Water Treatment Plant Using Moringa oleifera as Bio-Coagulant. U.P. Ajounuma and B.C. Chukwudi. Keywords: turbidity, Moringa oleifera, coagulation, treatment.

http://www.akamaiuniversity.us/PJST15_1_5.pdf

The Property Nature of Fractal Disk Dimension: A Case Study of Poincare Sections of Harmonically Excited Pendulum. T.A.O. Salau, Ph.D. and Ajide O. Olufemi, M.Sc. Keywords: Poincare section, harmonically excited pendulum, Runge-Kutta schemes, fractal disk dimension.
http://www.akamaiuniversity.us/PJST15_1_13.pdf

Performance Evaluation of Permanent Steel Mold for Temperature Monitoring During Squeeze Casting of Non-Ferrous Metals. Jacob O. Aweda, Ph.D. and Maruf Y. Kolawole, M.Eng. Keywords: permanent mold, squeeze casting, nonferrous metal, solidification temperature, heat transfer.

http://www.akamaiuniversity.us/PJST15_1_24.pdf

Effect of Foam Concentration on Structural Characteristics of Steel Reinforced Aerated Concrete Beams. Efe Ikponmwosa, Ph.D.; Funso Falade, Ph.D.; Christopher Fapohunda, M.Sc.; Toyin Akinniyi, M.Sc.; and Kehinde Olori, M.Sc. Keywords: compressive strength, foamed aerated concrete, foam concentration, density, shear strength.
http://www.akamaiuniversity.us/PJST15_1_32.pdf

Recycling of Scrap Solid (Metal) Industrial Waste in Fabrication of Tile Making Machine as a Strategy in Waste Management in Kaduna, Nigeria. Abraham D. Morakinyo M.A. and Alkali N. Vershima, Ph.D. Keywords: metals, TMM, recycling, waste management, fabrication, economy, technology.
http://www.akamaiuniversity.us/PJST15_1_47.pdf

Investigation of the Thermal Conductivity of Ceramic Tiles Processed from Steel Slag (SS). B.C. Chukwudi; P.O. Ademusuru; C.O. Amaefule; and O.N.K. Swift. Keywords: thermal conductivity, insulation, steady state, slags.
http://www.akamaiuniversity.us/PJST15_1_58.pdf

Industrial Potentials of Adiabo Clay in Calabar Municipal of Cross River State, South-South Nigeria. M.A. Abuh, M.Sc.; N. Abia-Bassey, M.Eng.; T.C. Udeinya, M.Eng.; H.U. Nwannewuihe, M.Eng.; A.A. Abong, M.Sc.; and K.G. Akpomie, M.Sc. Keywords: Adiabo clay, Atterberg limits, swell index, plasticity, flexural strength, linear shrinkage, porosity.
http://www.akamaiuniversity.us/PJST15_1_63.pdf

Energy and Power

Effects of Process Parameters on Biodiesel Production from Refined Soy Oil. G.O. Mbah; M.I. Onyiah; N.J. Edeani; and C.C. Njoku. Keywords: ANOVA, biodiesel, factorial design, refined soy oil, transesterification.

http://www.akamaiuniversity.us/PJST15_1_76.pdf

Physics and Atmospheric Physics

Finite Element Method of Modeling Solute Transport in Groundwater Flow. M.U. Igboekwe, Ph.D. Keywords: finite element method, continuum, groundwater, numerical analysis, solute transport, partial differential equation, aquifer.

http://www.akamaiuniversity.us/PJST15_1_85.pdf

Mathematics and Statistics

Derivation of Block Hybrid Method for the Solution of First Order Initial Value Problems in ODEs. Umaru Mohammed, Ph.D. (in view); Aliyu Ishaku Ma'ali, Ph.D.; and Aliyu Yahaya Badeggi, Ph.D. Keywords: block method, linear multistep method, multistep collocation, continuous multistep (CM), selfstarting, zero-stability.

http://www.akamaiuniversity.us/PJST15_1_93.pdf

Stability Analysis of the Transmission Dynamics and Control of Corruption. Sirajo Abdulrahman, Ph.D. Keywords: corruption, basic reproduction number, equilibria, stability.

http://www.akamaiuniversity.us/PJST15_1_99.pdf

Information Technology and Communications

Radio Wave Signal Attenuation in a GSM Network (EPE as a Case Study). Segun O. Olatinwo; O. Shoewu; and N.T. Makanjuola. Keywords: radio waves, attenuation constant, GSM, base station, propagation.

http://www.akamaiuniversity.us/PJST15_1_114.pdf

Evaluation and Investigation of Throughput and Delay on Ethernet and FDDI Technologies using OPNET. Olusegun O. Omitola; Segun O. Olatinwo; and O. Shoewu. Keywords: OPNET-Modeler, Ethernet, FDDI, throughput, delay, CSMA/CD, carrier sense multiple access with collision detection.

http://www.akamaiuniversity.us/PJST15_1_125.pdf

Empirical Study of Discrete Cosine Transform on Image Compression. O. Shoewu; Olusegun O. Omitola; and Segun O. Olatinwo. Keywords: discrete cosine transform, TCT, image compression, decompression.

http://www.akamaiuniversity.us/PJST15_1_130.pdf

B3: An Automated Cross-Platform Mobile Bible Application. Ambrose A. Azeta, Ph.D.; Abimbola Esuruoso, B.Sc.; and A.E. Azeta, HND. Keywords: Bible, B3, Cristian text, KJV, mobile phone, mobile computing, Javascript, XML, AJAX, HTML5, CSS.

http://www.akamaiuniversity.us/PJST15_1_141.pdf

Management, Economics, and Education

Case Study on the Profit Margin Model of Wafer-Ring Testing Handler for Semiconductors. Voon C. Khoo, M.Sc., MBA. Keywords: profit margin, multi-sites testing, cost of test, testing technology, theory of the firm.

http://www.akamaiuniversity.us/PJST15_1_149.pdf

Gender Inequality in Surveying and Geoinformatics Profession and Environmental Sustainability in Osun State of Nigeria. Surv. A.I. Awoniyi, M.Sc. Keywords: gender equality, MDGs, surveying and geoinformatics profession, environmental sustainability.
http://www.akamaiuniversity.us/PJST15_1_168.pdf

Civil Society and Non-Governmental Organizations (NGOs) Movements in Nepal in terms of Social Transformation. Medani Bhandari, Ph.D. Keywords: definition, civil society, NGOs, transformation, history, movement, environment.
http://www.akamaiuniversity.us/PJST15_1_177.pdf

Database Creation for Tenement Rate Collection: The Role of GIS. Caleb O. Oluwadare, M.Sc. and Olatoye Ojo, Ph.D. Keywords: database creation, property tax, tax collection, GIS.
http://www.akamaiuniversity.us/PJST15_1_190.pdf

Chemistry and Biochemistry

Comparative Studies of the Effects of Doping on the Electrical and Thermal Conductivities of Polystyrene. Kelechi Uleanya, M.Sc. and A.N. Eboatu, Ph.D. Keywords: conductive polymers, thermal conductivities, poly styrene, doping, electrical conductivities.
http://www.akamaiuniversity.us/PJST15_1_200.pdf

Fatty Acid Constituents, Amino Acid Quality and Haematological Moderation following Consumption of “Ntubiri” and “Ntiti-Ikpa” Traditional Foods. M.K.C. Duru, Ph.D. (In view) and B.A. Amadi, Ph.D. Keywords: amino acid quality, fatty acid, haematology, nutrients, traditional foods.
http://www.akamaiuniversity.us/PJST15_1_206.pdf

Effects of Process Parameters on the Yield of Alkali from Oil Palm Male Inflorescence (Ash). G.O. Mbah; K.N. Offiah; and M.I. Onyiah. Keywords: ANOVA, ash, factorial design, male inflorescences, leaching.
http://www.akamaiuniversity.us/PJST15_1_215.pdf

Adsorption of Malachite Green from Aqueous Solution using Plantain Stalk (*Musa paradisiaca*). Babatunde O. Ogunsile, Ph.D.; Adesola Babarinde, Ph.D.; and Kayode Akinlolu, B.Sc. Keywords: biosorption, plantain stalk, malachite green, sorption isotherms.
http://www.akamaiuniversity.us/PJST15_1_223.pdf

Adsorption of Alizarin and Fluorescein Dyes on Adsorbent prepared from Mango Seed. Nasiru Abdus-Salam, Ph.D. and Magaji Buhari, M.Sc. Keywords: activated carbon, adsorption isotherms, alizarin dye, fluorescein dye, kinetics, mango seeds, thermodynamics.
http://www.akamaiuniversity.us/PJST15_1_232.pdf

Modeling and Statistical Optimization of Dilute Acid Hydrolysis of Eucalyptus Wood Chips using Response Surface Methodology. Andrew N. Amenaghawon, M.Sc.; Charity O. Okieimen, Ph.D.; and Samuel E. Ogebeide, Ph.D. Keywords: Eucalyptus, acid hydrolysis, lignocellulosic biomass, central composite design, optimization.
http://www.akamaiuniversity.us/PJST15_1_245.pdf

Abstraction of Zinc (II) Ions from Solution unto a Nigerian Bentonite. Folasegun Anthony Dawodu, Ph.D. and Kovo Godfrey Akpomie, M.Sc. Keywords: abstraction, bentonite, kinetics, isotherms, thermodynamics, zinc (II).
http://www.akamaiuniversity.us/PJST15_1_257.pdf

Kinetic, Equilibrium, and Thermodynamic Studies on the Adsorption of Cadmium (II) Ions using “Aloji Kaolinite” Mineral. Folasegun Anthony Dawodu, Ph.D. and Kovo Godfrey Akpomie, M.Sc. Keywords: adsorption, cadmium (II), kaolinite, equilibrium, kinetic, thermodynamic.

http://www.akamaiuniversity.us/PJST15_1_268.pdf

Life Sciences and Medicine

Growth Response, Hematological Indices, and Serum Lipid Profile of Growing Turkeys Fed Diets Supplemented with Niacin and Yeast. Tolulope O. Adebawale, M. Agric.; Abimbola. O. Oso, Ph.D.; Olajide Olowofeso, Ph.D.; Olusegun M. Idowu, Ph.D.; and Adeboye O. Fafiolu, Ph.D. Keywords: niacin, yeast, hemoglobin, PCV, white blood cells, HDL, LDL, cholesterol, British United Turkeys, poultry feed.

http://www.akamaiuniversity.us/PJST15_1_277.pdf

Performance Characteristics of Growing Snails (*Archachatina marginata*) Fed Varying Dietary Levels of Kola Testa. Prof. Rasheed A. Hamzat and Prof. Oyebiodun G. Longe.

Keywords: kola testa; feed resource; growing snails, shell quality.

http://www.akamaiuniversity.us/PJST15_1_285.pdf

Egg Quality Characteristics of Layers Fed Raw, Fermented, and Enzyme-Treated Cocoa Bean Shell-Based Diets. Martha D. Olumide, Ph.D.; Prof. A.O. Akinsoyinu; and Prof. Rasheed A. Hamzat. Keywords: Cocoa bean shell; Feed resource; Layers; egg quality.

http://www.akamaiuniversity.us/PJST15_1_289.pdf

Microbiological and Proximate Assessments of Cold-smoked *Gadus morhua* in Traditional Fish Smoking Centers in Ota Metropolis. John A. Daramola, Ph.D.; Christianah T. Kester, M.Sc.; Solomon A. Osofero, Ph.D; and Collins C. Ojiakor, B.Sc. Keywords: *Gadus morhua*, smoking centers, Ota, cold smoking, microbiological, proximate assessment.

http://www.akamaiuniversity.us/PJST15_1_297.pdf

Geology and Earth Science

Integration of Electrical Resistivity and Induced Polarization for Subsurface Imaging around Ihe Pond, Nsukka, Anambra Basin, Nigeria. Philip Ighovoyinvwin Oduduru, M.Sc.and Luke I. Mamah, Ph.D. Keywords: electrical resistivity, induced polarization, subsurface imaging, pond.

http://www.akamaiuniversity.us/PJST15_1_306.pdf

Inversion and Application of Seismic Q Factor: Field Dataset Examples. Wasiu O. Raji, Ph.D.; Peter I. Olasehinde, Ph.D.; Hussain O. Abubakar, M.Sc.; and Rasheed A. Alabi, B.Sc. Keywords: seismic Q factor, Q measurement, attenuation compensation, reflection seismic records.

http://www.akamaiuniversity.us/PJST15_1_318.pdf

Microstructural and Mineralogical Evolution of the Oke Awon Shear Zone in the Jebba Area, S.W. Nigeria. Chukwuemeka T. Okonkwo, Ph.D.; Ademuyiwa Adetunji, Ph.D.; and Ismail O. Folorunso, M.Sc. Keywords: Jebba area, southwest Nigeria, Oke Awon shear zone, microstructures, mineralogy).

http://www.akamaiuniversity.us/PJST15_1_335.pdf

Structural Analysis of Digitized Lineament from Satellite Imagery and Vertical Electrical Soundings (VES) Studies for Ground Water Exploration in Part of Nasarawa State.

Y.S. Agunleti, M.Sc.; E.A. Arikawe, Ph.D. (in view); J.I.K. Okegye, Ph.D. (in view); and S.I. Fadele, Ph.D. (in view). Keywords: LANDSAT 5-TM imagery, VES, GIS, DEM, lineament.

http://www.akamaiuniversity.us/PJST15_1_345.pdf

Prediction of Lithology using the Ratios of Compressional and Shear Wave Velocities and their Travel Times. Oluwaseun S. Ogungbemi, M.Tech. Keywords: lithology, porosity, shear, compressional, velocity, travel time.

http://www.akamaiuniversity.us/PJST15_1_355.pdf

Subsurface Mapping and Reservoir Evaluation of West Waha and Worsham-Bayer Field Area of Southeastern Delaware Basin, West Texas. Kehinde A. Haruna, M.Sc.; Olusola J. Ojo, Ph.D.; and Wasiu Odufisan, Ph.D. Keywords: reservoir, checkshots, porosity.

http://www.akamaiuniversity.us/PJST15_1_360.pdf

Sequence Stratigraphic Analysis of Olay Field, Niger Delta, and Implications for Hydrocarbon Prospect. Olusola A. Osetoba, M.Sc. and Olusola J. Ojo, Ph.D. Keywords: Niger Delta, sequences, systems tracts, reservoirs, traps, seals

http://www.akamaiuniversity.us/PJST15_1_375.pdf

Palynostratigraphy and High Resolution Paleoenvironmental Reconstruction of Part of Kemar-1 Well, Bornu Basin, Northeastern Nigeria. H.A. Ayinla, M.Sc.; O.C. Adeigbe, Ph.D.; A.O. Ola-Buraimo, Ph.D. (in view); S.A. Bankole, M.Sc.; and M. Adebawale, M.Sc. Keywords: palynomorph group, palynomorph marine index, PMI, fluvatile, marine setting.

http://www.akamaiuniversity.us/PJST15_1_392.pdf

Petrophysical Sensitivity of Elastic Modulus and Inverse Quality Factor (1/Q) Analysis in Well Logs. Wasiu O. Raji, Ph.D. and Adeoye Taiye, M.Sc. Keywords: Inverse Quality Factor, P-, S- wave, elastic modulus, rock fluids.

http://www.akamaiuniversity.us/PJST15_1_404.pdf

Geochemical Assessment of Tin-Tantalum Mineralization in the Precambrian Pegmatite Exposed at Agwan Rimi, Part of Sheet 208 NE, North Central Nigeria. Y.S. Agunleti, M.Sc.; E.A. Arikawe, Ph.D. (in view); and J.I.K. Okegye, Ph.D. (in view). Keywords: tantalum, Angwan Rimi, Precambrian, albitization, pegmatite.

http://www.akamaiuniversity.us/PJST15_1_415.pdf

Integrated Geophysical Approach to Solid Mineral Exploration: A Case Study of Kusa Mountain, IjeroEkiti, Southwestern Nigeria. Oluwaseun S. Ogungbemi, M.Tech.; Olatunji O. Alu, M.Sc.; and Oluwatoyin Ologe, M.Tech. Keywords: fracture, electromagnetic, geo-electric resistivity, exploration, mineral.

http://www.akamaiuniversity.us/PJST15_1_426.pdf

Appraisal of Groundwater Quality in Parts of the Benin Formation in Imo River Basin Southeastern Nigeria. Ikechukwu B. Ijeh, Ph.D. Keywords: acidity, groundwater quality, hydrogeochemical, Imo River basin, physico-chemical.

http://www.akamaiuniversity.us/PJST15_1_433.pdf

Determination of Groundwater Flow Direction in Amai Kingdom, Ukwuani Local Government Area of Delta State, Nigeria. Akudo Ernest Orji, M.Sc. Keywords: groundwater, flow direction, boreholes, static water level, dumpsites, Amai.

http://www.akamaiuniversity.us/PJST15_1_443.pdf

Environmental Science and Ecology

Effect of Initial pH on the Bioremediation of Crude Oil Polluted Water Using a Consortium of Microbes. Kessington O. Obahiagbon, Ph.D.; Andrew N. Amenaghawon, M.Sc.; and Elvis O. Agbonghae, M.Sc. Keywords: bioremediation, crude oil, biochemical oxygen demand, bioaugmentation, microorganism.

http://www.akamaiuniversity.us/PJST15_1_452.pdf

Is Tourism Always Beneficial? A Case Study from Masai Mara National Reserve, Narok, Kenya. Medani Bhandari, Ph.D. Keywords: ecotourism, wildlife observation, off road impact, safari, Africa.

http://www.akamaiuniversity.us/PJST15_1_458.pdf

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Engineering and Material Science

Studying the Post Weld Microstructural Evolution of Conventionally Heat Treated Medium Carbon Steel. J.A. Olowonubi, B.Eng.; I.M. Momoh, M.Eng.; O.J. Akinribide, M.Eng.; J.O.

Ayanleke, M.Sc.; and G.O. Olorunfemi, B.Eng. (Keywords: Post Weld Heat Treatment (PWHT); microstructure; low alloy steel; HAZ; fusion zone).

http://www.akamaiuniversity.us/PJST14_2_5.pdf

Microstructures of Mild Steel Spring after Heat Treatment. O.R. Adetunji, Ph.D.; S.I. Kuye, Ph.D. and M.J. Alao, B.Eng. (Keywords: annealing, normalizing, hardening, pearlite, martensite, microstructures).

http://www.akamaiuniversity.us/PJST14_2_11.pdf

Quantitative Interpretation of Differential Scanning Calorimetry Heat Effect in A2009

Aluminum Alloy. V.S. Aigbodion, Ph.D. (Keywords: aluminum allow, differential scanning, calorimetry, microstructure)

http://www.akamaiuniversity.us/PJST14_2_16.pdf

Effects of Grit Size Variation on the Microhardness Property of Selected Metals. I.M. Momoh, M.Eng.; O.J. Akinribide, M.Eng.; O.A. Adeyemi, M.Eng; O.M. Oluwafemi, PGD; and A. Ajenifuja, B.Eng. (Keywords: grinding papers, microhardness, morphological view, hardness, ferrous, non-ferrous metals)

http://www.akamaiuniversity.us/PJST14_2_26.pdf

Corrosion Inhibition of Stainless Steel Using Plant Extract *Vernonia amygdalina* and *Azadirachta indica*.

O.O. Obiukwu, M.Eng.; I.O. Opara, M.Sc.; and B.C. Oyinna, B.Sc. (Keywords: corrosion inhibition, stainless steel, bitter leaf, dogoyer, *Vernonia amygdalina*, *Azadirachta indica*)

http://www.akamaiuniversity.us/PJST14_2_31.pdf

Studies on the Tensile Properties of Naturally-Occurring Banana Fibers. K. Ebisike; B.E. Attah Daniel; I.M. Momoh; B. Babatope; and S.O.O Olusunle. (Keywords: retting, fiber, sodium hydroxide, NaOH, banana, alkaline treatment)

http://www.akamaiuniversity.us/PJST14_2_36.pdf

Characterization of the Thermo-Mechanical behavior of *Momordica angustisepala* Fibers intended for the Manufacturing of Polymer Composites. C.U. Atuanya; E.O. Ebunoha; G.O.

Isaac; and V.S. Aigbodion. (Keywords: *Momordica angustisepala*, density, thermal, thermogravimetric analysis, tensile strength, X-ray diffraction, XRD, TGA, DTA)

http://www.akamaiuniversity.us/PJST14_2_40.pdf

Development of a Multi-Purpose Roasting Machine. Dr. P.K. Oke. (Keywords: multi-purpose, food, roasting machine)

http://www.akamaiuniversity.us/PJST14_2_48.pdf

Development of an Improved Garri Sifting Machine. O.R. Adetunji, Ph.D.; O.U. Dairo, Ph.D.; T. Aina, B.Engr.; and A.S. Osunlana, B.Engr. (Keywords: design, fabricate, improved, garri, sifting, machine)

http://www.akamaiuniversity.us/PJST14_2_54.pdf

Energy and Power

Biogas Production from Domestic Waste and its Purification with Charcoal. Felix Chinedu Akubuonyi, M.Sc. and Lucky Obukowho Odokuma, Ph.D. (Keywords: biogas production, domestic wastes, anaerobic digestion, charcoal, carbon dioxide, methane, gas chromatography)
http://www.akamaiuniversity.us/PJST14_2_63.pdf

Determination of the Mesophilic Temperature for Optimum Continuous Process Biogas Production from Anaerobic Digestion of Animal Wastes. O.O. Obiukwu, M.Eng. and Prof. O.M.I. Nwafor. (Keywords: biogas, mesophilic temperature, continuous digestion process)
http://www.akamaiuniversity.us/PJST14_2_70.pdf

Performance Characteristics of a Diesel Engine Fuelled with Palm Kernel Methyl Ester and Its Blend with Petrodiesel. J.O. Igobokwe, Ph.D. and O.O. Obiukwu, M.Eng. (Keywords: palm kernel methyl ester, biodiesel, performance characteristics, full load, fuel blend)
http://www.akamaiuniversity.us/PJST14_2_75.pdf

Coking Potential and Metallurgical Relevance of the Cretaceous Lafia-Obi Coal Deposit, Nawarawa State, North-Central Nigeria: Insight from Washability and Froth Flotation Tests. B.S. Jatau, Ph.D.; N.O. Patrick, M.Sc.; Y.S. Agunleti, M.Sc.; and S.I. Fadele, Ph.D. (in view). (Keywords: washability, heavy liquids, froth flotation, metallurgical coke, coking coal, upgrading or beneficial blending)
http://www.akamaiuniversity.us/PJST14_2_80.pdf

Modeling of a Power Plant by Integration of Solar Combined Cycle System: A Case Study. Solomon O. Odeyale, B.Sc; Prof. O.J. Alamu; Elizabeth O. Odeyale (Mrs), Ph.D.; and Adedoyin M. Sulaiman M.Sc. (Keywords: pollution, electricity, combustion, parabolic, model, integration, solar, Rankine cycle)
http://www.akamaiuniversity.us/PJST14_2_89.pdf

Small Wind Turbines: A Simulation for Optimal Selection in Uasin-Gishu, Kenya. Dismas K. Choge, M.Sc.; Samuel K. Rotich, Ph.D.; and Joel K. Tonui, Ph.D. (Keywords: wind speed, wind power, wind turbine)
http://www.akamaiuniversity.us/PJST14_2_102.pdf

Physics and Atmospheric Physics

Measurement and Method in Radiofrequency Radiation Exposure Assessments. Bolaji O. Ayinmode, M.Sc. and Idowu P. Farai, Ph.D. (Keywords: radiofrequency, exposure, power density, spectrum analyzer, broad band)
http://www.akamaiuniversity.us/PJST14_2_110.pdf

Analytical Solution of MHD Free Convective Heat and Mass Transfer Flow in a Porous Medium. Akindele Michael Okedoje Ph.D. (Keywords: MHD, free convection, vertical plate, steady flow, porous medium, Dufour effect, Soret effect, Grashof numbers, asymptotic expansion)
http://www.akamaiuniversity.us/PJST14_2_119.pdf

Variation of Total Column Ozone (TCO) during the time of Landfall of Extratropical Cyclone. T. Mukherjee, M.Sc.; S.K. Midya, Ph.D.; and H. Sarkar, Ph.D. (Keywords: atmospheric physics, TCO, ozone concentration, European windstorm, O₃)
http://www.akamaiuniversity.us/PJST14_2_129.pdf

Mathematics and Statistics

Crank Nicolson Finite Difference Method for the Valuation of Options. S.E. Fadugba, M.Sc. and C.R. Nwozo, Ph.D. (Keywords: American option, Crank Nicolson method, European option, finite difference method)

http://www.akamaiuniversity.us/PJST14_2_136.pdf

A Non-Classical Finite Difference Method for Solving Two Point Boundary Value Problems. P.K. Pandey, Ph.D. (Keywords: non-classical difference method, boundary value problem, rational approximation) (2000 AMS Sub-Classification: 65L05)

http://www.akamaiuniversity.us/PJST14_2_147.pdf

A Mathematical Study of One-step Models of Polymerization. R.O. Olayiwola, Ph.D.; M.O. Durojaye, Ph.D.; M.S. Immam, B.Tech.; and S.E. Shuaib, B.Tech. (Keywords: polymerization, free-radical polymerization, Arrhenius kinetics, polymeric materials, material diffusion, parameter-expanding method)

http://www.akamaiuniversity.us/PJST14_2_153.pdf

Approximate Solution of SIR Infectious Disease Model Using Homotopy Perturbation Method (HPM). S. Abubakar, M.Tech.; N.I. Akinwande, Ph.D.; O.R. Jimoh; M.Tech.; F.A. Oguntolu, M.Tech.; and O.D. Ogwumu, M.Tech. (Keywords: SIR infectious disease, Homotopy Perturbation Method, HPM)

http://www.akamaiuniversity.us/PJST14_2_163.pdf

Development and Implementation of an Empirical Model on Road Traffic Accidents.

Lukman Abiodun Nafiu, Ph.D.; David Ibitayo Lanlege, M.Tech.; and Danladi Hakimi, Ph.D. (Keywords: accident, model, road, safety, death, lives, regression analysis)

http://www.akamaiuniversity.us/PJST14_2_170.pdf

Fuzzy Cognitive Map Based Approach for Teachers' Performance Evaluation. X.Y. Djam, Ph.D. and A.K. Mishra, Ph.D. (Keywords: fuzzy sets, fuzzy database, linguistics variables, expert system, performance evaluation, fuzzy cognitive map)

http://www.akamaiuniversity.us/PJST14_2_176.pdf

A Comparative Analysis of Four Deterministic Compartmental Mathematical Models for Controlling the Spread of Tuberculosis in Nigeria. Abdullah Idris Enagi, Ph.D. (Keywords: mathematical models, tuberculosis control, numerical simulations, total eradication)

http://www.akamaiuniversity.us/PJST14_2_182.pdf

Robustness of Split-plot Central Composite Designs in the Presence of a Single Missing Observation.

Angela Unna Chukwu, Ph.D.; Yisa Yakubu, M.Sc.; Timothy Adebayo Bamiduro, Ph.D.; and Godwin Nwanzu Amahia, Ph.D. (Keywords: Split-plot response surface designs, robust designs, Minimaxloss criterion, within-whole plot correlation, missing observation)

http://www.akamaiuniversity.us/PJST14_2_194.pdf

Information Technology and Communications

A Metric in Global Software Development Environment. Lauretta O. Osho, B.Tech.; Sanjay Misra, Ph.D.; and Oluwafemi Osho, M.Tech. (Keywords: global software development, GSD environment, measurement techniques, metrics, coherence, collocation, software engineering)

http://www.akamaiuniversity.us/PJST14_2_213.pdf

Securing Text Messages using Elliptic Curve Cryptography and Orthogonal Frequency Division Multiplexing. O. Shoewu and Segun O. Olatinwo. (Keywords: elliptic curve cryptography, ECC, encryption, orthogonal frequency division multiplexing, OFDM, quadrature amplitude modulation)

http://www.akamaiuniversity.us/PJST14_2_220.pdf

Iris Recognition Technology: Implementation, Application, and Security

Consideration. Segun O. Olatinwo; O. Shoewu; and Olusegun O. Omitola. (Keywords: biometrics, biometric identification system, iris recognition)

http://www.akamaiuniversity.us/PJST14_2_228.pdf

Development of a Microcontroller Based Automatic Combinational Lock System. Comfort

O. Bolajoko, M.Sc. and Adewale M. Folorunso, B.Sc. (Keywords: automatic combinational lock, microcontroller, software, access codes, system)

http://www.akamaiuniversity.us/PJST14_2_234.pdf

Design and Implementation of Crime Investigation System using Biometric Approach

(Nigerian Police Force). Adeyinka Adesuyi Falaye, M.Sc.; Ndako Victor Adama, B.Tech.; and Faith Princely Agemerien, B.Tech. (Keywords: biometric, convict, crime, criminal, evidence, scene, suspect, victim, witness, Visual Basic)

http://www.akamaiuniversity.us/PJST14_2_242.pdf

Impact of the Adoption of Computer Aided Process Planning (CAPP) Software Package for Small Scale Bottled Water Industry in Nigeria. O.O. Martins, M.Eng.; S.B. Adejuyigbe, Ph.D.;

Prof. M.A. Waheed; B.O. Bolaji, Ph.D.; and J.K. Adewumi, Ph.D. (Keywords: computer aided process planning, appropriate technology, simulation, small scale bottled water industry and Nigeria)

http://www.akamaiuniversity.us/PJST14_2_255.pdf

Management, Economics, and Education

Impact of Top Management Commitment on Implementation of Total Quality Management in an Organization.

M.S. Abolarin, Ph.D.; A.A. Abdullahi, M.Eng.; O. Adedipe, M.Eng.; and T. S. Abdulrahman, M.Eng. (Keywords: TQM, top/middle management, commitment, leadership, organization, performance)

http://www.akamaiuniversity.us/PJST14_2_263.pdf

Islamic Banking in Sudan: A Case Study of the Sudanese Islamic Bank. Muhammad A.A. Al

Hashimi, Ph.D. (Keywords: Islamic banking, Islamic microfinance, *mudaraba* [agency joint venture], *musharaka* [joint partnership], *riba* [interest, usury])

http://www.akamaiuniversity.us/PJST14_2_268.pdf

The Effects of Organizational Information on Researchers' Work Attitudes in Selected Agricultural Institutes in Oyo State, Nigeria. Oluwatoyin A. Oso, M.Agric. (Keywords: job

satisfaction, organizational commitment, organizational information, quit intention, resignation)

http://www.akamaiuniversity.us/PJST14_2_277.pdf

Management of Sheep at Sales Points in Abeokuta Metropolis, Nigeria. Shamsideen O.

Iposu, Ph.D.; Ngozi Okwelum, D.V.M., M.Sc.; Adetola O. Adeyemi, B.Agric.; Kehinde A. Sanwo Ph.D.; and Bamidele O. Oduguwa, Ph.D. (Keywords: management, sales point, sheep, goat, livestock)

http://www.akamaiuniversity.us/PJST14_2_283.pdf

Chemistry and Biochemistry

Sorption Potential of a Nigerian Montmorillonite Clay for Lead(II) Ions from a Single

Component Solution: Equilibrium, Kinetics, and Thermodynamics. Folasegun Anthony Dawodu, Ph.D. and Godfrey Kovo Akpomie, M.Sc. (Keywords: heavy metals, lead, Pb(II), sorption, Ugwuoba clay)

http://www.akamaiuniversity.us/PJST14_2_300.pdf

Fatty Acid and Amino Acid Profiles of an Under-Utilized Tropical African

Seed: *Adenanthera pavonina*. M.N. Ogbuagu, Ph.D.* and Prof. S.A. Odoemelam. (Keywords: *Adenanthera pavonina*, seed, fatty acid, amino acid, composition)
http://www.akamaiuniversity.us/PJST14_2_310.pdf

RSM Optimization Process for Uptake of Water from Ethanol Water Solution Using

Oxidized Starch. Monica Ebere Ejikeme, M.Eng.; Patrick C.N. Ejikeme, M.Eng.; and Benjamin N. Abalu, M.Eng. (Keywords: ANOVA, cassava starch, ethanol, optimization, RSM, response surface method)
http://www.akamaiuniversity.us/PJST14_2_319.pdf

Application of Recycled Rubber from Scrap Tire in the Removal of Phenol from Aqueous

Solution. Felix A. Aisien, Ph.D.; Andrew N. Amenaghawon, M.Sc.; and Adetayo R. Adeboyejo, B.Eng. Keywords: adsorption, phenol, waste tire rubber granules, WTRG, adsorption capacity, kinetics, isotherm models)
http://www.akamaiuniversity.us/PJST14_2_330.pdf

Gas Chromatography-Flame Ionization Detector Analysis of the Phytochemical

Composition of *Pleurotus tuberregium* (Fr) Sing's Sclerotia: Potential Benefits. Catherine C. Ikewuchi; Jude C. Ikewuchi; Mercy O. Ifeanacho; Ngozi M. Igboh; and Ifeoma I. Ijeh.

(Keywords: alkaloids, β-sitosterol, flavonoids, tannic acid, *Pleurotus tuberregium* (Fr) Sing's Sclerotia)

http://www.akamaiuniversity.us/PJST14_2_342.pdf

Analysis of the Phytochemical Composition of the Leaves of *Chromolaena odorata* King and Robinson by Gas Chromatography-Flame Ionization Detector. Jude C. Ikewuchi;

Catherine C. Ikewuchi; and Mercy O. Ifeanacho. (Keywords: alkaloids, *Chromolaena odorata*, flavonoids, gas chromatography, tannic acid)

http://www.akamaiuniversity.us/PJST14_2_360.pdf

Life Sciences and Medicine

Morphological and Topographical Study of the Degree of Angulation between Posterior Inferior Iliac Spine and Ischial Spine of the Human Hip Bone and its Role in Determination of Sex. Abhishek Prasad Sinha; Anamika Kumari; Vijay P. Gupta; and Dil Islam Mansoor.

(Keywords: posterior inferior iliac spine, hip bone, ischial spine, morphology, topography, sex determination)

http://www.akamaiuniversity.us/PJST14_2_379.pdf

Incidence of Urinary Tract Infections among Out-Patients Attending Clinic in University of Calabar Teaching Hospital (UCTH), Calabar, Cross River State, Nigeria. Felix Chinedu

Akubuonyi, M.Sc.; Josiah Lennox, Ph.D.; Emmanuel Ikpeme, Ph.D.; Kingsley Hovana Enyi-Idoh, Ph.D.; Susan Eta Etim, Ph.D.; Martin. Akeh, M.Sc.; and Fari Ijang, B.Sc. (Keywords: urinary tract infections, total bacterial counts, bacteriuria, incidence rates, percentage occurrence, etiological agents)

http://www.akamaiuniversity.us/PJST14_2_384.pdf

Effectiveness of Jalaukavacaraṇa (Leech Therapy) in Acute Inflammatory Joint

Disorders. Poorvi Athreya; Pradeep Grampurohit; Sangeeta Jahagirdhar; and Hemant D. Toshikhane. (Keywords: leech, tendinitis, synovitis, osteoarthritis ayurvedic medicine)

http://www.akamaiuniversity.us/PJST14_2_391.pdf

Heamatotoxicity of Paint Effluent on Swiss Albino Mice. E.O. Oladele, Ph.D.; P.G.C.

Odeigah, Ph.D.; and T. Yahaya, Ph.D. (Keywords: packed cell volume, differential counts, anaemic, paint effluent)

http://www.akamaiuniversity.us/PJST14_2_397.pdf

Feed Forms of Different Particle Sizes: Effects on Growth Performance, Carcass

Characteristics, and Intestinal Villus Morphology of Cockerel Chickens. Olajide M. Sogunle, Ph.D.; Bukola B. Olatoye, M.Agric.; Lawrence T. Egbeyle, Ph.D.; Adebayo V. Jegede, Ph.D.; Olajide A. Adeyemi, Ph.D.; Deji A. Ekunseitan, M. Agric.; and Kazeem O. Bello, Ph.D. (Keywords: growth performance, villus, pellets, crumbs, cockerel chickens, livestock)

http://www.akamaiuniversity.us/PJST14_2_405.pdf

Effect of Pre-Incubation Storage Periods on Weight Loss, Embryonic Development, and Hatchability of Pullet Eggs. L.T. Egbeyle, Ph.D.; M.K. Bosa, B.Sc.; O.M. Sogunle, Ph.D.; and O.O. Adeleye, Ph.D. (Keywords: hatchability, eggs, embryonic development)

http://www.akamaiuniversity.us/PJST14_2_416.pdf

Impact of Broiler Litter Waste and Urea Based Diets on Performance of Young West African Dwarf Goats.

Azeez Olarenwaju Yusuf, M.Agric.; Deji Abiodun Ekunseitan, M.Agric.; Toheeb Oluwakemi Bawala, Ph.D.; Akeem Ayobami Ayoola, B.Agric.; and Adeola Esther Ogunnowo, B.Agric. (Keywords: broiler litter, urea, goats, dietary protein level)

http://www.akamaiuniversity.us/PJST14_2_425.pdf

Effect of Deep Litter System with or without Access to Grass or Legume Pastures on Egg Fatty Acids and Proximate Composition of Laying Hens. O.E. Oke, Ph.D.; O.M. Onagbesan, Ph.D.; and L.O. Obanla (Ph.D. in view). (Keywords: eggs, pasture, deep litter, fatty acid, proximate composition)

http://www.akamaiuniversity.us/PJST14_2_433.pdf

Growth and Physiological Response of Local Turkey (*Meleagris gallopavo*) Offered Dietary Vitamin C. A.O. Oso, Ph.D.; O.E. Oke, Ph.D.; M.O. Abioja; J.A. Abiona, Ph.D.; G.A. Agbodo, B.Agric.; and T.O. Adebawale, M.Agric. (Keywords: poultry health, feed, dietary treatment, physiological response. ascorbic acid)

http://www.akamaiuniversity.us/PJST14_2_441.pdf

Dietary Effects of Solid-State Fermented *Jatropha curcas* Kernel Cake on West African Dwarf Goats in a Mixed Ration. G.O. Sanusi; M.A. Belewu; and B.O. Oduguwa. (Keywords: goats, Jatropha, groundnut cake, West African Dwarf goats, digestibility)

http://www.akamaiuniversity.us/PJST14_2_448.pdf

Nutritional Evaluation and Phytochemical Screening of Common Plants used in Smallholder Farming System. A.O. Yusuf and R.O. Muritala. (Keywords: nutrient composition, phytochemical screening, forages, small holder farming system)

http://www.akamaiuniversity.us/PJST14_2_456.pdf

Chemical Composition of Silage from Guinea Grass, Cassava Peel, and Brewery Waste as Affected by Ensiling Duration. Alaba Jolaosho, Ph.D.; Peter Dele, Ph.D.; Jimoh Olanite, Ph.D.; Oluwasanmi Arigbede, Ph.D.; Victoria Ojo, Ph.D.; and Oluwafemi Okukenu, M.Agric. (Keywords: silage, mixture, cassava, forage, Guinea grass)

http://www.akamaiuniversity.us/PJST14_2_463.pdf

Comparative Analysis of Fertility Status in Irrigated and Non-Irrigated Rice Fields. H. Muntaqa, B.Sc., PGD; O.O Agbede, Ph.D.; and U.A Umar, M.Sc. (Keywords: soil, fertility, rice crops, northern Nigeria, nitrogen, sodium, potassium, pH, organic carbon)

http://www.akamaiuniversity.us/PJST14_2_468.pdf

Effects of Substituting Wheat Flour with Plantain Flour in Beef Sausage Production. K.A. Sanwo; K. Ibrahim; S.O. Iposu; and J.A. Adegbite. (Keywords: wheat flour, plantain flour, beef sausage, cook and refrigeration losses)

http://www.akamaiuniversity.us/PJST14_2_473.pdf

Anti-Microbial Effects of Olive Oil and Vinegar against *Salmonella* and *Escherichia coli*. Q.A. Shah, Ph.D.; F. Bibi, M.Sc.; and A.H. Shah, Ph.D., D.Sc. (Keywords: antimicrobial activity, vinegar, olive oil, *Salmonella*, *E. Coli*, *Escherichia coli*)
http://www.akamaiuniversity.us/PJST14_2_479.pdf

Geology and Earth Science

Electrical Resistivity Anisotropy in Fracture Delineation and Characterization: A Case Study of Iwaro-Ayepe Area, Southwestern Nigeria. C.C. Okpoli (Ph.D. in view) and O. Igwe, B.Sc. (Keywords: Azimuthal Resistivity Sounding, AZR, geological mapping, subsurface fracture, radial plots, characterization)
http://www.akamaiuniversity.us/PJST14_2_488.pdf

Relevance of 2D Electrical Imaging in Subsurface Mapping: Case Study of National Animal Production Research Institute (NAPRI), Zaria. S.I. Fadele, Ph.D. (in view); J. Adamu, M.Sc.; N.O. Patrick, M.Sc.; and P.O. Sule, Ph.D. (Keywords: electrical resistivity tomography, ERT, ABEM LUND imaging system, pesudosections)
http://www.akamaiuniversity.us/PJST14_2_498.pdf

Seismic Refraction Investigation for Groundwater Potential in Parts of Rivers State, Nigeria. Cyril N. Nwankwo, Ph.D.; Godwin O. Emujakporue, Ph.D.; Leonard I. Nwosu, Ph.D. (Keywords: seismic refraction, groundwater, velocity, thickness, geoelectric section)
http://www.akamaiuniversity.us/PJST14_2_505.pdf

Basement Architecture in Part of the Niger Delta from Aeromagnetic Data and its Implication for Hydrocarbon Prospectivity. Sunday Oladele, M.Sc. and Samuel B. Ojo, Ph.D. (Keywords: basement architecture, aeromagnetic, Niger delta, hydrocarbon prospecting, geophysics)
http://www.akamaiuniversity.us/PJST14_2_512.pdf

Geophysical Investigation of a Suspected Foundation Failure at Ogbomoso, Southwestern, Nigeria. Enoch E. Sangodiji, M.Sc. and Martins O. Olorunfemi, Ph.D. (Keywords: electrical resistivity, basement complex, subsurface layers, fault, foundation failure)
http://www.akamaiuniversity.us/PJST14_2_522.pdf

A Graphical and Semi-Quantitative Technique for Investigating Vertical Electrical Sounding (VES) Curves for Indices of Confined Fractured Basement Column. Adebayo O. Ojo, M.Sc. and Martins O. Olorunfemi, Ph.D. (Keywords: VES, confined fractured basement, semi-quantitative interpretation)
http://www.akamaiuniversity.us/PJST14_2_537.pdf

Determination of Elastic Constants and Seismic Velocity of Unconsolidated Layers around the Greater Port Harcourt City, Rivers State, Nigeria. Sylvester A. Ugwu, Ph.D. and Cyril N. Nwankwo, Ph.D.(Keywords: greater Port Harcourt City, elastic constants, unconsolidated layers, seismic refraction)
http://www.akamaiuniversity.us/PJST14_2_551.pdf

Geophysical Assessment and Groundwater Quality in Michael Okpara University of Agriculture, Umudike, Abia State. M.U. Igboekwe, Ph.D.; A.B. Eke, Ph.D.; C.C. Emeka-Chris, M.Eng.; and G. Ihewebaba, Ph.D. (Keywords: vertical electrical sounding, VES, aquifer, lithology, transmissivity, pair curves, resistivity, groundwater quality, pH, turbidity, conductivity, TDS)
http://www.akamaiuniversity.us/PJST14_2_565.pdf

Hydrogeophysical Characterization of a Typical Basement Complex: A Case Study of Modomo/Eleweran Area Southwestern Nigeria. Saheed M. Taiwo, M.Sc.; M.O. Awoyemi, Ph.D.; F.I. Alabi, M.Sc.; A.O. Popoola, M.Sc.; O.S. Hammed, M.Sc.; and G.C. Onyedim, Ph.D. (Keywords: hydrogeophysical, aquifer, groundwater potential, zonation, electrical resistivity, reservoirs, electromagnetic)

http://www.akamaiuniversity.us/PJST14_2_576.pdf

Groundwater Flow Modeling at the Source of River Ethiope, Delta State, Nigeria. Fredrick Ogochukwu Okocha, M.Sc. and Edmund Atakpo, Ph.D. (Keywords: groundwater, modeling, recharge, River Ethiope)

http://www.akamaiuniversity.us/PJST14_2_594.pdf

Evaluating the Suitability of Post-treated Produced Water for Offshore Disposal: 'BANGO' Oilfield Niger Delta, Nigeria. George Uchebike Ozulu, M.Sc. (Keywords: post-treated, produced water, effluent, DPR, offshore, disposal, oilfield waste, brine)

http://www.akamaiuniversity.us/PJST14_2_601.pdf

Environmental Science and Ecology

Assessment of Oil-Eating Fungi Isolated from Spent Engine Oil Polluted Soil Environments. Godfrey Umanu, M.Sc. and Dami Saraya Dodo, B.Sc. (Keywords: waste engine oil, environmental pollution, hydrocarbon utilizing fungi, effect of temperature, bioremediation)

http://www.akamaiuniversity.us/PJST14_2_609.pdf

Comparative Assessment of the Relative Abundance and Diversity of Near-Shore and Offshore Communities of Benthic Macro-Invertebrates off the Bonny Estuary, Nigeria. Chinasa Uttah, M.Sc.; Emmanuel Uttah, Ph.D.; Raymond Ajang, Ph.D.; George I. Ukpong, Ph.D.; and Emmanuel Ogban, Ph.D. (Keywords: benthic macro-invertebrates, relative abundance, diversity, Uttah's biotic ranking, near-shore, offshore, Atlantic, Nigeria)

http://www.akamaiuniversity.us/PJST14_2_617.pdf

Diversity and Spatial Structure of Benthic Macro-Invertebrates Community of Calabar River, Nigeria: Implications for Bio-Monitoring of River Environmental Quality. Chinasa Uttah, M.Sc.; E.C. Uttah, Ph.D.; F.C. Akubuenyi, M.Sc.; L.B. Etim, Ph.D.; S.E. Osim, M.Sc.; and R.O. Ajang, Ph.D. (Keywords: benthic macro-invertebrates, bio-indicators, river quality)

http://www.akamaiuniversity.us/PJST14_2_626.pdf

The Taxa Structure and Composition of Zooplankton Communities of Bonny Estuary: A Bio-indication of Anthropogenic Activities. Emmanuel Uttah, Ph.D.; Jude Ogbeche, M.Sc.; George I. Ukpong, Ph.D.; Raymond Ajang, Ph.D.; Cletus Iboh, Ph.D.; and Isaac O. Ayanda, M.Sc. (Keywords: zooplankton, relative abundance, diversity, species composition, estuary, anthropogenic impact, Nigeria)

http://www.akamaiuniversity.us/PJST14_2_635.pdf

Aquifer Characterization and Quality Assessment of Groundwater in Umuahia-South Area of Abia State, Southern Nigeria. C. Amos-Uhegbu; M.U. Igboekwe; and G.U. Chukwu. (Keywords: physico-chemical parameters, formation factor, groundwater quality, irrigation)

http://www.akamaiuniversity.us/PJST14_2_642.pdf

Bridging the Gap between Available Aquifer Test Data and Missing Aquifer Hydraulic Characteristics using a Simple Graphical Approach. C. Amos-Uhegbu, Ph.D. (Keywords: simple graphical linear relationship, aquifer parameter estimation, geo-electrical data)

http://www.akamaiuniversity.us/PJST14_2_654.pdf

Plausible Geo-Medical and Environmental Consequence of Mining Economic Deposits Associated with some Major and Trace Elements: A Case Study of Limestone Mapped within the Albian-Turonian Awe Formation around Abuni and Environs in Nasarawa State. N. O. Patrick, M.Sc.; N.G. Obaje, Ph.D.; S.I. Fadele, Ph.D. (in view); and I. Adegoke, M.Sc. (in view). (Keywords: geochemical analysis, mineral exploration, heath and environmental effects)
http://www.akamaiuniversity.us/PJST14_2_667.pdf

Spatio-Temporal Levels of Essential Trace Metals around Municipal Solid Waste Dumpsite in Abeokuta, Nigeria. Adedayo A. Badejo, Ph.D.; Adeyemi O. Taiwo, B.Sc.; Adebola A. Adekunle, Ph.D.; and Babatunde S. Bada, Ph.D. (Keywords: dumpsite, leachate, trace metals, potable water, contamination)
http://www.akamaiuniversity.us/PJST14_2_682.pdf

Volume 14, Number 1 (May/June 2013)

Engineering and Material Science

Microhardness Characteristics of Preheat-Treated Welded Locally Produced Ductile Iron.

D.Y. Kwa, PGD; I.M. Momoh, M.Eng.; and J.O. Borode, Ph.D. (Keywords: SAW, submerged arc welding, microhardness, HAZ, PMZ, FZ, weld crack).

http://www.akamaiuniversity.us/PJST14_1_5.pdf

The Viability of Water/Alumino-Silicate Solution as Quenchant for Medium Carbon Steels.

J. Oghenevweta, M.Sc.; R. Mohammed, Ph.D.; V.S. Aigbodion, Ph.D.; and F. Asuke, M.Sc. (Keywords: alumino-silicate, medium carbon steel, water, mechanical properties, metallurgy).

http://www.akamaiuniversity.us/PJST14_1_9.pdf

Evaluation of Khaya Seed Oil (Mahogany Oil) as Quenchant in the Hardening Process of Plain Carbon Steel.

Prof. S.B. Hassan and V.S. Aigbodion, Ph.D. (Keywords: hardening, characteristics, plain carbon steel, Khaya seed oil, quenchant).

http://www.akamaiuniversity.us/PJST14_1_19.pdf

Investigation of Anti-Corrosive Effects of Lebbeck Seed Extract On Aluminum in Acid Environment.

A. Petchiammal, M.Sc. and S. Selvaraj, Ph.D. (Keywords: aluminum, aluminium, Al, corrosion, inhibition, *Albizia lebbeck* seed, mass loss, adsorption, isotherm).

http://www.akamaiuniversity.us/PJST14_1_31.pdf

Hydraulic Characteristics of Porous Clay Pipes for Subsurface Irrigation.

Henry E. Igbadun, Ph.D. and Japheth Barnabas, B.Eng. (Keywords: porous clay pipe, subsurface irrigation, soil wetness, hydraulic conductivity, seepage rate).

http://www.akamaiuniversity.us/PJST14_1_40.pdf

Optimization of the Quantity of Wood Ash Addition on Kaolinitic Clay Performance in Porcelain Stoneware Tiles.

O.S. Olokode, Ph.D.; Prof. P.O. Aiyeadeun; S.I. Kuye, Ph.D.; B.U. Anyanwu, B.Eng.; F.T. Owoeye, B.Eng.; T.A. Adekoya, B.Eng.; and J.N. Nwonah M.Sc.

(Keywords: wood ash, stoneware tiles, kaolinitic, porcelain, permeability, porosity, clays)

http://www.akamaiuniversity.us/PJST14_1_48.pdf

Treatment of Shale-Sand Mixture with Cement for Use as Pavement Material.

O.J.Eze-Uzomaka, Ph.D. and M. Joel Ph.D. (Keywords: cement, stabilization, Igumale shale, sand, construction, pavement material).

http://www.akamaiuniversity.us/PJST14_1_57.pdf

Characteristics of Concrete Produced with Lagoon and Atlantic Ocean Water.

Akeem A. Raheem, Ph.D.; Olumide A. Adenuga, Ph.D.; and Olushola A. Afolabi, B.Sc. (Keywords: Atlantic Ocean water, lagoon water, tap water, concrete, density, compressive strength).

http://www.akamaiuniversity.us/PJST14_1_66.pdf

Performance of an Automatic Switching Device at Temperature above 20°C.

O.J. Iyiade and O.A. Aremu. (Keywords: thermistor, switching device, cooling system, ambient temperature).

http://www.akamaiuniversity.us/PJST14_1_75.pdf

Design and Fabrication of Motorized Hydraulically Operated Palm Oil Press.

P.A. Azodo, M.Eng.; A.B. Hassan, Ph.D.; J. Ezenwa, B.Eng.; and P.U. Ogban, B.Eng. (Keywords: palm oil, palm fruit, hydraulic, press, capacity, design, testing).

http://www.akamaiuniversity.us/PJST14_1_79.pdf

Evaluation of the Efficiency of Ceramic Membrane Pots in Treatment of Food Beverages. F.T. Owoeye, B.Eng.; O.S. Olokode, Ph.D.; Prof. P.O. Aiyyedun; S.I. Kuye, Ph.D.; B.U. Anyanwu, B.Eng.; H.O. Balogun, B.Eng.; and J.N. Nwonah, M.Sc. (Keywords: ceramic membrane, porosity, XRD, microfiltration).

http://www.akamaiuniversity.us/PJST14_1_89.pdf

An Investigation into the Use of Artificial Neural Network to Monitor and Detect Leakage Point(s) along a select Pipeline. P.A. Adewuyi, B.Tech. and M.O. Okelola, M.Sc. (Keywords: pipeline leaks, pipeline right of way, oil flow pressure, artificial neural network, pipeline model).

http://www.akamaiuniversity.us/PJST14_1_98.pdf

A 64-Point Community Electronic Route Indicator. Jonathan A. Enokela, Ph.D. (Keywords: electronic display, direction finder, route indicator, microcontroller, information kiosk).

http://www.akamaiuniversity.us/PJST14_1_104.pdf

Energy and Power

The Effect of Lightning Parameters on Induced Voltages Caused by Nearby Lightning on Overhead Distribution Conducting Line. J.O. Adeputan, Ph.D. and Prof. E.O. Oladiran.

(Keywords: distributed electrical systems, transmission lines, induced voltages, peak induced voltage, PIV).

http://www.akamaiuniversity.us/PJST14_1_112.pdf

Physics

Electrical and Dielectric Properties Analysis of Vanadium Penta-Oxide (V_2O_5) Doped Ni-Zn Ferrite Samples. Abdul Ahad, M.Phil.; Rajib Ahmed, M.Sc.; and Rifat Ahmmmed, B.Sc.

(Keywords: Ni-Zn ferrite, resistivity, Curie temperature, Q-factor, microstructure).

http://www.akamaiuniversity.us/PJST14_1_133.pdf

Design and Construction of Low- and High-Pass Active Filters Using Butterworth and Chebychev Techniques. O.A. Aremu; O.J. Iyiade; and D.A. Ajadi. (Keywords: attenuation,

Butterworth filters, Chebychev filters, pass band, ripples).

http://www.akamaiuniversity.us/PJST14_1_139.pdf

The Application of Vectors (in Mathematics) to Determine an Optimal Trajectory for Missiles in Order to Rendezvous with Flying Targets. Umana Thompson Itaketo, Ph.D.

(Keywords: vectors, bearing, firing, missiles, aircraft, flying, rendezvous)

http://www.akamaiuniversity.us/PJST14_1_150.pdf

Dynamic Deflection of a Non-Uniform Rayleigh Beam when under the Action of Distributed Load. S.N. Ogunyebi; A. Adedowole; and S.E. Fadugba. (Keywords: Rayleigh beam, elastic structure, distributed load, dynamic deflection).

http://www.akamaiuniversity.us/PJST14_1_157.pdf

Mathematics and Statistics

Comparative Analysis of a Non-Reactive Contaminant Flow Problem for Constant Initial Concentration in Two Dimensions by Homotopy-Perturbation and Variational Iteration Methods. O.R. Jimoh, M.Tech. (Keywords: Homotopy-perturbation, contaminant, advection, diffusion, adsorption).

http://www.akamaiuniversity.us/PJST14_1_162.pdf

The RAS of Ibijola and Sunday (2010) is a Sub-Region of the RAS of Odekunle and Sunday (2012). Joshua Sunday; Pius Tumba; Dominic Raymond; and Danjuma Midataku. (Keywords: Interval of Absolute Stability, IAS, Region of Absolute Stability, RAS, Region of Instability, RIS, stability function, sub-region).

http://www.akamaiuniversity.us/PJST14_1_168.pdf

An Order Five Implicit 3-StepBlock Method for Solving Ordinary Differential Equations.

Y.A. Yahaya, Ph.D. and A.M. Sagir, M.Tech. (Keywords: block method, hybrid, initial value problem, linear multistep method, self-starting).

http://www.akamaiuniversity.us/PJST14_1_176.pdf

On the Number of Conjugacy Classes in the Injective Order-Decreasing Transformation Semigroup.

Ifeanyichukwu Jeff Ugbene, M.Sc; Everestus Obinwanne Eze, M.Sc.; and Samuel O. Makanjuola, Ph.D. (Keywords: conjugacy classes, transformation semigroup, injective order-decreasing transformation semigroup).

http://www.akamaiuniversity.us/PJST14_1_182.pdf

Mathematical Analysis of the Control of Hepatitis B Virus in a Population with Vital Dynamics.

Sirajo Abdulrahman, M. Tech.; Niniuola Ifeoluwa Akinwande, Ph.D.; Omotayo Bamidele Awojoyobge, Ph.D.; and Usman Yusuf Abubakar, Ph.D. (Keywords: HBV, stability, effective basic reproduction number).

http://www.akamaiuniversity.us/PJST14_1_188.pdf

A Deterministic Compartmental Model of Tuberculosis Control Strategy Adopted by the National Tuberculosis and Leprosy Control Programme in Nigeria.

Abdullah Irdis Enagi, Ph.D. (Keywords: equilibrium state, disease free, stability and numerical simulations).

http://www.akamaiuniversity.us/PJST14_1_342.pdf

Lime Shaft Kilns: Modeling and Simulation. R.O. Olayiwola, Ph.D.; A.O. Adesanya, Ph.D.; A.M. Okedoye, Ph.D.; and A.O. Popoola, Ph.D. (Keywords: lime shaft kiln, lime production, calcination, preheat zone, burning zone, cooling zone).

http://www.akamaiuniversity.us/PJST14_1_206.pdf

Information Technology and Communications

A Software Radio Design Approach for Heterogeneous Wireless Access Protocol

Transceivers. Bushra Naeem, M.Sc.; Abel Nyamapfene, Ph.D.; U.A.K. Chude Okonkwo, Ph.D.; and Razali Ngah, Ph.D. (Keywords: software radio, multiband antenna, wideband antenna, WiFi, WiMAX, vertical handover, seamless vertical handover, heterogeneous wireless networks).

http://www.akamaiuniversity.us/PJST14_1_216.pdf

Management, Economics, and Education

The Analytical Hierarchy Process Concept for Maintenance Strategy Selection in

Manufacturing Industries. S.O. Odeyale, B.Sc.; O.J. Alamu, Ph.D.; and E.O. Odeyale, Ph.D. (Keywords: effective maintenance strategy, manufacturing, analytical hierarch process, AHP).

http://www.akamaiuniversity.us/PJST14_1_223.pdf

Three-Stage Process Cost Model of Total Quality Management Practice in a Decentralized Firm.

Aliyu A. Abdullahi, M.Eng. (Keywords: quality, TQM, firm, model, organization, decentralized, cost management, competitiveness).

http://www.akamaiuniversity.us/PJST14_1_234.pdf

Minimizing Incident Stoppages on Critical Equipment by Inspections and Planning.

'Damilare T. Onawoga, B.Sc. and Olasunkanmi O. Akinyemi, M.Sc. (Keywords: incident stoppages, critical equipment, inspections, planning).

http://www.akamaiuniversity.us/PJST14_1_240.pdf

Comparative Economic Analysis of Indigenous and Exotic Vegetables in Ibadan

Metropolis, Oyo State, Nigeria. A.F. Iyiade. (Keywords: indigenous, exotic, vegetable, produce, marketing, local markets, socio-economic, respondents).

http://www.akamaiuniversity.us/PJST14_1_246.pdf

Chemistry

Synthesis and Antitubercular Activities of Cu(II) Metal Complexes with some

Semicarbazide Derivatives. Johnson F. Adediji, Ph.D.; Matthew A. Adebayo, Ph.D.; Oluwatosin B. Afolayan, M.Sc.; Yetunde C. Oyeniran, B.Sc.; and Omokehinde F. Taiwo, M.Sc. (Keywords: semicarbazide derivatives, condensation, cyclisation, antimicrobial, Antitubercular, characterized).

http://www.akamaiuniversity.us/PJST14_1_251.pdf

Synthesis, In Vivo Evaluation of Antimalarial and Toxicological Screening of Mefloquine

Metal Complexes. J.F. Adediji, Ph.D.; S.A. Amolegbe, Ph.D.; S. Adewuyi, Ph.D.; C.A. Akinremi, Ph.D.; and Y.C. Oyeniran, B.Sc. (Keywords: semicarbazide derivatives, condensation, cyclisation, antimicrobial, Antitubercular, characterized).

http://www.akamaiuniversity.us/PJST14_1_259.pdf

Equilibrium Sorption of Cd(II), Pd(II) and Zn(II) from Solution onto Cassava (*Manihot esculenta*) Leaf: Kinetics, Isotherms, and Thermodynamics.

Adesola Babarinde, Ph.D.; J. Oyebamiji Babalola, Ph.D.; Joseph Ashidi, Ph.D.; John Adegoke, B.Sc.; Adebola Osundeko, B.Sc.; Yekinni Kolawole, B.Sc.; Olayemi Ogunkoya, B.Sc.; and Abioye Mustapha, B.Sc. (Keywords: cassava, Cd(II), Pb(II), Zn(II), isotherm, biosorption).

http://www.akamaiuniversity.us/PJST14_1_269.pdf

Kinetic and Thermodynamic Parameters for the Biosorption of Ni(II), Cr(III), and Co(II) from Solutions using Cocoa (*Theobroma cacao*) Leaf. Adesola Babarinde, Ph.D.; J. Oyebamiji Babalola, Ph.D.; Joseph Ashidi, Ph.D.; John Adegoke, B.Sc.; Adebola Osundeko, B.Sc.; Cyril D. Nworie, B.Sc.; Uzor B. Nwaeze, B.Sc.; and Michael S. Obadina, B.Sc. (Keywords: cocoa leaf, nickel, chromium, cobalt, biosorption).

http://www.akamaiuniversity.us/PJST14_1_283.pdf

Sensory Evaluation, Mineral, and Amino Acid Composition of “Ntubiri” and “Ntiti-Ikpa”, Traditional Foods of Ikwerre Ethnic Nationality in Nigeria. B.A. Amadi, Ph.D.; M.K.C. Duru, M.Sc.; A.A. Eze, M.Sc.; and C.T. Amadi, M.Sc. (In view). (Keywords: essential amino acids, traditional foods, Ntubiri, Ntiti-Ikpa, Ikwerre ethnic nationality).

http://www.akamaiuniversity.us/PJST14_1_295.pdf

Dealcoholization of Beer using Osmotic Membrane Distillation. Monica Ebere Ejikeme, M.Sc.; Prof. (Mrs.) P.K. Igboekwe; and Patrick C.N. Ejikeme, M.Sc. (Keywords: osmotic membrane distillation, hydrophobic membrane, beer, flux, alcohol content).

http://www.akamaiuniversity.us/PJST14_1_301.pdf

Statistical Design Analysis for Adsorption of Cu(II) and Pb (II) onto Kaolinitic Clay.

Sylvester Uwadiae, M.Eng.; Emmanuel Aluyor, Ph.D.; Charity Okieimen, Ph.D.; and Innocent Oboh, Ph.D. (Keywords: adsorption, statistical design of experiments, low-cost adsorbents, heavy metals, clay).

http://www.akamaiuniversity.us/PJST14_1_310.pdf

Life Sciences and Medicine

Acquired Haemophilia A: A Case Report. Dr. Mansoor Quli Khan, MBBS, MD (Hemat), Ph.D. (Hemat). (Keywords: acquired haemophilia, diagnosis, coagulation disorder, clotting factors).

http://www.akamaiuniversity.us/PJST14_1_318.pdf

Antibiotics Sensitivity and Resistance Patterns of Uropathogens to Quinolones in Patients with Urinary Tract Infections in a Nigerian Community. Felix Oluwasegun Alao, M.Sc. and Ezinne Anulika Chukwujiuke, B.Sc. (Keywords: urinary tract infections, UTI, urine, patients, isolates, sensitive, antibiotic resistant).

http://www.akamaiuniversity.us/PJST14_1_324.pdf

Prevalence of Diarrhoea Causing Microorganisms among Children that are Exclusively Breastfed and those on Weaning Foods. A.E. Egbotan, M.Sc.; O.A. Ojo, M.Sc.; and S.J. Jacob, M.Sc. (Keywords: breast-feeding, weaning, diarrhea, stool, infant health).

http://www.akamaiuniversity.us/PJST14_1_334.pdf

Blood Sugar and histological Changes Following Administration of Ethanolic Leaf Extract of *Cassia alata* on Streptozocin-Induced Diabetic Albino Rats. Chisom F. Eliakim-Ikechukwu, PhD.; Stephen O. Okori, B.Sc.; and Edem A. Asukwo, B.Sc. (Keywords: *Cassia alata*, diabetes mellitus, liver).

http://www.akamaiuniversity.us/PJST14_1_349.pdf

Moderation of Haematological Indices, Plasma Electrolytes and Markers of Hepato-Renal Function in Sub-Chronic Salt-Loaded Rats by an Aqueous Leaf Extract of *Tridax procumbens* Linn (Asteraceae). Jude Chigozie Ikewuchi and Catherine Chidinma Ikewuchi. (Keywords: haematological indices, hepatospecific markers, plasma chemistry, plasma electrolytes, *Tridax procumbens*).

http://www.akamaiuniversity.us/PJST14_1_362.pdf

Aqueous Extract of the Rhizomes of *Sansevieria Senegambia Baker (Agavaceae)* Moderated Plasma Biochemical and Haematological Indices in Salt-Loaded Rats. Jude C. Ikewuchi; Catherine C. Ikewuchi; Mercy O. Ifeanacho; Ngozi M. Igboh; Ifeoma I. Ijeh; and Emeke C. Enuneku. (Keywords: haematological indices, lipid profile, plasma electrolytes, salt-loading, *Sansevieria senegambia*).

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Biochemical Evaluation of Hot-Smoked African Catfish (*Clarias gariepinus*) Sampled from Sango and Ota Markets in Ogun State. John A. Daramola, Ph.D.; Christianah T. Kester, M.Sc.; and Olakunle O. Allo, B.Sc. (Keywords: hot-smoked, *Clarias gariepinus*, Sango and Ota markets, proximate composition, biochemical indexes, ambient storage conditions, food preservation).

http://www.akamaiuniversity.us/PJST14_1_380.pdf

Influence of Feed Quantity Offered on Linear Body Measurements, Nutrient Digestibility, and Back Fat Composition of Finishing Pigs. C.P. Njoku; A.B.J. Aina; O.M. Sogunle; O.O. Oduguwa; O.A. Adeyemi; and D.A. Ekunseitan. (Keywords: feed quantity, linear body measurements, back fat composition, pigs, animal feed, livestock).

http://www.akamaiuniversity.us/PJST14_1_387.pdf

Feed Utilization, Rumen Parameters, and Microbial Profile of Goats fed Different Tropical Browse Plants with *Pennisetum purpureum* as Basal Diet. O.A. Isah, Ph.D.; S.A. Oguntuyo, B.Agric.; R.O. Dawodu, B.Agric.; O.O. Diya, B.Agric.; M.O. Afolabi B.Agric.; and L.A. Omoniyi, M.Agric. (Keywords: West African Dwarf goats, browse plants, feed utilization, Rumen microbial profile).

http://www.akamaiuniversity.us/PJST14_1_397.pdf

Chemical Evaluation of Some Browse Plants Eaten by Local Breeds of Goats in Edo State, Nigeria. Olubukola, A. Isah, Ph.D.; L.E. Omorogiuwa, B.Agric.; and Sunday A. Okunade, B.Agric. (Keywords: browse plants, chemical composition. Leaves, soft twigs, bark, animal nutrition).
http://www.akamaiuniversity.us/PJST14_1_406.pdf

Assessment of Nutritive Value of some Indigenous Plants Consumed by Ruminants in the Humid and Sub-Humid Region of Nigeria using In Vitro Technique. L.A. Omoniyi, (Ph.D. in view); O.A. Isah, Ph.D.; O.O. Taiwo, B. Agric.; A.D. Afolabi, B.Agric.; and A.J. Fernandez, B.Agric. (Keywords: ruminants, browse plants, nutrient values).
http://www.akamaiuniversity.us/PJST14_1_413.pdf

Processing, Chemical, and Amino Acid Determination of Rumen Epithelial Scrappings as Potential Protein Feedstuff for Poultry. Philip C.N. Alikwe, Ph.D. (Keywords: nutrient composition, unconventional animal protein, livestock industry, animal feed).
http://www.akamaiuniversity.us/PJST14_1_422.pdf

Growth Response and Survival Rate of *Clarias gariepinus* Fingerlings Exposed to Varying Metal Concentrations. A.M. Hammed, Ph.D.; H.A. Fashina-Bombata, Ph.D.; and R.A. Olowu, Ph.D. (Keywords: metals, growth rate, survival, *C. gariepinus*, fingerlings).
http://www.akamaiuniversity.us/PJST14_1_430.pdf

Performance of ISIAMOD in Simulating Leaf Area Index, Biomass and Grain Yields of a Maize Crop under Deficit Irrigation. Henry E. Igbadun, Ph.D.; Henry F. Mahoo, Ph.D.; Andrew K.R. Tarimo, Ph.D.; and Baanda A. Salim, Ph.D. (Keywords: simulation model, irrigation scheduling, maize crop, leaf area index, deficit irrigation, ISIAMOD).
http://www.akamaiuniversity.us/PJST14_1_439.pdf

Growth and Yield Response of Selected Cowpea (*Vigna unguiculata* (L.) Walp) Varieties to Irrigation Interval and Sowing Date. J.O. Ichi, M.Sc.; H.E. Igbadun, Ph.D.; S. Miko, Ph.D.; and A.M. Samndi, Ph.D. (Keywords: cowpea, irrigation interval, planting date, growth character).
http://www.akamaiuniversity.us/PJST14_1_453.pdf

Geology and Earth Science

Resistivity Modeling of Confined Fractured Basement Column for Varying Thicknesses and Depth of Burial. Adebayo O. Ojo, M.Sc. and Martins O. Olorunfemi, Ph.D. (Keywords: resistivity modeling, confined fractured basement column, detectability).
http://www.akamaiuniversity.us/PJST14_1_464.pdf

Compressional and Shear-Wave Velocity Measurements in Unconsolidated Top-Soil in Eket, South-eastern Nigeria. U.E. Essien, M.Sc. and A.O. Akankpo, M.Sc. (Keywords: seismic refraction, compressional wave, shear wave, Vp/Vs ratio, top-soil).
http://www.akamaiuniversity.us/PJST14_1_476.pdf

Geophysical and Hydrogeochemical Investigation of Odolomi Dumpsite in Supare-Akoko, Southwestern Nigeria. C.C. Okpoli, M.Sc.; A. Cyril, B.Sc.; and O.J. Itiola, B.Sc. (Keywords: Supare-Akoko, hydrogeochemical, microbial, contamination, groundwater, potable).
http://www.akamaiuniversity.us/PJST14_1_492.pdf

Laboratory Modeling of Geoelectric Images of Foundation Piles for Depth Extent Determination. Alexander O. Popoola, M.Sc. and Martins O. Olorunfemi, Ph.D. (Keywords: geoelectric images, piles, depth extent).
http://www.akamaiuniversity.us/PJST14_1_505.pdf

Evaluation of Empirical and Nomograph Method of Predicting Erodibility Index for Selected Savannah Soils. A.I. Arab, M.Sc.; Prof. S.Z. Abubakar; and U.D. Idris, M.Sc. (Keywords: evaluation, erodibility, index, empirical, nomograph, Savannah, soil).
http://www.akamaiuniversity.us/PJST14_1_517.pdf

Geophysical Investigation for Groundwater in Borokiri and Eastern-Bye Pass Areas of Port Harcourt, Nigeria. H.O. Nwankwoala, M.Phil. and M.L. Omunguye, M.Phil. (Keywords: groundwater, vertical electrical sounding, VES, resistivity saline water intrusion, freshwater).
http://www.akamaiuniversity.us/PJST14_1_524.pdf

Evaluation of Groundwater Potential from Pumping Test Analysis and Vertical Electrical Sounding Results: Case Study of Okigwe District of Imo State Nigeria. Leonard I. Nwosu, M.Sc.; Anthony S. Ekine, Ph.D.; and Cyril N. Nwankwo, Ph.D. (Keywords: transmissivity, storativity, groundwater yield, specific capacity, VES).
http://www.akamaiuniversity.us/PJST14_1_536.pdf

The Use of Vertical Electrical Sounding (VES) for Groundwater Exploration around Nigerian College of Aviation Technology (NCAT), Zaria, Kaduna State, Nigeria. S.I. Fadele, M.Sc.; P.O. Sule, Ph.D.; and B.B.M. Dewu, Ph.D. (Keywords: vertical electrical sounding, VES, top soil, TP, weathered basement, WB, partly weathered basement, PWB, fresh basement, FB).
http://www.akamaiuniversity.us/PJST14_1_549.pdf

Stratigraphic Report of the Middle Benue Trough, Nigeria: Insights from Petrographic and Structural Evaluation of Abuni and Environs Part of Late Albian–Cenomanian Awe and Keana Formations. N.O. Patrick, M.Sc.; S.I. Fadele (Ph.D in view); and I. Adegoke (M.Sc. in view). (Keywords: Abuni, stratigraphy, petrography, Middle Benue Trough).
http://www.akamaiuniversity.us/PJST14_1_557.pdf

Reservoir Characterization of “Meri_T” Field (South Western, Niger Delta) from Well Log Petrophysical Analysis and Sequence Stratigraphy. Olushola Taiye Adeoye, M.Tech. and Merrious Oviri Ofomola, M.Tech. (Keywords: stratigraphy, shoreface, lowstand, shaliness, facies).
http://www.akamaiuniversity.us/PJST14_1_571.pdf

Study of Major Earthquakes (Magnitude ≥ 6 Richter Scale) with C_p Index During the Period 2001-2007. S.K. Midya, Ph.D. and P. Panda, M.Sc. (Keywords: Cp index, earthquakes).
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Environmental Science

Groundwater Quality Assessment around Municipal Solid Waste Dumpsite in Abeokuta, South-West Nigeria. Adedayo A. Badejo, Ph.D.; Adeyemi O. Taiwo, B.Sc.; Babatunde S. Bada, Ph.D.; and Adebola A. Adekunle Ph.D. (Keywords: dumpsite, hand-dug well, groundwater, leachate, physico-chemical).
http://www.akamaiuniversity.us/PJST14_1_593.pdf

Effects of Abattoir Effluent on Microbial Degradation of Diesel Oil in Tropical Agricultural Soil. Godfrey Umanu, M.Sc. and Rasheed Adeola Owoseni, B.Sc. (Keywords: soil contamination, residual diesel oil, hydrocarbon utilizers, biodegradation, aerobic bacteria and fungi).
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Engineering and Material Science

Influence of Processing Variables on the Mechanical Properties of Worked Al-Mn Alloy.

B.C. Chukwudi, Ph.D.; P.O. Ademusuru, M.Eng.; and O.N.K. Swift, M.Eng. (Keywords: processing variables, mechanical properties, as-cast, hot rolling, cold rolling).

http://www.akamaiuniversity.us/PJST13_2_5.pdf

Corrosion Resistance of Austenitic Stainless Steel in Cassava Fluid, Maize Pulp, and Seawater. O.R. Adetunji; P.O. Aiyedun; T.A. Arowolo; and O.J. Alamu. (Keywords: Austenitic stainless steel, corrosion resistance, cassava fluid, maize pulp, salinity).

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Corrosion Behavior of Aluminum Zinc Alloy Coated Steel in Cassava Juice, Maize Pulp, and Seawater Solution. O.R. Adetunji and P.O. Aiyedun. (Keywords: aluminum, Al, zinc, Zn, steel, coating, corrosion resistance, cassava fluid, maize pulp, salinity, media).

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Improving the Portability of Water: The Water Level Equilibrator Option. G.I. Uchegbulem; B.C. Chukwudi; I.A. Ezenugu; and M.O. Alor. (Keywords: WLE, portability, truth table, logic, pump, PCB).

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Preparation and Characterization of Ceramic Microfiltration Membrane for Water Treatment. F.T. Owoeye, B.Eng.; O.S. Olokode, Ph.D.; Prof. P.O. Aiyedun; H.O. Balogun,

B.Eng.; and B.U. Anyanwu, B.Eng. (Keywords: ceramic membrane, microfiltration, clay, kaolin, clay, ceramic firing).

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Computer Aided Design of Mechanical Clutch. A.P. Azodo, B.Eng.; S.B. Adejuyigbe, Ph.D.; M.A. Waheed, Ph.D.; and O.U. Dairo, Ph.D. (Keywords: clutch, computer aided design, CAD, conventional, mechanical, accuracy, develop).

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Characterization of Periwinkle Shell as Asbestos-Free Brake Pad Materials. S.Y. Aku; D.S. Yawas; P.B. Madakson; and S.G. Amaren. (Keywords: Periwinkle shell, density, wear, thermal values, hardness values, material engineering).

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Optical and Electrical Properties of Vacuum Thermally Deposited Aluminum Zinc Nano Thin Film. O.R. Adetunji and O.J. Alamu. (Keywords: aluminum, Al, Zinc, Zn, thin films, electrical, characteristics).

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Energy and Power

A Critical Review of *In-situ* Transesterification Process for Biodiesel Production. Olusegun D. Samuel, M.Eng. and Olawale U. Dairo, Ph.D. (Keywords: transesterification, *in-situ*, optimization, biodiesel).

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Comparative Study of Briquetting of Few Selected Agro-Residues Commonly Found in Nigeria. J.T. Oladeji, Ph.D. (Keywords: agro-residue, briquette, cassava peel, corncob, melon, shell).

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Application of Wind Power Generation in Grid Connected Power System. Kenneth E. Okedu, Ph.D. (Keywords: variable speed wind turbine, wind energy, hydrogen gas, onshore network, offshore network).

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Dynamic Response of a 2m Diameter Wind Turbine Rotor. Olusogo O. Odusote, M.Sc. (Keywords: wind, rotor, turbine, lift, drag, angle of attack, renewable energy).

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Physics

Effects of Some Thermophysical Properties on the Propagation of Forward and Opposed Smouldering Combustion. Rasaq Oyeyemi Olayiwola, Ph.D. (Keywords: smouldering, self-sustaining smouldering, energy sink, unburnt fuel, porous matrix, condensed-phase fuel).

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Laboratory Determination of the Thermal Conductivity of a Typical Nigerian Granite Rock. Vitalis C. Ozebo, Ph.D.; Olusogo Odusote, M.Sc.; and Olawunmi Sulaimon, B.Sc. (Keywords: processing variables, mechanical properties, as-cast, hot rolling, cold rolling).

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Variation of Total Column Ozone (TCO) during the time of Landfall of Tropical Cyclone in Extra-tropical Region. S.K. Midya, Ph.D.; T. Mukherjee, M.Sc. (in view); S.S. Dey, Ph.D.; and G.K. Das, M.Sc. (Keywords: tropical cyclone, extra-tropical, TCO, O₃).

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Inter-relation amongst the different Atmospheric Parameters to Estimate Summer Monsoon Rainfall over Gangetic, West Bengal: A Multiple Linear Regression Approach. S.K. Midya, Ph.D.; U. Saha, M.Sc.; D. Sarkar, M.Sc.; and P.K. Jana, Ph.D. (Keywords: monsoon, MLR, El Nino, pre-monsoon, TCO, rainfall).

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Global Warming: A Case Study of Southeast Nigeria. C.C. Edebeatu; T.C. Chineke; O.K. Nwafor; and U.K. Okoro. (Keywords: processing variables, mechanical properties, as-cast, hot rolling, cold rolling).

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Investigating the Relationship between some Thunderstorm Parameters and Ground Flash Density. J.O. Adepitinan, M.Sc. and F.O. Ogunsanwo. (Keywords: thunderstorm days, thunderstorm duration, ground flash density, lightning) .

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Mathematics and Statistics

Euler's Method for Solving Initial Value Problems in Ordinary Differential Equations. Sunday Fadugba, M.Sc.; Bosede Ogunrinde, Ph.D.; and Tayo Okunlola, M.Sc. (Keywords: differential equation, Euler's method, error, convergence, stability).

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Construction and Implementation of a 4-Step Implicit Collocation Method for Solution of First and Second Order ODEs. Y.A. Yahaya and Z.A. Adegbeye. (Keywords: collocation method, block method, continuous interpolant, first and second order ordinary differential equations, ODEs).

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Comparison of One-Stage, Two-Stage, and Three-Stage Estimators Using Finite Population. Lukman Abiodun Nafiu, Ph.D. (Keywords: sampling, cluster, one-stage, two-stage, three-stage, design, estimator, bias, standard error and variance).
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Information Technology and Communications

Electronic-Paper: The Electronic Display of the Future. V.V.N. Akwukwuma and F.O. Chete. (Keywords: e-paper, electronic displays).
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Analogue Maps' Relevance in GIS Development in Developing Countries: Case of Nigeria. Frederick Dada, Ph.D. (Keywords: geospatial data, GIS, geographic information systems, mapping).
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Service Network Bars Analysis in a Campus Environment. O. Shoewu and L.A. Akinyemi. (Keywords: GSM, network bars, signal strength, BSTs, operators)
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Citizens' Adoption of SMS Based E-Government Services in Lagos State, Nigeria. F.O. Chete; D. Oyemade; R. Abere; S.C. Chiemeke; and I. Ima-Omasogie. (Keywords: SMS, E-government, technology adoption, questionnaire, survey, services)
http://www.akamaiuniversity.us/PJST13_2_197.pdf

Website Credibility: Perceptions of Stakeholders. F.O. Chete and J.I. Mbegbu. (Keywords: misinformation, perceptions, credibility, deceptive practices, survey research)
http://www.akamaiuniversity.us/PJST13_2_208.pdf

Exploiting VoIP Telephony in IP-Pbx Solution. A.A.A. Ajasa and O. Shoewu. (Keywords: voice over internet protocol, telephony).
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Management, Economics, and Education

The Evolution of the Bio-Economy in Nigeria: A Review of Trends and Events. Chimdiya Julian Onyeka, M.Sc. (Keywords: bioeconomy, trade, developing world).
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Econometric Analysis of Some Economic Indicators Influencing Nigeria's Economy. Babalola B. Teniola, M.Sc. and A.O. Olubiyi, M.Sc. (Keywords: economy, GDP, gross domestic product, Nigeria, inflation, oil, regression)
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Chemistry

Kinetic Technique as an Analytical Tool in Determining Salicylic Acid in Commercial Aspirin Brands in Nigerian Market. G.A. Shallangwa, M.Sc.; A. Hamidu, B.Sc.; Y.A. Dallatu, M.Sc.; M. Haliru, M.Sc.; F.G. Okibe, M.Sc.; and N.C. Nwokem, M.Sc. (Keywords: aspirin, bromination, kinetic, titrimetric, laboratory).
http://www.akamaiuniversity.us/PJST13_2_238.pdf

The Growth and Characterization of CuS Nanomaterials by Successive Ionic Layer

Adsorption and Reaction (SILAR). A.A. Ibiyemi, M.Tech. (Keywords: thin films, CuS, deposition, optical and elecricaal properties, SILAR).

http://www.akamaiuniversity.us/PJST13_2_243.pdf

High Performance Liquid Chromatographic (HPLC) Method for Comparison of Levels of some Phthalate Esters in Children's Toys and Their Health Implications. G.O. Adewuyi, Ph.D. and R.A. Olowu, Ph.D. (Keywords: children's toys, plastic products, phthalate esters, soxhlet determination, HPLC, chromatography).

http://www.akamaiuniversity.us/PJST13_2_251.pdf

Biosorption of Ni(II), Cr(III), and Co(II) from Solutions using *Acalypha wilkesiana* Leaf: Equilibrium, Kinetics, and Thermodynamics. N.A. Adesola Babarinde, Ph.D.; J. Oyebamiji Babalola, Ph.D.; John Adegoke, HND; Adebola O. Osundeko, B.Sc.; Betty O. Orhewere, B.Sc.; Oluwatoyin E. Sanya, B.Sc.; and Christianah O. Olayinka, B.Sc. (Keywords: thermodynamics, kinetics, equilibrium, biosorption)

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Kinetic, Equilibrium and Thermodynamic Studies of the Biosorption of Ni(II), Cr(III), and Co(II) from Aqueous Solutions using Cocoyam (*Colocasia esculenta*) Leaf. Adesola Babarinde, Ph.D.; J. Oyebamiji Babalola, Ph.D.; John Adegoke, HND; Adebola O. Osundeko, B.Sc.; Taiwo J. Ibidapo, B.Sc.; Chidinma A. Nwabugwu, B.Sc.; and Oluyinka F. Ogundimu, B.Sc. (Keywords: biosorption, cocoyam, Ni(II), Cr(III), Co(II)).

http://www.akamaiuniversity.us/PJST13_2_272.pdf

Isotherm, Kinetic, and Thermodynamic Studies of Lead (II) Biosorption by *Streblus asper*.

Matthew A. Adebayo, Ph.D.; Adedoyin A. Adebayo, M.Sc.; Johnson F. Adediji, Ph.D.; and Oluwayemisi T. Adebayo, B.Sc. (Keywords: lead (II), Pb, biosorption, *Streblus asper*, sand paper tree, kinetics, isotherms, thermodynamic).

http://www.akamaiuniversity.us/PJST13_2_283.pdf

Metal-Bithiourea Complexes: Synthesis, Characterization, and Biological Studies.

J.F. Adediji, Ph.D.; J.A. Obaleyeye, Ph.D.; M.A. Adebayo, Ph.D.; and A. Lawal, Ph.D. (Keywords: metal-bithiourea, condensation, antimicrobial, toxicological, pharmacological).

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Antimalarial, Antimicrobial, and Acute Toxicity Activities of Mefloquine-Pyrimethamine Metal Complex. Johnson F. Adediji; Taiye T. Oye; Josephine A. Oboirien; Isaac O. Akano; and Funmilayo A. Alabi. (Keywords: antimalarial, characterization, acute toxicity, antimicrobial).

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Life Sciences and Medicine

An Aid to Optimize Drug Response - TDM. Prof. Dr. Vijay Gupta, Prof. Dr. Sanjoy Das, and Dr. Amandeep Singh. (Keywords: therapeutic index, drug analysis, drug toxicity).

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Improved Utilization of Laboratory Services. Vijay Gupta, Ph.D.; Sanjoy Das, M.D.; Amandeep Singh, M.D.; and Dr. Arvind Kumar, M.D. (Keywords: medical laboratory quality, laboratory medicine, analytical variables).

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Health Hazard of Traffic Noise: Perceptions of Dwellers on Tanke – University Road, Ilorin, Nigeria. Jacob O. Aweda, Ph.D, and Yinusa A. Jimoh, Ph.D. (Keywords: medical laboratory quality, laboratory medicine, analytical variables).

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Risks Associated with Low Level Radiofrequency Exposure at Close Proximities to Mobile Phone Base Stations. Bolaji O. Ayinmode, M.Sc. and Idowu P. Farai, Ph.D. (Keywords: radiofrequency, RF electromagnetic fields, power density, radiation exposure, health symptoms)
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Assessment of Camp Conditions and Medical Complaints by New Bakassi Resettlees Attending Approved Hospital in Cross River State, Nigeria. Emmanuel Chukwuneye Uttah, Ph.D.; Chinasa Uttah, M.Sc.; and Christiana Okonofua, M.Sc. (Keywords: resettlement, medical complaints, hospitals, fever, public health, population displacement, conflict, refugees, relocation).
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Asymptomatic Bacteriuria among Students of Bellstech, Ota, Nigeria. Felix Oluwasegun Alao, M.Sc. and Fayokemi Ayomide Akintunde, B.Sc. (Keywords: asymptomatic bacteriuria (ASB), urinary tract infections (UTIs), students, urinalysis, isolates, antibiotic sensitivity).
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Alteration of Blood Pressure Indices and Pulse Rates by an Aqueous Extract of the Leaves of *Chromolaena odorata* (L) King and Robinson (Asteraceae). Jude C. Ikewuchi; Catherine C. Ikewuchi; Emeke C. Enuneku; Stella A. Ihunwo; Osazee I. Osayande; Damiete B. Batubo; and Damiebi I.D. Manuel. (Keywords: blood pressure indices, carotenoids, *Chromolaena odorata*, flavonoids, hydroxycinnamic acids, phytosterols, pulse rates, salt-loading).
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Evaluation of the Nutritional Potential of *Sansevieria liberica* Gérôme and Labroy Leaf Meal using Wistar Albino Rats. Catherine Chidinma Ikewuchi and Jude Chigozie Ikewuchi. (Keywords: biological value, net protein utilization, performance characteristics, protein quality, *Sansevieria liberica*, true digestibility).
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Performance of Sesame (*Sesamum indicum* L) Varieties as Influenced by Nitrogen Fertilizer Level and Intra Row Spacing. U.A. Umar; M. Mahmud; I.U. Abubakar; B.A. Babaji; and U.D. Idris. (Keywords: Nitrogen level, intra row spacing).
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Fertilizer Use Efficiency of Maize Producers in Ogun State of Nigeria. Laudia Titilola Ogunniyi, Ph.D. (Keywords: maize, DEA, efficiency, agriculture).
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Statistical Investigation of the Effect of Soil Compost and Rock Phosphate on the Growth Characteristics of Oil Palm Tree Using Factorial Model. J.I. Mbegbu and F.O. Chete. (Keywords: factorial, experiment, model, soil compost, rock phosphate, growth, oil palm tree).
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Geology and Earth Science

Comparison of the Strength of Two Different Rock Samples. F.C. Ighrakpata, M.Sc.; O.C. Molua, Ph.D.; E.C. Igherighe, M.Sc.; and J.O. Idialu, M.Sc. (Keywords: metamorphic, igneous, rock, fracture, stress, marble, granite).
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Natural Radionuclides and Hazards of Sediment Samples Collected from Osun River in Southwestern Nigeria. O.A. Oyebajo; E.O. Joshua; and N.N. Jibiri. (Keywords: radioactivity, river sediments, hazard indices, gamma ray spectrometer).
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Sedimentological and Palynological Assessment of Bima Group, Bornu Basin, Northeastern Nigeria. A.O. Ola-Buraimo, Ph.D.(in view) and O.A. Oluwajana, M.Sc. (Keywords: lithofacies, fluviomarine, heterolith, formation, group).
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Assessment of Thermal Maturity of the Mesozoic Organic-Rich Rocks of Southern England. Waheed Gbenga Akande, M.Sc. (Keywords: mesozoic, thermal maturity, rock-eval pyrolysis, gas chromatography-mass spectrometry, biomarker).
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Lithofacies Association in the Bima Sandstone of the Upper Benue Trough, Nigeria. Saka Adelayo Opeloye, Ph.D. (Keywords: upper Benue Trough, aulacogen, Bima sandstone, alluvial deposits, lithofacies association, fluvitiles).
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X-Ray Fluorescence (XRF) Characterization of Orile-Oje Archaeological Site, Ogbomosho, Southwestern Nigeria, for Suspected Ancient Ore Smelting Sites. A.A. Eluyemi; M.O. Olorunfemi; and B.A. Ogunfolakan. (Keywords: XRF, archaeology, characterization, ancient ore smelting site, Orile-Oje, southwestern Nigeria)
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Erodibility of Soils of the South West Benue State, Nigeria. Martins Okey Isikwue, Ph.D.; Calistus Abutu, M.Eng.; and Sam Baba Onoja, Ph.D. (Keywords: erodibility factor, permeability, dispersion ratio, erosion ration, texture, infiltration).
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Geotechnical Properties of Natural Composite Rock in Ibadan, Nigeria. Niyi O. Adebisi, Ph.D. and Folake O. Akintayo, Ph.D. (Keywords: quartz-schist, construction materials, geotechnical properties, Ibadan).
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Estimation of Hydrogeological Parameters for Michael Okpara University of Agriculture, Umudike, Southeastern Nigeria. M.U. Igboekwe, Ph.D. and A.O. Akankpo, M.Sc. (Keywords: transmissivity, aquifer, Umudike, K_r, resistivity, vertical electrical sounding).
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Integration of Geophysical Techniques for Groundwater Potential Investigation in Katsina-Ala, Benue State, Nigeria. Pudentiana Okafor, M.Sc. and Luke Mamah, Ph.D. (Keywords: Very Low Frequency Electromagnetic (VLF-EM), electrical resistivity, groundwater potential, aquifer, Katsina-Ala, Benue State, Nigeria).
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Granite Exploration Study using 2D ERI in Malaipatti Hills, Thoothukudi, India. Antony Ravindran A. (Keywords: granite, apparent resistivity, 2D, electrical resistivity imaging, ERI, pseudosection, Thoothukudi).
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Subsurface Stratigraphic Mapping using the D.C. Electrical Resistivity around Shika, Kaduna State, Nigeria. S.I. Fadele, M.Sc.; P.O. Sule, Ph.D.; B.B.M. Dewu, Ph.D.; and N.O. Patrick, M.Sc. (Keywords: VES, top soil, weathered basement, partly weathered, fractured basement, fresh basement).
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Relevance of Geophysics in Foundation Evaluation in a Typical Basement Complex of North-Western Nigeria. G.O. Adukuwu, M.Sc. and S.I. Fadele, M.Sc. (Keywords: VES, top soil, weathered basement, partly weathered, fractured basement, fresh basement).
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Effects of Coconut Husk Ash on Stabilization of Poor Lateritic Soils. Johnson R. Oluremi, M.Sc.; Solomon I. Adedokun, M.Sc.; and Olukorede M. Osuolale, M.Sc. (Keywords: coconut husk ash; lateritic soil, soil graduation, Atterberg limit, compaction, California bearing ratio).

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The Use of Vertical Electrical Sounding (VES) in the Evaluation of Erosion in Abia State University, Uturu and Environs. M.U. Igboekwe, Ph.D.; A.B. Eke, Ph.D.; J.C. Adama, M.Eng.; and G. Ihekweaba, Ph.D. (Keywords: Ajali formation, VES, resistivity, Schlumberger, erosion)

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Utilizing Mud-logging as a Tool for Exploration: A Case Study, Kushi-20 Oil Well in Niger Delta Region, Nigeria. O.C. Molua, Ph.D.; J.C. Egbai, Ph.D.; F.O. Onwuka, Ph.D.; and J.U. Emagbetere, M.Sc. (Keywords: flame, shale, hydrocarbon, petroleum, exploration).

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Environmental Science

Assessment of Impact of Some Waste Dumpsites on the Groundwater Quality in Parts of Akure Metropolis, Southwestern Nigeria. Sunday Bayode, Ph.D.; Martins O. Olorunfemi, Ph.D., and John S. Ojo, Ph.D. (Keywords: physico-chemical analysis, dumpsites leachate, groundwater quality).

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Environmental Quality Assessment of Anthropogenically Impacted Estuary using Fish Genera Composition, Tissue Analysis, and Condition Factor. Chinasa Uttah, M.Sc.; Emmanuel Uttah, Ph.D.; and Isaac Ayanda, M.Sc. (Keywords: environment quality, tissue analysis, fish, genera composition, estuary, condition factor).

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Effect of Cassava Processing Mill Effluent on Physical and Chemical Properties of Soils in Abraka and Environs, Delta State, Nigeria. Stephen A. Osakwe, Ph.D. and Vincent O. Akpoveta, M.Sc. (Keywords: cassava mill effluent, heavy metals, physicochemical characteristics, soil pollution, Abraka).

http://www.akamaiuniversity.us/PJST13_2_544.pdf

Thermal Effect of Gas Flaring at Ebedei Area of Delta State, Nigeria. Ochuko Anomohanran, Ph.D. (Keywords: gas flaring, thermal distribution, temperature, crude oil).

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Engineering and Materials Science

The Development of Image-Conjugate Theory for the Stabilization of Unstable Linear Control Systems. Umana Thompson Itaketo, Ph.D. (Keywords: systems, poles, complex-plane, stability, image, conjugate).

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Comparative Analysis of Space Vector Pulse-Width Modulation and Third Harmonic Injected Modulation on Industrial Drives. C.O. Omeje, D.B. Nnadi, and C.I. Odeh. (Keywords: space vector modulation, third harmonic modulation, induction motor drive).

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Further Expositions on Semi-Solid Microstructure. Adeleke V. Adedayo and Abraham A. Adeleke. (Keywords: semi solid metallurgy, globule, microstructure, thixocasting).

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Analysis of Radial-Flow Impellers of Different Configurations. A.T. Oyelami, Ph.D.; S.B. Adejuyigbe, Ph.D.; M.A. Waheed, Ph.D.; A.K. Ogunkoya, M.Eng.; and D. Iliya, HND. (Keywords: radial-flow impeller, volute casing, suction eye, vane, anemometer).

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Effective Positioning of Solar Reflections in Solar Enhanced Waste Stabilization Ponds. J.T. Utsev and J.C. Agunwamba. (Key words: waste stabilization pong, effective positioning, efficiency, solar radiation, wastewater).

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Quenching Heat Treatment Effects on Steel Welds. A.V. Adedayo, M.Sc.; S.A. Ibitoye Ph.D.; and K.M. Oluwasegun, Ph.D. (Keywords: welding quenching, heat treatment, hardness, toughness, microstructure).

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Investigation of Cutting Temperatures Distribution in Machine Heat Treated Medium Carbon Steel on a Lathe. A.G.F. Alabi, Ph.D.; T.K. Ajiboye, Ph.D.; and H.D. Olusegun, Ph.D. (Key words: machining, cutting tool, heat treatment, as received, normalized, annealed, tempered, hardened, simulated, profile).

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The Influence of Annealing Temperatures on the Ductility and Toughness of Springs. O.R. Adetunji, M.Sc. and M.J. Alao, B.Engr. (Keywords: annealing, temperature, ductility, toughness, springs).

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Finite Elements Analysis of Weldments with H- and P-Elements of Differing Orders of Interpolating Polynomials. A.T. Oyelami, Ph.D.; A.K. Ogunkoya, M.Eng.; O.D. Ogundare, M.Eng.; and B.A. Olunlade, Ph.D. (Keywords: Pro-E Mechanica, COMSOL Multiphysics, FEA, h-elements, p-elements, convergence, von Mises stress, modeling and simulation).

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An Evaluation of Strength Characteristics of Osiele Clay. P.O. Ayedun, O.S. Olokode, S.O. Fakolujo, and B.U. Anyanwu. (Keywords: refractory, furnaces, lining, crucible, clay, bulk density, temperature).

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Studies on the Five (5) Selected Clays in Abeokuta, Nigeria. O.S. Fakolujo, O.S. Olokode, P.O. Aiyyedun, Y.T. Oyeleke, B.U. Anyanwu, and W.E. Lee. (Keywords: clays, kaolin, mineral, bulk density, porosity, shrinkage).

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Effects of Caustic Leaching Demineralization on the Crucible Swelling Properties of Lafia-Obi Coal, Nigeria. A.A. Adeleke, Ph.D.; S.A. Ibitoye, Ph.D.; and A.A. Afonja, Ph.D. (Key words: coal, high ash, demineralization, swelling, coke stability).

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An Evaluation of the Significance of some Laboratory Coking Tests in Predicting the Cokeability of Coals. A.A. Adeleke, Ph.D.; R.S. Makan, PGD; S. Remyshak, M.Sc.; and K.M. Oluwasegun, Ph.D. (Keywords: coal, swelling, fluidity, dilation).

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Comparative Analysis of Corrosion of Aluminum Plates in Different Concentrations of Lime Solution. F.T. Owoeye; O.S. Olokode; P.O. Aiyyedun; and B.U. Anyanwu. (Keywords: corrosion, weight loss, Al, lime water, aluminum, aluminium, Ca(OH)₂, hydrated lime).

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Development and Properties Test of Aluminum Grease for Low Velocity Applications. O.D. Samuel, M.Eng.; I.O. Isiaka, B.Eng.; and J.A. Omoleye, Ph.D. (Keywords: characterization, palm kernel oil, lubricating oil, solubility, saponification).

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Fabrication of Plastic Water Filter and Testing with Slow Sand Filtration Method. A.A. Adekunle, M.Sc. and S.B. Adejuyigbe, Ph.D. (Keywords: potable water, filter, fine sand, filtration).

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Surface Hardness Improvement of Mild Carbon Steels using Arecaceae Waste Flower Droppings. Paul A. Ihom, Ph.D.; Geoffrey B. Nyior, Ph.D.; and Mannaseh Ambayin, M.Eng. (Keywords: surface hardness, mild steel, improvement, arecaceae, waste, and flowers).

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Potentials of Ukwa Tree (*Sterculia setigera*) as a Source of Raw Material for Pulp and Paper Making. B.U. Anyanwu; O.S. Olokode; P.O. Aiyyedun; F.T. Owoeye; and Y.T. Oyeleke. (Keywords: Ukwa tree, pulp, paper making, handmade paper, fiber, ash).

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Energy and Power

Industrial Energy Management Opportunities in Nigeria: A Case Study of Energy Audit of VIK Industries Nigeria, Ltd. Nentawe Y. Goshwe, M.Eng. and Teryima D. Kureve, M.Eng. (Keywords: energy audit, efficiency, VIK industries)

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Parametric Study of Thermal Performance of Cylindrical Parabolic Trough Solar Collector in Ogbomoso Environs. Emmanuel O. Sangotayo, M.Tech.; Waheed M. Adekojo, Ph.D.; and Jelili O. Alamu, Ph.D. (Keywords: thermal performance, cylindrical parabolic solar collector).

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The Performance of Amorphous Silicon PV System under Harmattan Dust Conditions in a Tropical Area. Y.K. Sanusi. (Key words: photovoltaic, PV, dust, power, solar flux, clouds, renewable energy).

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Impact of Power Converter Size on Variable Speed Wind Turbine. Kenneth E. Okedu, Ph.D. (Keywords: variable speed wind turbine, wind energy, power converter, grid fault, reactive power).
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A Comparative Study of Effects of Some Processing Parameters on Densification Characteristics of Briquettes Produced from Two Species of Corncob. J.T. Oladeji, Ph.D. (Keywords: corncob, agro-residues, biomass fuel, briquettes, species, particle size, compaction pressure, percentage binder ratio).

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Physics

Application of Artificial Neural Network for Estimation of Annual Global Solar Radiation of Warri, Nigeria with Relative Humidity. G.F. Ibeh, G.A. Agbo1, and L.M. Ibeh. (Keywords: ANN, artificial neural network, relative humidity, error, global solar radiation).

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A Comparative Study of Integrated Water Vapor (IWV) and of Attenuation of 94 GHz Signal from Radiometer and Radiosonde Observations during Monsoon Period over Kolkata, India. H. Sarkar, Ph.D.; S.K. Midya, Ph.D.; and S. Goswami, M.Sc. (Keywords: wave propagation, radiometer, meteorological parameters, water vapor).
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Cathodoluminescence Spectrum of ZnS:Cu – Binder Layer. Olusogo O. Odusote, M.Sc. and Johnson A. Adepitinan, M.Sc. (Keywords: zinc sulphide, luminescence, binder layer, electrons, mini CRT).
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Optical Properties and Band Offsets of CuS/ZnS Supperlattice. A.O. Awodugba, Ph.D. and A.A. Ibiyemi, M.Tech. (Keywords: semiconductor superlattice, SLS, band offset SILAR, successive ionic layer adsorption and reaction, optical properties).
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The Influence of Annealing on Electrical and Optical Properties of ZnS Thin Film. A.A. Ibiyemi, M.Tech. and A.O. Awodugba, Ph.D. (Keywords: ZnS, thin film, annealing effect, optical and electrical properties, SILAR, successive ionic layer adsorption and reaction).
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Mathematics and Statistics

A New Numerical Integrator for the Solution of Initial Value Problems in Ordinary Differential Equations. J. Sunday and M.R. Odekunle. (Keywords: numerical integrator, interpolating function, nonlinear, initial value problem, approximations).
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An Algorithm for Optimal Control of Delay Differential Equations. Adeshina I. Adekunle, M.Tech. and Olusegun Olotu, Ph.D. (Keywords: algorithm, numerical solution, conjugate gradient method, penalty method, quadratic programming).

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Reformulation of Runge-Kutta Method into Linear Multistep Method for Error and Convergence Analysis. Y.A. Yahaya and Z.A. Adegbeye. (Keywords: Runge-Kutta method, RKM, linear multistep method, LMM, differential equation).

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Toward a Predator-Prey System of Holling Type. Bala Ma'aji Abdulhamid, Ph.D.; Prof. Maligie Surrah Sesay; Suleiman Onimisi Aliyu; and Habu Usman. (Keywords: linearized predator prey system, Holling Type, limit cycle, Jacobian matrix slopes, equilibrium).

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Information Technology and Communications

Issue of Complexity in Data Fusion Systems. S.A. Quadri, Ph.D. and Othman Sidek, Ph.D. (Keywords: data fusion, algorithms, complexity).

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A Novel Diagnostic Framework: The Application of Soft Computing Technology. X.Y. Djam and G.M. Wajiga. (Keywords: medical diagnosis, knowledge-base, tropical diseases, fuzzy decision tree, fuzzy cognitive maps, medical expert system).

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Skeletonizing a Handwritten Image Object. M. Nurussaman, Ph.D. (Key words: image thinning, skeleton, binary image).

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A Case Study on Ambiguity Detection Method Using Some Set of Grammars. Hari Mohan Pandey, M.Tech. (Keywords: ambiguity, context free grammars, degree of ambiguity, Chomsky normal form, horizontal ambiguity, vertical ambiguity).

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An Integrated Block-Oriented Simulation Model for Estimating Cell Loss Rate in ATM Networks. Joseph M. Mom, M.Eng, MIEEE and Cosmas I. Ani, Ph.D. (Keywords: asynchronous transfer mode, cell loss rate, buffer, bandwidth, MATLAB, Simulink).

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A Fingerprint Identification Algorithm for Integration into an Electronic Voting Machine using a Microcontroller. Jonathan A. Enokela, Ph.D. (Keywords: fingerprint identification, microcontroller, authentication, electronic voting).

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Development of Attendance Management System using Biometrics. O. Shoewu, Ph.D. and O.A. Idowu, B.Sc. (Keywords: fingerprints, attendance, enrollment, authentication, identification).

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Application of Data Flow Model to a Wireless Application Protocol for Institutional Information System. Dele W.S. Alausa, M.Sc., MNSE and O.M. Olaniyi, M.Sc., MSNE. (Keywords: institutional information systems, information dissemination, record keeping, wireless application protocol, WAP)

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Survivability Analysis for IntelliDrive-Enabled Aging Traffic Aid System. Victor Balogun, M.Sc. and Saad Alshomrani, M.Sc. (Keywords: aging, IntelliDrive, survivability, intelligent transportation systems, ITS, fault tolerance).

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Optimization of Network Performance in Wireless Communication Networks. James Agajo, M.Eng.; A.L. Theophilus, M.Eng.; V.E. Idigo, Ph.D., and Kenneth I. Apkado, Ph.D. (Keywords: wireless network, CDMA, TDMA, call drop, QoS, quality of service, channel capacity, optimization).

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Management and Education

Development of a Materials Requirements Planning (MRP) Software. V.O. Oladokun, Ph.D. and O.A. Olaitan, M.Sc. (Keywords: inventory, MRP, lot-sizing, software, planning).

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Computer Aided Plant Layout Development for an Aluminum Product Factory. T.S. Ogedengbe, M.Sc.; S.B. Adejuyigbe, Ph.D.; S.O. Ismaila, Ph.D.; B.A. Adewumi, Ph.D.; and D.M. Ali, M Sc. (Keywords: closeness relationship, plant layout, effectiveness value, relative cost)

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Problems and Solutions involved in Oil Processing from Kernel Seeds. O.D. Samuel, M.Eng. and A.G.F. Alabi, Ph.D. (Keywords: crushing mills, oil, maintenance, shell content).

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A Mixture Model and K-Means Cluster Approaches to Fish Production in Commercial Quantity in Nigeria. S.S. Abdulkadir, Ph.D. (Keywords: mixture model, K-mean, cluster, components).

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Influence of Vision and Mission Statement on Organizational Effectiveness: An Appraisal of a Private Sector Experience in Nigeria. Sotunde Olalekan Anthony. (Keywords: PPMC, Pearson Product Moment Correlation, management decisions, organizational management).

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Threats to E-Government Implementation in the Civil Service: Nigeria as a Case Study. N.A. Azeez; A.P. Abidoye; A.O. Adesina; K.K. Agbele; I.M. Venter; and A.S. Oyewole. (Keywords: civil service, threats, Nigeria, E-government, implementation).

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Harnessing the Power of Emotional Intelligence, Scientific Literacy, and Problem-Solving Skills for Successful Living. R.A. Olatoye, Ph.D. and A.A. Aderogba, Ph.D. (Keywords: emotional intelligence, scientific literacy, problem solving skills, Bar-On model, successful living).

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The Impact of Education on the Use of ICT by Small and Medium Scale Entrepreneurs in Zaria and Kaduna. U.I. Egwuonwu. (Keywords: information communication technology use, ICT, Zaria, Kaduna, Nigeria, education, technology).

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Chemistry and Biochemistry

Mn(II), Ni(II), and Cu(II) Complexes of Artmisinin Derivatives: Synthesis, Characterization and Antimicrobial Activities. Saliu A. Amolegbe, Ph.D.; Sheriff Adewuyi, Ph.D.; Caroline A. Akinremi, Ph.D.; Amudat Lawal, Ph.D.; Prof. Joshua A. Obaleyeye; and Adijat O. Atayese, M.Sc. (Keywords: transition metal complex, artesunate, antimicrobial activities).

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Kinetic, Equilibrium, and Thermodynamic Studies of the Biosorption of Cd(II), Pb(II), and Zn(II) from Aqueous Solutions using Coconut (*Cocos nucifera*) Leaf. N.A. Adesola Babarinde; Jonathan O. Babalola; John Adegoke; Esther O. George; Henrietta O. Okeke; and Ayoola T. Obagemi. (Keywords: biosorption, coconut, *Cocos nucifera*, cadmium, lead, zinc).

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Surfactant Enhanced Soil Washing Technique and its Kinetics on the Remediation of Crude Oil Contaminated Soil. Vincent O. Akpoveta, M.Sc.; Steven Osakwe, Ph.D.; Felix Egharevba, Ph.D.; Weltime O. Medjor, M.Sc.; Imohimi O. Asia, Ph.D.; and Osaro K. Ize-Iyamu, Ph.D. (Keywords: sodium dodecyl sulphate, SDS, surfactant, optimization study, degradation isotherm, kinetics, total petroleum hydrocarbon).

http://www.akamaiuniversity.us/PJST13_1_443.pdf

Effect of Silane Coupling Agent on the Tensile Properties of Rice Husk Flour (RHF) Polyester Composite. P.E. Imoisili; B.A. Olunlade1; and W.B. Tomori. (Keywords: polyester composites, silane, rice husk flour, RHF).

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Effect of Concentration of Coconut Shell Ash on the Tensile Properties of Epoxy Composites. P.E. Imoisili; C.M. Ibegbulam; and T.I. Adejugbe. (Keywords: coconut shell ash, CSA, epoxy composite, reinforcing filler, tensile properties).

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Life Sciences and Medicine

Studies on the Micromeritic Properties of Ibuprofen Microcapsules. I.O. Adeleke, M.Sc.; I.S. Okafor, Ph.D.; and G. Alebiwu, Ph.D. (Keywords: Grewia, gelatin, acacia, complex coacervation, microcapsules, micromeritic).

http://www.akamaiuniversity.us/PJST13_1_469.pdf

Studies on Pseudoephedrine Hydrochloride as a Sympathomimetic Alternative to Phenylpropanolamine in Decongestant Formulations. J.N. Idih, M.Sc.; I.O. Adeleke, M.Sc.; and C.I. Igwilo, Ph.D. (Keywords: phenylpropanolamine, PPA, pseudoephedrine hydrochloride, active ingredient, tablets, assay/physical tests, pharmacology, activity).

http://www.akamaiuniversity.us/PJST13_1_473.pdf

Assessment of Radiological Parameters and Patient Dose Audit using Semi-Empirical Model. C.J. Olowookere; R.I. Obed; I.A. Babalola; L. Bamidele; B. Onabiyi; S.A. Ajumobi1; O.J. Iyiade; and E.O. Ajetumobi. (Keywords: radiological parameter, dose audit, energy imparted, entrance skin exposure).

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A Preliminary Radiation Dose Audit in some Nigerian Hospitals: Need for Determination of National Diagnostic Reference Levels (NDRLs). C.J. Olowookere; I.A. Babalola; N.N. Jibiri; R.I. Obed; L. Bamidele; and E.O. Ajetumobi. (Keywords: reference levels, X-rays, dose optimization, entrance surface dose).

http://www.akamaiuniversity.us/PJST13_1_487.pdf

Bio-Psychology and Gene Expression: A Literature Review. Marjorie E. Robinson, M.S., LMHC. (Keywords: genetics, genotype, phenotype, DNA, mRNA, gene expression, proteins,

replication, transcription, receptors, protein synthesis, mRNA, binding, brain plasticity, neurogenesis, novelty, bio-psychology).

http://www.akamaiuniversity.us/PJST13_1_496.pdf

Effect of Various Additives on Proximate Composition and Acceptability of *Kilishi* made from Semitendinosus Muscle of White Fulani Cattle. O.A. Isah, Ph.D. and A.O. Okubanjo, Ph.D. (Keywords: *Kilishi*, spice mixture, chemical composition, acceptability, meat science, nutrition, health, meat processing).

http://www.akamaiuniversity.us/PJST13_1_506.pdf

Hepatoprotective Effect of an Aqueous Extract of the Leaves of *Sansevieria liberica* Gerome and Labroy Against Carbon Tetrachloride Induced Liver Injury in Wistar Rats.

Catherine Chidinma Ikewuchi. (Keywords: *Sansevieria liberica* Baker; carbon tetrachloride; histopathology; hepatospecific markers; plasma total bilirubin).

http://www.akamaiuniversity.us/PJST13_1_512.pdf

An Aqueous Extract of the Leaves of *Tridax procumbens* Linn (Asteraceae) Protected Against Carbon Tetrachloride Induced Liver Injury in Wistar Rats. Jude Chigozie Ikewuchi. (Keywords: Apigenin, flavonoids, hepatospecific markers, histopathology, quercetin, *Tridax procumbens* Linn).

http://www.akamaiuniversity.us/PJST13_1_519.pdf

Estimation of Crop Water Use of Rain-Fed Maize and Groundnut Using Mini-Lysimeters.

Henry E. Igbadun, Ph.D. (Keywords: mini-lysimeter, crop water use, reference evaporation, maize, groundnut).

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Geology and Earth Science

The Effect of a Dipping Layer on the Stack Attenuation of Seismic Reflected Signals.

Edward O. Osagie, Ph.D. (Keywords: seismic reflection, common depth point, CDP, dipping layer, straight stacks, amplitude response).

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WINGEOTECH_FAD Software for Estimating Cone Tip Resistance from Formation Resistivity in Sedimentary and Basement Terrains of Nigeria. Oluwaseun I. Fadugba and Martins O. Olorunfemi. (Keywords: formation resistivity, cone tip resistance, WINGEOTECH_FAD software).

http://www.akamaiuniversity.us/PJST13_1_544.pdf

Integrating Airborne Magnetic and Landsat Data for Geologic Interpretation over part of the Benin Basin, Nigeria. A.I. Opara, Ph.D.; A.C. Ekwe, Ph.D.; C.N. Okereke, M.Sc.; I.A. Oha, M.Sc.; and O.P. Nosiri, M.Sc. (Keywords: structural trends, tectonic, lineaments, aeromagnetic, Landsat, Benin Basin, Nigeria).

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Assessment of Subgrade Soils of parts of the Lower Benue Trough using California Bearing Ratio (CBR). N.E. Ekeocha and E.G. Akpokodje. (Keywords: road failure, construction, stabilization, California Bearing Ration, CBR, soil classification, optimum moisture content, OMC).

http://www.akamaiuniversity.us/PJST13_1_572.pdf

Application of Geophysical Imaging in Investigation of Structural Failure of Buildings: Case Study of Three Building Sites in Zaria Area, Northwestern Nigeria. G.N. Egwuonwu, Ph.D. (Keywords: structural cracks, settlement, failures, seismic refraction, electrical resistivity, tomography).

http://www.akamaiuniversity.us/PJST13_1_580.pdf

Geophysical Sounding for the Determination of Aquifer Hydraulic Characteristics from Dar-Zurrock Parameters: Case Study of Ngor Okpala, Imo River Basin, Southeastern Nigeria. A.I. Opara, Ph.D.; N.N. Onu, Ph.D.; and D.U. Okereafor, M.Sc.Tech. (Keywords: Hydrogeophysical, hydraulic parameters, Aquifer, hydraulic conductivity, transmissivity, Nigeria).
http://www.akamaiuniversity.us/PJST13_1_590.pdf

Time-Lapsed Geophysical Investigation of the Mokuro Earth Dam Embankment, Southwestern Nigeria, for Anomalous Seepages. Akinola B. Eluwole, M.Sc. and Martins O. Olorunfemi, Ph.D. (Keywords: Mokuro Earth Dam Embankment, anomalous seepages, rehabilitation, geophysical investigations).
http://www.akamaiuniversity.us/PJST13_1_604.pdf

Integrated Geophysical Investigation of Orile-Oje Archaeological Site, Ogbomosho, Southwest Nigeria. A.A. Eluyemi, M.Sc.; M.O. Olorunfemi, Ph.D.; and A. Ogunfolakan, M.A., M.Phil. (Keywords: geophysical investigation, archaeological site investigation, Orile-Oje, southwest Nigeria, cultural resources).
http://www.akamaiuniversity.us/PJST13_1_615.pdf

Assessment of Cassava Wastewater on the Geotechnical Properties of Lateritic Soil. Johnson R. Oluremi, M.Sc.; Solomon I. Adedokun, M.Sc.; Rebecca A. Olaoye, M.Sc.; and Solomon O. Ajamu, M.Eng. (Keywords: cassava wastewater, contamination, lateritic soil, soil gradation, Atterberg limit, compaction and California Bearing Ratio).
http://www.akamaiuniversity.us/PJST13_1_631.pdf

Geochemical Assessment of a Proposed Landfill in Ibadan, Southwestern Nigeria. Ibrahim A. Oyediran, Ph.D. and Gabriel O. Adeyemi, Ph.D. (Keywords: geochemical, groundwater, waste disposal).
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Miospores (Spores and Pollens) and Lithofacies of Maastrichtian Sediments of the Benin Flank, South Western Anambra Basin, Nigeria. Omabehere I. Ejeh, M.Sc. (Keywords: pollens, spores, Lithofacies, Orhua, Maastrichtian, Anambra basin).
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Characterization of Ubo Limestone for Direct Burnt Lime Production. S.A. Ryemshak, M.Sc.; A.A. Adeleke, Ph.D.; and S. Salami, Ph.D. (Keywords: limestone, characterization, lime, oxides, slag, alkali).
http://www.akamaiuniversity.us/PJST13_1_661.pdf

Environmental Science and Ecology

Water Quality Characteristics of Nkisi River in Onitsha, Anambra State. N.V. Okolo, M.Sc.; P.A.C. Okoye, Ph.D.; and G.N. Egwuonwu, Ph.D. (Keywords: pollution, chemical elements, hydro-geo-pollution).
http://www.akamaiuniversity.us/PJST13_1_669.pdf

Hydrochemical Analysis of Surface and Ground Waters of Emu-Kingdom in Ndokwa Land Area of Delta State, Nigeria. Julius Otutu Oseji, Ph.D. (Keywords: groundwater, surface water, water quality, potable, aquifer, Ebendo, Obodoeti, Obigo, Lyasele, Etevie, Ikosa quarters, Emuno).
http://www.akamaiuniversity.us/PJST13_1_673.pdf

Sharp Depletion of Absolute Humidity associated with Squall over Kolkata (22°34'N, 88°26'E): A Possible Method of Forecasting Squall. U. Saha, M.Sc.; S.K. Midya, Ph.D.; H. Sarkar, Ph.D.; and G.K. Das, M.Sc. (Keywords: absolute humidity, squall, thunderstorm, pre-monsoon, forecast).

http://www.akamaiuniversity.us/PJST13_1_683.pdf

Seasonal variation of Daily Total Column Ozone (TCO) and its Formation and Depletion Role on Surface Temperature and Average Rainfall over Dibrugarh, India (27°28'N, 94°54'E). S.K. Midya, Ph.D.; S. Goswami, M.Sc.; and H. Sarkar, Ph.D. (Keywords: TCO, O₃, depletion and formation).

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Integrated Geoelectric and Hydrochemical Investigation for Environmental Impact Assessment of the Area around some Ancient Dumpsites in Akure Metropolis, Southwestern Nigeria. Sunday Bayode, Ph.D.; Martins O. Olorunfemi, Ph.D.; and John S. Ojo, Ph.D. (Keywords: geophysical, hydrogeological, hydrochemical, dumpsites, groundwater pollution).

http://www.akamaiuniversity.us/PJST13_1_700.pdf

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Engineering

A Generalized Approach to the Study of Voltage Inverters with Resonating Target Loads.

Marcel U. Agu, Ph.D. MNSE, MIEEE; Charles I. Odeh, Ph.D.; and Damian B.N. Nnadi, M.Eng.
(Keywords: inverter, quality factor, resonant frequency)

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Vector Control of a Cost Effective FSTP Inverter Fed Synchronous Reluctance Motor Drive Based on Recurrent Neural Network. Kalyan Kumar Halder, Md. Jahedul Islam, Md. Abdur Rafiq, and B.C. Ghosh. (Keywords: Four switch three phase inverter, flux estimation, recurrent neural network, sensorless control, and synchronous reluctance motor).
http://www.akamaiuniversity.us/PJST12_2_20.pdf

Simulation of Existing Current Density Model for N-Type Gallium Nitride Schottky Diode at Low Bias. O.J. Iyiade, M.Tech.; M.O. Alade, Ph.D.; and O. Olabisi, M.Tech. (Keywords: band gap, current density, current-temperature stability, n-GaN, Schottky diode).
http://www.akamaiuniversity.us/PJST12_2_27.pdf

Evaluations of Inhibitive Property of *Chromolaena odorata* Extract on Aluminum in 1M HCl and 0.5M NaOH Environment. C.M. Ibegbulam, B.Eng.; C.N. Anyakwo, Ph.D.; O.K. Ukoba, M.Eng. (in view); R.I. Ekwujuru, B.Eng.; E. Ekos, B.Eng.; and C.S. Nwaosu, B.Eng. (Keyword: aluminum, *Chromolaena odorata*, hydrochloric acid, HCl, sodium hydroxide, NaOH, corrosion, inhibition). http://www.akamaiuniversity.us/PJST12_2_31.pdf

A Model to Predict the Inhibitive Property of PKO on Crude Oil Pipeline. O.K. Ukoba, B.Eng.; U.S. Anamu, B.Eng.; O. Ogundare, M.Eng.; M.C. Ibegbulam, B.Eng.; and O.A. Akintunlaji, M.Eng. (Keywords: inhibitor, palm kernel oil, PKO, crude oil, corrosion, model, pipeline). http://www.akamaiuniversity.us/PJST12_2_39.pdf

Effect of Palm Oil as Corrosion Inhibitor on Ductile Iron and Mild Steel. A.A. Daniyan, B.Sc.; O. Ogundare, M.Sc.; B.E. AttahDaniel, M.Sc.; and B. Babatope, Ph.D. (Keywords: corrosion inhibitor, ductile iron, mild steel, sodium hydroxide, NaOH, simulated seawater).
http://www.akamaiuniversity.us/PJST12_2_45.pdf

Evaluation of Plant and Machineries: Case Study of PZ Nigeria. T.J. Erinle; O.K. Ukoba; and O.M. Adesusi. (Keywords: evaluation, industrial plant, machinery, Nigeria, performance).
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Yield Characteristics of Hybrid Clay Bricks from Interlocking Machine. Oladayo Azeez, B.Sc.; Olasupo Ogundare, M.Sc.; Taiwo Elizabeth Oshodin, M.Eng.; Olayode A. Olasupo, M.Eng.; and Bankole Adeoye Olunlade M.Eng. (Keywords: hybrid bricks, yield characteristics, clay, cement, interlocking machine).
http://www.akamaiuniversity.us/PJST12_2_63.pdf

Development of Metallographic Specimen Polishing Machine. T.J. Erinle; O.O. Awopetu; and O.K. Ukoba. (Keywords: polishing machine, metallographic, grinding, manufacture, local components).
http://www.akamaiuniversity.us/PJST12_2_69.pdf

Development of a Constant - Stress Creep Testing Equipment. A.K. Ogunkoya, M.Eng.; O.K. Ukoba, B.Eng.; O.A. Oyegunwa, B.Eng.; A.S. Idowu, M.Eng.; and B. Babatope, Ph.D. (Keywords: development, constant stress creep, testing equipment, materials testing, laboratory, cost).
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Influence of Compaction Delay on CBR and UCS of Cement Stabilized Lateritic Soil. A.A. Bello, Ph.D. (Keywords: compaction delays, cement, regression analysis, California bearing ratio, unconfined compressive strength, compactive efforts).
http://www.akamaiuniversity.us/PJST12_2_87.pdf

Effects of Water-Cement Ratios on the Compressive Strength and Workability of Concrete and Lateritic Concrete Mixes. Omotola Alawode, P.G.Dip. and O.I. Idowu, M.Sc. (Keywords: water-cement ration, lateritic concrete mixes, compressive strengths, workability).
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A Study of Thermal Conductivity of Corn Cob Ash Blended Cement Mortar. A.A. Raheem, Ph.D. and Prof. D.A. Adesanya. (Keywords: corn cob ash, CCA, blended cement, thermal conductivity, pozzolanic properties).
http://www.akamaiuniversity.us/PJST12_2_106.pdf

Eco-Friendly (Watermelon Peels) Alternatives to Wood-based Particleboard Composites. U.D. Idirs, M.Sc.; V.S. Aigbodion, Ph.D.; R.M. Gadzama, M.Sc.; and J. Abdullahi, M.Sc. (Keywords: board composites, watermelon, particles, recycled low-density polyethylene, mechanical and physical properties).
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Design and Fabrication of an Improved Cassava Grater. O.R. Adetunji, M.Sc. and A.H. Quadri, B.Sc. (Keywords: design fabrication, home-scale, improved, cassava, grater).
http://www.akamaiuniversity.us/PJST12_2_120.pdf

Development of Submersible Fish Housing Operating with Submarine Principle. O.K. Ukoba, B.Eng.; J.A. Olowonubi, B.Eng.; and S.A. Fatokunbo, B.Eng. (Keywords: submarine, fish housing design, Clarias, fish farming).
http://www.akamaiuniversity.us/PJST12_2_130.pdf

Energy and Power

Design and Simulation of a 120V Electrical Inverter. D.A. Shalangwa, M.Eng. and L. Suleiman, B.Sc. (Keywords: efficiency, electrical conversion, alternating current, direct current, electricity). http://www.akamaiuniversity.us/PJST12_2_143.pdf

Urban Residential Energy Demand Modeling in Developing Countries: A Nigerian Case Study. Oluremi Kayode, M.Sc. and Able Nyampafene, Ph.D. (Keywords: energy demand, developing countries, econometric modeling, system dynamics, Nigeria).
http://www.akamaiuniversity.us/PJST12_2_152.pdf

Estimation of Wind Energy Potential in Southwestern Nigeria. Y.K. Sanusi and S.G. Abisoye. (Keywords: wind energy resource, energy development, Weibull distribution, capacity factor).
http://www.akamaiuniversity.us/PJST12_2_160.pdf

Wind Turbine Driven by Permanent Magnet Synchronous Generator. Kenneth E. Okedu, Ph.D. (Keywords: PMSG, wind energy, wind turbine, hydrogen gas, electrolyzer, battery).
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Effects of Ambient Temperature on the Performance of a Photovoltaic Solar System in a Tropical Area. Y.K. Sanusi; G.R. Fajinmi; and E.B. Babatunde. (Keywords: photovoltaic, performance, temperature, modules, power, solar cells).
http://www.akamaiuniversity.us/PJST12_2_176.pdf

Domestic Natural Gas Pricing: Issues and Policy Options for Nigeria. Olusegun A. Omisakin, M.Sc.; Oluwatosin Adeniyi, Ph.D.; and Adeolu J. Alawode, M.Sc. (Keywords: natural gas pricing, gas pricing regime, natural gas market, domestic gas deregulation).

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Physics

The Effect of Solar Radiation on the Signal Strength of Some Radio Stations in Nigeria. A. Yusuf, M.Sc. (Keywords: signal strength, voltage, solar activity, frequency modulation stations, FM). http://www.akamaiuniversity.us/PJST12_2_191.pdf

Rain Attenuation Studies in the Microwave Band over a Southern Latitude. P.K. Karmakar, Ph.D.; M. Maiti, M.Tech.; K. Bhattacharyya, M.Sc.; C.F. Angelis, Ph.D.; and L.A.T. Machado, Ph.D. (Keywords: radiometer, rain attenuation, rain height, water vapor, microwave propagation). http://www.akamaiuniversity.us/PJST12_2_196.pdf

Solar Microwave Radio Bursts in Relation to SXR Bursts. H. Sarkar, Ph.D.; T.K Das, Ph.D.; and S.K. Midya, Ph.D. (Keywords: solar radio emissions, soft x-ray, SXR, asymmetry). http://www.akamaiuniversity.us/PJST12_2_206.pdf

Investigation of Annealing Effect of Electrical and Optical Properties of ZnS-CuS Thin Films Prepared by SILAR Technique. A.O. Awodugba, Ph.D. and A.A. Ibiyemi, M.Tech. (Keywords: SILAR deposition, CuS, ZnS, electrical and optical properties, thin films). http://www.akamaiuniversity.us/PJST12_2_217.pdf

Mathematics and Statistics

On the Convergence, Consistence, and Stability of a New One-Step Method Based on the Combination of Two Interpolating Functions. E.A. Ibijola; O.O. Bamisile; and J. Sunday. (Keywords: convergence, consistency, stability, initial value problems). http://www.akamaiuniversity.us/PJST12_2_224.pdf

Effects of Soret, Dufour, Chemical Reaction, Thermal Radiation and Volumetric Heat Generation/Absorption on Mixed Convection Stagnation Point Flow on an Isothermal Vertical Plate in Porous Media. P.O. Olanrewaju, Ph.D. and J.A. Gbadeyan, Ph.D. (Keywords: Soret number, Dufour number, chemical reaction, thermal radiation, volumetric rate of heat generation/absorption, stagnation point flow, heat and mass transfer). http://www.akamaiuniversity.us/PJST12_2_234.pdf

Information Technology and Communications

A Modified Logic Circuit of BCD Adder to Overcome the “Carry” Problems. Umana Thompson Itaketo, Ph.D. (Keywords: binary, coded, decimal, BCD, digits, full adder, parallel, adding, carry, machine). http://www.akamaiuniversity.us/PJST12_2_246.pdf

An Algorithm for the Conduct of Multiple Simultaneous Multi-Party Elections Using a Microcontroller. Jonathan A. Enokela, Ph.D. and Charles C. Osuagwu, Ph.D. (Keywords: algorithm, microcontroller, elections, electronic voting). http://www.akamaiuniversity.us/PJST12_2_253.pdf

Management and Education

Market Access Policy Interventions for Enhancing ECOWAS-EU Agri-Trade Relations.

Gbadebo Olusegun Odularu, Ph.D. (Keywords: Economic Community of West African States, ECOWAS, European Union, EU, Economic Partnership Agreement, EPA, agricultural trade, market access, commodities).

http://www.akamaiuniversity.us/PJST12_2_260.pdf

Application of Geographical Information System (GIS) Technology to Tourism

Management in Ile-Ife, Osun State, Nigeria. J.T. Fadahunsi, M.Sc. (Keywords: tourism, management, database, Geographic Information System, prospective visitors).

http://www.akamaiuniversity.us/PJST12_2_274.pdf

Knowledge, Attitude, and Perception (KAP) of Construction Participants towards Resource Waste in the Construction Industry. Julius Ayodeji Fapohunda, Ph.D. and Prof. Paul Stephenson. (Keywords: building production, construction resources, motivation lean

construction, optimal resource utilization).

http://www.akamaiuniversity.us/PJST12_2_284.pdf

Information Availability and Accessibility to SMEs in Zaria and Kaduna Metropolises,

Nigeria. U.I. Egwuonwu, MLS; Z. Mohammed, Ph.D.; and K.A. Momoh, Ph.D. (Keywords: small and medium enterprise, information availability, entrepreneurs, information centers).

http://www.akamaiuniversity.us/PJST12_2_300.pdf

Effect of Co-operative and Individualized Teaching Methods on Senior Secondary School Students' Achievement in Organic Chemistry. R.A. Olatoye, Ph.D.; A.A. Aderogba, Ph.D.; and

E.M. Aanu, M.Ed. (Keywords: cooperative teaching method, individualized teaching method, organic chemistry instruction, hydrocarbon, self-concept, gender).

http://www.akamaiuniversity.us/PJST12_2_310.pdf

A Comparative Assessment of Performance of University Matriculation Examination and Pre-Degree Science Students in Selected Basic Engineering Courses at Ladoke Akintola University of Technology, Ogbomoso. J.T. Oladeji, Ph.D. and E.O. Sangotayo, M.Sc.

(Keywords: University Matriculation Examination, UME, pre-degree science program, students, performance). http://www.akamaiuniversity.us/PJST12_2_320.pdf

Chemistry and Biochemistry

A Comparative Study of Kinetics and Mechanism of Oxidation of Maltose and Lactose by Copper (II) Ion and Hexacyanoferrate (III) Ion in Alkaline Solution. Samuel Olalekan

Olusanya, M.Sc. and Ezekiel Oluyemi Odebunmi. (Keywords: kinetics, oxidation of sugars, mechanism, rate equation, activation energy, thermodynamics).

http://www.akamaiuniversity.us/PJST12_2_328.pdf

On the Physical and Optical Characteristics of CdS Thin Films Deposited by the Chemical Bath Deposition Technique. A.O. Awodugba, Ph.D. and O. Adedokun, M.Sc. (Keywords: CBD,

thin film, adsorption coefficient, CdS, cadmium sulfide, optical properties, energy band gap).

http://www.akamaiuniversity.us/PJST12_2_334.pdf

Solid State and Optical Properties of Chemical Bath Deposited Copper Nickel Sulphide (CuNiS) Thin Films. I.E. Ottih; A.J. Ekpunobi; and P.I. Ekwo. (Keywords: chemical bath

deposition, CBD, CuNiS, thin films, applications).

http://www.akamaiuniversity.us/PJST12_2_342.pdf

Nucleation Kinetics of Calcium Carbonate in Gas Field Brine Containing Methanol. Morteza Saffari, M.Sc. and Abdolmohammad Alamdari, Ph.D. (Keywords: calcium carbonate, methanol, precipitation, nucleation, induction time, scale formation).

http://www.akamaiuniversity.us/PJST12_2_348.pdf

Equilibrium Modeling and pH-Dependence of Biosorption of Ni(II) and Cr(III) from Solution by Siam Leaf (*Chromolaena odorata*). N.A.A. Babarinde, Ph.D. (Keywords: biosorption, Ni(II), Cr(III), nickel, chromium, adsorption isotherms, Siam leaf).

http://www.akamaiuniversity.us/PJST12_2_356.pdf

Equilibrium and Kinetic Studies of the Reaction of Aquomet Derivative of Pigeon Haemoglobin with 5,5¹ Dithiobis (2-Nitrobenzoic Acid). Vincent O. Akpoveta, M.Sc.; Felix Egharevba, Ph.D.; Osaro K. Ize-Iyamu Ph.D.; Osazuwa E. Jato, M.Sc.; and Mathew O. Odighere, M.Sc. (Keywords: aquomet haemoglobin, pigeon, DTNB, equilibrium constants, Cysf9(93) β , Cys β 5(23) β). http://www.akamaiuniversity.us/PJST12_2_365.pdf

Neutron Activation Analysis of Some Ceramic Insulators used in the Manufacture of Transformers and Household Appliances. Bridget Kogo, M.Sc. and Prof. Simon P. Mallam, Ph.D. (Keywords: neutron NAA, non-destructive, INAA, ceramic insulators, trace, major and minor elements). http://www.akamaiuniversity.us/PJST12_2_374.pdf

Life Sciences and Medicine

Anti-cholesterolemic Effect of Aqueous Extract of the Leaves of *Chromolaena odorata* (L) King and Robinson (Asteraceae): Potential for the Reduction of Cardiovascular Risk. Jude Chigozie Ikewuchi and Catherine Chidinma Ikewuchi. (Keywords: atherogenic indices, *Chromolaena odorata*, hematocrit, hypocholesterolemia, plasma triglyceride, weight loss). http://www.akamaiuniversity.us/PJST12_2_385.pdf

Fatty Acid and Amino Acid Profiles of the Larva of Raffia Palm Weevil: *Rhynchophorus phoenicis*. M.N. Ogbuagu, Ph.D.; I. Ohondu, B.Sc.; and C. Nwigwe, B.Sc. (Keywords: Raffia palm weevil, oil, fatty acid, amino acid, nutritional value). http://www.akamaiuniversity.us/PJST12_2_392.pdf

The Influence of Garlic and *Spondias mombin* on Sodium Arsenite induced Clastogenicity and Hepatotoxicity in Rats. Oyeronke A. Odunola, Ph.D.; Kazeem A. Akinwumi, M.Sc.; and Daniel M. Ibegbu, M.Sc. (Keywords: sodium arsenite, *Spondias mombin*, garlic, micronucleated polychromatic erythrocytes, -gamma transferase, alkaline phosphate, aspartate aminotransferase, alanine aminotransferase). http://www.akamaiuniversity.us/PJST12_2_401.pdf

A Decision Support System for Tuberculosis Diagnosis. X.Y. Djam, M.Sc. and Y. H. Kimbi, MBBS. (Keywords: tuberculosis, fuzzy logic, knowledge base, fuzzy inference, fuzzification, defuzzification, medical diagnosis, fuzzy expert system). http://www.akamaiuniversity.us/PJST12_2_410.pdf

Relationship Between Mycorrhizal Infection Ratings and Chlorophyll A Content of Root Segments of Cassava Clones (TMS 30572 and 20555) Grown in Bentex T-Treated Soil. Mrs. Ifeanyi Mirian Oyem, B.Sc. (Hons), M.Sc., PGDE. (Keywords: cassava, VAM fungi infection, chlorophyll content, Bentex T, soil treatment). http://www.akamaiuniversity.us/PJST12_2_426.pdf

Effects of Particle Size and Time of Slurry Storage on Odorous Compound Production of Cow Dung. O.A. Nwoke and G.O. Chukwuma. (Keywords: volatile fatty acids (VFAs), Biochemical Oxygen Demand (BOD5), time, particle size, cow dung, manure, farm wastes, odor).
http://www.akamaiuniversity.us/PJST12_2_433.pdf

The Effects of Temperature and Relative Humidity on Wood Storage in Nsukka, Nigeria. C.J. Ohagwu, M.Eng. and B.O. Ugwuishiwu, Ph.D. (Keywords: wood, Nigeria, temperature, local timber, relative humidity, shrinkage, enlargement).
http://www.akamaiuniversity.us/PJST12_2_444.pdf

Effect of Temperature on Oil Extraction of *Jatropha curcas* L. Kernel. Felix U. Asoiro, M.Eng. and Clement O. Akubuo, Ph.D. (Keywords: *Jatropha curcas* l., Euphorbiaceous, Soxhlet Extractor, oil yield, ash content, acid values, oleic acid values, iodine values, kinematic viscosity, density, hydroxyl, optimum temperature, biofuel, oil degradation).
http://www.akamaiuniversity.us/PJST12_2_456.pdf

Environmental Science and Ecology

Remote Monitoring and Estimation of Carbon Monoxide Pollution in Indoor Environment using Wireless Sensor Network via Satellite. James Agajo, M.Eng.; H.C. Inyama, Ph.D.; and A.L. Theophilus, M.Eng. (Keywords: indoor air pollution, data acquisition, mathematical model, CO emission).
http://www.akamaiuniversity.us/PJST12_2_464.pdf

Application of Waste Cashew Nut Shell Ash Showed Significant Reduction in Mobility of Pb and Cd in Waste Battery Contaminated Soil. M.B. Ogundiran, Ph.D.; J.O. Babayemi, M.Sc.; and C.G. Nzeribe, M.Sc. (Keywords: cadmium, lead, cashew nut shell ash, immobilization, remediation). http://www.akamaiuniversity.us/PJST12_2_472.pdf

Effect of Different Vadose Zone Depths on the Purification Process of an Aggregate Laden Soil Infiltration System. Martins O. Isikwue, Ph.D.; Sam Baba Onoja, Ph.D.; and Andrew F. Onyilo, M.Eng. (Keywords: wastewater purification, infiltration, soil filtration, Nigeria).
http://www.akamaiuniversity.us/PJST12_2_479.pdf

Environmental Impact of Landfill on Groundwater Quality and Agricultural Soils in Akure, Nigeria. Christopher O. Akinbile, Ph.D. (Keywords: Akure, landfill, environmental pollution, soil; wastes; ground water, contamination).
http://www.akamaiuniversity.us/PJST12_2_488.pdf

Seasonal Levels of Evapotranspiration, Solar Radiation, and Rainfall for Climate Variability Studies at a Subtropical Site. T.C. Chineke, V.N. Dike, N.D. Onyeuwaoma, and I.U. Chiemeka. (Keywords: evapotranspiration, solar radiation, climate variability, rainfall, crop climate studies).
http://www.akamaiuniversity.us/PJST12_2_498.pdf

LMT Sludge Filtration Equation Using Dimensional Analysis. Christopher B. Afangideh, Ph.D.; Joel O. Ademiluyi, Ph.D.; and Chidozie C. Nnaji, M.Eng. (Keywords: Buckingham π method, dimensional analysis, fluid flow equations, waste management).
http://www.akamaiuniversity.us/PJST12_2_512.pdf

Geology and Earth Science

X-Ray Diffractometer Characterization of South Western Nigeria's Dolomite. A.O. Adesakin, PGD; O.K. Ukoba, B.Eng; and O.O. Ajayi, Ph.D. (Keywords: Buckingham π method, dimensional analysis, fluid flow equations, waste management).

http://www.akamaiuniversity.us/PJST12_2_512.pdf

The Effect of a Dipping Layer on a Reflected Seismic Signal. Edward O. Osagie, Ph.D. (Keywords: seismic reflection, common depth point, CDP, displacements, dipping layer).

http://www.akamaiuniversity.us/PJST12_2_523.pdf

A Short Note on Comparative Study of Schlumberger and Half Schlumberger Arrays in Vertical Electrical Sounding in a Basement Complex Terrain of Southwest Nigeria.

Morenikeji P. Anjorin, B.Tech. and Martins O. Olorunfemi, Ph.D. (Keywords: comparative study, Schlumberger array, half Schlumberger array, basement complex terrain, southwest Nigeria).

http://www.akamaiuniversity.us/PJST12_2_528.pdf

Geophysical and Geotechnical Investigation of the Origin of Structural Instabilities Shown on Some Low Rise Buildings in Zaria, North-Western Nigeria. G.N. Egwuonwu, Ph.D. and I.B. Osazuwa, Ph.D. (Keywords: differential settlement, refraction tomography, free swell, structural deformation).

http://www.akamaiuniversity.us/PJST12_2_534.pdf

Development of Empirical Equations Relating Formation Resistivity and Cone Tip Resistance using Sedimentary and Basement Terrains of Nigeria as Case Studies.

Oluwaseun I. Fadugba, B.Sc.; Martins O. Olorunfemi, Ph.D.; and Dipo Odeyemi, B.Sc. (Keywords: empirical equation, Schlumberger array, formation resistivity, cone penetrometer test, cone tip resistance, basement and sedimentary terrains).

http://www.akamaiuniversity.us/PJST12_2_548.pdf

Mineralogical Characteristics of Natural Kaolins from Abeokuta, South-West Nigeria. O.S. Olokode and P.O. Aiyeade. (Keywords: X-ray diffractometer, kaolin, metakaolinite, mineral, characteristics).

http://www.akamaiuniversity.us/PJST12_2_558.pdf

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Engineering

Dynamic Response of Two Viscoelastically Connected Rayleigh Beams Subjected to Concentrated Moving Load. Jacob A. Gbadeyan, Ph.D.; Moses S. Dada, Ph.D.; and Olasunmbo O. Agboola, M.Sc. (Keywords: viscoelastically connected Rayleigh beams, dynamic response, moving load).

http://www.akamaiuniversity.us/PJST12_1_5.pdf

Performance Investigation of Self-Lift and Re-Lift Luo Converter Topologies. Asst. Professor V. Balaji, M.Tech., Ph.D. and E. Maheswari, M.E. (Keywords: Luo converter, PI controller, Zigler Nicholas technique, boost converter, voltage lift technique).

http://www.akamaiuniversity.us/PJST12_1_17.pdf

Application of the “Bang Bang” Theory in Auto-Control of Drones. Umana Thompson Itaketo, Ph.D. (Keywords: Bang Bang theory, minimum-time, trajectory, auto-control, drone, target).

http://www.akamaiuniversity.us/PJST12_1_25.pdf

Design and Development of an Intelligent Variable Power Supply Device. O. Shoewu, O.M. Olaniyi, and O.M. Ogunleye. (Keywords: intelligent, PSU, power supply unit, voltage, microcontroller, precision).

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Comparative Account of *Jatropha curcas* on Brass (Cu-40Zn) in Acid and Sea Water Environment. P. Deepa Rani, M.Sc., M.Phil. and S. Selvaraj, Ph.D. (Keywords: corrosion inhibition, brass, adsorption, isotherms, *Jatropha curcas*).

http://www.akamaiuniversity.us/PJST12_1_38.pdf

Effect of Glass Particle Addition on the Mechanical Properties of Aluminum-Base Particulate Composites. A.J. Alawode; G.J. Adeyemi, and F.I. Alo. (Keywords: glass particles, mechanical properties, aluminum composites).

http://www.akamaiuniversity.us/PJST12_1_50.pdf

Corrosion Resistance of Aluminum Plates in Lime Solution. Olayide Adetunji, M.Sc. and Femi Owoeye, B.Sc. (Keywords: corrosion, resistance, weight loss, Al, lime water, aluminum, aluminium, CaOH₂, hydrated lime).

http://www.akamaiuniversity.us/PJST12_1_56.pdf

Environmental Impact on Engineering Materials: Galvanized Steel. Ukoba, B.Eng.; P.K. Oke, Ph.D.; A. Adenuga, B.Eng.; and M.C. Ibegbulam, B.Eng. (Keywords: environment, environmental conditions, engineering materials, galvanized steel, corrosion).

http://www.akamaiuniversity.us/PJST12_1_62.pdf

Toughness Properties of Intercritically Normalized 0.14Wt%C Structural Steel. P.O. Offor, M.Eng.; V.A. Ezekoye, Ph.D.; and B.A. Ezekoye, Ph.D. (Keywords: intercritical normalizing, notch impact toughness, temperature, holding time).

http://www.akamaiuniversity.us/PJST12_1_71.pdf

Influence of Furnace Design on Semi Solid Microstructure. A.V. Adedayo, B.Sc., M.Sc., PGDE. (Keywords: semi solid metallurgy, manufacturing method, furnace design, microstructure).

http://www.akamaiuniversity.us/PJST12_1_76.pdf

Empirical Model for Estimating the Physical/Mechanical Properties of Clay/Cement Tiles. O.S. Olokode, Ph.D. (Keywords: clay, cement, tiles, regression, water absorption, bulk density, modulus of rupture, compression, compressive strength).

http://www.akamaiuniversity.us/PJST12_1_81.pdf

Design and Fabrication of a Convective Fish Dryer. C.A. Komolafe, COREN Reg. Engr., MNSE; I.O. Ogunleye, Ph.D., COREN Reg. Engr., MNSE; and A.O.D. Adejumo, Ph.D., COREN Reg. Engr., MNSE. (Keywords: convective, fish dryer, drying rate, drying temperature, food preservation, local construction).

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Development of a Low Cost Solar Dryer. A.K. Ogunkoya, M.Eng.; K.O. Ukoba, B.Sc.; and B.A. Olunlade, M.Eng. (Keywords: development, low-cost solar dryer, produce, food storage, preservation).

http://www.akamaiuniversity.us/PJST12_1_98.pdf

Development of an Eco-Friendly Bamboo Bicycle. O.K. Ukoba, B.Eng.; A.K. Ogunkoya, M.Eng.; and W. Soboyejo, Ph.D. (Keywords: bamboo, bicycle, eco-friendly, transportation, low-income, ergonomic).

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Design and Evaluation of an Electrically Operated Ultra-Low Volume Sprayer. John O. Awulu, Ph.D.; Jonathan A. Enokela, Ph.D.; and Danladi D. Shatalis, B.Eng. (Keywords: electric ultra-low volume sprayer, agricultural mechanization)

http://www.akamaiuniversity.us/PJST12_1_109.pdf

Energy and Power

Zonal Partitioning of Deregulated Power Systems Considering Fuzzy-Random Load Model. M. Sajjadi and M. Raoofat. (Keywords: deregulated power system, fuzzy-random load model, Fuzzy Monte Carlo Simulation, FMCS, zonal partitioning).

http://www.akamaiuniversity.us/PJST12_1_115.pdf

An Improved Integer Coded Genetic Algorithm for Security Constrained Unit Commitment. S. Golestani, M. Raoofat, and E. Farjah. (Keywords: integer coded genetic algorithm, ICGA, security constrained unit commitment, SCUC, perturbation operator).

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Monetizing Natural Gas Reserves: Global Trend, Nigeria's Achievements, and Future Possibilities. A.J. Alawode, M.Sc. and Olusegun A. Omisakin, M.Sc. (Keywords: monetize, natural gas reserves, global trends, Nigeria's achievements, future possibilities, liquefied natural gas, LNG, gas to liquids, GTL, compressed natural gas, CNG, gas to power, gas to solid, gas hydrates).

http://www.akamaiuniversity.us/PJST12_1_138.pdf

Parametric Study of Heat Characteristics of Fluid in Cylindrical Parabolic Concentrating Solar Collector. Emmanuel O. Sangotayo, M.Sc. and Mufutau A. Waheed, Ph.D. (Keywords: solar collector, twist ratio factor, fluid, Prantl number).

http://www.akamaiuniversity.us/PJST12_1_152.pdf

Potential for Sustainable Renewable Energy Development in Nigeria. O. Awogbemi and C.A. Komolafe. (Keywords: solar power, wind power, hydropower, renewable energy, sustainable development).

http://www.akamaiuniversity.us/PJST12_1_161.pdf

Estimating Wind Energy Potential in Some Coastal Cities of the Niger-Delta Region of Nigeria. Victor N. Dike, M.Sc.; Chidiezie T. Chineke, Ph.D.; Okey K. Nwofor, Ph.D.; and Ugochukwu K. Okoro, M.Sc. (Keywords: wind energy, renewable energy, Weibull distribution, coastal sites, Niger Delta).

http://www.akamaiuniversity.us/PJST12_1_598.pdf

Participation of Energy Capacitor System in Hydrogen Production, Voltage and Frequency Control in Wind Generation. Kenneth E. Okedu, M.Eng. (Keywords: ECS, wind energy, induction generator, hydrogen, electrolyzer).

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Physics

Model-Based Object Tracking of Moving Object: Double Pendulum. O.K. Ukoba; B.A. Olunlade; and W. Shelby. (Keywords: object tracking, double pendulum, MATLAB, motion, coal production).

http://www.akamaiuniversity.us/PJST12_1_170.pdf

The Vibration of a Self-Gravitating Sphere. Prof. Edward O. Osagie. (Keywords: self-gravitating sphere, incompressible homogeneous fluid, earthquake, elasticity, free oscillations, theoretical periods of oscillation).

http://www.akamaiuniversity.us/PJST12_1_177.pdf

On Steady Free Convective Hydro Magnetic Flow of a Reactive Viscous Fluid in a Bounded Domain. A.J. Omowaye. (Keywords: hydro magnetic flow, Arrhineus kinetics, free convection, steady, numerical solution).

http://www.akamaiuniversity.us/PJST12_1_180.pdf

Gamma-Ray Bursts (GRBs) and High Redshift Universe. A.C. Eze, B.Sc. and R.N. Eze, Ph.D. (Keywords: GRB, bursts, universe, cosmology, large-scale structure).

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A New Approach to Estimate the Age of the Earth and the Age of the Universe. Kamel Ben Salem, Ph.D. (Keywords: age of the Earth, age of the universe, datation method, Qur'an and science, science in holy texts).

http://www.akamaiuniversity.us/PJST12_1_198.pdf

Nondecelerative Cosmology: Background and Outcomes. Prof. Jozef Šima, Ph.D. and Prof. Miroslav Súkeník, Ph.D. (Keywords: nondecelerative Universe, Vaidya metric, black holes, dark energy, quantum gravity, Higgs boson, ENU).

http://www.akamaiuniversity.us/PJST12_1_214.pdf

Mathematics and Statistics

On Adomian Decomposition Method (ADM) for Numerical Solution of Ordinary Differential Equations Arising from the Natural Laws of Growth and Decay. Joshua Sunday, M.Sc. (Keywords: ADM, growth, decay, approximations and convergence).

http://www.akamaiuniversity.us/PJST12_1_237.pdf

Improvement in Modified Weighted Symmetric Estimator for a Gaussian AR(1) Process with Additive Outliers. Wararit Panichkitkosolkul, M.Sc. (Keywords: parameter estimation, AR(1) process, recursive mean, recursive median, additive outliers).

http://www.akamaiuniversity.us/PJST12_1_244.pdf

Information Technology and Communications Digitally Animated Overture using Skewing in Two Dimensions. M. Nuruzzaman, Ph.D. (Keywords: digital animation, affine transform, overture effect, special effect, 2D animation).

http://www.akamaiuniversity.us/PJST12_1_252.pdf

Game Theoretic Aspect of Phishing and Virtual Websites. C.C. Nwobi-Okoye. (Keywords: phishing, game, equilibrium, web pages, virtual strategy, virtual web pages).

http://www.akamaiuniversity.us/PJST12_1_260.pdf

Peer-to-Peer Computing and Grid Computing: Towards a Better Understanding. N.A. Azeez; A.P. Abidoye; A.O. Adesina; K.K. Agbele; Iyamu Tiko, and I.M. Venter. (Keywords: grid computing, peer-to-peer computing, P2P, resources, architecture, middleware, comparison).

http://www.akamaiuniversity.us/PJST12_1_270.pdf

Information Storage and Dissemination by Small and Medium Scale Entrepreneurs in Zaria and Kaduna. U.I. Egwuonwu, MLS; Z. Mohammed, Ph.D.; and K.A. Momoh, Ph.D. (Keywords: entrepreneurs, small business, information storage, dissemination, chi square).

http://www.akamaiuniversity.us/PJST12_1_277.pdf

The Design and Development of Spatial Database Management Systems (SDMS) for Hydrographic Studies using Coupled Open-Source GIS and Relational Database. Alaba Boluwade, M.Sc. and Andrew Ferdinand M.Sc. (Keywords: Geographical Information System, GIS, Object-Oriented Unified Modified Language, UML, hydrographic data, Open-Source database tool, rivers, lakes, Africa).

http://www.akamaiuniversity.us/PJST12_1_286.pdf

Comparative and Technical Analysis of Broadband Access Technologies (WiMAX and WiBro). Nirmalraj Thiruvengadam, M.Sc., M.Phil. and Karthikeyan Ravi, M.Sc. (Keywords: WiMax, WiBro, WiFi, wireless broadband, mobile WiMAX).

http://www.akamaiuniversity.us/PJST12_1_292.pdf

Seamless Vertical Handover in WiFi and WiMAX Networks using RSS and Motion Detection: An Investigation. Bushra Naeem, M.Sc. and Able Nyamapfene, Ph.D. (Keywords: WiFi, WiMAX, horizontal handover, vertical handover, seamless vertical handover, heterogeneous wireless networks, wireless overlay networks).

http://www.akamaiuniversity.us/PJST12_1_298.pdf

Design and Implementation of Laser Transceiver for Free Space Optical Communication. Md. Jahedul Islam, M.Sc. and Md. Rafiqul Islam, Dr. Eng. (Keywords: FSO, Laser, Transceiver, and data communication).

http://www.akamaiuniversity.us/PJST12_1_613.pdf

Review of Measurement of Exposure of Radio Frequency Field (RF) Radiation from Global System for Mobile Communication (GSM) Masts. D.A. Shalangwa, Ph.D. (in view); P.G. Vasira, M.Sc.; and D.H. Shalangwa, B.Sc. (Keywords: human health, radiation, radio frequency, correlation coefficient, regression coefficient, GSM masts).

http://www.akamaiuniversity.us/PJST12_1_621.pdf

Management and Education

Application of Network Analysis to Project Management. R.A. Adeleke, O.Y. Halid, O.D. Ogunwale, and A.O. Olubiyi. (Keywords: network, network analytic technique, critical path management, CPM, latest finish time).

http://www.akamaiuniversity.us/PJST12_1_305.pdf

An Algorithm for the Declaration of Executive and Legislative Election Results in Nigeria.

Jonathan A. Enokela, Ph.D. (Keywords: algorithm, election, electronic voting).

http://www.akamaiuniversity.us/PJST12_1_314.pdf

Effect of Demonstration, Peer-Tutoring, and Lecture Teaching Strategies on Senior Secondary School Students' Achievement in an Aspect of Agricultural Science. Y.M.

Adekoya, M.Ed. and R.A. Olatoye, Ph.D. (Keywords: demonstration, peer-tutoring, lecture, agricultural science, achievement test, teaching of pasture and forage crops).

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Chemistry and Biochemistry

Kinetics and Mechanism of Cu (II) Inhibition Towards Oxidation of Simple Sugars by Hexacyanoferrate (III) Ion in Alkaline Buffer Solution. Samuel Olalekan Olusanya, M.Sc. and Ezekiel Oluyemi Odebunmi. (Keywords: Cu (II), copper inhibition of oxidation, maltose, xylose, hexacyanoferrate (III), rate reaction).

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Effect of Carbonization Temperature of Filler on the Tensile Properties of Natural Rubber Compounds Filled with Cassava (*Manihot esculenta*) Peel Carbon. Stella Ugbesia, M.Sc; Lawrence O. Ekebafe, M.Sc.; and M.D. Ayo, M.Sc. (Keywords: cassava peel carbon, natural rubber, physic-mechanical properties, vulcanisates).

http://www.akamaiuniversity.us/PJST12_1_339.pdf

Effect of Stearic Acid Level on the Physical Properties of Natural Rubber Vulcanisate.

M. N.Chukwu, M.Sc.; I.C. Madufor, Ph.D.; M.D. Ayo, M.Sc.; and L.O Ekebafe, M.Sc. (Keywords: stearic acid, hardness, abrasion resistance, compression set, modulus, vulcanisate).

http://www.akamaiuniversity.us/PJST12_1_344.pdf

Fabrication and Characterization of High Efficiency Solar Cell Thin Films (CdNiS). I.E. Ottih and A.J. Ekpunobi. (Keywords: chemical bath deposition technique, cadmium nickel sulfide, antireflection coatings, warming, solar control coatings)

http://www.akamaiuniversity.us/PJST12_1_351.pdf

Heavy Metal Content of Different Brands of Cigarettes Commonly Smoked in Nigeria and its Toxicological Implications. G.G. Yebpella, M.Sc.; G.A. Shallangwa, M.Sc.; C. Hammuel, B.Tech.; A. Magomya, M.Sc.; M.O.A. Oladipo, Ph.D.; A.N. Nok, Ph.D.; and J.J. Bonire, Ph.D. (Keywords: heavy metals, cigarette smoke, tobacco, Nigeria, toxic effects).

http://www.akamaiuniversity.us/PJST12_1_356.pdf

Life Sciences and Medicine

Proximate and Mineral Composition of Seed Shell Pericarp of *Chrysophyllum albidum*.

C.I. Ewansiha, M.Sc.; I.O Asia, Ph.D.; L.O. Ekebafe, M.Sc.; O.E. Jatto; and G. Okodugha.

(Keywords: seed shell, *Chrysophyllum albidum*, white star apple, proximate, mineral composition).

http://www.akamaiuniversity.us/PJST12_1_363.pdf

Study on the Alkaloid, Allicin, Glycoside and Saponin Composition of the Leaves of *Sansevieria liberica* Gérôme and Labroy by Gas Chromatography. Catherine C. Ikewuchi,

M.Sc.; Edward O. Ayalogu, Ph.D.; Eugene N.Onyeike, Ph.D.; and Jude C. Ikewuchi, M.Sc. (Keywords: alkaloids, allicins, glycosides, saponins, *Sansevieria liberica*).

http://www.akamaiuniversity.us/PJST12_1_367.pdf

Determination of some Physical Properties of African Yam Beans. Felix U. Asoiro, M.Eng. and Anthony O. Ani, M.Eng. (Keywords: *Sphenostylis stenocarpa*, post harvest physical prosperities, diameter, sphericity, surface area, static coefficient of friction, angle of resose, solid volume, bulk volume, solid density, bulk density, seed mass, porosity, moisture content).
http://www.akamaiuniversity.us/PJST12_1_374.pdf

Effect of Aqueous Extract of the Leaves of *Tridax procumbens* Linn on Blood Pressure Components and Pulse Rates of Sub Chronic Salt-Loaded Rats. Jude C. Ikewuchi, M.Sc.; Eugene N. Onyeike, Ph.D.; Augustine A. Uwakwe, Ph.D.; and Catherine C. Ikewuchi, M.Sc. (Keywords: blood pressure components, pulse rates, salt-loading, *Tridax procumbens*).
http://www.akamaiuniversity.us/PJST12_1_381.pdf

Fuzzy Expert System for the Management of Hypertension. X.Y. Djam, M.Sc. and Y.H. Kimbi, MBBS. (Keywords: fuzzification, defuzzification, fuzzy logic, fuzzy expert system, membership function, rule base, hypertension risk, systolic blood pressure, SBP, diastolic blood pressure, DBP, body mass index, BMI, web based tools).
http://www.akamaiuniversity.us/PJST12_1_390.pdf

Geology and Earth Science

Effects of Metallic Conductors on Crustal Heat Flow Parameters. O.I. Popoola, Ph.D. and N.O. Salaudeen, M.Sc., PGDE. (Keywords: geothermal gradient, geothermal step, thermal conductivity, geothermal parameters).
http://www.akamaiuniversity.us/PJST12_1_403.pdf

Derivation of Expressions for Apparent Conductivity and Wave Impedance in an Inhomogenous Earth Medium. Olukorede O. Adewole, M.Sc. and Kolawole A. Egunjobi, M.Sc. (Keywords: apparent conductivity, impedance, homogenous isotropic earth medium, electromagnetic waves, magneto telluric current).
http://www.akamaiuniversity.us/PJST12_1_419.pdf

Analysis of Shear Strength of Compacted Lateritic Soils. A.A. Bello, Ph.D. (Keywords: British standard light, containment structure, dry density, optimum moisture content, unconfined compressive strength).
http://www.akamaiuniversity.us/PJST12_1_425.pdf

Further Reflections on Computer Modeling for Detectability Assessment of the Transition Zone in the Basement Complex Terrain of Southwest Nigeria. Lawrence O. Ademilua, Ph.D. and Martins O. Olorunfemi, Ph.D. (Keywords: basement profile, resistivity ratio, computer software, horizons, detectable, thickness ratio, borehole, VES).
http://www.akamaiuniversity.us/PJST12_1_435.pdf

Geophysical Assessment of Foundation Depths around a Leaning Superstructure in Zaria Area, Northwestern Nigeria using Electrical Resistivity Tomography. G.N. Egwuonwu; S.O. Ibe; and I.B. Osazuwa. (Keywords: superstructure, foundation, geology, anticline, synclinal structures, soil stability).
http://www.akamaiuniversity.us/PJST12_1_472.pdf

The Mineral Effects of Sedimentary Layers on Groundwater in Choba, Rivers State, Nigeria. C.N. Nwankwo and M.U. Igboekwe. (Keywords: mineral effects, physico-chemical, borehole, wells, groundwater, water quality, potable water).
http://www.akamaiuniversity.us/PJST12_1_487.pdf

Porosity Estimation in the Niger-Delta Basin of Nigeria using Sonic Log. O.C. Molua; E. Ignerighe; and F.C. Ighrakpata. (Keywords: porosity, Wyllie Time Average equation, geological formations, sonic log, acoustic log).

http://www.akamaiuniversity.us/PJST12_1_493.pdf

3-D Seismic Interpretation and Structural Analysis of Ossu Oil Field, Northern Depobelt, Onshore Niger Delta, Nigeria. A.I. Opara, Ph.D.; U.O. Anyiam, B.Tech.; and A.V. Nduka, B.Tech. (Keywords: structural interpretation, Ossu field, Niger Delta, seismic, growth faults) .

http://www.akamaiuniversity.us/PJST12_1_502.pdf

Environmental Science and Ecology Development of Water Harvesting and Treatment Plant in Africa: Nigeria. O.K. Ukoba, B.Eng.; P.K. Oke, Ph.D.; J.O. Aigbogun, B.Eng.; and O.A. Oyegunwa, B.Eng. (Keywords: water harvesting, sustainable, safe drinking water, potable water, treatment plant).

http://www.akamaiuniversity.us/PJST12_1_510.pdf

Crop Water Use Responses of Upland Rice to Differential Water Distribution under Sprinkler Irrigation System. Christopher O. Akinbile Ph.D. and Abimbola Y. Sangodoyin Ph.D. (Keywords: upland rice, water use, sprinkler irrigation, evapotranspiration, agricultural water use).

http://www.akamaiuniversity.us/PJST12_1_516.pdf

Analysis of Groundwater Quality of Hand-Dug Wells in Peri-Urban Area of Obantoko, Abeokuta, Nigeria for Selected Physico-Chemical Parameters. A.M. Taiwo, A.O. Adeogun, K.A. Olatunde, and K.I. Adegbite. (Keywords: hand-dug well, water parameters, groundwater, quality, standard, health risk).

http://www.akamaiuniversity.us/PJST12_1_527.pdf

Characterization and Treatment of Sludge from the Brewery using Chitosan. Osaro K. Ize-Iyamu, Ph.D.; Osayanmo Eguavoen, Ph.D.; Micheal Osuide, Ph.D.; Emanuel E.Egbon, Ph.D.; Oghomwen C. Ize-Iyamu, B.Sc.; Vincent O. Akpoveta, M.Sc.; and Oscar O. Ibizubge, B.Sc. (Keywords: sludge, biological oxygen demand, BOD, chemical oxygen demand, COD, turbidity, chitosan, coagulant).

http://www.akamaiuniversity.us/PJST12_1_542.pdf

Characterization of Topsoil and Groundwater at Leather Industrial Area, Challawa, Kano, Northern Nigeria. G.N. Egwuonwu, Ph.D.; V.O. Olabode, M.Sc.; P.H. Bukar, M.Sc.; V.N. Okolo, M.Sc.; and A.C. Odunze, Ph.D. (Keywords: topsoil, groundwater, total chromium, concentration seasonal variation, attenuation).

http://www.akamaiuniversity.us/PJST12_1_628.pdf

Environmental Pollution Potential of Dumpsite Using Very Low Frequency (VLF) Electromagnetic Method. F.O. Onwuka, M.Sc.; O. Ujuanbi, Ph.D.; and O.C. Molua, Ph.D. (Keywords: pollution, contamination plumes, seepage, Delta State, Nigeria, VLF).

http://www.akamaiuniversity.us/PJST12_1_560.pdf

Maintenance, Security, and Environmental Implications of Pipeline Damage and Ruptures in the Niger Delta Region. A.J. Alawode, M.Sc. and I.O. Ogunleye, Ph.D. (Keywords: maintenance, security, environment, pipeline damage and ruptures, Niger Delta).

http://www.akamaiuniversity.us/PJST12_1_565.pdf

Geotourism Potentials in parts of Anaguta Enclaves of Jos, North-Central Nigeria. T. Aga, M.Sc., J.J. Zang, HND, and D.A. Bala, M.Sc. (Keywords: geotourism, springs, rock, Jos, Anaguta).

http://www.akamaiuniversity.us/PJST12_1_574.pdf

Variation of Total Ozone Concentration and Rainfall over Different Stations of India. S.K. Midya, Ph.D.; U. Saha, M.Sc.; P. Panda, M.Sc.; A. Kundu, M.Sc.; A. Chaudhuri, M.Sc.; and H. Sarkar, Ph.D. (Keywords: ozone depletion, stratosphere, Cloud Condensation Nuclei, precipitation).

http://www.akamaiuniversity.us/PJST12_1_580.pdf

The Effect of the Variable Component of 10.7 cm Solar flux on the Thunderstorm frequency over Kolkata and its Relation with Ozone Depletion Mechanism. U. Saha, M.Sc.; S.K. Midya, Ph.D.; and G.K. Das, M.Sc. (Keywords: 10.7 cm solar flux, pre-monsoon, thunderstorm, solar cycle, ozone depletion).

http://www.akamaiuniversity.us/PJST12_1_591.pdf

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Hardness Properties of Intercritically Normalized 0.14wt%C Structural Steel. P.O. Offor, M.Eng; B.A. Ezekoye, Ph.D.; and V.A. Ezekoye, Ph.D. (Keywords: intercritical temperature, intercritical normalizing, hardness properties).

http://www.akamaiuniversity.us/PJST11_2_5.pdf

Effects of Carbon and Oxyfuel Pressures on Kinetics of OFC-A of Steels. A.V. Adedayo, B.Sc., M.Sc., PGDE; and S.A. Ibitoye, M.Sc., M.Phil., Ph.D.(Keywords: flame cutting, oxyfuel, oxyacetylene, steel oxidation, decarburization).

http://www.akamaiuniversity.us/PJST11_2_9.pdf

Influence of Heat Treatment on the Mechanical Properties of 0.13Wt%C Structural Steel. P.O. Offor, M.Eng¹; V.A. Ezekoye, Ph.D.²; and B.A. Ezekoye, Ph.D. (Keywords: intercritical normalizing; mechanical properties; temperature; holding time).

http://www.akamaiuniversity.us/PJST11_2_16.pdf

Mechanical Properties of Mild Steel Rod in Cassava Fluid. Olayide Adetunji, M.Sc. and Olusegun Adewoye, Ph.D. (Keywords: mechanical, properties, mild steel, cassava fluid).

http://www.akamaiuniversity.us/PJST11_2_22.pdf

A Comparative Study of Cement and Lime Stabilized Lateritic Interlocking Blocks. A.A. Raheem, Ph.D.; O.A. Bello, B.Tech.; and O.A. Makinde, B.Tech. (Keywords: laterite, interlocking block, ordinary Portland cement, lime, compressive strength).

http://www.akamaiuniversity.us/PJST11_2_27.pdf

Development of Microcontroller Caliper. Omokhafé J. Tola. (Keywords: potentiometer, analog to digital converter, ADC, microcontroller, LED).

http://www.akamaiuniversity.us/PJST11_2_35.pdf

Restoration of Compressive Strength of Recycled Gypsum Board Powder. Luqman K. Abidoye and R.A. Bello. (Keywords: gypsum board, dry wall, Plaster of Paris, calcinations, restoration, compressive strength, recycling, manufacturing).

http://www.akamaiuniversity.us/PJST11_2_42.pdf

Fabrication and Performance Evaluation of an Improved Charcoal Cooking Stove. C.A. Komolafe, COREN REG Engr; MNSE. and O. Awogbemi, COREN REG Engr; MNSE. (Keywords: stove, charcoal, fuel, burn rate, thermal efficiency).

http://www.akamaiuniversity.us/PJST11_2_51.pdf

Scour Investigations Behind a Vertical Sluice Gate without Apron. Arun Goel, Ph.D. (Keywords: submerged jets, hydraulics, scour, vertical gate, discharge).

http://www.akamaiuniversity.us/PJST11_2_59.pdf

Vehicle Gas Leakage Detector. A. Che Soh, M.Sc.; M.K. Hassan, M.Eng.; and A.J. Ishak, M.Sc. (Keywords: gas leakage detector, carbon monoxide, CO, gas sensor circuit, logic detector circuit).

http://www.akamaiuniversity.us/PJST11_2_66.pdf

Design, Simulation, and Testing of an Incremental Shaft Encoder for Measuring Angular Velocity of a Shaft. D.A. Shalangwa, M.Eng. and E. Michael, B.Sc. (Keywords: eliminate, counting error, simulation, measurement, configure, OID, opto-interrupt device).

http://www.akamaiuniversity.us/PJST11_2_77.pdf

Computational Analysis of a Relationship between Fan Blade Diameter and Depth of Radiator. I.A. Lateef, M.Eng.; B.A. Hassan, M.Ed.; and A.E.A. Kareem, M.Sc. (Keywords: cooling water, fan blade diameter, depth of radiator, volumetric coefficient of compactness, radiator, motor vehicle cooling systems).

http://www.akamaiuniversity.us/PJST11_2_83.pdf

Continuous Load Current Mode Analysis of Phase-Controlled AC to DC Converters.

C.U. Ogbuka, M.Eng. and M.U. Agu, Ph.D. (Keyword: AC to DC converter, continuous load, current mode, midpoint, full bridge).

http://www.akamaiuniversity.us/PJST11_2_91.pdf

An FPGA Based Hardware Algorithm Implementation for Cascaded Multilevel Inverters.

V. Kumar Chinnaiyan, M.E.; Jovitha Jerome, Ph.D.; and J. Karpagam, M.E. (Keywords: cascaded multilevel inverter, FPGA, space vector pulse width modulation, THD).

http://www.akamaiuniversity.us/PJST11_2_101.pdf

Fabrication of an Induction Coil Magnetometer for Geomagnetic Field Measurement. A.A.

Adetoyinbo; O.S. Hammed; and B.O. Ogunsua. (Keywords: search coil, sensor, electromagnetic induction and band pass).

http://www.akamaiuniversity.us/PJST11_2_107.pdf

Thermal Gradient due to Gas Flared at Kokori/Erho-ike Flow Station, Delta State, Nigeria.

Julius Otutu Oseji. (Keywords: temperature, distance, gas flare, environment, Kokori/Erho-ike).

http://www.akamaiuniversity.us/PJST11_2_118.pdf

Assessment of Thermal Generating Plants in Nigeria. Kenneth E. Okedu, M.Eng. (Keywords: electricity supply, thermal generating plants, installed capacity, generating capacity, electricity demand, plant status, plant maintenance).

http://www.akamaiuniversity.us/PJST11_2_122.pdf

Application Potentials and Sustainability of Solar Energy in Nigeria. Timothy Akintola, M.Sc. and Oguntola Alamu, Ph.D. (Keywords: solar energy, potential, sustainable use, alternative energy, developing nations).

http://www.akamaiuniversity.us/PJST11_2_132.pdf

Investigation of the Collection Efficiency of a Poultry Brooder Pen Heated with Solar Energy. P.E. Okpani, Ph.D. (Keywords: poultry brooding, passive solar, Trombe wall system, efficiency simulation).

http://www.akamaiuniversity.us/PJST11_2_139.pdf

Optimal Meter Allocation by Consideration of Technical and Economic Problems. Reza Kaihani and Ali Reza Seifi. (Keywords: state estimation, meter placement, network observability, PMU, leverage points).

http://www.akamaiuniversity.us/PJST11_2_148.pdf

Using a Novel Heuristic Objective Function in Transmission Expansion Planning. Alireza Abbasi and Alireza Seifi . (Keywords: transmission expansion planning, technical criterion, economical criterion).

http://www.akamaiuniversity.us/PJST11_2_156.pdf

Panacea to Epileptic Power Supply in Nigeria. G. Adedokun, M.Eng. and I.B. Osunpidan, HND, PGD. (Keywords: electricity, generation, transmission, distribution, power, vandalism, equipment).

http://www.akamaiuniversity.us/PJST11_2_164.pdf

Gravity Control by means of *Electromagnetic Field* through *Gas or Plasma* at Ultra-Low Pressure. Fran De Aquino. (Keywords: phenomenology of quantum gravity, experimental tests of gravitation theories, vacuum chambers, plasma devices).

http://www.akamaiuniversity.us/PJST11_2_178.pdf

Space-Time and Energy-Time: A Refined Examination. Linus O'Sullivan. (Keywords: gravity waves, general relativity, electromagnetic field, theoretical physics).

http://www.akamaiuniversity.us/PJST11_2_248.pdf

On a new type of Double Sequences of Fuzzy Numbers. Hemen Dutta and B. Surender Reddy. (Keywords: double sequence of fuzzy numbers, difference sequence, statistically pre-Cauchy double sequence, Orlicz function).

http://www.akamaiuniversity.us/PJST11_2_254.pdf

On Exact Finite-Difference Scheme for Numerical Solution of Initial Value Problems in Ordinary Differential Equations. Joshua Sunday, M.Sc. (Keywords: exact finite-difference scheme, nonstandard finite difference scheme, initial value problems, ODEs, models).

http://www.akamaiuniversity.us/PJST11_2_260.pdf

Application of Homotopy Perturbation Method (HPM) for the Solution of Some Non-Linear Differential Equations. M. Jiya, Ph.D. (Keywords: HPM, Van der pol, evolution equation, convergence).

http://www.akamaiuniversity.us/PJST11_2_268.pdf

A Class of Six Step Block Method for Solution of General Second Order Ordinary Differential Equations. U. Mohammed, M.Tech.; M. Jiya, Ph.D.; and A.A. Mohammed, M.Tech. (Keywords: general second order, initial value problems, parallel/block method, self starting).

http://www.akamaiuniversity.us/PJST11_2_273.pdf

An Algorithm for the Display of Results of Multiple Elections involving Multiple Candidates using a Microcontroller and Character LCD Display Modules. Jonathan A. Enokela, Ph.D. and Charles C. Osuagwu, Ph.D. (Keywords: election, electronic voting, microcontroller, algorithm).

http://www.akamaiuniversity.us/PJST11_2_278.pdf

Security of Programs and Data for an Electronic Voting System. Jonathan A. Enokela, Ph.D. (Keywords: electronic voting, microcontroller, data security).

http://www.akamaiuniversity.us/PJST11_2_283.pdf

Design and Implementation of a Client Server Distributed Database for Student Results Processing. Djam Xaveria Youh, M.Sc. (Keywords: distributed database system, student results processing, relational database, client server system).

http://www.akamaiuniversity.us/PJST11_2_288.pdf

Evaluation of WAP Services in a Campus Environment using a Quantitative Approach. Mohd Nazri Ismail. (Keywords: WAP, wireless application protocol, PDA, information, students, quantitative, mobile phone).

http://www.akamaiuniversity.us/PJST11_2_296.pdf

Challenges of Spectrum Handoff in Cognitive Radio Networks. Victor Balogun, M.Sc. (Keywords: cognitive radio, primary users, secondary users, service interruption, handoff, TCP).

http://www.akamaiuniversity.us/PJST11_2_304.pdf

Carrier Frequency and Bandwidth Requirements for Data Transmission in Power Distribution Automation System. Dr. I.A. Adejumobi. (Keywords: power system, distribution automation, carrier frequency, bandwidth, data transmission, remote terminal unit).
http://www.akamaiuniversity.us/PJST11_2_315.pdf

Analysis of GSM Traffic Performance. A.S. Adegoke, M.Sc., MNSE and U.K. Okpeki, M.Sc., MNSE. (Keywords: traffic, call failure, dropped call, operational efficiency, grade of service).
http://www.akamaiuniversity.us/PJST11_2_327.pdf

Equilibrium Points in Games with Virtual Strategies. C.C. Nwobi-Okoye. (Keywords: game theory, games theory, virtual games, equilibrium points).
http://www.akamaiuniversity.us/PJST11_2_332.pdf

Accurate Monophonic Pitch Tracking Algorithm for QBH and Microtone Research. K.A. Akant, M.Tech.; Rajesh Pande, Ph.D.; and S. S. Limaye, Ph.D. (Keywords: QBH-Query by humming, Microtone Research, Fourier of Fourier Transform, Parabolic Interpolation, Pitch, FT1, Autocorrelation).
http://www.akamaiuniversity.us/PJST11_2_342.pdf

Fuzzy Inference System for Control of Profitability in a Paper Recycling Plant: Mamdani's Design Approach. Uduak A. Umoh, M.Sc.; Enoch O. Nwachukwu, Ph.D.; and Okure U. Obot, Ph.D. (Keywords: industrial efficiency, fuzzy logic, MATLAB, models, profitability)
http://www.akamaiuniversity.us/PJST11_2_391.pdf

Impact of Optical Pulse Linear Chirp on the BER Performance of DS-OCDMA in Presence of Fiber Optic Dispersion. Md. Jahedul Islam*, B.Sc. and Md. Rafiqul Islam, Ph.D. (Keywords: DS-OCDMA, chirp-Gaussian, pulse linear chirp, second order dispersion, SOD, third order dispersion, TOD).
http://www.akamaiuniversity.us/PJST11_2_171.pdf

Optimal Construction Resources Utilization: Reflections of Site Managers' Attributes. Julius Ayodeji Fapohunda, Ph.D. and Prof. Paul Stephenson. (Keywords: construction, production process, optimal resource utilization, resource waste management, site manager attributes).
http://www.akamaiuniversity.us/PJST11_2_353.pdf

A Model for Process Optimization of Small-Scale Industry for Competitive Production. A.K. Ogunkoya, M.Eng. and A. A. Aderoba, Ph.D. (Keywords: small-scale industries, process, linear optimization, formulations, models).
http://www.akamaiuniversity.us/PJST11_2_366.pdf

A Risk Analysis Model for Fire Disasters in Commercial Complexes in Nigeria. V.O. Oladokun, Ph.D. and F.A. Ishola, M.Sc. (Keywords: fire accident, risk analysis, market fire, fire protection, optimum risk analysis).
http://www.akamaiuniversity.us/PJST11_2_376.pdf

Investigating the Effects of Increase in Oil Prices on Manufacturing Companies in Nigeria. Bukola Olalekan Bolaji, Ph.D. and Gbolagade Akin Bolaji, Ph.D. (Keywords: oil prices, petroleum products, manufacturing companies, Nigeria).
http://www.akamaiuniversity.us/PJST11_2_387.pdf

Cadastral Information System for Title Management in Nigeria. Babawuro Usman, M.Sc. (Keywords: geographic information system, GIS, Cadastre, programming language, land title, schema, certificate of occupancy, C of O)
http://www.akamaiuniversity.us/PJST11_2_408.pdf

Maintenance Engineering as a Basic Tool for Maximum Production. T.K. Ajiboye, Ph.D. and G Adedokun, M.Eng. (Keywords: maintenance, management, engineering, breakdown, equipment, lifespan, production, availability, efficiency, profit, routine, overhauls, schedule, preventive, repair, spare).

http://www.akamaiuniversity.us/PJST11_2_416.pdf

Assessing and Reducing Survey Error in Mail Surveys. Festus Daisi Famule, M.Sc. (Keywords: survey error, sampling error, non-coverage error, non-response error, measurement error, true score model).

http://www.akamaiuniversity.us/PJST11_2_422.pdf

Optical and Electrical Properties of Chemically Deposited ZnO Thin Films. A.D.A. Buba, Ph.D. and J.S.A. Adelabu, Ph.D. (Keywords: CBD; carrier concentrations, grain boundary, electrical resistance).

http://www.akamaiuniversity.us/PJST11_2_429.pdf

Deposition and Characterization of CdS Thin Film by Chemical Bath Method. I.A. Ezenwa and A.J. Ekpunobi. (Keywords: bandgap, chemical bath, semiconductor).

http://www.akamaiuniversity.us/PJST11_2_435.pdf

Structural Transformations in Chemical Bath Deposited Nickel Sulphide Thin Films. Anuar Kassim, Ph.D.; Saravanan Nagalingam, Ph.D.; Ho Soon Min, M.Sc.; and Ngai Chee Fei, B.Sc. (Keywords: nickel sulphide, thin films, X-ray diffraction).

http://www.akamaiuniversity.us/PJST11_2_441.pdf

Studies on the Effects of Doping on the Electrical and Thermal Conductivities of Polystyrene. T.U. Onuegbu, Ph.D.; A.U.G. Okeke, M.Sc.; and U.E. Ekpunobi, Ph.D. (Keywords: thermal properties, conducting polymers, polystyrene, doping).

http://www.akamaiuniversity.us/PJST11_2_446.pdf

Investigations into Pyrolysis of Few Selected Agro-Residues Commonly Found in Nigeria. J.T. Oladeji, M.Sc. (Keywords: pyrolysis, sawdust, rice husk, corncob, char, pyrogas, tar oil, biomass, energy conversion).

http://www.akamaiuniversity.us/PJST11_2_450.pdf

Investigation of *Anthocleista djalonensis* Stem Bark Extract as Corrosion Inhibitor for Aluminum. O.O. Adeyemi, Ph.D. and O.O. Olubomehin, M.Sc. (Keywords: aluminum corrosion, Al, penetration rate, inhibition, *Anthocleista djalonensis*).

http://www.akamaiuniversity.us/PJST11_2_455.pdf

Dormancy and Seed Germination in *Tamarindus indica* (L). A.A. Ajiboye, Ph.D. (Keywords: *Tamarindus indica*, seed germination, dormancy, nitric acid, hydrochloric acid, methanol).

http://www.akamaiuniversity.us/PJST11_2_463.pdf

Kinetic, Isothermal and Equilibrium Studies of the Biosorption of Pb(II) from Solution by a Moss (*Stereophyllum radiculosum*). N.A.A. Babarinde, Ph.D.; J.O. Babalola, Ph.D.; O.O. Adeyemi, Ph.D.; and O.O. Oyesiku, Ph.D. (Keywords: biosorption, Pb(II), *Stereophyllum radiculosum*, isotherm, kinetics, thermodynamics).

http://www.akamaiuniversity.us/PJST11_2_471.pdf

Quantitative High Performance Liquid Chromatographic Analysis of Simple Terpenes, Carotenoids, Phytosterols and Flavonoids in the Leaves of *Acalypha wilkesiana* Muell Arg. Eugene N. Onyeike, Ph.D.; Jude Chigozie Ikewuchi, M.Sc.; Catherine C. Ikewuchi, M.Sc.; and Augustine A. Uwakwe, Ph.D. (Keywords: *Acalypha wilkesiana*, carotenoids, flavonoids, phytochemical, phytosterols, terpenes, HPLC, high performance liquid chromatography).

http://www.akamaiuniversity.us/PJST11_2_480.pdf

Graft Polymerization of Polyacrylonitrile onto Rubber (*Hevea brasiliensis*) Seed Shell-Cellulosic and its Utilization Potential for Heavy Metal Uptake from Aqueous Medium.

Lawrence O. Ekebafe, M.Sc.; Joseph E. Imanah, Ph.D.; Mariam O. Ekebafe, M.Sc.; and Stella O. Ugbesia, M.Sc. (Keywords: rubber seed shell cellulosic, acrylonitrile, grafting, copolymers, metal ions).

http://www.akamaiuniversity.us/PJST11_2_488.pdf

Comparative Study on the Ascorbic Acid Content of Some Common Nigerian Vegetables (*Solanum gilo*, *Gnetum africanum*, *Gongomera latifolium*, and *Vernonia amygalina*). R.E. Enemo, M.Sc.; U.E. Ekpunobi, Ph.D.; D. Nnubia, M.Sc.; and T.U. Onuegbu, Ph.D. (Keywords: ascorbic acid, percentage, storage, vegetables, blanching).

http://www.akamaiuniversity.us/PJST11_2_499.pdf

Studies on Bitter Orange Peel Extract as an Anti-Obesity Agent. C.I. Igwilo, Ph.D.; A.S. Fatoke, M.Sc.; and I.O. Adeleke, B.Pharm, M.Sc. (Keywords: anti-obesity, bitter orange, phenyl-propanolamine, PPA, rabbits, encapsulation).

http://www.akamaiuniversity.us/PJST11_2_504.pdf

Evaluation of Lipids Extracted from Mango and Melon Seeds. O. Olawale, M.Sc. (Keywords: mango, melon seeds, lipids, extraction)

http://www.akamaiuniversity.us/PJST11_2_508.pdf

Histopathology of *Ascaridia galli* Infection on the Liver, Lungs, Intestines, Heart, and Kidneys of Experimentally Infected Domestic Pigeons (*C. I. domestica*) in Zaria, Nigeria.

K.L. Adang; P.A. Abdu; J.O. Ajanusi; S.J. Oniye; and A.U. Ezealor. (Keywords: *A. galli*, histopathology, pigeons, infection, parasites, poultry, fowl, ascariasis).

http://www.akamaiuniversity.us/PJST11_2_511.pdf

Changes in the Weight, Plasma Lipid Profile, and Atherogenic Indices of Salt-Loaded Rats by Aqueous Extract of *Acalypha wilkesiana* Muell Arg: Potential for Cardiovascular Risk Reduction. Jude Chigozie Ikewuchi, M.Sc. (Keywords: *Acalypha wilkesiana*, atherogenic indices, dyslipidemia, lipid profile, salt-loading, weight control).

http://www.akamaiuniversity.us/PJST11_2_516.pdf

Effect of Aqueous Extract of *Sansevieria senegambica* Baker on Plasma Chemistry, Lipid Profile and Atherogenic Indices of Alloxan Treated Rats: Implications for the Management of Cardiovascular Complications in Diabetes Mellitus. Catherine Chidinma Ikewuchi, M.Sc. (Keywords: *Sansevieria senegambica*, alloxan treatment, atherogenic indices, lipid profile, plasma chemistry, plasma glucose, plasma marker enzymes).

http://www.akamaiuniversity.us/PJST11_2_524.pdf

Measurement of Grass Surface Temperature at Uturu, Nigeria. I.U. Chiemeka, Ph.D. (Keywords: grass, grass temperature, temperature, grass minimum thermometer).

http://www.akamaiuniversity.us/PJST11_2_532.pdf

Assessment of Toxicity of Effluents Discharged into Waterways by Some Industries in Nigeria: A Case Study of Ibadan. G.O. Adewuyi, Ph.D.; J.O. Babayemi, M.Sc.; and A.A. Olabanji, M.Sc. (Keywords: whole effluent toxicity test, WET, *Clarias gariepinus*, African catfish, lethal concentration, LC50).

http://www.akamaiuniversity.us/PJST11_2_538.pdf

Seasonal Levels of Meteorological Visibility at Port-Harcourt Nigeria and Possible Links to Aerosol Loading and Humidification. Okey K. Nwofor, Ph.D. (Keywords: visibility, aerosols, Harmattan season, humidity, atmospheric extinction, Port Harcourt, Nigeria).

http://www.akamaiuniversity.us/PJST11_2_544.pdf

Time Series Analysis of Rainfall and Temperature in South West Nigeria. Oluwafemi Samuel Oyamakin, Femi Joshua Ayoola, and Oluwatosin Tolulope Dare. (Keywords: agro-meteorological data, rainfall, temperature, least square method, climate change, moving average, corellogram).
http://www.akamaiuniversity.us/PJST11_2_552.pdf

Numerical Modeling of Spilled Oil Transport in Marine Environment. P.E. Chigbu and K.J. Bassey. (Keywords: marine environment, oil spill, numerical scheme, spill transport, oil concentration, Navier-Stoke equation).

http://www.akamaiuniversity.us/PJST11_2_565.pdf

Variability of Nitrate in Groundwater in Some Parts of Southwestern Nigeria. A.M. Gbadebo, Ph.D.; J.A. Oyedepo, M.Sc.; and A.M. Taiwo, M.Sc. (Keywords: nitrate distribution, groundwater resources, Abeokuta, geological formations, Nigeria).

http://www.akamaiuniversity.us/PJST11_2_572.pdf

Cleaner Production of Garnet Sand for Environmental Abatement. T.V. Vijaya Kumar; D.S. Rao; S. Subba Rao; S. Prabhakar; and G. Bhaskar Raju.

(Keywords: garnet sand, sand blasting, surface cleanliness, attrition scrubbing)

http://www.akamaiuniversity.us/PJST11_2_585.pdf

Noise Pollution in Port Harcourt Metropolis: Sources, Effects, and Control. Valentine B. Omubo-Pepple, Ph.D.; Margret A. Briggs-Kamara, Ph.D.; and Iyeneomie Tamunobereton-ari, Ph.D. (Keywords: noise pollution, generators, loudspeakers, impaired hearing, hearing loss, Port Harcourt, social-economic impacts, health hazard).

http://www.akamaiuniversity.us/PJST11_2_592.pdf

A 3D Geo-Spatial Virtual Reality System for Virtual Tourism. V.F. Balogun, M.Sc.; A.F. Thompson, M.Tech.; and O.A. Sarumi, B.Tech. (Keywords: virtual tourism, virtual reality system, geographic information system, dynamic web technologies).

http://www.akamaiuniversity.us/PJST11_2_601.pdf

Geotourism Resources for Sustainable Development and Recreation: Plateau State Case Study. A.E. Ogezi, Ph.D.; T. Aga, M.Sc.; and I. Okafor, M.Sc. (Keywords: geotourism, ecotourism, sustainability, cultural resources, recreation, education).

http://www.akamaiuniversity.us/PJST11_2_610.pdf

Evaluation of Geotechnical Properties of Ilesha East Southwestern Nigeria's Lateritic Soil. A.A. Bello, Ph.D. and C.W. Adegoke, Ph.D. (Keywords: particle size analysis test, Atterberg limit test, British standard light compaction test, specific gravity, California bearing ratio, soil classification, geotechnical properties).

http://www.akamaiuniversity.us/PJST11_2_617.pdf

Architecture of Joints at Ago-Sunmonu, South Western Nigeria. K. Omosanya, M.Sc.; O. Ajibade, M.Sc.; and A. Akintola, M.Sc. (Keywords: joints, polyphase deformation, conjugate, migmatized-gneiss).

http://www.akamaiuniversity.us/PJST11_2_625.pdf

Source Parameters of the Intraplate Event in Guinea, West Africa. Edward O. Osagie, Ph.D. (Keywords: earthquake, West Africa, seismicity, seismic movement, average fault dislocation, stress drop, seismic energy, fault length).

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Variation of Thermophysical Properties of Clay with Adsorption Optimization. James Adeyemo Adegoke, Ph.D.; Babatunde Ogunsile, Ph.D.; and Adekunle, Oluwatoyin Adetoro, M.Sc. (Keywords: heavy metals, clays, adsorption, thermophysical properties, transient method).
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Geophysical Investigation of Pavement Failure in a Basement Complex Terrain of Southwestern Nigeria. O.J. Akintorinwa, Ph.D.; J.S. Ojo, Ph.D.; and M.O. Olorunfemi, Ph.D. (Keywords: geophysical investigation, pavement failure, basement complex terrain).
http://www.akamaiuniversity.us/PJST11_2_649.pdf

The Role of Geosciences in Sustainable Development of an Expanding Urban Region: A Case Study of the Jos–Bukuru Urban Region, North Central Nigeria. James D. Gyang, M.Tech. and Edafetano C. Ashano, Ph.D. (Keywords: waste, pollution, geosciences, urbanization, industrialization, tailings).
http://www.akamaiuniversity.us/PJST11_2_664.pdf

Variation of Mean Radiation Dose with Distance of Sites Proximal to PURECHEM Cement Factory, Onigbedu Ogun State, Nigeria. Norbert N. Jibiri, Ph.D.; Olukorede O. Adewole, M.Sc.; and Kolawole A. Egunjobi, M.Sc. (Keywords: natural radioactivity concentrations, mean absorbed dose, variation, radiation hazards).
http://www.akamaiuniversity.us/PJST11_2_671.pdf

Computer Modeling for Assessing the Detectability of the Transition Zone in the Basement Complex Terrain of Southwest Nigeria. Lawrence O. Ademilua, Ph.D. and Martins O. Olorunfemi, Ph.D. (Keywords: computer modeling, VES, BABRES, basement complex profiles).
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Seismic Evaluation of Embankment by Shaking Table Test and Finite Element Method. Abdoullah Namdar and Azam Khodashenas Pelko. (Keywords: modeling, stress, strain, Poisson ratio, accurate method, deformation, earth dams, geotechnical engineering, earthquake resistance).
http://www.akamaiuniversity.us/PJST11_2_699.pdf

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Design of a Model of a Single-Slope Integrated Type Voltage to Frequency Converter. D.A. Shalangwa, M.Eng. (Keywords: design, analogue/digital signals, modification adaptation)
http://www.akamaiuniversity.us/PJST11_1_4.pdf

Simulation of the Performance of Induction Machine under Unbalanced Source Voltage Conditions. E.J. Akpama, M.Eng.; O.I. Okoro, Ph.D.; and E. Chikuni, Ph.D. (Keywords: modeling, simulation, voltage unbalance, sequence voltage, efficiency, temperature rise, stability performance)
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Development of 50dB Yagi-Uda Antenna for Effective Communication. G. Adedokun, M.Eng., MNSE, R.Eng. and K.A. Adegbeye, M.Sc., MNSE, R.Eng., AMNIM. (Keywords: electromagnetic waves, radiation, gain, dipole, reflector, frequency, wavelength, directivity, optimization, signal strength, television, T.V., broadcasting)
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ISBAS: An Infrared Sensor Burglar Alert System. J.C. Osuwa, Ph.D. and U. Divino, B.Sc. (Keywords: infrared sensor, ISBAS, LED, relay, alarm, low power consumption)
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Variation of Exit Gradient Downstream of Weirs on Permeable Foundations. Arun Goel, Ph.D. and Narayana N. Pillai, Ph.D. (Keywords: weir, exit gradient, foundations, construction engineering, safety, curve calculation)
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Analysis of the Effect of Viscous Dissipation on the Temperature Profile of the Laminar Flow in a Channel Filled with Saturated Porous Media. Olaseni Taiwo Lamidi, M.Tech. and Philip Oladapo Olanrewaju, Ph.D. (Keywords: laminar flow, porous medium, temperature profile, viscous dissipation)
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The Effect of Pouring and Vibration on Cast Quality. P.A.O. Adegbuyi; J.O. Uhomoibhi; K.A. Adedeji; and N.A. Raji. (Keywords: vibration, solidification, pouring techniques, hardness, strength, ductility)
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Assessment of the Quality of Steel Rods Available in Onitsha Market: In View of the Role of Poor Quality Rods in Building Failures in Nigeria. Benneth C. Chukwudi, M.Eng. and Julius O. Onyeka, M.Sc. (Keywords: mechanical properties, structures, steel rods, reinforced concrete, failure, construction, metallography)
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Evaluating the Performance of Some Predictive Models for Estimating Global Solar Radiation across the Varying Climatic Conditions in Nigeria. E.O. Ogolo, Ph.D. (Keywords: performance indicators, global solar radiation, models, regression analysis, sunshine hour and temperature)
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Estimation of Global Solar Radiation on Horizontal Surfaces over Haditha, Samara, and Beji, Iraq. Fayadh M. Abed Al-Dulaimy, Ph.D. and Ghazi-Yousif-Mohammed Al-Shahery, D.Sc. (Keywords: solar global, solar radiation maximum and minimum temperature, relative sunshine duration, Hargreaves equation, meteorological data)
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Economic Profitability Studies of Liquefied Natural Gas Project under Joint Ventures and Production Sharing Contracts. A.J. Alawode, M.Sc. and Olusegun A. Omisakin, M.Sc. (Keywords: economic profitability, liquefied natural gas, joint ventures, production sharing contracts)

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Fuel Characterization of Briquettes Produced from Corncob and Rice Husk Residues. J.T. Oladeji, M.Sc. (Keywords: corncob, rice husk, briquette, biomass fuel, agricultural residues) http://www.akamaiuniversity.us/PJST11_1_101.pdf

Transient Analysis of DFIG and IG during Grid Fault. Kenneth E. Okedu, M.Eng. (Keywords: wind energy, doubly fed induction generator, induction generator, grid fault, wind turbine) http://www.akamaiuniversity.us/PJST11_1_107.pdf

Development of Electrical Power System Simulator. G. Adedokun, M.Eng., MNSE, R.Eng. (Keywords: electric energy, power system, simulation, equipment, instrument, generation, transmission, distribution, load, sub-station, high-voltage, substation, transformer, excitation system, grid, prime-mover)

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A Compound Compensation Using DFACTS and Switch Based Fault Current Limiter (SFCL). A. Kargarian, M.Sc. and A.R. Seifi, Ph.D. (Keywords: custom power device, shunt compensation, series compensation, switch based fault current limiter, SFCL, power quality) http://www.akamaiuniversity.us/PJST11_1_120.pdf

Power Flow Study and Comparison of FACTS: Series (SSSC), Shunt (STATCOM), and Shunt-Series (UPFC). Alireza Seifi, Ph.D.; Sasan Gholami, M.S.; and Amin Shabani, M.S. (Keywords: FACTS, flexible AC transmission systems, MATLAB, Newton-Raphson algorithm, power flow, Static Synchronous Compensator, STATCOM, Static Synchronous Series Compensator, SSSC, Unified Power Flow Controller, UPFC) http://www.akamaiuniversity.us/PJST11_1_129.pdf

The Impact of the Pre-Paid Meter on Revenue Generation in Nigeria. Emmanuel A. Ogujor, Ph.D. and Paul O. Otasowie, Ph.D. (Keywords: prepaid, post-paid, reliability, meter, power, electricity bill, utilities, revenue collection) http://www.akamaiuniversity.us/PJST11_1_138.pdf

Quite Time Longitudinal and UT Variation of the Equatorial Electrojet inferred from CHAMP Satellite. A.A. Adetoyinbo, O.S. Hammed, and E.U. Ijeoma. (Keywords: equatorial electrojet, equatorial ionosphere, height integrated current intensity) http://www.akamaiuniversity.us/PJST11_1_143.pdf

Dufour and Soret Effects of a Transient Free Convective Flow with Radiative Heat Transfer Past a Flat Plate Moving Through a Binary Mixture. Olanrewaju Phillip Oladapo, Ph.D. (Keywords: radiative heat, Arrhenius kinetics, boundary layer flow, binary mixture, porous plate, Dufour and Soret effects) http://www.akamaiuniversity.us/PJST11_1_163.pdf

Mathematical Foundations of the Relativistic Theory of Quantum Gravity. Prof. Fran De Aquino. (Keywords: quantum gravity, quantum cosmology unified field) http://www.akamaiuniversity.us/PJST11_1_173.pdf

On Equivalence of n-Norms in n-Normed Spaces. B. Surender Reddy and Hemen Dutta.

(Keywords: *n*-normed space, Cauchy sequence, equivalent norms)

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The Influence of Denominator Functions on Finite-Difference Schemes in Achieving Correct Linear Stability Properties for a Finite Step-Size. Joshua Sunday, M.Sc. (Keywords: finite-difference, stability, denominator function, autonomous)

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Bliss Model for Multiple Players. Omolade Onifade. (Keywords: sharing game, asymmetrical information, revenue sharing)

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Sensitivity of Estimators to Three Levels of Correlation between Error Terms. A.A. Adepoju and J.O. Iyaniwura. (Keywords: limited-information estimators, full-information estimators, sensitivity, finite-sample, Monte Carlo experiment, correlation coefficient)

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A Six Step Block Method for Solution of Fourth Order Ordinary Differential Equations. U. Mohammed, M.Tech. (Keywords: linear multistep methods, LMMs, p- stability, zero-stability)

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On the Two-Parameter Bifurcation in a Predator-Prey System of Ivlev Type. Prof. Maligie Surrah Sesay; Bala Ma'aji Abdulhamid, Ph.D.; and Suleiman Onimisi Aliyu. (Keywords: predator prey system, Ivlev type, Jacobian matrix, critical point)

http://www.akamaiuniversity.us/PJST11_1_266.pdf

Telecommunication Cost Reduction in Nigeria through Infrastructure Sharing between Operators. Francis E. Idachaba, Ph.D. (Keywords: collocation, telecommunications, infrastructure, ducts, CAPEX, OPEX)

http://www.akamaiuniversity.us/PJST11_1_272.pdf

Broadband For All by WiMAX Technology. Amit Kumar, M.Phil.; Jyotsna Sengupta, Ph.D.; and Yunfei Liu, Ph.D. (Keywords: WiMax, worldwide interoperability for microwave access, IEEE 802.16, MIMO, OFDMA, mobile broadband)

http://www.akamaiuniversity.us/PJST11_1_278.pdf

Implementation of Secure Real Time Transport Protocol on VoIP over Wired In-Campus Network Environment. Mohd Nazri Ismail. (Keywords: secure real time transport protocol, SRTP, softphone®, communications, telecommunications, G.711, G.762, GSM, iLBC, SPEEX, LAN)

http://www.akamaiuniversity.us/PJST11_1_287.pdf

Grammar Induction Strategy Using Genetic Algorithm: Case Study of Fifteen Toy Languages. Nitin S. Choubey, Ph.D. and Madan U. Kharat, Ph.D. (Keywords: evolutionary computation, genetic algorithm, automata, context free grammar, grammar induction)

http://www.akamaiuniversity.us/PJST11_1_294.pdf

A Perspective View on the Development and Applications of Geographical Information System (GIS) in Nigeria. J.T. Fadahunsi, M.Sc. (Keywords: GIS, development, application, information technology, developing countries)

http://www.akamaiuniversity.us/PJST11_1_301.pdf

Architecture of a Low Cost Electronic Voting Machine Suitable for Deployment in Developing Countries. Jonathan A. Enokela, Ph.D. and Charles C. Osuagwu, Ph.D. (Keywords: electronic voting machine, election, democracy)
http://www.akamaiuniversity.us/PJST11_1_649.pdf

Chronic Disease Management in Developing Nations: The Possible Role of Telemedicine. Chiagozie A. Otuechere and Oluyomi Stephen Adeyemi. (Keywords: telemedicine, diabetes, hypertension, health information, developing nations)
http://www.akamaiuniversity.us/PJST11_1_309.pdf

General Theory of Games with Virtual Strategies. Chidozie Chukwuemeka Nwobi-Okoye. (Keywords: games, virtual strategies, Nash equilibrium)
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Development of Equipment Maintenance Strategy for Critical Equipment. Damilare T. Onawoga, B.Sc. and Olasunkanmi O. Akinyemi, M.Sc. (Keywords: maintenance, strategy, industry, management, critical equipment)
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E-Crime in Nigeria: Trends, Tricks, and Treatment. Victor F. Balogun, M.Sc. and Olumide O. Obe, M.Sc. (Keywords: e-crime, cyberspace, telephony crime, hacking, e-commerce, e-mail scams, internet fraud)
http://www.akamaiuniversity.us/PJST11_1_343.pdf

Framework for Computer Aided Investigation of ATM Fraud in Nigeria. Azeez Nureni Ayofe, M.Sc.; Azeez Raheem Ajetola, M.Sc.; Sulaimon Bashir Adebayo, M.Sc.; and Funsho Abdulwahab Atanda, M.Sc. (Keywords: automatic teller machine, ATM fraud, framework, user culprit, bank, ATM clone, crime, criminal investigation, expert system)
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Computer Efficacy, Use, and Phobia: Contributions to Nigerian Undergraduates' Academic Performance in a Computer Graphics Course. Alaba O. Agbatogun, M.Ed. and Biodun Banjo, Ph.D. (Keywords: computer efficacy, use, phobia, academic performance, grades, computer graphics course)
http://www.akamaiuniversity.us/PJST11_1_362.pdf

A Study of the Kinetics of Dissolution of a Nigerian Laterite in Sulfuric Acid. Folahan A. Adekola, Ph.D.; Alafara A. Baba, Ph.D.; and Olushola S. Ayanda, M.Sc. (Keywords: laterite, activation energy, order of reaction, dissolution kinetics, sulfuric acid, sulphuric acid, loss of mass on ignition, moisture content, pH, ICP-MS)
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Preparation of Co-Mo Catalyst using Activated Carbon Produced from Egg Shell and SiO₂ as Support. S. Adeniyi Ogunlaja, M.Sc.; S. Olalekan Alade, M.Eng.; and Y. Funmilola Oladipo, M.Sc. (Keywords: methyl orange, hydrogenation, Cobalt-Molybdenum catalyst)
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Corrosion of Aluminum in Water-Ethanol Mixture in the Presence of *Anthocleista vogelii* Extract. O.O. Adeyemi, Ph.D. and O.O. Olubomehin, M.Sc. (Keywords: *Anthocleista vogelii*, corrosion, inhibition efficiency, adsorption)
http://www.akamaiuniversity.us/PJST11_1_390.pdf

Effect of Deposition Time on Surface Topography of Chemical Bath Deposited PbSe Thin Films Observed by Atomic Force Microscopy. K. Anuar, Ph.D.; H.A. Abdul, Ph.D.; S.M. Ho, M.Sc.; and N. Saravanan, Ph.D. (Keywords: chemical bath deposition, lead selenide, thin films, atomic force microscopy)

http://www.akamaiuniversity.us/PJST11_1_399.pdf

Optical Properties and Band Offsets of CdS/PbS Superlattice. I.A. Ezenwa and A.J. Ekpunobi. (Keywords: chemical bath deposition, type 1 superlattice, semiconductor, optical properties)

http://www.akamaiuniversity.us/PJST11_1_404.pdf

Optical Properties of Chemical Bath Deposited Ag₂ Thin Films. D.N. Okoli, Ph.D., G.C. Okeke, M.Sc., and A.J. Ekpunobi, Ph.D. (Keywords: optical properties, photovoltaic, Ag₂S thin films, chemical bath deposition technique, complexing agent)

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Proximate and Mineral Composition of Different Species of Snail Shell. O.E. Jatto, M.Sc.; I.O. Asia, Ph.D.; and W.E. Medjor, M.Sc. (Keywords: *Achatina achatina*, *Achatina marginata*, *Achatina fulica*, *Limicolera* sp., mineral composition, feed protein, heavy metals)

http://www.akamaiuniversity.us/PJST11_1_416.pdf

Seed Germination and Peroxidase Analysis of Some Valuable Savanna Tree Seed Species. A.A. Ajiboye, Ph.D.; D.A. Agboola, Ph.D.; and M.A. Atayese, Ph.D. (Keywords: seeds, germination, peroxidase, trees)

http://www.akamaiuniversity.us/PJST11_1_430.pdf

Characteristics of Input Use by Crop Farmers in South-Western Nigeria. M.O. Raufu, Ph.D. (Keywords: agricultural inputs, production, management system, investment on land)

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Effect of *Acalypha wilkesiana* Muell Arg Leaf Meal on the Tissue Profile of Enzymes of Energy Metabolism in Salt-Loaded Rats. Jude Chigozie Ikewuchi, M.Sc.; Catherine Chidinma Ikewuchi, M.Sc.; George Edaghogho Eriyamremu, Ph.D.; and Jerry Noghain E. Orhue, Ph.D. (Keywords: *Acalypha wilkesiana*, acid and alkaline phosphatase, lactate dehydrogenase, pyruvate kinase)

http://www.akamaiuniversity.us/PJST11_1_443.pdf

Regional Levels and Differentials of Fertility in Osun State, Nigeria. Festus Daisi Famule, M.Sc. (Keywords: fertility levels, P/F ratio, peak fertility, reproduction, reproductive rates, TFR)

http://www.akamaiuniversity.us/PJST11_1_449.pdf

Hazardous Effects of EM Radiation from Siting Mobile Phone Masts Close to Residential Houses and Schools. Jonas U. Agbo, HND. and Brendan Nnadi, B.Engr. (Keywords: human health, base stations, electromagnetic frequencies, EMF, power density, environmental pollution, electromagnetic pollution)

http://www.akamaiuniversity.us/PJST11_1_455.pdf

Intestinal Nematodes: A Review. Olushola S. Ayanda, M.Sc.; Omolola T. Ayanda, B.Sc.; and Folashade B. Adebayo, B.Sc. (Keywords: *Ascaris lumbricoides*, *Enterobius vermicularis*, *Ancylostoma duodenale*, *Necator americanus*, *Strongyloides stercoralis*, *Trichuris trichiura*, intestinal roundworm, pinworm hookworm, threadworm, whipworm, nematodes, life cycle)

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Soil Temperature Profile at Uturu, Nigeria. I.U. Chiemeka, Ph.D. (Keywords: bare soil, temperature, soil profile, mercury-in-glass thermometer)

http://www.akamaiuniversity.us/PJST11_1_478.pdf

Effects of Poor Conductors on Continental Crustal Heat Flow Parameters. O.I. Popoola, Ph.D. and A.E. Ojo, M.Sc. (Keywords: thermal conductivity, thermal diffusivity, thermal gradient, heat flow, temperature, ^{238}U , ^{232}Th , radioactive heat sources, poor conductors, petroleum, hydrocarbons, coal)

http://www.akamaiuniversity.us/PJST11_1_483.pdf

Sedimentary Fill Modeling: Relationships to Sequence Stratigraphy and Its Implications for Hydrocarbon Exploration in the Niger Delta, Nigeria. Omabehere I. Ejeh, M.Sc. (Keywords: sedimentary fill, forward modeling, sequence stratigraphy, Niger Delta, Nigeria)

http://www.akamaiuniversity.us/PJST11_1_502.pdf

Petrologic and Structural Characteristics of the Basement Units of Bansara Area, Southeastern Nigeria. N. Egesi, M.Sc. and V.U. Ukaegbu, Ph.D. (Keywords: rock units, deformation, metamorphism, intrusions, geodynamic features, basement complex, southeastern Nigeria)

http://www.akamaiuniversity.us/PJST11_1_510.pdf

Technical Feasibility of Direct Application of the Nigerian Tar Sand Deposits as Road Asphalt. A. Akinmosin, Ph.D. and A.O. Shoyemi, B.Sc. (Keywords: asphalt, bitumen, tar sand, aggregates, mix, stability)

http://www.akamaiuniversity.us/PJST11_1_526.pdf

Micro-Resistivity Measurements, Near-Surface Sequence Delineation, and Empirical Relationships with Engineering Geotechnical Parameters. Inumidun B. Iginla, M.Sc.; Martins O. Olorunfemi, Ph.D.; Gabriel O. Bayowa, M.Sc.; and James O. Akintorinwa, Ph.D. (Keywords: micro-resistivity, geotechnical parameters, empirical equations)

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Application of Geotechnical Technique in Urban Design. Abdoullah Namdar, Ph.D. (Keywords: deformation, structure self weight, mitigation, liquefaction, sandy subsoil)

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Geophysical Investigation of the Origin of Abrupt Changes in Subsurface Properties in Zaria Area, Nigeria. I.B. Osazuwa, Ph.D.; S.O. Ibe, Ph.D.; and G.N. Egwuonwu, Ph.D. (Keywords: Zaria Batholiths, Nigerian Basement Complex, rock contacts, tomography inversion, downthrow, grabenation)

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Analytical Velocity Model for Depth Conversion in the Subsurface Facies of Agbada Formation in the Niger Delta, Nigeria. G.I. Alaminokuma and C.C. Ugbor. (Keywords: top interface velocity, compaction factor, depth conversion, facies of Agbada Formation, Niger Delta)

http://www.akamaiuniversity.us/PJST11_1_563.pdf

Isolation of Residuals Determined from Polynomial Fitting to Gravity Data of Calabar Flank, Southeastern Nigeria. A.A. Okiwelu, Ph.D.; I.B. Osazuwa, Ph.D.; and K.M. Lawal, Ph.D. (Keywords: Bouguer gravity anomaly data, Calabar Flank, gravity field)

http://www.akamaiuniversity.us/PJST11_1_576.pdf

Temporal Mapping and Prediction of Coastal Biomass for Keti Bunder. Muhammad Abdullah Sohl, B.Sc.(hon); Anser Mehmood, B.Sc.(hon); Muhammad Haris Mazher, B.Sc.(hon); Najam, B.Sc.(hon); Urooj Saeed, M.Sc.; and Hafiz Muhammad Rafique, M.Phil. (Keywords: mangrove, mapping, Indus Delta, GIS, satellite images, Matlab®, prediction)

http://www.akamaiuniversity.us/PJST11_1_586.pdf

Polyethylene Plastics (PEP): Considerations for Its Classification as a New Type of Persistent Organic Pollutants (POPs) from a Developing Country's Perspective. Stephen S. Hati, Ph.D. and Goni A. Dimari, Ph.D. (Keywords: Stockholm convention, POP, polyethylene bags, waste management, developing countries)

http://www.akamaiuniversity.us/PJST11_1_592.pdf

Osun River Basin Sediments Heavy Mineral Distribution. Emmanuel O. Joshua, Ph.D.; Oluwakemi A. Oyebanjo, M.Sc.; Nnamdi N. Jibari, Ph.D.; and Olusola O. Fasunwon, Ph.D. (Keywords: heavy minerals, river sediments, activity concentration, provenance, mineralogical component, Osun River, zircon, tourmaline, rutile, silimataite, garnet, epidote, staurolite)

http://www.akamaiuniversity.us/PJST11_1_598.pdf

Spatial Distribution and Contamination Status of Arsenic, Cadmium and Lead in some Coastal Shrimp (*Macrobrachium rosenbergii*) Farming Ponds of Viet Nam. Jatindra N. Bhakta, Ph.D. and Yukihiro Munekage, Ph.D. (Keywords: coastal shrimp pond, mud, toxic metals, heavy metals, distribution patterns, contamination)

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Studies of the Concentration Levels of Heavy Metals in Vegetable (*Amaranthus caudatus*) Grown in Dumpsites within Lagos Metropolis, Nigeria. G.O. Adewuyi, Ph.D.; F.A. Dawodu, Ph.D.; and N.N. Jibiri, Ph.D. (Keywords: *Amaranthus caudatus*, dumpsite, Lagos metropolis, heavy metals, vegetables)

http://www.akamaiuniversity.us/PJST11_1_616.pdf

The Biosorption of Pb(II) from Solution by Elephant Grass (*Pennisetum purpureum*): Kinetic, Equilibrium, and Thermodynamic Studies. N.A. Adesola Babarinde, Ph.D. and J. Oyebamiji Babalola, Ph.D. (Keywords: biosorption, Pb(II), lead, adsorption isotherms, elephant grass)

http://www.akamaiuniversity.us/PJST11_1_622.pdf

Effects of Mining on Water Quality and the Environment: A Case Study of Parts of the Jos Plateau, North Central Nigeria. James D. Gyang, M.Tech. and Edefatano C. Ashano, Ph.D. (Keywords: mine ponds, overburden, mine wastes, tailings, leachates, tin, chromium, columbite)

http://www.akamaiuniversity.us/PJST11_1_631.pdf

Physical and Chemical Parameters in Abattoir Wastewater Sample, Maiduguri Metropolis, Nigeria. Joseph C. Akan, Ph.D.; Fanna I. Abdulrahman, Ph.D.; and Emmanuel Yusuf, B.Sc. (Keywords: physical, chemical, abattoir, wastewater, pollution, water quality)

http://www.akamaiuniversity.us/PJST11_1_640.pdf

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Determination of Aerosol Mass Loading in Ilorin Using Remote Sensing Technique.

P.E. Okpani. (Keywords: passive remote sensing, aerosol mass loading, aerosol size distribution).

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Effect of Climatological Parameters on Propagation Delay through the Atmosphere.

M. Maiti, M.Sc., M.Tech., Ajay K. Datta, Ph.D., and P.K. Karmakar, Ph.D. (Keywords: propagation delay, radio signals, water vapor density, cloud liquid, temperature lapse rate, wet adiabatic lapse rate).

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A Generalized Rectified Sinusoidal PWM Technique for Harmonic Elimination.

C.U. Ogbuka, M.Eng. and M.U. Agu, Ph.D. (Keywords: sinusoidal pulsewidth modulation, harmonics, modulation index, frequency ratio, MATLAB®).

http://www.akamaiuniversity.us/PJST10_2_21.pdf

The Influence of Compressibility on Economic Pipe Diameter for Viscous Flow.

T.A. Akintola and M.A. Sulaiman, M.Sc. (Keywords: laminar flow, compressibility, economic pipe diameter, optimization, engineering).

http://www.akamaiuniversity.us/PJST10_2_27.pdf

Empirical Formulations for Inter-Layer Precipitable Water Vapor in Nigeria.

Babatunde Adeyemi, Ph.D. (Keywords: ANOVA, regression, climatological, tropospheric, precipitable).

http://www.akamaiuniversity.us/PJST10_2_35.pdf

Magnetics of an Idealized Asynchronous Reluctance Machine with no Moving Conductors.

L.U. Anih, Ph.D. (Keywords: magneto-motive force, mmf, permeance, auxiliary transported windings, skewed windings).

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Determination of Proportionality Constants from Experiments to Develop a Force Model for Reaming Process.

C. Raghavendra Kamath, M.S., M.Tech. and K.K. Appu Kuttan, Ph.D.

(Keywords: mechanistic, reamer, static force, tangential force, specific cutting coefficients).

http://www.akamaiuniversity.us/PJST10_2_57.pdf

Modeling of Tool Wear Parameters in High-Pressure Coolant Assisted Turning of Titanium Alloy Ti-6Al-4V Using Artificial Neural Networks.

D.A. Fadare, Ph.D., E.O. Ezugwu, Ph.D., and J. Bonney, Ph.D. (Keywords: artificial neural network, titanium alloy, tool wear, machining, tool condition monitoring).

http://www.akamaiuniversity.us/PJST10_2_68.pdf

Dynamic Modeling and Simulation of a 3-HP Asynchronous Motor Driving a Mechanical Load.

C.U. Ogbuka, M.Eng. (Keywords: asynchronous motor, dynamic modeling, stationary reference frame, MATLAB/SIMULINK®).

http://www.akamaiuniversity.us/PJST10_2_77.pdf

A New Hybrid Synchronous Machine Capable of Ultra-High Output Power.

L.U. Anih, Ph.D., C.U. Ogbuka, M.Eng., and M. Ewelum, B.Tech. (Keywords: ultra-high output power, transposed auxiliary windings, variable ratio, capacitance tuning).

http://www.akamaiuniversity.us/PJST10_2_83.pdf

Integrated Geophysical Methods for Post Foundation Studies, Obanla Staff Quarters of the Federal University of Technology, Akure, Nigeria. M.O. Ofomola, K.A.N. Adiat, G.M. Olayanju, and B.D. Ako. (Keywords: very low frequency electromagnetic, VLF-EM, electrical resistivity, distressed buildings, competent formation, depth-to-bedrock).

http://www.akamaiuniversity.us/PJST10_2_93.pdf

Transverse Vibrations of Elastic Thin Beam Resting on Variable Elastic Foundations and Subjected to Traveling Distributed Forces. B. Omolofe and S.N. Ogunyebi. (Keywords: damping, distributed forces, foundation stiffness, response of structures, moving masses).

http://www.akamaiuniversity.us/PJST10_2_112.pdf

Study of the Effect of Welded Joints on the Mechanical Properties of Wrought (6063) Aluminum Alloy. I.O. Oladele, M.Sc., J.A. Omotoyinbo, Ph.D., and B.O. Adewuyi, Ph.D. (Keywords: welded joints, welding current, voltage, wrought 6062-Aluminu alloy, mechanical properties).

http://www.akamaiuniversity.us/PJST10_2_120.pdf

Fabrication of Annealing Furnace for Thin Film Characterizations. P.O. Offor, M.Eng. and B.A. Ezekoye, Ph.D. (Keywords: annealing, thin films, furnace, magnetic, temperature-controller).

http://www.akamaiuniversity.us/PJST10_2_126.pdf

Performance Evaluation of an Automated Traveling Baking and Roasting Oven. I.O. Ogunleye, Ph.D., R. Engr., COREN, O. Awogbemi, R. Engr. COREN, and O.O. Okeowo, B. Eng. (Keywords: baking, food, heating chamber, oven, mobile cooking technology).

http://www.akamaiuniversity.us/PJST10_2_130.pdf

Application of Fractal Analysis in Evaluating the Pores in Heat Treated Samples of Al-20%wtMg. M.O. Durowoju, Ph.D., M.A. Waheed, Ph.D., and E.B. Lucas, Ph.D. (Keywords: Aluminum alloy, quenching, fractal dimensions).

http://www.akamaiuniversity.us/PJST10_2_136.pdf

Intercritical Heat Treatments and the Mechanical Properties of Hot-Rolled Low Carbon Steels. P.O. Offor, M.Eng. and B.A. Ezekoye, Ph.D. (Keywords: intercritical temperature, quenching, tempering, annealing, normalizing, mechanical properties).

http://www.akamaiuniversity.us/PJST10_2_142.pdf

The Effect of Annealing on the Microstructure of Mechanical Properties of a Rolled Steel Product. Patrick Adebisi Olusegun Adegbuyi, M.Eng. and Andrew Atiri, B.Sc. (Keywords: effect of annealing, microstructure, mechanical properties, rolled steel product).

http://www.akamaiuniversity.us/PJST10_2_149.pdf

Effects of Temperature on the Oxidation Kinetics of Copper Alloys. P.A.O. Adegbuyi, M.Eng., K.A. Adedeji, M.Sc., A. Adebosin, M.Sc. and O.F. Alo, B.Sc. (Keywords: temperature, oxidation kinetics, copper, alloys, oxide films).

http://www.akamaiuniversity.us/PJST10_2_163.pdf

Corrosion Behavior of Nickel Plated Medium Carbon Steel in Cocoa Liquor. O.O. Oluwole, Ph.D. and O. Olorunfemi, B.Sc. (Keywords: corrosion resistance, nickel plating, low carbon steel, cocoa liquor).

http://www.akamaiuniversity.us/PJST10_2_172.pdf

Parameter-Study on the Influence of Steel and Polyester Fibers in the Self-Compacting Concrete. D.L. Shah and C.D. Modhere, Ph.D. (Keywords: self compacting fiber reinforced concrete, fresh properties of SCC, steel fibers, polyester fibers, compressive strength).

http://www.akamaiuniversity.us/PJST10_2_178.pdf

Boundedness and Stability of Solutions of Some Nonlinear Differential Equations of the Third-Order. A.T. Ademola, M.Sc. and P.O. Arawomo, Ph.D. (Keywords: third-order, differential equations, stability, uniform-bounded, ultimate boundedness).

http://www.akamaiuniversity.us/PJST10_2_187.pdf

Some New Type of Lacunary Difference Sequence Spaces Defined by Sequence of Orlicz Functions. Bipan Hazarika and Binod Chandra Tripathy. (Keywords: Lacunary sequence, Orlicz function).

http://www.akamaiuniversity.us/PJST10_2_194.pdf

Lacunary I -Convergent Sequences of Fuzzy Real Numbers. Bipan Hzaarika. (Keywords: ideal, I -convergent, I -Cauchy, fuzzy real number, lacunary sequence).

http://www.akamaiuniversity.us/PJST10_2_203.pdf

On Regression Analysis of Students' Academic Performance. R.A. Adeleke*, O.Y. Halid, and O.D. Ogunwale. (Keywords: ordinary least square, OLS, regression, variables, parameters, hypotheses, exogenous, endogenous).

http://www.akamaiuniversity.us/PJST10_2_207.pdf

The Place of Non-Parametric Statistics in the Conduct of Research in the Millennium Age (21st Century). O.O. Olaewe, Ph.D. and K.A. Bashiru, M.Tech. (Keywords: non-parametric, research activity, statistics, statistical analysis, research design).

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Nonlinear Trigonometric Transformation Time Series Modeling. K.A. Bashiru, O.E. Olowofeso, and S.A. Owabumoye. (Keywords: nonlinear time series, polynomial, consistency, efficiency, missing value, model and forecasting).

http://www.akamaiuniversity.us/PJST10_2_217.pdf

On the Use of Characteristic Function for Generating Moments of Probability Distributions. O.D. Ogunwale, M.Sc., O.Y. Halid, M.Sc., and F.D. Famule, M.Sc. (Keywords: characteristic functions, CF, independent and identically distributed random variables, IID).

http://www.akamaiuniversity.us/PJST10_2_228.pdf

Improved Parallel Methods for Second Order ODEs. Y.A. Yahaya, Ph.D. (Keywords: multistep, collocation, second order initial/boundary valued problems, block, parallel, zero stability).

http://www.akamaiuniversity.us/PJST10_2_235.pdf

On Some Difference Sequence Spaces. Hemen Dutta, M.Phil. (Keywords: difference sequence space, completeness, BK-space, separable space, reflexive space, Hilbert space, basis, continuous dual, solid space, symmetric space).

http://www.akamaiuniversity.us/PJST10_2_243.pdf

An Accurate Uniform Order 6 Block Method for Direct Solution of General Second Order Ordinary Differential Equations. A.M. Badmus, Ph.D. and Y.A. Yahaya, Ph.D. (Keywords: linear multi-step methods, LMM, block methods, zero stable, continuous formulation, CF).

http://www.akamaiuniversity.us/PJST10_2_248.pdf

Analysis of Accidents in a Refrigerator Producing Company. S.O. Ismaila, Ph.D., S.B. Adejuyigbe, Ph.D., and O.J. Alamu, Ph.D. (Keywords: industrial accident, safety planning, employee injuries, safe work environment).

http://www.akamaiuniversity.us/PJST10_2_255.pdf

Current Trends of Vehicular Accidents in Nigeria. S.O. Ismaila, Ph.D., O.G. Akanbi, Ph.D., N.O. Adekunle, and O.E. Charles-Owaba, Ph.D. (Keywords: road vehicular accidents, RVA, deaths, injuries, safety, reported cases, model).

http://www.akamaiuniversity.us/PJST10_2_262.pdf

Application of Queuing Theory to Waiting Time of Out-Patients in Hospitals. R.A. Adeleke, O.D. Ogunwale, and O.Y. Halid. (Keywords: single channel queuing system, Poisson arrivals, exponential service rates).

http://www.akamaiuniversity.us/PJST10_2_270.pdf

Developing a Local Capability for the Manufacture of Activated Carbon from Agricultural Waste. Isaac F. Odesola, Ph.D. and N.O. Daramola, B.Sc. (Keywords: activated carbon, coconut shell, oil-palm shell, surgarcane bagasse).

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Parametric Approach to Detergent Production Using a Developed Algorithm. Adamu Wakili, M.Sc., Prof. M.S. Sesay, and M.S. Atureta, Ph.D. (Keywords: parametric analysis, discretization, optimization, interval, algorithm).

http://www.akamaiuniversity.us/PJST10_2_289.pdf

Maintainability of Departmentalized Manpower Structures in Markov Chain Model. E.O. Ossai and P.I. Uche. (Keywords: manpower structure, transfer, department, maintainability, wastage).

http://www.akamaiuniversity.us/PJST10_2_295.pdf

Maintenance Error Oriented Reliability Determination Model. Uche Remy, Ph.D. and Chidozie C. Nwobi-Okoye. (Keywords: human error, maintenance, failure, risk, Monte Carlo simulation, system reliability).

http://www.akamaiuniversity.us/PJST10_2_303.pdf

An Algorithm for Project Tasks Selection Using Intent Tree Structure. C.O. Anyaeche, O.E. Charles-Owaba, and M.A. Oladipo. (Keywords: project, activities, precedence, algorithm).

http://www.akamaiuniversity.us/PJST10_2_311.pdf

Service Delivery in Multimedia Traffic Communications. O. Shoewu, M.Sc. (Keywords: multimedia traffic, quality of service, QoS parameters, congestion control, cell arrival rate, internet variable bit rate).

http://www.akamaiuniversity.us/PJST10_2_321.pdf

Assessment of Existing Gap Between Industrial IT Skill Requirements and Computer Science Curriculum in Tertiary Institutions. Azeez Nureni Ayofe, Azeez Raheem Ajetola, and Ade Stanley Oyewole. (Keywords: skill gap, industry, information technology, IT, curriculum, university graduates, government, business).

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Career Master: A Decision Support System (DSS) for Guidance and Counseling in Nigeria. V.F. Balogun, M.Sc. and A.F. Thompson, M.Tech. (Keywords: student counseling, counselors, academic discipline, DSS, career, guidance counseling).

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Object Oriented Database Management System: A UML Design Approach. Uduak A. Umoh, M.Sc., Enoch O. Nwachukwu, Ph.D., Imo J. Eyo, M.Sc., and Augustine A. Umoh, Ph.D. (Keywords: object-oriented database management system, OODBMS, unified modeling language, UML, university data, data retrieval).

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Technology Evolution of 3GPP HSPA Family. Amit Kumar, MCA, Jyotsna Sengupta, Ph.D., and Yunfei Liu, Ph.D. (Keywords: 3GPP, UMTS, HSDPA, HSUPA, HSPA, HSPA+, mobile broadband, communications).

http://www.akamaiuniversity.us/PJST10_2_366.pdf

Software Application for Electrical Distribution System Reliability Studies: Box-Jenkins Methodology. Adejumobi Isaiah Adediji and Olanipekun Ayorinde Joseph. (Keywords: software development, distribution system, faults studies, time series, reliability calculation, visualization).
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The Pathway of GSM to 3G Systems in Nigeria. B.M. Kuboye, M.Tech., ANCS and B.K. Alese, Ph.D. MIEE. (Keywords: GSM, GPRS, EDGE, 3G, UMTS, WCDMA, communications technology).

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Development of a Microcontroller-Controlled Security Door System. A.O. Oke, O.M. Olaniyi, O.T. Arulogun, and O.M. Olaniyan. (Keywords: access control, security, card reader, smart card, computer control).

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Problem Solving Using Programming Language. O. Shoewu, M.Sc. (Keywords: problem solving, programming language, MATLAB®, computer logical thinking).

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Enhancing Workers' Productivity and Efficiency through ICT. O.O. Olaewe, Ph.D. and A.E.A. Kareem, M.Sc. (Keywords: computers, information and communication technology, ICT, global system of mobile telecommunication, GSM, internet, website).

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Implementing a Desktop Video Conferencing Technology for Effective Teaching and Learning. A.E.A. Kareem, M.Sc., MCPN, MNCS, AMNIM. (Keywords: video conferencing, networking, workstations, LAN, Mbone software, controller, processor).

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Comparative Evaluation of Available Bandwidth Estimation Tools (PRTG and OAVENTMON) in a Campus-Wide Area Network. Azeez Nureni Ayofe, O. Osunade, Azeez Raheem Ajetola, Sulaimon Bashir Adebayo, and Funsho Abdulwahab Atanda. (Keywords: network paths, comparative study, available bandwidth, intrusiveness, response time, probing tools).

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Ambiguity Resolution in Search Engine Using Natural Language Web Application. Azeez Nureni Ayofe, Azeez Raheem Ajetola, and Ade Stanley Oyewole. (Keywords: natural language, NL, NLWA, search engine, polysemous).

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Computer Simulation of Hata's Equation for Signal Fading Mitigation. Jide Julius Popoola, M.Eng. (Keywords: multi-path propagation, fading, diversity scheme, radio wave propagation attributes).

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Modeling and Forecasting of Short-Term Half-Hourly Electric Load at the University of Ibadan, Nigeria. D.A. Fadare, Ph.D. and O.A. Dahunsi, B.Sc. (Keywords: artificial neural network, electric load, modeling, forecasting, University of Ibadan).

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Electricity Demand Forecasting in Nigeria using Time Series Model. A.A. Mati, M.Eng., B.G. Gajoga, Ph.D., B. Jimoh, Ph.D., A. Adegbeye, Ph.D., and D.D. Dajab, Ph.D. (Keywords: time series model, multiple regression models, electricity demand forecast).

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A Critical Review of Grid Operations in Nigeria. A.O. Ibe, Ph.D. and E.K. Okedu, M.Eng. (Keywords: grid operations, energy sales, distributed generation).

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Electrical Power Distribution Upgrade: Case of Towns in Akwa Ibom State, Nigeria.

R. Uhunmwangho, Ph.D. and E.K. Okedu. (Keywords: electrical energy, electrical distribution, distribution capacity).

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Electrical Distribution Industry – Problems: Case of Akwa Ibom State, Nigeria. R.

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An Analysis of Electric Power Faults in Mubi Undertaking Station, Adamawa State, Nigeria.

D.A. Shalangwa, D.Y. Shinggu, and T. Jonathan. (Keywords: faults, power interruption, electric power, feeder/transmission line).

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Electrical Energy Consumption Pattern of Flour Mill in Nigeria. Robert Ehimen Okonigene.

Ph.D. and Christopher Omondaigbe (Keywords: flour mill, electrical power, power factor, tariff).

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A Novel Two-Level Fast Mixed Load Flow Algorithm for Multi-Area Power Systems. Alireza Abbasi and Alireza Seifi, Ph.D. (Keywords: load flow, transmission system, distribution system, master slave splitting, MSS).

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Macro- and Micro-Hydropower: An Option for Socioeconomic Development. Case Study – Agbokim Waterfalls, Cross River State, Nigeria. R. Uhunmwangho, Ph.D. and E.K. Okedu.

(Keywords: hydropower, energy sales, electricity demand).

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Small Hydropower for Sustainable Development. R. Uhunmwangho, Ph.D. and E.K. Okedu.

(Keywords: sustainable development, hydropower, electricity demand).

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Harnessing Wind Energy to Solve Nigeria's Energy Crisis. Engr. O. Awogbemi, MNSE and A.O. Ojo. (Keywords: renewable energy, rural electrification, wind energy, wind turbine).

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Boosting Electricity Supply in Nigeria: Wind Energy to the Rescue? Chidiezie Theo Chineke, Ph.D. (Keywords: renewable energy, Nigeria, offshore, wind speed, wind energy, electricity).

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Generation of Methane Gas from Poultry Brooding House. J.I. Eze and E.O. Uzodinma.

(Keywords: poultry farm-wastes, poultry droppings, biogas, anaerobic digestion, microbial population, biodigester, biogas scrubbing, caloric value, carbon-reducing technology, desulphurization).

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Correlation of Cloudiness Index with Clearness Index for Four Selected Cities in Nigeria.
C. Augustine and M.N. Nnabuchi. (Keywords: clearness index, cloudiness index, solar radiation, linear regression).

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Correlation Between Sunshine Hours and Global Solar Radiation in Warri, Nigeria.
C. Augustine* and M.N. Nnabuchi. (Keywords: sunshine duration, clearness index, solar radiation).

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On Some Moment Properties of Extreme Value Distributions with Applications to Daily Minimum Temperature Measurements. R.A. Adeleke and O.Y. Halid. (Keywords: meteorology, probability distribution, extreme-value measurements, extreme-value distributions, Frechet, Weibull, Gumbel, parameters).

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Analysis of Data on Net Longwave, Shortwave, and Global Radiation During a Transition Period in a Tropical Station in Southwestern Nigeria. E.O. Ogolo, Ph.D., S.E. Falodun, S.S. Oluyanmo, and E. Nymphas. (Keywords: Nigerian Micrometeorological Experiment, NIMEX-1, heat fluxes, regression, equations).

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Open Land Dumping: An Analysis of Heavy Metals Concentration of an Old Lead-Battery Dumpsite. J.A. Adegoke, Ph.D., T.O. Owoyokun, M.Sc., and I.O. Amore, B.Sc. (Keywords: contamination, hazards, heavy metals, composite, MAC, AAS).

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A Geophysical and Hydro-Physiochemical Study of the Contaminant Impact of a Solid Waste Landfill (SWL) in Port Harcourt Municipality, Nigeria. C.N. Ehirim, J.O. Ebeniro, and D.A. Ogwu. (Keywords: landfill, solid waste, leachate plume, landfill gases, resistivity).

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A Geophysical Investigation of Solid Waste Landfill Using 2-D Resistivity Imaging and Vertical Electrical Sounding Methods in Port Harcourt Municipality, Rivers State, Nigeria. C.N. Ehirim, J.O. Ebeniro, and O.P. Olanegan. (Keywords: 2-D resistivity imaging, VES, solid waste landfill, leachate plume, chemical waste, groundwater and soil).

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Air Pollution: Indian Scenario. Amandeep Singh, M.D., Vijay Gupta, M.D., and Sanjoy Sas, M.D. (Keywords: environmental litigation, legal claims, writ, petition, legal damages, forensics).

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Effect of Crude Oil Effluent (Produce Water) on Brackish Water Fish and Microbial Growth in Aquarium Environment. Gerard Nkwelang, Ph.D.1, George E. Nkeng, Ph.D., Henri L. Kamga Fouamno, Ph.D., and S.P. Antai, Ph.D. (Keywords: crude oil, produce water, toxicity, fish, mangrove, pollution).

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Chemical Quality of Groundwater from Hand-Dug Wells in Jos Metropolis and Environs, North-Central Nigeria. N.C. Beka, M.Sc., T. Aga, M.Sc., and A.C. Eziashi, Ph.D. (Keywords: chemical, groundwater wells, nitrate, Jos).

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Near Surface Aquifer Characteristics and Groundwater Potential in Onicha-Ukwuani, Delta State, Nigeria. Julius Otutu Oseji, Ph.D. (Keywords: groundwater potential, vertical electrical sounding, VES, aquifer, contour map, driller log, and geoelectric section).
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Physicochemical Studies of Water from Selected Boreholes in the Bosomtwi-Atwima-Kwanwoma District of Ghana. Marian Asantewah Nkansah and J.H. Ephraim, Ph.D. (Keywords: trace metals, water contamination, water quality, humic acid).
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Determination of Ground Water Flow Direction in Ndokwa Land Area of Delta State Nigeria, using Combined Drilled Hole and Global Positioning System. Julius Otutu Oseji, Ph.D., Omi Ujuanbi, Ph.D., and Ofomola Merrious, M.Tech. (Keywords: Ndokwa Land, groundwater, flow direction, elevation, water table, global position system, GPS, dumpsite location).
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Applications of 1D and 2D Electrical Resistivity Methods to Map Aquifers in a Complex Geologic Terrain of Foursquare Camp, Ajebo, Southwestern Nigeria. Elijah Adebawale Ayolabi, Ph.D., Adetayo Femi Folorunso, M.Sc., Ayodele Franklin Eleyinmi, B.Sc., and Esther O. Anuyah, B.Sc. (Keywords: wells, groundwater, VES, geoelectric layers, resistivity, tomography, subsurface imaging).
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Forestalling the Drilling of False Prospects in the Abraka Area of Delta State: The Weathered Layer (A Case for Consideration). E.C. Igherighe, O.C. Molua, and F.C. Ighrakpata. (Keywords: geology, in-line profiling, Niger Delta, geophones, weathered, sub-weathered).
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Weathering Structure of Southwestern Niger Delta, Nigeria. Edward O. Osagie, Ph.D. (Keywords: seismic refraction, weathering structure, P wave velocity, refractor).
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Spearman's Rank Correlation of Two Methods in an Integrated Geophysical Investigation. G.N. Egwuonwu, Ph.D., I.B. Osazuwa, Ph.D., and S.O. Ibe, Ph.D. (Keywords: geophysical investigation, seismic refraction, electrical resistivity).
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Mineralogy and Morphology Evaluation of Mixed Soil. Abdoullah Namdar and Mehdi Khodashenas Pelkoo. (Keywords: soil analysis, soil mineral, particle shape, soil foundation stability).
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Anisotropic Type Determination and Soil Structure Evaluation in Parts of the Gully Erosion Zones of SE Nigeria using Azimuthal-Offset Resistivity Sounding Technique and Erodibility Characterization. C.N. Ehirim and N.E. Ekeocha. Keywords: coefficient of anisotropy, electric anisotropy, erodibility, plasticity).
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Determination of Transition Length in Flow Through Porous Sand Material. James A. Adegoke, Ph.D. and Joseph A. Olowofela, Ph.D. (Keywords: transition length, porosity, conduit, piezometric, laminar flow).
http://www.akamaiuniversity.us/PJST10_2_716.doc

Amplitude and Fluid Contact Mapping in Some Part of Niger Delta Using Seismic Attribute Analysis and Inversion. M.T. Olowokere. (Keywords: petroleum reserves, volumetrics calculations, Niger Delta, sand thickening).

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Rock Density – A Tool for Mineral Prospection: A Case Study of Ajabanoko Iron Ore Deposit, Okene SW Nigeria. J.O. Amigun, Ph.D. and B.D. Ako, Ph.D. (Keywords: density contrast, Archimedes principle, iron ore, mineral prospecting).

http://www.akamaiuniversity.us/PJST10_2_733.pdf

An Evaluation of 238U, 40K, and 232Th Concentrations in the Top Soil of the University of Ibadan (UI), Southwestern Nigeria. O.A. Egunnyinka, C.J. Olowookere, N.N. Jibirind, I.A. Babalola, and R.I. Obed. (Keywords: naturally occurring radionuclides, gama ray spectrometry, potassium, uranium, thorium, natural radiation dose, dosage).

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3D Seismic Evaluation and Opportunity Identification in Some Parts of the Niger Delta. M.T. Olowokere. (Keywords: petroleum reserves, petroleum traps, Niger Delta, seismic data).

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Evaluations of Turonian Limestone Formation Exposed at NIGERCEM-Quarry, Nkalagu, Southeastern Nigeria: A Geochemical Approach. Phillips R. Ihkane, Ph.D., A.F. Folorunso, M.Sc., M.E. Nton, Ph.D., and J.A. Oluwalaanu, M.Sc. (Keywords: geochemistry, limestone, petrographic study, oxides, trace elements).

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International Geomagnetic Reference Field (IGRF) and its Application to Predicting Geomagnetic Elements and Annual Changes for Nigeria. A.A. Okiwelu, Ph.D. and A.M. George, M.Sc. (Keywords: international, geomagnetic, intensity, generation, reference, spherical).

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Studies on the Ash Chemistry of the Nigerian Enugu Coal as a Blend Component in Metallurgical Cokemaking. A.H. Mayaleeke, HND, PG, A.O. Adeleke, M.Eng., M.Sc., and D.A. Dashak, M.Sc. (Keywords: coal, ash, acidity, basicity, metallurgical, cokemaking).

http://www.akamaiuniversity.us/PJST10_2_782.pdf

Condensation and Cellulosic Derivatization of Bromamine Acid. Atolani Olubunmi and Olatunji A. Gabriel. (Keywords: Fourier transform infrared, Ullmann condensation, bromamine acid, chemisorption).

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Thickness Dependent Electrical Properties of Chemically Deposited ZnS Thin Films. A.D.A. Buba, Ph.D. and J.S.A. Adelabu, Ph.D. (Keywords: chemical bath deposition, CBD, ZnS, zinc sulfide, resistivity, conductivity, thin films).

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Influence of pH Values on Chemical Bath Deposited FeS₂ Thin Films. K. Anuar, Ph.D., W.T. Tan, Ph.D., N. Saravanan, Ph.D., S.M. Ho, M.Sc., and S.Y. Gwee, B.Sc. (Keywords: chemical bath deposition, semiconductor, thin films, X-ray diffraction).

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Effects of Thermal Annealing on the Optical Properties of Nickel Oxide Thin Films Prepared by Chemical Bath Deposition Technique. H.U. Igwe, O.E. Ekpe, and E.I. Ugwu. (Keywords: nickel oxide, electrochromic properties, chemical bath deposition, thin film, thermal annealing, optical properties).

http://www.akamaiuniversity.us/PJST10_2_806.pdf

Growth and Characterization of CuS-Sb₂S₃ Heterojunction Thin Films. P.U. Asogwa, Ph.D. (Keywords: band gap, CBD, heterojunction, semiconductor devices, optical properties, thin films).
http://www.akamaiuniversity.us/PJST10_2_812.pdf

Preparation and Characterization of Chemically Deposited Cadmium Sulphide Thin Films. G.R. Fajinmi, Ph.D. and J.S.A. Adelabu, Ph.D. (Keywords: thin film, optoelectronic, photocurrent, annealing, transmittance, CBD).
http://www.akamaiuniversity.us/PJST10_2_817.pdf

Effect of *Acalypha wilkesiana* Muell Arg on the ATPase Activities of Salt-Loaded Rats. Jude Chigozie Ikewuchi, M.Sc. and Catherine Chidinma Ikewuchi, M.Sc. (Keywords: *Acalypha wilkesiana*, ATPases, hypertension, salt loading).
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Effect of *Acalypha wilkesiana* Muell Arg on the Blood Pressure and Aorta Contractility of Salt-Loaded Rats. Jude Chigozie Ikewuchi, M.Sc., Catherine Chidinma Ikewuchi, M.Sc., and George E. Eriyamremu, Ph.D. (Keywords: *Acalypha wilkesiana*, acetylcholine, aortic contraction, blood pressure, noradrenalin, relaxation).
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Rate of *in vitro* Digestion of Some Nigerian Foods by Salivary α -Amylase: Implications for the Management of Post-Prandial Glucose Levels. Catherine Chidinma Ikewuchi, M.Sc. and Jude Chigozie Ikewuchi, M.Sc. (Keywords: dietary management, digestion, Nigerian soups, oil, salivary α -amylase).
http://www.akamaiuniversity.us/PJST10_2_835.pdf

Phytochemical Screening and Antimicrobial Studies of Ethyl Acetate Extract of *Croton zambesicus* Muell Arg. Stem Bark. Reuben, K. Datsu, M.Sc., Fanna I. Abdulrahman, Ph.D., Joseph C. Akan, Ph.D., and Olufunke A. Sodipo, Ph.D. (Keywords: antimicrobial studies, *Croton zambesicus*, ethyl acetate, phytochemical screening).
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Ectoparasites and Gastro-Intestinal Helminths of Black-Billed Wood Dove (*Turtur abyssinicus*) and Vinaceous Dove (*Streptopelia vinacea*) Hartlaub and Finsch 1870 in Zaria, Nigeria. K.L. Adang, Ph.D., S.J. Onye, Ph.D., A.U. Ezealor, Ph.D., P.A. Abdu, DVM, Ph.D., O.J. Ajanusi, DVM, Ph.D., and K.P. Yoriyo, M.Sc. (Keywords: ectoparasites, gastrointestinal helminths, prevalence, mourning dove, *Streptopelia decipiens*, Zaria, Nigeria).
http://www.akamaiuniversity.us/PJST10_2_850.pdf

Antibacterial Assays of the Solvents Partitioned Portions of Methanol Stem Bark Extract of *Bauhinia rufescens* Lam [Leguminosae-Caesalpinioidae]. H. Usman, M.Sc., F.I. Abdulrahman, Ph.D., A.H. Kaita, Ph.D., and I.Z. Khan, Ph.D. (Keywords: *Bauhinia rufescens*, organic portions, antibacterial, stem bark, *in-vitro*, Leguminosae).
http://www.akamaiuniversity.us/PJST10_2_857.pdf

En Route to a New International Regime for Access and Benefit Sharing of Marine Genetic Resources. Kushal Qanungo, Ph.D. (Keywords: marine bioprospecting, marine policy, biodiversity, protection, environmental, genetic resources, intellectual property rights).
http://www.akamaiuniversity.us/PJST10_2_868.pdf

Biosorption of Methylene Blue Dye Aqueous Solutions on *Delonix regia* (Flamboyant Tree) Pod Biosorbent. T.O. Owoyokun, M.Sc. (Keywords: biosorption, thermodynamics, kinetics, removal efficiency, *Delonix regia*, MB dye, isotherm).
http://www.akamaiuniversity.us/PJST10_2_872.pdf

Grammar Induction and Genetic Algorithms: An Overview. Nitin S. Choubey, Ph.D. and Madan U. Kharat, Ph.D. (Keywords: grammar, context free grammar, CFG, genetic algorithm, GA, crossover, mutation, grammar induction).

http://www.akamaiuniversity.us/PJST10_2_884.pdf

Studies on the Influence of Rice Husk on Biomethanation: 1. Optimal Condition for Digestion and the Domestic Use of Stored Biogas. V.A. Ezekoye, M.Sc. (Keywords: biomethanation, thermophilic, anaerobic, incubators, inoculum, hemicellulose).

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Characterization and Storage of Biogas Produced from the Anaerobic Digestion of Cow Dung, Spent Grains/Cow Dung, and Cassava Peels/Rice Husk. V.A. Ezekoye, M.Sc. and B.A. Ezekoye, Ph.D. (Keywords: biogas, chromatography, batch-type, stored, bacteria).

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Determination of Hourly Temperature Variation in the Elements of a Poultry Brooder Pen Heated by Trombe Wall. P.E. Okpani, Ph.D. and M.N. Nnabuchi, Ph.D. (Keywords: poultry production, chick brooder, Trombe wall system, computer simulation, temperature variation).

http://www.akamaiuniversity.us/PJST10_2_905.pdf

Comparative Quality Assessment of Branded and Unbranded Edible Vegetable Oils in Nigeria. S.A. Chabiri, M. Sc., S.S. Hati, Ph.D., G.A. Dimari, Ph.D. and V.O. Ogugbuaja, Ph.D. (Keywords: quality, identity, edibility, vegetable oil, industrial, locally processed).

http://www.akamaiuniversity.us/PJST10_2_927.pdf

A Review of Porous Evaporative Cooling for the Preservation of Fruits and Vegetables. Isaac F. Odesola, Ph.D. and Onwuka Onyebuchi, B.Sc. (Keywords: pot-in-pot, cabinet, static, charcoal cooling chambers, fruit, vegetable, food preservation).

http://www.akamaiuniversity.us/PJST10_2_935.pdf

Generation of Methane Gas from Poultry Brooding House. J.I. Eze and E.O. Uzodinma. (Keywords: poultry farm-wastes, poultry droppings, biogas, anaerobic digestion, microbial population, biodigester, biogas scrubbing, caloric value, carbon-reducing technology, desulphurization).

http://www.akamaiuniversity.us/PJST10_2_942.pdf

Some Nutrient and Anti-Nutrient Components of *Pterygota macrocarpa* Seed Flour. I.A. Amoo, Ph.D. and F.O. Agunbiade, M.Sc. (Keywords: seed analysis, legumes, seed oil, feedstock, domestic use, industrial use).

http://www.akamaiuniversity.us/PJST10_2_949.pdf

Physiological Changes in Teeth as a Tool to Estimate Age. Dr. Amandeep Singh, Dr. V.P. Gupta, and Dr. Sanjoy Das. (Keywords: age estimation, secondary changes in teeth, regression analysis).

http://www.akamaiuniversity.us/PJST10_2_956.pdf

Statistical Modeling of Mother-to-Child and Heterosexual Modes of Transmission of HIV/AIDS Epidemic. K.A. Bashiru and O.A. Fasoranbaku. (Keywords: open population growth mode, Kolmogrov differential equation, mother-to-child transmission, heterosexual transmission, birth-illness-death process).

http://www.akamaiuniversity.us/PJST10_2_966.pdf

Variations and Trends of Some Meteorological Parameters at Ibadan, Nigeria. E.O. Ogolo, Ph.D. and B. Adeyemi, Ph.D. (Keywords: warming, trend, statistically significant, Inter-tropical discontinuity, synchronism).

http://www.akamaiuniversity.us/PJST10_2_980.pdf

Modeling the Impact of Hazardous Conditions in a Manufacturing Safety Program. K.A. Adebiyi, O.E. Charles-Owaba, and E.S. Enyeo. (Keywords: workplace safety, system-dynamics, performance functions, hazardous conditions).
http://www.akamaiuniversity.us/PJST10_2_988.pdf

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Simulation of Load Bearing Rod Rolling of Carbon-Manganese Steel Using the ‘Phantom Roll’ Method. P.O. Aiyedun, Ph.D., L.E. Oseghale, M.Sc., and O.J. Alamu, Ph.D. (Keywords: simulation, phantom roll method, load, flat, grooved).

http://www.akamaiuniversity.us/PJST10_1_4.pdf

Effect of Stress Relief Annealing and Homogenizing Annealing on the Microstructure and Mechanical Properties of Cast Brass. J.A. Omotoyinbo, Ph.D. and S. Aribi, M.Eng. (Keywords: cast brass, stress relief annealing, homogenizing annealing, microstructure, mechanical properties).

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Roller-Cam Systems Design: Development of a Profile Analysis Software. O.E. Simolowo, M.Phil. and O.A. Bamiro, Ph.D. (Keywords: cams, design, software, analyses).

http://www.akamaiuniversity.us/PJST10_1_20.pdf

Fault Detection and Diagnosis for DC Motor in Robot Movement System using Neural Network. A. Che Soh, M.Sc. and R.Z. Abdul Rahman, M.Eng. (Keywords: intelligent control, neural network, digital controller, DC motor, robot movement).

http://www.akamaiuniversity.us/PJST10_1_35.pdf

A Modified Approach to Induction Motor Stator Voltage and Frequency Control. C.U. Ogbuka, M.Eng. and M.U. Agu, Ph.D. (Keywords: induction motor, constant volts/hertz v/f, constant flux, motor torque and speed).

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A Modified Closed Loop V/F Controlled Induction Motor Drive. C.U. Ogbuka, M.Eng. and M.U. Agu, Ph.D. (Keywords: induction motor, stationary reference frame, volts/hertz v/f control, torque and speed).

http://www.akamaiuniversity.us/PJST10_1_52.pdf

A Generalized Vector Method of Induction Motor Transient and Steady State Analysis. C.U. Ogbuka, M.Eng. and C.A. Nwosu, M.Eng. (Keywords: induction motor, steady state, transient state, reference frame, MATLAB/SIMULINK).

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Performance Characteristics of Controlled Separately Excited DC Motor. C.U. Ogbuka, M.Eng. (Keywords: DC motor, PID controller, speed control, MATLAB/SIMULINK).

http://www.akamaiuniversity.us/PJST10_1_67.pdf

Performance Characteristics of Inverter Controlled Three Phase Induction Motor: Teaching and Research. C.U. Ogbuka, M.Eng. (Keywords: induction motor, harmonics six step inverter, MATLAB).

http://www.akamaiuniversity.us/PJST10_1_75.pdf

Magnetics of an Idealized Asynchronous Reluctance Machine with no Moving Conductors. L.U. Anih, Ph.D. (Keywords: magnetomotive force, mmf, permeance, auxiliary transposed windings, skewed windings).

http://www.akamaiuniversity.us/PJST10_1_82.pdf

The Simulation of Using Hydrogen Fuel in Gasoline Internal Combustion Engines.

Mohammed Awwad Al-Dabbas, Ph.D. and Ammar Ahmed Al-Rousan, Ph.D. (Keywords: hydrogen fuel, H₂, gasoline, simulation, fuel cells, combustion chamber, servo jet, engine, ICE).

http://www.akamaiuniversity.us/PJST10_1_93.pdf

Ferrographic Oil Analysis Technique for Lubricant Monitoring and Analysis in Internal Combustion Engines. I.A. Lateef, B.Tech., PGD, M.O. Arowolo, M.Tech., and O.A. Akintaro, COREN. (Keywords: measurement, analysis technique, lubrication, ferrographic method, oil analysis, wear rate, internal combustion engine).

http://www.akamaiuniversity.us/PJST10_1_107.pdf

Power and Energy Balance in Wind-Solar Hybrid Power System. C.A. Nwosu, M.Eng. and M.U. Agu, Ph.D. (Keywords: hybrid, power, CHP, combined heat and power, renewable energy, energy storage sub-system).

http://www.akamaiuniversity.us/PJST10_1_110.pdf

Simple and Safe Solar Heating: A Whole Systems Approach. Stefan Thiesen, Ph.D. (Keywords: SECUSOL, solar energy, solar heating, solar thermal systems, overheating, stagnation).

http://www.akamaiuniversity.us/PJST10_1_117.pdf

Solar Thermal Energy Utilization in Food Processing Industry in India. Paritosh Nandi, Ph.D. (Keywords: food processing industry, solar parabolic concentrator, thermal system, heat exchanger, solar radiation, sweetmeat).

http://www.akamaiuniversity.us/PJST10_1_123.pdf

Experimental Investigation of Characteristics of a Double-Base Swirl Injector In a Liquid Rocket Propellant Engine. F. Ommi, Ph.D., S.M. Hosseinalipour, Ph.D., A. Kargar, M.Eng., E. Movahed, and K. Nekofar, Ph.D. (Keywords: LPRE, liquid propellant rocket engine, swirl dual-based injector, propulsion, spray cone, spray angle).

http://www.akamaiuniversity.us/PJST10_1_132.pdf

An Accurate Scheme by Block Method for Third Order Ordinary Differential Equations. B.T. Olabode, Ph.D. (Keywords: linear multistep methods, LMMs, odes, P-stability, Zero-stability, third order, IVPs, initial value problems, interval of periodicity, predictor-corrector).

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A Six-Step Scheme for the Solution of Fourth Order Ordinary Differential Equations. B.T. Olabode, Ph.D. (Keywords: linear multistep methods, LMMs, p-stability, zero-stability, third order, IVPs, odes, interval of periodicity, predictor-corrector).

http://www.akamaiuniversity.us/PJST10_1_143.pdf

On New Techniques for Testing Incomplete Data Using Regression Models. O.B. Aladeniyi, O.E. Olowofeso, and O.A. Fasoranbaku. (Keywords: missing data, heteroscedasticity, regression model, explanatory variables, parameters).

http://www.akamaiuniversity.us/PJST10_1_149.pdf

Some New Type of Generalized Difference Paranormed Sequence Spaces Defined by Sequence of Orlicz Functions Associated with Multiplier Sequences. Bipan Hazarika and Binod Chandra Tripathy. (Keywords: paranorm, Orlicz function, solid space, symmetric space).

http://www.akamaiuniversity.us/PJST10_1_161.pdf

The Place of Parametric Statistical Methods in Conducting Research in the Millennium Age. O.O. Olaewe, Ph.D. and A.E.A. Kareem, M.Sc. (Keywords: research activity, research process, statistics, research design, statistical analysis, parametric statistics).

http://www.akamaiuniversity.us/PJST10_1_170.pdf

Application of Mathematical Model to Optimization of the Production Capacity of Paint Manufacturing Company. A.O. Odior, M.Eng. and F.A. Oyawale, Ph.D. (Keywords: paint production, time study model, mathematical model, product inspection).

http://www.akamaiuniversity.us/PJST10_1_178.pdf

Planning: An Effective Tool for Industrial Maintenance. T.I. Adelabu, COREN and I.A. Lateef, B.Tech., PGD. (Keywords: planning, planning horizon, employee motivation, labor efficiency, job planning).

http://www.akamaiuniversity.us/PJST10_1_185.pdf

Cost Minimization Approach to Manpower Planning in a Manufacturing Company. S.O. Ismaila, Ph.D., O.G. Akanbi, Ph.D., and O.E. Charles-Owaba, Ph.D. (Keywords: manpower planning, queue model, regression analysis, manufacturing company).

http://www.akamaiuniversity.us/PJST10_1_191.pdf

The Use of Time as an Optimality Performance Criterion in Manpower Control. Akaninyene U. Udom and Peter I. Uche. (Keywords: time, optimality, recruitment control, performance criterion, stochastic differential equation).

http://www.akamaiuniversity.us/PJST10_1_197.pdf

Effecting E-Learning with U-Learning Technology in Nigerian Educational System. O.K. Boyinbode, M.Sc. and K.G. Akintola, M.Sc. (Keywords: ubiquitous learning, sensors, electronic learning, ubiquitous computing).

http://www.akamaiuniversity.us/PJST10_1_204.pdf

Technical Literacy and Public Understanding of Technology. A. Maruf Aminu, B.Eng. (Keywords: technical knowledge, technical literacy, understanding, public, society).

http://www.akamaiuniversity.us/PJST10_1_211.pdf

Repositioning the Current Electrical Power Engineering Curricula to Stimulate More Interest. A. Maruf Aminu, B.Eng. (Keywords: engineering curricula, industry requirements, educational gaps, tertiary education).

http://www.akamaiuniversity.us/PJST10_1_215.pdf

The Effect of Research and Development in Developing Countries: Nigeria's Perspective. D.W.S. Alausa, ACSN, MNIEM, MNSE and Engr. C.U. Okoye, MNIEM, MNSE, COREN. (Keywords: development, developing countries, R&D, research, technical progress).

http://www.akamaiuniversity.us/PJST10_1_220.pdf

Technology in Modern Day Life: Challenges to Polytechnic Education. S.A. Olagoke, JP, MNSChE, MNIEM, MNIM, COREN and D.W.S. Alausa, ACSN, MNIEM, MNSE. (Keywords: technical development, education, research, technical progress).

http://www.akamaiuniversity.us/PJST10_1_226.pdf

Towards Effective SIWES Curriculum Development in Applied Sciences for Adequate Skills Utilization: A Case Study of the School of Applied Science, Nuhu Bamalli Polytechnic, Zaria. Afolalu Felix Olugbenga. (Keywords: students' industrial work experience scheme, SIWES, polytechnic education, training, educational reform Nigeria).

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A Library Grid Network for Enhancing Learning in Nigerian Universities. O.K. Boyinbode, R.O. Akinyede, and O.S. Adeola. (Keywords: information technology, grid computing, library information grid technology, university education, Nigeria, virtualized resources).

http://www.akamaiuniversity.us/PJST10_1_240.pdf

Reliability Analysis of Fixed Wireless Networks in Nigeria. Seyi Stephen Olokedo, M.Sc. (Keywords: reliability, analysis, fixed wireless, Nigerian, Nigeria).

http://www.akamaiuniversity.us/PJST10_1_251.pdf

Strategies for Low Cost Rural Telephony. Idachaba Francis Enejo, M.Eng. (Keywords: GSM phone booths, range extenders, global system for mobile, shared access concept).
http://www.akamaiuniversity.us/PJST10_1_256.pdf

Congestion Analysis on the Nigerian Global System for Mobile Communications (GSM) Network. B.M. Kuboye, M.Tech., ANCS, B.K. Alese, Ph.D., MIEE, and O. Fajuyigbe, Ph.D. (Keywords: GSM, global system for mobile communications, telecom, network congestion).
http://www.akamaiuniversity.us/PJST10_1_262.pdf

Analysis of Resource Utilization in FPGA Implementation of an Embedded System Using Soft Core Processor. M.U. Kharat, Ph.D. and V.S. Rahangadale, M.E. (Keywords: field programmable gate array, FPGA, reconfigurable embedded processors).
http://www.akamaiuniversity.us/PJST10_1_272.pdf

Comparative Analysis of Alternative Last Mile Broadband Access Technologies (Wi-Fi and WiMAX). Frank A. Ibikunle, Ph.D. (MIEEE, MNSE). (Keywords: broadband wireless, last mile access, rural connectivity, WiMAX, Wi-Fi, digital divide).
http://www.akamaiuniversity.us/PJST10_1_280.pdf

Broadband Wireless Access Solution base on OFDMA Technique in WiMAX IEEE 802.16. F.A. Ibikunle, Ph.D., MNSE, MIEEE. (Keywords: OFDMA, WiMAX, sub-carriers, sub-channels, broadband wireless).
http://www.akamaiuniversity.us/PJST10_1_286.pdf

Chemical Profile of *Pleurotus tuberregium* (Fr) Sing's Sclerotia. Catherine Chidinma Ikewuchi, M.Sc. and Jude Chigozie Ikewuchi, M.Sc. (Keywords: phytochemical screening, *Pleurotus tuberregium* (Fr) sclerotium, proximate composition).
http://www.akamaiuniversity.us/PJST10_1_295.pdf

Translational Overture Effect through Polar Equations in Two-Dimensional Digital Animations. M. Nuruzzaman, Ph.D. (Keywords: digital animation, spatial domain processing, special effect, 2D animation).
http://www.akamaiuniversity.us/PJST10_1_300.pdf

Transforming Nigeria Health Care System through Wireless Sensor Networks. O.K. Boyinbode, M.Sc. and K.G. Akintola M.Sc. (Keywords: medical monitoring, telemedicine, medical sensors, body worn sensors, wireless personal or body area networks, WPAN, WBAN).
http://www.akamaiuniversity.us/PJST10_1_310.pdf

Bombay Blood Group: A Case Report. Dr. Mansoor Quli Khan, MBBS, MD, Ph.D. (Keywords: Bombay phenotype, transfusion, Oh blood group, rare blood type, blood antigens).
http://www.akamaiuniversity.us/PJST10_1_333.pdf

A Critical Evaluation of the Concept of 'Nasa Hi Shiraso Dwaram' (Nasal Route Entry for the Cranial Cavity). Dr. H.J. Sangeeta, M.D. (Ayu) and Dr. Hemant D. Toshikhane, M.S.(Ayu). (Keywords: nasal drug delivery, nasya, nasal cavity, Ayurveda, traditional Indian medicine).
http://www.akamaiuniversity.us/PJST10_1_338.pdf

Fracture Management in Traditional Indian Medicine. Dr. Hemant D. Toshikhane, M.S.(Ayu) and Dr. H.J. Sangeeta, M.D. (Ayu). (Keywords: bone fracture, skeletal system injuries, Ayurveda, traditional Indian medicine).
http://www.akamaiuniversity.us/PJST10_1_342.pdf

Allelopathic Effects of Some Crop Residues on the Germination and Growth of Maize (*Zea mays L*). J. Kayode, Ph.D. and J.M. Ayeni, M.Sc. (Keywords: sorghum stem extract, rice husk extract, germination, corn, plant development, allelopathy, allelochemicals).

http://www.akamaiuniversity.us/PJST10_1_345.pdf

Phytochemical Analysis and Cholinesterase Inhibition of *Cyperus platycaulis*. J.O. Echeme, Ph.D. and M.E. Khan, M.Sc. (Keywords: physicochemical, ChE, cytotoxicity, antibacterial properties, tannins, ethnomedicine, folk medicine, active ingredients, tuberculosis, extracts).

http://www.akamaiuniversity.us/PJST10_1_350.pdf

Chemical Profile of *Pleurotus tuberregium (Fr)* Sing's Sclerotia. Catherine Chidinma Ikewuchi, M.Sc. and Jude Chigozie Ikewuchi, M.Sc. (Keywords: phytochemical screening, *Pleurotus tuberregium (Fr)* sclerotium, proximate composition).

http://www.akamaiuniversity.us/PJST10_1_357.pdf

Comparative Study of the Mineral Element Composition of Some Common Nigerian Medicinal Plants. Jude Chigozie Ikewuchi, M.Sc. and Catherine Chidinma Ikewuchi, M.Sc. (Keywords: *Acalypha wilkesiana*, *Chromolaena odorata*, mineral composition, *Tridax procumbens*).

http://www.akamaiuniversity.us/PJST10_1_362.pdf

Comparative Study of the Vitamin Composition of Some Common Nigerian Medicinal Plants. Catherine Chidinma Ikewuchi, M.Sc. and Jude Chigozie Ikewuchi, M.Sc. (Keywords: *Acalypha wilkesiana*, *Chromolaena odorata*, *Tridax procumbens*, vitamin composition).

http://www.akamaiuniversity.us/PJST10_1_367.pdf

The Effect of Tribological Processes on Productivity: A Case Study of Industries in Ibadan Metropolis of Nigeria. O.E. Simolowo, M.Phil. and M.B. Adeniji, B.Sc. (Keywords: tribology, industry, productivity, process-reliability, industrial downtime).

http://www.akamaiuniversity.us/PJST10_1_372.pdf

Phytochemical and Antimicrobial Screening of *Ficus platyphylla* against Human/Animal Pathogens. D. Kubmarawa, M.E. Khan, A.M. Punah, and M. Hassan. (Keywords: *Ficus platyphylla*, phytochemical, antimicrobial activity, *Staphylococcus aureus*, *Pseudomonas aeruginosa*, flavonoids).

http://www.akamaiuniversity.us/PJST10_1_382.pdf

Evaluation of the Effects of Pollution with Spent Lubricating Oil on the Physical and Chemical Properties of Soil. J. Kayode, Ph.D., A.A. Oyedele, B.Sc., and O. Olowoyo, B.Sc. (Keywords: soil quality, soil characteristics, POL, SOL, contamination, chemical properties).

http://www.akamaiuniversity.us/PJST10_1_387.pdf

Levels of Potentially Toxic Metals in Synthetic Industrial Essential Oils Utilized in Northern Nigeria. Stephen S. Hati, Ph.D., Goni A. Dimari, Ph.D. and Victor O. Ogugbuaja, Ph.D. (Keywords: synthetic fragrance, direct application, toxic metals, human health, northern Nigeria).

http://www.akamaiuniversity.us/PJST10_1_392.pdf

Study of Thermal Properties of Babool Wood and its Polyacrylonitrile Composites. Shalendra Kumar Pathak, M.Tech., Lokesh Upadhyay, B.Tech. and Ghanshyam Srivastava, Ph.D. (Keywords: benzoyl peroxide, polyacrylonitrile, impregnation, thermo-oxidative stability).

http://www.akamaiuniversity.us/PJST10_1_399.pdf

Study of Thermal Properties of Eucalyptus Wood and its Polyacrylonitrile Composites.

Shalendra Kumar Pathak, M.Tech., Mohd Arif, B.Tech., and Ghanshyam Srivastava, Ph.D.
(Keywords: benzoyl peroxide, polyacrylonitrile, impregnation, thermo-oxidative stability).

http://www.akamaiuniversity.us/PJST10_1_406.pdf

Fabrication and Optical Constants of CdMnS Ternary Thin Films Deposited by Chemical Bath.

C.I. Oriaku, M.Sc., F.I. Ezema, Ph.D., and J.C. Osuwa, Ph.D. (Keywords: CBD, chemical bath deposition, deposition technique, thin films, ternary compounds).

http://www.akamaiuniversity.us/PJST10_1_413.pdf

Inorganic Acids Doped PANI-PVA Composites Films as a Gas Sensor. D.B. Dupare, M.Sc., M.D. Shirsat, Ph.D., and A.S. Aswar, Ph.D. (Keywords: polymer blend, polyvinyl alcohol, polyaniline, conducting polymer, inorganic acids, gas sensor).

http://www.akamaiuniversity.us/PJST10_1_417.pdf

Preparation and Characterization of Aluminum Doped Zirconium Sulphide Thin Films. R. Thiagarajan, M. Mahaboob Beevi, and M. Anusuya. (Keywords: thin films, structural properties, optical band gap).

http://www.akamaiuniversity.us/PJST10_1_423.pdf

Kinetic, Equilibrium, and Thermodynamic Studies of the Biosorption of Cd(II) and Pb(II) from Aqueous Solutions by *Talinum triangulare* (Water Leaf). J. Oyebamiji Babalola, N.A. Adesola Babarinde, Olalekan A. Popoola, and Vincent O. Oninla. (Keywords: biosorption, *Talinum triangulare*, cadmium (II), lead (II), isotherm).

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Kinetic, Isothermal, and Thermodynamic Studies of the Biosorption of Ni(II) and Cr(III) from Aqueous Solutions by *Talinum triangulare* (Water Leaf). J. Oyebamiji Babalola, N.A. Adesola Babarinde, Olalekan A. Popoola, and Vincent O. Oninla. (Keywords: biosorption, *Talinum triangulare*, pseudo-second-order, adsorption isotherms).

http://www.akamaiuniversity.us/PJST10_1_439.pdf

Kinetics and Mechanism of Mn (II) Catalyzed Oxidation of D-Arabinose and D-Xylose by Chromium (VI) Ions in Perchloric Acid Medium. A.S. Ogunlaja, E.O. Odebunmi, and S.O. Owalude. (Keywords: kinetics, sugars, chromium oxidation, arabinose, xylose, manganese chloride catalysis, perchloric acid).

http://www.akamaiuniversity.us/PJST10_1_451.pdf

Effect of 0.05M NaCl on Corrosion of Coated Reinforcing Steels in Concrete. O.O. Akinyemi, M.Sc. and O.J. Alamu, Ph.D. (Keywords: corrosion, concrete, coatings, steel)

http://www.akamaiuniversity.us/PJST10_1_462.pdf

Model Predictive Control for pH Control of Cephradine Purification Process. V. Balaji, Research Scholar. and N. Vasudevan, Ph.D. (Keywords: model predictive control, PID, controller, Cephradine, LabView, process control).

http://www.akamaiuniversity.us/PJST10_1_472.pdf

Amino Acid, Mineral, and Vitamin Composition of *Sansevieria liberica* Gérôme and Labroy. Catherine Chidinma Ikewuchi, M.Sc. and Jude Chigozie Ikewuchi, M.Sc. (Keywords: Amino acid, mineral and vitamin profile, *Sansevieria liberica*).

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Role of Electrical Resistivity Method for Groundwater Exploration in Hard Rock Areas: A Case Study from Fidiwo/Ajebo Areas of Southwestern Nigeria. Stephen O. Ariyo and Gabriel O. Adeyemi. (Keywords: electrical resistivity, groundwater exploration, hard rock, Fidiwo, Ajebo, southwestern Nigeria, vertical electrical sounding, VES).

http://www.akamaiuniversity.us/PJST10_1_483.pdf

Petrogenetic and Geotectonic Implications of Lokpa-Ukwu Pyroclastics in Southern Benue Trough, Nigeria. J.N. John-Onwualu, M.Sc. and V.U. Ukaegbu, Ph.D. (Keywords: geology, geochemistry, Cretaceous sedimentary formations).

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Evaluation of Pore Water Pressure Characteristics in Embankment Model. Abdoulla Namdar and Mehdi Khodashenas Pelkoo. (Keywords: embankment, pore water pressure, dense layer, liquefaction).

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Well Log Interpretation Model for the Determination of Lithology and Fluid Contents. O.C. Akinyokun, P.A. Enikanselu, A.B. Adeyemo, and A. Adesida. (Keywords: well log analysis, lithology, neural network, fuzzy logic, geophysical data).

http://www.akamaiuniversity.us/PJST10_1_507.pdf

Geology and Stratigraphy of Middle Cretaceous Sequences Northeast of Afikpo Basin, Lower Benue Trough, Nigeria. V.U. Ukaegbu, Ph.D. and I.O. Akpabio, Ph.D. (Keywords: Afikpo basin, lithostratigraphic units, geology, Asu river group, Turonian Ezeaku formation).

http://www.akamaiuniversity.us/PJST10_1_518.pdf

Relevance of Geophysics in Road Failures Investigation in a Typical Basement Complex of Southwestern Nigeria. K.A.N. Adiat, M.Tech., A.O. Adelusi, Ph.D., and M.A. Ayuk, M.Tech. (Keywords: geophysics, road subsurface, civil engineering, road engineering, road failure).

http://www.akamaiuniversity.us/PJST10_1_528.pdf

Detection of Seismic ULF Geo-Electrical Potential Variations as Tremor Precursors Prior to Quarry Blasts. A.A. Adetoyinbo, O.I. Popoola, O.S. Hammed, and L.A. Sumonu. (Keywords: geo-electrical, seismic, ultra low frequency, ULF, precursors, fracture).

http://www.akamaiuniversity.us/PJST10_1_540.pdf

Spatial Periodicities of Structural Features of the Basement Complex of Southwestern Nigeria Deduced from Auto-Covariance and Power Spectra of Aeromagnetic Data. G.C. Onyedim, Ph.D. and O.O. Ocan, Ph.D. (Keywords: magnetic anomalies, autocorrelation, power spectrum, harmonics, lineaments).

http://www.akamaiuniversity.us/PJST10_1_556.pdf

Variability in Geochemical Properties of Termitaria: University of Ibadan Case Study. G.M. Ayininuola, M.Sc., CREN. (Keywords: geotechnical properties, chemical properties, termitaria, geological zones, shear strength).

http://www.akamaiuniversity.us/PJST10_1_567.pdf

Influence of Sodium Chloride on Subgrade Soil California Bearing Ratio. G.M. Ayininuola, M.Sc., CREN, and O.A. Agbede, Ph.D. (Keywords: cation exchange capacity, CEC, California bearing ration, CBR, soil, subgrade, salt).

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Geo-Environmental Impact Assessment of Effluent Water Disposal on Underground Water in Parts of Samaru, Zaria Kaduna State, Nigeria. Afolalu Felix Olugbenga. (Keywords: groundwater contamination, BOD, COD, TDS, SS, nitrate, phosphate).

http://www.akamaiuniversity.us/PJST10_1_581.pdf

Preliminary Investigation of Some Radiometric Anomalies at Kufena Ring Complex, Zaria Kaduna State, Using Gamma Ray Scintillometer. Afolalu Felix Olugbenga. (Keywords: radioelement, radioecology, mineralization, uranium deposits, geological surveys).

http://www.akamaiuniversity.us/PJST10_1_591.pdf

Two Dimensional Shallow Resistivity Investigation of the Ground Water Potential at Nuhu Bamalli Polytechnic, Zaria Main Campus using Electrical Imaging Technique. Afolalu Felix Olugbenga. (Keywords: shallow resistivity survey, ground water potential, water exploration).

http://www.akamaiuniversity.us/PJST10_1_602.pdf

Depositional Environments, Organic Richness, and Petroleum Generating Potential of the Campanian to Maastrichtian Enugu Formation, Anambra Basin, Nigeria. Olusola J. Ojo, Ph.D., Ajibola U. Kolawole and Samuel O. Akande. (Keywords: hydrocarbon exploration, total organic carbon, TOC, soluble organic matter, SOM).

http://www.akamaiuniversity.us/PJST10_1_614.pdf

A Comparative Estimate of Sediment Transport Along the Coast of West Africa. Sunday Olakunle Oyegoke, Ph.D. (Keywords: West Africa, wave climate, littoral drift, longshore sediment transport computation, Gulf of Guinea).

http://www.akamaiuniversity.us/PJST10_1_628.pdf

Computer Model Study of the Effect of Resistive Topsoil on Interpretation Results of Subsurface Geoelectric Layers' Parameters. A.E. Adeniran, M.O. Olorunfemi, Ph.D., and O.G. Bayowa. (Keywords: resistive topsoil, forward modeling, resistive type curves, curve matching, geoelectric parameters, statistical analysis, vertical electrical sounding, VES).

http://www.akamaiuniversity.us/PJST10_1_635.pdf

The Bouguer Gravity Anomaly Map of the Calabar Flank, Southeastern, Nigeria. A.A. Okiwelu, Ph.D., E.E. Okwueze, Ph.D., and I.O. Akpabio, Ph.D. (Keywords: gravity, anomaly, Bouguer, free-air, drift, geology, Calabar Flank).

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Gravitational Scalar Potential Values Exterior to the Sun and Planets. Chifu Ebenezer Ndikilar, M.Sc., Adam Usman, Ph.D., and Osita Meludu, Ph.D. (Keywords: scalar potential, oblate spheroid, sun, planets, equator, pole).

http://www.akamaiuniversity.us/PJST10_1_663.pdf

Preliminary Results from 3-D Approach to Ionospheric Conductivities in the Equatorial Region. G.A. Agbo and F.N. Okeke. (Keywords: ionosphere, ionospheric conductivities, electrojet, equatorial region, geomagnetic elements).

http://www.akamaiuniversity.us/PJST10_1_674.pdf

Solar Radiation in Port Harcourt: Correlation with Sunshine Duration. A. Chukwuemeka, M.Sc. and M.N. Nnabuchi, Ph.D. (Keywords: sunshine, clearness index, solar radiation).

http://www.akamaiuniversity.us/PJST10_1_681.pdf

Effects of Some Atmospheric Parameters on the Dynamics of Lower Stratospheric Ozone in the Low Latitude. B.C. Isikwue and F.N. Okeke. (Keywords: O₃, ozone, extra-tropical suction pump, ETSP, quasi biennial oscillation, QBO, atmospheric gases, atmospheric dynamics, lower stratosphere, atmospheric variability).

http://www.akamaiuniversity.us/PJST10_1_686.pdf

Empirical Models for the Correlation of Global Solar Radiation with Meteorological Data for Enugu, Nigeria. C. Augustine and M.N. Nnabuchi. (Keywords: sunshine, maximum temperature, cloudiness index, relative humidity, solar radiation).

http://www.akamaiuniversity.us/PJST10_1_693.pdf

Thermal Conductivity Estimates in the Niger Delta Using Lithological Data and Geophysical Well Logs. Idara O. Akpabio, Ph.D. (Keywords: thermal conductivity, heat flow, sand percentage, temperature).

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Effects of Process Annealing on Mechanical Properties of Strain-Hardened Copper: A Case of Kabel Metal Nigeria Limited. O.S. Olokode, M.Sc., B.O. Bolaji, Ph.D., and O. Aiyedun, Ph.D. (Keywords: annealing, cold-rolling, copper, deformation, mechanical properties, strain hardening).

http://www.akamaiuniversity.us/PJST9_2_278.pdf

Effect of Coiled Capillary Tube Pitch on Vapor Compression Refrigeration System Performance. M.A. Akintunde, Ph.D. (Keywords: capillary tube, geometry, helical coil, serpentine coil, COP, correlations, refrigeration).

http://www.akamaiuniversity.us/PJST9_2_284.pdf

Logic Indicating Device for Troubleshooting for Non-Pulsed Output Signals of Integrated Circuits (ICs). J.C. Osuwa, C.I. Oriaku, and E.O. Abgoma. (Keywords: logic indicating device, complementary metal-oxide semiconductor, CMOS, transistor-transistor logic, TTL, integrated circuits, non-pulsed signals, troubleshooting, electronics).

http://www.akamaiuniversity.us/PJST9_2_294.pdf

State-Space Averaged Modeling of a Nonideal Boost Converter. C.A. Nwosu, M.Eng. (Keywords: switching converters, performance, boost converters, line-to-output, control-to-output, EMI).

http://www.akamaiuniversity.us/PJST9_2_302.pdf

A High Performance DC-DC Converter with Battery Charging Circuit. N. Rajarajeswari, M.E. and K. Thanushkodi, Ph.D. (Keywords: DC-DC converter, fuzzy logic controller, AFLC, bi-directional power flow, battery, MATLAB).

http://www.akamaiuniversity.us/PJST9_2_309.pdf

Artificial Neural Network Modeling of Heat Transfer in a Staggered Cross-flow Tube-type Heat Exchanger. D.A. Fadare, Ph.D. and A.S. Fatona, M.Sc. (Keywords: artificial neural network, ANN, heat transfer, staggered, cross-flow, heat exchanger).

http://www.akamaiuniversity.us/PJST9_2_317.pdf

Auxiliary Winding Switching Circuit for Single-Phase Induction Motors. I.A. Odigwe, MNSE, MIEEE, MIET; A.U. Adoghe, MNSE, MIEEE, MIET; A.A. Awelewa, MNSE, MIEEE; and I.A. Samuel, MNSE, R-Engr. (Keywords: centrifugal switch, auxiliary winding, electronic switch, induction motor, synchronous speed, starting capacitor).

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Mitigation of Stability Problem in a Boost Converter having an Input Filter. C.A. Nwosu, M.Eng. and G.C. Asomba, Ph.D. (Keywords: input filter, stability, damping, phase margin).

http://www.akamaiuniversity.us/PJST9_2_328.pdf

Analysis and Validation of Power Conversion Efficiency in PV System. G.C. Asomba, Ph.D. and C.A. Nwosu, M.Eng. (Keywords: photovoltaic, PV, inverters, losses, efficiency).

http://www.akamaiuniversity.us/PJST9_2_337.pdf

Remote Monitor and Controller System for Power Generators. A.U. Adoghe, MNSE, MIEEE and I.A. Odigwe, MNSE, MIEEE, MIET. (Keywords: controller, generator, remote, monitor, automatic, power systems).

http://www.akamaiuniversity.us/PJST9_2_344.pdf

Motion of Particles of Non-Zero Rest Masses Exterior to a Spherical Mass Distribution with a Time Dependent Potential Field. Chifu E. Ndiķilar, M.Sc., Adam Usman, Ph.D., and Osita C. Meludu, Ph.D. (Keywords: equations of motion, general relativity, time-dependent potential field, Schwarzschild's solution).

http://www.akamaiuniversity.us/PJST9_2_351.pdf

On the Theory and Application of Adomian Decomposition Method for Numerical Solution of Second-Order Ordinary Differential Equations. E.A. Ibijola, Ph.D. and B.J. Adegboyegun, M.Sc. (Keywords: Adomian decomposition method, approximate solution, convergence, second order differential equations).

http://www.akamaiuniversity.us/PJST9_2_357.pdf

Lower Memory Utilization for Digital Data Acquisition and Transmission Systems. M.C. Cheng, B.Eng. and Z. Abdul Halim, M.Sc. (Keywords: digital sampling, data acquisition, memory, universal remote, logic analyzer, compression, sampling rate, digital data storage).

http://www.akamaiuniversity.us/PJST9_2_363.pdf

Development of a Computer-Controlled Security Gate System. O.T. Arulogun, O.M. Olaniyi, and A.A. Ipadeola. (Keywords: security, centronic port, PC, sensors, electromechanical systems, surveillance system).

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Development of Security System using Facial Recognition. O.T. Arulogun, E.O. Omidiiora, O.M. Olaniyi, and A.A. Ipadeola. (Keywords: security, centronic port, PC, personal computer, interface, electromechanical systems, surveillance system).

http://www.akamaiuniversity.us/PJST9_2_377.pdf

Framework for Client-Server Distributed Database System for Licensing and Registration of Automobiles in Nigeria. Olabode Olatubosun, Ph.D. and Solanke Olakunle, M.Tech. (Keywords: distributed database system, licensing, automobile, fragmentation, replication, registration).

http://www.akamaiuniversity.us/PJST9_2_386.pdf

Framework for Client-Server Distributed Database System for Population Census. Olabode Olatubosun, Ph.D. and O.C. Akinyokun. (Keywords: distributed database system, population census, fragmentation, replication, vital registration).

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Developed Personal Record Software. R.E. Okonigene, Ph.D., Mnse, R.Engr., FRHD, G.I. Ighalo, Ph.D., MNSE, R.Engr., and E. Ogbeifun. (Keywords: p record software, MS Visual Basic 6.0®, computation of GPA, computer hardware, computer software).

http://www.akamaiuniversity.us/PJST9_2_407.pdf

Manpower Planning Using Decision Analysis: Case of Crown Company. F.A. Oyawale, Ph.D. and O.A. Adegboyega, M.Sc. (Keywords: decision analysis, manpower planning work sampling, uncertainty).

http://www.akamaiuniversity.us/PJST9_2_413.pdf

Estimation of Air Traffic Accident Cost in Nigeria. K.A. Adebiyi, Ph.D. (Keywords: cost model, economic impact, airline accidents, Nigerian air travel, probability).

http://www.akamaiuniversity.us/PJST9_2_420.pdf

An Integer Linear Programming Model of a University Course Timetabling Problem. V.O. Oladokun, Ph.D. and S.O. Badmus, B.Sc. (Keywords: course timetabling, integer linear programming, ILP, heuristic).

http://www.akamaiuniversity.us/PJST9_2_426.pdf

Optimal Policy for Material Requirements Planning and Procurements. K.J. Bassey, M.Sc. (Keywords: material requirements planning, MRPP, MRP, procurements, probability, cost control, inventory).

http://www.akamaiuniversity.us/PJST9_2_432.pdf

Performance Evaluation of GSM Mobile System in Nigeria. A.S. Adegoke, M.Sc., MNSE, I.T. Babalola, MNSE, and W.A. Balogun, MIEEE. (Keywords: network accessibility, call drop, efficiency, congestion).

http://www.akamaiuniversity.us/PJST9_2_436.pdf

Prospect of Wind Energy in the Coastal Belt of Bangladesh. A.N.M. Mominul Islam Mukut, M.Sc., Md. Quamrul Islam, Ph.D., and Muhammad Mahbubul Alam, Ph.D. (Keywords: Bangladesh, Coastal region, Wind energy, Wind data, Velocity duration).

http://www.akamaiuniversity.us/PJST9_2_442.pdf

Community-Based Independent Power Plant: A Case for Renewable Energy Resources. C.A. Nwosu, M.Eng., G.C. Asomba, Ph.D., and C.U. Ogbuka, B.Eng. (Keywords: wind power, hydroelectricity, hydro power, small scale, renewable energy, pump storage).

http://www.akamaiuniversity.us/PJST9_2_452.pdf

Analysis of Thin Chalcogenide PbS Films Prepared from Chemical Bath. C.I. Oriaku and J.C. Osuwa. (Keywords: thin films, chalcogenide films, chemical bath deposition, CBD, photothermal materials).

http://www.akamaiuniversity.us/PJST9_2_461.pdf

Reaction Study and Phase Formation in Bi₂O₃-ZnO-Nb₂O₅ Ternary System. K.B. Tan, Ph.D., C.K. Lee, Ph.D., Z. Zainal, Ph.D., C.C. Khaw, Ph.D., Y.P. Tan, Ph.D., and H. Shaari, Ph.D. (Keywords: diagram, pyrochlores, monoclinic zirconolite, subsolidus).

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Voltammetric Studies of Cadmium Ion at the Mercury Electrode in the Presence of Glutathione. W.T. Tan, Ph.D., M. Zidan, M.Sc., Z. Zainal, Ph.D., and K. Anuar, Ph.D. (Keywords: voltammetric behaviors, Cd(II), GSH, glutathione, OSWV).

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Characterization and Evaluation of the Refractory Properties of Nsu Clay Deposit in Imo State Nigeria. B.C. Chukwudi, M.Eng. (Keywords: kaolinite, fireclay, alumina, refractory material, plasticity index).

http://www.akamaiuniversity.us/PJST9_2_487.pdf

Flocculation of Kaolinite Clay using Natural Polymer. B.C. Chukwudi, M.Eng. and Remy Uche, Ph.D. (Keywords: causticised cassava starch, kaolinite, settling rate, floc size, bed height).

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An F-K Procedure of Eliminating Guided Wave Energy from Shallow Marine Seismic Data. D.O. Ogagarue, Ph.D. (Keywords: seismic records, seismology, guided waves, noise, water layer).

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Interpretation of Electromagnetic and Geoelectric Sounding Data for Groundwater Resources around Obanla-Obakekere, near Akure, Southwestern Nigeria. G.O. Omosuyi, Ph.D., A.O. Adegoke, M.Tech., and A.O. Adelusi, Ph.D. (Keywords: electromagnetic profiling, depth sounding, geoelectric layers, lithologic layers, aquifer units, hydrogeologic framework).

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Structural Evolution, Magmatism, and Effects of Hydrocarbon Maturation in Lower Benue Trough, Nigeria: A Case Study of Lokpaukwu, Uturu, and Ishiagu. E.E. Etuk, M.Sc., N. Ukpabi, M.Sc., V.U. Ukaegbu, Ph.D., and I.O. Akpabio, Ph.D. (Keywords: petroleum, petroliferous formations, geology, intrusions, mudrock structures).

http://www.akamaiuniversity.us/PJST9_2_526.pdf

Scale Selection for Hydraulic Model of the Lagos Costal Zone. S.O. Oyegoke and S.A. Ayankogbe. (Keywords: hydraulic models, scale laws, moveable bed materials).

http://www.akamaiuniversity.us/PJST9_2_533.pdf

Geophysical Seismic Refraction and Uphole Survey Analysis of Weathered Layer Characteristics in the “Mono” Field, North Western Niger Delta, Nigeria. P.A. Enikanselu, Ph.D. (Keywords: seismic refraction, uphole, time-intercept, weathered layer and reverse-shooting).

http://www.akamaiuniversity.us/PJST9_2_537.pdf

Seismic Activity in Nigeria. Edward O. Osagie, Ph.D. (Keywords: earthquake, tremors, geological history, seismic activity).

http://www.akamaiuniversity.us/PJST9_2_546.pdf

SP Anomalies Around Abakaliki Anticlinorium of Southeastern Nigeria. G.U. Chukwu, A.S. Ekine, and J.O. Ebeniro. (Keywords: self-potential, pyrrhotite, mineralization, ore body, pyrite).

http://www.akamaiuniversity.us/PJST9_2_552.pdf

Localized Vp-Vs Relationships for the Niger Delta Sediments. D.O. Ogagarue, Ph.D. (Keywords: compressional and shear velocity, Castagna's mud-rock line, hydrocarbon exploration).

http://www.akamaiuniversity.us/PJST9_2_558.pdf

Geoelectric Sounding to Delineate Shallow Aquifers in the Coastal Plain Sands of Okitipupa Area, Southwestern Nigeria. G.O. Omosuyi, J.S. Ojo, and M.O. Olorunfemi. (Keywords: geoelectric sounding, aquifer units, coastal plain sands, aquifer vulnerability).

http://www.akamaiuniversity.us/PJST9_2_562.pdf

Physico-Chemical Assessment of Ijapo Clay Deposit as Binder for Moulding in Foundry. M.A. Akintunde, Ph.D. and S.O. Omole, OND, HND. (Keywords: greensand, clay, mechanical tests, bentonite, Ijapo Clay, composition).

http://www.akamaiuniversity.us/PJST9_2_578.pdf

Empirical Models for the Correlation of Global Solar Radiation with Meteorological Data for Iseyin, Nigeria. E.O. Falayi, Ph.D., J.O. Adepitinan, Ph.D., and A.B. Rabiu, Ph.D. (Keywords: solar global solar radiation, relative humidity, temperature, relative sunshine duration).

http://www.akamaiuniversity.us/PJST9_2_583.pdf

Water Quality Assessment of Boreholes in Umuahia South Local Government Area of Abia State, Nigeria. G.U. Chukwu, M.Sc. (Keywords: water quality guidelines, borehole, groundwater, potable water, hardness, correlation).

http://www.akamaiuniversity.us/PJST9_2_592.pdf

Poverty-Driven Causes and Effects of Environmental Degradation in Nigeria. G.U. Chukwu, M.Sc. (Keywords: environmental pollution, poverty, ozone-layer, toxicity, CFC).

http://www.akamaiuniversity.us/PJST9_2_599.pdf

Policy Approaches to the Recycling and Disposal of Electronic Waste. Jonathan Wolfington, M.S. and Anthony R. Maranto, Ph.D. (Keywords: electronic components, e-waste, computer disposal, public policy, toxic waste, recycling).

http://www.akamaiuniversity.us/PJST9_2_603.pdf

Kinetics, Equilibrium, and Thermodynamics Studies of the Biosorption of Lead(II) and Chromium(III) by *Basella alba* L. J.O. Babalola, Ph.D., N.A.A. Babarinde, Ph.D., V.O. Oninla, M.Sc., and O.A. Popoola, M.Sc. (Keywords: biosorption, lead, chromium, kinetics, thermodynamics, *Basella alba* Linn.)

http://www.akamaiuniversity.us/PJST9_2_610.pdf

Kinetic, Equilibrium, and Thermodynamic Studies of the Biosorption of Pb(II) from solution by *Calymperes erosum*. N.A. Adesola Babarinde, Ph.D., J. Oyebamiji Babalola, Ph.D., and Oluwatosin A. Onafalujo, B.Sc. (Keywords: *Calymperes erosum*, lead(II), biosorption, equilibrium, thermodynamics).

http://www.akamaiuniversity.us/PJST9_2_621.pdf

Modeling of Thermal Properties of Food Components. M.A. Akintunde, Ph.D. (Keywords: refrigeration, thermal conductivity, thermal diffusivity, density, specific heat)

http://www.akamaiuniversity.us/PJST9_2_629.pdf

Analysis of Moisture Transport in the Solar Drying of Food Items. B.O. Bolaji, Ph.D. (Keywords: food items, liquid concentration, moisture transport, solar dryer, food preservation).

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Evaluating the Relationship Between Running Times and DNA Sequence Sizes using a Generic-Based Filtering Program. O.O. Oluwagbemi, M.Sc. and A.C. Omonhinmin, M.Sc. (Keywords: generic programming, DNA sequences, trend analysis, computer science, bioinformatics).

http://www.akamaiuniversity.us/PJST9_2_647.pdf

Population Structure, Age Gradations, and Regeneration Status of *Pterocarpus dalbergioides* Roxb., An Endemic Species of Andaman Islands, India . P. Rama Chandra Prasad, Ph.D., C. Sudhakar Reddy, Ph.D., S.H. Raza, Ph.D., and C.B.S. Dutt, Ph.D. (Keywords: spatial distribution, padauk, species diversity, age gradations, conservation, extinction).

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Effects of X-Rays on the Physico-Chemical Properties of Soybean Oil. E.H. Agba, Ph.D. and E.J. Ibanga, Ph.D. (Keywords: irradiation, food, density, refractive index, pH, iodine, viscosity, free fatty acid, biodiesel).

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Mitigation of Effects of the Atmosphere on Radio Wave Propagation. A.S. Adegoke, M.Sc., MNSE. (Keywords: telecommunications, radio waves, atmospheric factors, absorption, signal attenuation)

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Effects of Propagation Delay on Signal Transmission. A.S. Adegoke, M.Sc. and M.A. Onasanya, M.Sc. (Keywords: tropospheric delay, troposphere, ionospheric delay, ionosphere, refractive index, propagation speed)

http://www.akamaiuniversity.us/PJST9_1_13.pdf

Energy-Time and Space-Time. Linus O'Sullivan, BBA. (Keywords: electromagnetic field, photons, gravity, gravitational force, theoretical physics)

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Method of Independent Determination of Cutting Forces on the Rake and Clearance Faces of a Lathe Cutting Tool. O.O. Awopetu, Ph.D. and M.A. Akintunde, Ph.D. (Keywords: cutting force, extrapolation, thickness of cut, wear plane, ferrite-pearlitic, austenite, straight carbides, tungsten-titanium carbides, tungsten-titanium-tantalum carbides)

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Periodic Solutions for a Non-Linear Boundary Value Problem (BVP) of a Fourth Order Differential Equation. Hilary Mbadiwe Ogbu, M.Sc. (Keywords: boundary value problems (BVP), a priori bounds, compact and equicontinuity, integrated and so-called energy equation)

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The Sequence Dependent Machine Set-Up Problem: A Brief Overview. V.O. Oladokun, Ph.D. and O.E. Charles-Owaba, Ph.D. (Keywords: MSP, machine set up problem, traveling salesman problem, combinatorial optimization, engineering principals)

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Design of a Neural Network Based Optical Character Recognition System for Musical Notes. A.E. Akinwonmi, M.Tech., O.S. Adewale, Ph.D., B.K. Alese, Ph.D., and O.S. Adetunmbi, M.Tech. (Keywords: optical, character, musical notes, neural networks, OCR, MIDI)

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Overview of 3G and WiMAX Technology. Nitin S. Choubey, Ph.D. and Madan U. Kharat, Ph.D. (Keywords: telecommunications, wireless, information technology, telephony, mobile services)

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Computer-Based Instrumentation: A Boost for Industrialization. A.E.A. Kareem, M.Sc., T.R. Bamigbade, B.Sc., and I.A. Lateef, B.Tech., PGD. (Keywords: instrumentation, PC, sensors, industrialization, non-compatible signal, digital computer, compatible)

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Predicting Students' Academic Performance using Artificial Neural Network: A Case Study of an Engineering Course. V.O. Oladokun, Ph.D., A.T. Adebayo, B.Sc., and O.E. Charles-Owaba, Ph.D. (Keywords: university admissions, student performance, Artificial Neural Networks, ANN, tertiary education, predictive models)

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Converting Traditional Classroom into Virtual Classroom. Hamed Ademayowa Idowu, M.Eng, Dip. IBM, CCNA, CCNP. (Keywords: information and communication technology, education environments, virtual classroom infrastructure, universities, higher education)
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A Survey on the Use of Computers and Internet in Conducting Research and Training in a Developing Country. K.O. Lawal, M.Sc., A.A. Adegbemile, M.Sc., J.O. Aribisala, Ph.D., and S.A. Oke, M.Sc. (Keywords: engineering curriculum, computers, internet, university teaching, education)
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The Roles of ICT in Information Processing and National Development in Nigeria. A.E.A. Kareem, M.Sc., O.O. Olaewe, Ph.D. , and O.A. Odeniyi, M.Sc. (Keywords: ICT, information communication technology, GSM, global system for mobile telecommunications, computers, national development, government policy)
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Combined-Cycle Plant Simulation Toolbox for Power Plant Simulator. A. Salehi, M.Eng.Sc.1, A.R. Seifi, Ph.D. 2*, and A.A. Safavi, Ph.D. (Keywords: gas power plant, combined-cycle power plant, modeling and simulation, MATLAB®, SIMULINK®)
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A Statistical Analysis of Wind Energy Potential in Ibadan, Nigeria, Based on Weibull Distribution Function. D.A. Fadare, Ph.D. (Keywords: Ibadan, wind speed, renewable energy, Weibull distribution function, statistical modeling)
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Evaluation of Corrosion Cost in Some Selected Fruit Juice-Processing Industries in South-West Nigeria. C.C. Enveremadu, Ph.D., A.A. Adekunle, B.Tech., and A. Adeala, M.Sc. (Keywords: manufacturing, maintenance, life cycle costing, management studies, corrosion management)
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MATLAB Simulation for Continuous Stirred Tank Reactor. V. Balaji, Research Scholar, N. Vasudevan, Ph.D., and E. Maheswari, M.E. (Keywords: adaptive control, simulation, modeling, CSTR, continuous stirred tank reactor, MATLAB®)
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An Optimized Design of Solar Burner Through Thermal and Structural Analysis of Plate and Coil of Burner using ANSYS. Syed Asfandyar, M.S., Muhammad Rafique, Ph.D., and M. Javed Hyder, Ph.D. (Keywords: ANSYS®, optimized design, solar burner, structural analysis, Von Mises stresses)
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Simulation of D.C. Machines Transient Behaviors: Teaching and Research. O.I. Okoro, Ph.D., C.U. Ogbuka, B.Eng., and M.U. Agu, Ph.D. (Keywords: D.C. machines, direct current, transient, stability, SIMULINK, modeling)
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Solving Electrical Circuits Transient Problems with MATLAB® and SIMPLORER®. C.U. Ogbuka, B.Eng., O.I. Okoro, Ph.D., and M.U. Agu, Ph.D. (Keywords: A.C., alternating current, MATLAB®, SIMPLORER®, transient, circuit, modeling)
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Theoretical Analysis of a Relationship between Master/Wheel Cylinder Diameter Ratio and Brake Efficiency. I.A. Lateef, B.Tech., B.A. Hassan, M.Ed., and A.E.A. Kareem, M.Sc.
(Keywords: master cylinder diameter, wheel cylinder diameter, brake efficiency, force on control pedal, force on actuating mechanism, radii on pedal)
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The Zener-Hollomon Parameter Characteristics in Hot Rolling of AISI 316 using the Reverse Sandwich Model. O.J. Alamu, Ph.D., S.O. Giwa, M.Sc., M.A. Sulaiman, M.Sc., C.C. Enweremadu, Ph.D., and I.A. Lateef, B.Tech. (Keywords: stainless steel production, reverse sandwich, RSM, hot rolling, deformation, strain rate)
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Investigation of the Grain Structure of the Fusion Zone of Single Pass Arc Welding of Structural Steel (NST 34 L-C). F.A. Oyawale, Ph.D. and K.O. Sanusi, M.Sc. (Keywords: structural steel, fusion welding, solidification, temperature gradient)
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Scheduling to Minimize Total Completion Time of Jobs in a Printing Firm.
E.O. Oyetunji, Ph.D. and A.E. Oluleye, Ph.D.
(Keywords: scheduling, signal machine, total completion time, performance measure, heuristic)
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Analysis of the Rule of Molecular Polarizability in the Study of the Dielectric Behavior of Liquids. E.I. Ugwu, Ph.D. and H.M. Ogbu, M.Sc. (Keywords: polarization, relaxation time, dielectric, susceptibility, dipole moment, field)
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Isotherm and Thermodynamic Studies of the Biosorption of Zinc (II) from Solution by Maize Leaf. N.A. Adesola Babarinde, Ph.D., J. Oyebamiji Babalola, Ph.D., and Adenike A. Adetunji, B.Sc. (Keywords: biosorption, Zn(II), zinc, Freundlich isotherm, Langmuir isotherm, maize leaf)
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Nutritive and Anti-Nutritive Composition of the Wild (Inedible) Species of *Dioscorea bulbifera* (Potato Yam) and *Dioscorea dumentorum* (Bitter Yam).
M.N. Ogbuagu, M.Sc. (Keywords: wild yams, wild foods, nutrients, anti-nutrients, *Dioscorea bulbifera*, *Dioscorea dumentorum*)
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Assessment of Radioactivity Content of Quarry Dust in Abakaliki, Nigeria.
E.I. Ugwu, Ph.D., K.O. Agwu, and H.M. Ogbu, M.Sc. (Keywords: radionuclides, naturally occurring, uranium, radium, thorium, potassium, gamma spectrometry, alpha / beta spectrometry)
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Settling Behavior of Kaolinite Clay in the Absence of Flocculant. Benneth C. Chukwudi, M.Eng. (Keywords: kaolinite, settling behavior, solid loading, edge-face association, face-face association)
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Geoelectric Investigation for Groundwater Development of Southern Part of Nigeria. Idara Akpabio, Ph.D. and Eridiong Ekpo, M.Sc. (Keywords: vertical electrical sounding, groundwater, aquifers, subsurface, Schlumberger array, VES)
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Sequence Stratigraphic Framework of the “Paradise-Field” Niger Delta, Nigeria. A.O. Anyiam, M.Sc. and A.W. Mode, Ph.D. (Keywords: geological exploration, biostratigraphic, petroleum, Niger River, depocenters)
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Toxic Trace Element Pollution in Storm Water of Karachi: A Graphical Approach. A. Zubair, Ph.D., M.A. Farooq, M.Sc., and H.N Abbasi, M.Sc. (Keywords: ground water, storm water, runoff, non-point pollution, heavy metals, cadmium, copper, dissolved solids, lead, arsenic, iron, zinc)
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Detection and Monitoring of Dumpsite-Induced Groundwater Contamination using Electrical Resistivity Method. P.A. Enikanselu, Ph.D. (Keywords: dumpsite, saturated zone, plume, geoelectric section, vertical electric sounding, VES, groundwater, contamination)
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Occupational Lead Exposure in Printing Presses: An Analytical Approach. S.A. Oke, M.Sc., T.E. Phillips, A. Kolawole, M.Sc., C.E. Ofiabulu, M.Sc., and D.A. Adeyeye, M.Sc. (Keywords: printing press, small enterprises, daily intake, elimination rate, blood lead, lead, Pb, poisoning, occupational health, Nigeria)
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Immunophenotypic Study of Leukaemia Cases. Mansoor Quli Khan, MD, Ph.D., Soad Ali, MBBS, M.Sc., Vijay P. Gupta, DFM, Ph.D., and Arif Shah, Ph.D., D.Sc. (Keywords: clinical research, Leukaemia, Leukemia, cancer, morphological differences)
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Investigation of Groundwater Prospect Using Electromagnetic and Geoelectric Sounding at Afunbiowo, near Akure, Southwestern Nigeria. G.O. Omosuyi, A. Adeyemo, and A.O. Adegoke. (Keywords: electromagnetic profiling, vertical electrical sounding, VES, fissured zones, aquifers, hydrogeological framework)
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Relationship Between Drainage Basin Area and Stream Length for River Gongola, Nigeria. S.O. Oyegoke and Chifumanya Ifeadi. (Keywords: topographic maps, Strahler Stream Order, stream length, drainage basin, divides, basin area)
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Analysis and Characterization of Clay Soil in Abakaliki, Nigeria
E.S. Nweke, M.Sc. and E.I. Ugwu, Ph.D. (Keywords: particle size, sediment, density, porosity, soil, ion exchange, building material, sintering, ceramics, bricks)
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Reservoir Characterization: Implications From Petrophysical Data of the “Paradise-Field”, Niger Delta, Nigeria. A.W. Mode, Ph.D. and A.O. Anyiam, M.Sc. (Keywords: petroleum exploration, geology, petrophysical analysis, hydrocarbons)
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Frequency Distribution Analysis of Available Wind Resources in Umudike, Abia State, Nigeria, for Wind Energy Conversion System Design. C.I. Oriaku, B.Sc., J.C. Osuwa, Ph.D., A.D. Asiegbu, Ph.D., G.U. Chukwu, M.Sc. and C.O. Kanu, B.Sc. (Keywords: Umudike, frequency distribution, wind speed, wind power, wind energy conversion, WECS)
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Studies on the Gieseler Plastometry Parameters of the American Pittson Coal for Metallurgical Cokemaking at the Ajaokuta Steel Plant, Nigeria.
A.O. Adeleke, M.Sc., R.S. Makan, HND, PG, and S.A. Ibitoye, Ph.D. (Keywords: coal, coking, fluidity, cokemaking, coke)
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Development and Evaluation of Palm Kernel Oil Biodiesel Fuel. O.J. Alamu, Ph.D. (Keywords: energy, environment, ethanol, palm kernel oil, biodiesel, renewable fuel)
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Design of an Anaerobic Waste Digester. S.J. Ojolo, Ph.D. and S.A. Oke, M.Sc. (Keywords: biogas, digester, anaerobic, energy, biofuel, alternative fuel, methane)
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Design and Construction of an Autoclave. F.A. Oyawale, Ph.D. and A.E. Olaoye, M.Sc. (Keywords: autoclave, pathogenic organisms, design, engineering, sterilization, health applications, cost effective)
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Neural Network Based Analysis of Induction Motors with Saturable Inductances. M.H.

Shafiei, M.S., A.R. Seifi, Ph.D., and P. Karimaghaei, Ph.D.

(Keywords: induction machine, saturation modeling, neural networks, electrical engineering, induction motor)

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The Effects of Friction Factors on Capillary Tube Length. M.A. Akintunde, Ph.D. (Keywords: capillary, refrigeration, friction factor, tube length, mathematical model, thermodynamic properties, pressure drop)

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Wave Propagation in Non-Homogenous Thin Films of Slowly Varying Refractive Index:

W.K.B. Solution Model. E.I. Ugwu, Ph.D.* and A. Agbo, M.Sc. (Keywords: non-homogenous, refractive index, approximation, reflection co-efficient, amplitude, propagation, WKB, Wentzel Kramers Brillouin, transverse electric, transverse magnetic)

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Cyclic Voltammetry Study of Copper Tin Sulfide Compounds. K. Anuar, Ph.D., W.T. Tan, Ph.D., M.S. Atan, M.Sc., K. Dzulkefly, Ph.D., S.M. Ho, M.Sc., H. Md Jelas, Ph.D. and N. Saravanan, Ph.D. (Keywords: copper tin sulfide, cyclic voltammetry, metal chalcogenide, thin films)

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Heat Flow Estimates in the Western Niger Delta Basin, Nigeria. D.O. Ogagarue, Ph.D.

(Keywords: geophysical data, petroleum exploration, hydrodynamics, tectonics, hydrocarbon reserves)

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Influence of Particle Size and Firing Temperature on Burnt Properties of

Rice/Clay Mix. E.J. Ibanga, Ph.D. and A.D. Ahmed, Ph.D. (Keywords: burnt bricks, rice husk, compressive strength, water adsorption)

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Fuzzy Logic Control of Food Frying Process: A Conception

of Frying Process Control. P.B. Osofisan, Ph.D.* and M.O. Falodun, B.Sc.(Eng.). (Keywords: frying of food, frying oil, process control, fuzzy logic, measured and manipulated variable)

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Fuzzy Logic Control of Food Frying Process: An Optimization of Traveling Speed of the Conveyor Belts. P.B. Osofisan, Ph.D.* and M.O. Falodun, B.Sc.(Eng.). (Keywords: conveyors, Petri nets, fuzzy logic, tracking, optimization and servomotor control)

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Fuzzy Logic Control of Food Frying Process: Efficiency and Energy Optimization of Food Frying Process. P.B. Osofisan, Ph.D.* and M.O. Falodun, B.Sc.(Eng.) (Keywords: fuzzy logic, optimization, conveyor speeds, adjustable speed drives, ASD, variable structure systems, VSS)

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Fuzzy Logic Control of Food Frying Process: Motor Speed Control of

Food Frying Process. P.B. Osofisan, Ph.D.* and M.O. Falodun, B.Sc.(Eng.). (Keywords: fuzzy logic, brushless DC motor, servomotor control, fuzzy reasoning system, high efficiency control)

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Fuzzy Logic Control of Food Frying Process: Optimization of DC Wingding Currents of Food Frying Process Control. P.B. Osofisan, Ph.D.* and M.O. Falodun, B.Sc.(Eng.).
(Keywords: fuzzy logic, field orientation control, FOC, servomotor controls, DC wingding currents, brush and brushless motor)

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Application of Time Study Model in an Oil Palm Processing Company: A Case Study. A.O. Odior. (Keywords: edible palm oil, bunch reception, fruits, digestion, pulp pressing, production stages, food processing)

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Development and Application of an Inflation-Based Productivity Model.
S.A. Oke, M.Sc., I.O. Oyedokun, O.G. Akanbi, Ph.D., and F.A. Oyawale, Ph.D.
(Keywords: inflation, productivity, incentive, modeling, production, gain sharing)

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Modeling the Total Surface Area and Volume of Potholes on a Length of Road. S.A. Oke, M.Sc. and O. Ajayi. (Keywords: area, volume, total area, surface of a 3-D object, three dimensional geometry, road engineering, maintenance, repair)

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Factor Analytic Approach to Computer Network/Information Security Awareness in South-Western Nigeria. B.K. Alese, Ph.D., O.J. Olojo, M.Tech., O.S. Adewale, Ph.D., A.A. Adetunmbi, Ph.D., and S.O. Falaki, M.Ed. (Keywords: information systems, computer security, network security, network usage)

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Web-Based Neural Network Model for University Undergraduate Admission Selection and Placement. O.S. Adewale, Ph.D., A.B. Adebiyi, M.Tech. and O.O. Solanke, M.Tech. (Keywords: automated selection, matriculation, entrance examination, University Matriculation Examination, UME, JAMB, higher education)

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Embedding Information and Communications Technologies (ICT) in Nigeria Local Government System. O. Olabode and A. Akingbesote. (Keywords: local government, e-government, ICT, technical model, internet)

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Evolution of the Fourth Generation Mobile Networks: Trends and Tendencies. O. Shoewu, M.Sc. (Keywords: mobile networks, digital technology, data transmission, modulation, and frequency bands)

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Power Line Communication Technology. L.I. Oborkhale, M.Eng. and O. Shoewu, M.Sc.
(Keywords: power line, communication, technology, frequency, telecommunications, transmission)

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Characterizations and Performance of a Solid-State Inverter and its Applications in Photovoltaics. B.A. Ezekoye, Ph.D. and V.N. Ugha, M.Sc. (Keywords: photovoltaic, solar, direct current, alternating current, electronics)
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Design and Prototype Development of a Mini-Electric Arc Furnace. F.A. Oyawale, Ph.D. and D.O. Olawale, M.Sc. (Keywords: electric arc furnace, melting rate, electrode consumption rate, transformer efficiency)
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A Survey of Automobile Drives in a Developing Country. Ademola Dare, Ph.D., S.A. Oke, M.Sc., and Nurudeen Lawal, B.Sc. (Keywords: automobile, car, light vehicles, wheel drives, developing countries, survey, transportation)
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Phosphate Recovery from Municipal Wastewater through Crystallization of Calcium Phosphate. A. Alamdari, Ph.D. and S. Rohani, M.Sc. (Keywords: crystallization, phosphate removal, recovery, wastewater treatment, Ca₃(PO₄)₂)
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Hydrogeochemical Analysis of Water Samples in Nando and Environs of the Anambra Basin of South Eastern Nigeria. M.E. Egbunike, Ph.D. (Keywords: hydrogeology, lithostratigraphic formations, shale, clay, aquifers, groundwater)
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First Dual-Sensor Ocean Bottom Cable 3D Seismic Acquisition South Atlantic Ocean, Offshore Niger Delta, Nigeria. C.C. Ugbor, M.Sc. (Keywords: seismic acquisition, ocean bottom cable, OBC, multi-sensor, subsurface formations, petroleum exploration)
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Comparative Study of the Offset-Geophone and Down-deep Hydrophone Seismic Refraction Survey with Application to the Niger Delta Basin, Nigeria. D.O. Ogagarue, Ph.D. (Keywords: seismic refraction, geological data, uphole survey, hydrophone, geophone, weathering layer)
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Fuzzy Logic Modeling of the Fluidized Catalytic Cracking Unit of a Petrochemical Refinery. P.B. Osofisan, Ph.D. and O.J. Obafaiye, M.Sc. (Keywords: process engineering, control models, fuzzy logic, hydrocarbon, gasoline production, industrial catalyst)
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Application of Neural Network to Load Forecasting in Nigerian Electrical Power System. G.A. Adepoju, M.Sc., S.O.A. Ogunjuyigbe, M.Sc., and K.O. Alawode, B.Tech. (Keywords: load forecasting, electricity generation, electric power system, neural network)
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Application of Neurofuzzy in the Development of Road Bump Designs. S.A. Oke, M.Sc., A.O. Johnson, B.Sc., T.A.O. Salau, Ph.D., and A.O. Adeyefa, M.Sc. (Keywords: road bump, traffic control, neuro-fuzzy, uncertainties, imprecision, speed bump design, mathematical model)
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Application of Neural Network to Improve Dynamic Branch Prediction of Superscalar Microprocessors. P.B. Osofisan, Ph.D. and O.A. Afunlehin, M.Sc.(Eng.) (Keywords: neural network, branch prediction, superscalar microprocessor, benchmarks)
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Transforming the Conventional Graphic Layouts of Civil Infrastructure into Geospatial Themes for Urban Management. Amjad S. Almas, M.Sc. and C.A. Rahim, Ph.D. (Keywords: thematic information, GIS, urban, geospatial technologies, Remote Sensing (RS), Environment, urban planning)
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The Effects of Solar Radiations on Telecommunications. B.A. Ezekoye, Ph.D. and R.M. Obodo, M.Sc. (Keywords: radio frequencies, ionosphere, solar activity, electron density, communication disturbance)
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The Trends in Broadband Wireless Networks Technologies. Augustine C. Odinma, Ph.D., Lawrence I. Oborkhale, M.Eng., and Muhammadou M.O. Kah, Ph.D. (Keywords: telecommunications, wireless standards, network technologies, mobile networks, wireless)
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Stability and Harmonic Oscillations in a Homogenous Third Order Differential Equation with Numerical Illustrations. Hilary Mbadiwe Ogbu, M.Sc. (Keywords: constant coefficient equation, stability, harmonic oscillation, homogeneous equations, qualitative properties)
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Existence of Periodic Solutions for a Certain Boundary Value Problem of a Nonlinear Forth Order Differential Equation. Hilary Mbadiwe Ogbu, M.Sc. (Keywords: boundary value problems, a priori bounds, compact and equicontinuity, integrated and so called energy equation)
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Job Scheduling in a Small Scale Gari Processing Firm in Nigeria. A.E. Oluleye, Ph.D., E. Oyetunji, Ph.D., Ladi Ogunwolu, Ph.D., and S.A. Oke, M.Sc. (Keywords: Gari, order scheduling, small and medium enterprises, performance measure, Nigeria, fresh roots, CDS heuristics, A1 heuristics)
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Computation of Optogeometric Properties of Thin Films Optical Waveguides using the Newton-Raphson Method. E.J. Ibanga, Ph.D. and E.N. Asaga, M.Sc. (Keywords: waveguide, dielectric, refractive index, thickness, dielectric and polymer thin films)
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Analysis of Chemically Deposited MnS Thin Films. S.N. Agbo, M.Sc. and F.I. Ezema, Ph.D. (Keywords: chemical bath deposition, MnS. manganese sulphide, thin films, optical properties, solar application)
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Optical Characteristics of Chemical Bath Deposited CdS Thin Film Characteristics within UV, Visible, and NIR Radiation. E.I. Ugwu, Ph.D. and D.U. Onah, M.Sc. (Keywords: solution growth, transmittance, dielectric constant, adsorption co-efficient, reflectance, band-gap, refractive index, cadmium sulphide)
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Kawasaki Disease: A Case Report. M.Q. Khan, Ph.D. MD. (Key words: medical case study, scientific communication)

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Optical Properties of Iron Halide (FeCl₂) Thin Film Deposited Using Solution Growth Technique (SGT). E.I. Ugwu, Ph.D. (Key words: dielectric constant, absorbance, wavelength, transmittance, reflectance, band gap, solution growth)

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Electrochemical Preparation and Characterization of Polypyrrole-Polyethylene Glycol Conducting Polymer Composite Films. A. Kassim, Ph.D., H.N.M. Ekarmul Mahmud, Ph.D., L.M. Yee, M.Sc., and N. Hanipah, B.Sc. (Keywords: conducting polymer, polypyrrole, polyethylene glycol, p-toluene sulfonate.)

http://www.akamaiuniversity.us/PJST7_2_97.pdf

Optical Properties of PbHgS Ternary Thin Films Deposited by Solution Growth Technique. B.A. Ezekoye, Ph.D. and C.E. Okeke, Ph.D. (Key words: ternary thin film, electroless, optical constants, optical bandgap, photovoltaic)

http://www.akamaiuniversity.us/PJST7_2_108.pdf

Influence of Thermal Annealing on the Structural and Optical Properties of Lead Oxide Thin Films Prepared by Chemical Bath Deposition Technique. D.D.O. Eya, Ph.D. (Keywords: lead oxide, thin films, post-deposition annealing, optical properties, structural properties, grain size) http://www.akamaiuniversity.us/PJST7_2_114.pdf

Existence of Periodic Solutions for a certain Non-Linear Third Order Differential Equation. H.M. Ogbu, Ph.D. (Keywords: fixed point technique, apriori bounds, compact and equicontinuity, integrated and so call energy equation)

http://www.akamaiuniversity.us/PJST7_2_120.pdf

A Necessary and Sufficient Condition for Stability and Harmonic Oscillations in Certain Second Order Differential Equation. H.M. Ogbu, Ph.D. (Keywords: Liapunov functions, stability, oscillation, solution paths, positive definite, positive semi-definite, and quadratic forms)

http://www.akamaiuniversity.us/PJST7_2_126.pdf

A new User Friendly Software for Teaching and Research in Engineering Education . O.I. Okoro, Ph.D., P. Govender, Ph.D., and E. Chikuni, Ph.D. (Keywords: engineering education, MATLAB, simulation, RLC network, mechanical systems)

http://www.akamaiuniversity.us/PJST7_2_130.pdf

Cryptographic Voting Protocol for Campus Elections. O. Shoewu, M.Sc. and A.K. Arolu, B.Sc. (Keywords: voting protocol, campus elections, cryptography, digital signature)

http://www.akamaiuniversity.us/PJST7_2_137.pdf

Radio Frequency Identification Technology: Development, Application, and Security Issues. O. Shoewu, M.Sc. and O. Badejo, B.Sc. (Keywords: RFID, electronic security, wireless, data communication, tags, transponders)

http://www.akamaiuniversity.us/PJST7_2_144.pdf

A Case Study Application of Time Study Model in an Aluminum Company. S.A. Oke, M.Sc. (Keywords: manufacturing, process analysis, efficiency study, time study, management analysis, differential calculus, mathematical modelling)

http://www.akamaiuniversity.us/PJST7_2_153.pdf

Application of Fuzzy Logic Concept to Profitability Quantification in Plastic Recycling. S.A. Oke, M.Sc., A.O. Johnson, B.Sc., I.O. Popoola, B.Sc., O.E. Charles-Owaba, Ph.D., and F.A. Oyawale, Ph.D. (Keywords: manufacturing, process analysis, mathematical modelling, profitability, return on investment, recycling, plastics, polymers, material reclamation)
http://www.akamaiuniversity.us/PJST7_2_163.pdf

Design, Construction, and Performance Evaluation of Plastic Biodigester and Storage of Biogas. V.A. Ezekoye, M.Sc. and C.E. Okeke, Ph.D. (Keywords: renewable energy, agricultural waste, biofuel waste derived fuel, microbial digestion, anaerobic digestion, fermentation)
http://www.akamaiuniversity.us/PJST7_2_176.pdf

Development and Performance Evaluation of Modified Integrated Passive Solar Grain Dryer. B.A. Ezekoye, Ph.D. and O.M. Enebe, M.Sc. (Keywords: solar grain dryer, passive, performance evaluation, relative humidity, ambient temperature, dryer efficiency)
http://www.akamaiuniversity.us/PJST7_2_185.pdf

Positive and Future Prospects of Solar Water Heating in Nigeria. S.N. Agbo, M.Sc. and O.U. Oparaku, Ph.D. (Keywords: renewable energy, energy policy, developing countries, energy technologies)
http://www.akamaiuniversity.us/PJST7_2_191.pdf

Effect of Hot Water Withdrawal Rate on the Mean System Temperature of a Thermosyphon Solar Water Heater. S.N. Agbo, M.Sc. (Keywords: renewable energy, solar water heaters, energy technologies, thermodynamic modelling)
http://www.akamaiuniversity.us/PJST7_2_199.pdf

Comparative Study of Graphical Methods and Velocity Analysis of 2-D Seismic Reflection Data with Application to Niger Delta. D.N. Obiora, Ph.D. (Keywords: geological analysis, Benin formation, Agbada formation, Akata formation, comparative analytical methods, aeromagnetic anomalies, oil field identification, petroleum occurrence)
http://www.akamaiuniversity.us/PJST7_2_204.pdf

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Virtual Private Network Security using a Combination of Techniques. S.O. Ajose, Ph.D., I.I. Ezebuiro, Ph.D., D.Sc., and A.I.O. Yussuff, M.Sc. (Key words: VPN, virtual private network security)

http://www.akamaiuniversity.us/PJST7_1_4.pdf

Quality of Service Mechanisms and Challenges for IP Networks. A.C. Odinma, Ph.D. and L. Oborkhale, M.Eng. (Key words: quality of service, internet, real time services, voice communication networks, telecommunications, delay sensitive traffic, MPLS, DiffServe, IntServ)

http://www.akamaiuniversity.us/PJST7_1_10.pdf

Quality of Service and Class of Service in Voice Communications Networks. (Paper withdrawn by request of authors) http://www.akamaiuniversity.us/PJST7_1_17.pdf

Next Generation Networks: Whence, Where, and Whither. A.C. Odinma, Ph.D. (Key words: second generation, 2G, third generation, 3G, fourth generation, 4G, beyond 3G, B3G, communication networks)

http://www.akamaiuniversity.us/PJST7_1_23.pdf

Design of a Microprocessor Based Automatic Gate. O. Shoewu and O.T. Baruwa (Key words: automatic gate, microprocessor, automobile, traffic controllers, software, parking)

http://www.akamaiuniversity.us/PJST7_1_31.pdf

Basic Principles and Functions of Electrical Machines. O.I. Okoro, Ph.D., M.U. Agu, Ph.D., and E. Chinkuni, Ph.D. (Key words: electrical machines, operation design, maintenance, protection, stator)

http://www.akamaiuniversity.us/PJST7_1_45.pdf

Steel Fibers and Steel Fiber Reinforced Concrete in Civil Engineering. J. Katzer, Ph.D. (Key words: tensile strength, construction material, engineering technology).

http://www.akamaiuniversity.us/PJST7_1_53.pdf

Optical Properties and Chemical Bath Deposited CuAlS₂ Thin Films. D.N. Okoli, M.Sc., A.J. Ekpunobi, Ph.D., and C.E. Okeke, Ph.D. (Key words: solar coating, thin film deposition, chemical deposition, optical properties, solid state characteristics, photovoltaic, copper aluminum sulphide).

http://www.akamaiuniversity.us/PJST7_1_59.pdf

Optical Properties and Applications of Cadmium Selenide (CdSe) Thin Films Prepared by Chemical Bath Deposition Technique. D.D.O. Eya, Ph.D. (Key words: cadmium selenide, chemical bath, optical properties, thin films, refractive index).

http://www.akamaiuniversity.us/PJST7_1_64.pdf

Optical and Solid State Characterization of Optimized Manganese Sulphide Thin Films and Their Possible Applications in Solar Energy. M.N. Nnabuchi, Ph.D. (Key words: solar coating, thin film deposition, chemical deposition, optical properties, solid state characteristics, photovoltaic, MnS).

http://www.akamaiuniversity.us/PJST7_1_69.pdf

Preconcentration of Low Grade Sedimentary Phosphate Ore Using Selective Flocculation.

R. Parsaei, M.Sc., A. Alamdari, Ph.D., A. Jahanmiri, Ph.D., and M.A. Rajabzadeh Ph.D. (Key words: selective flocculation, mineral processing, industrial minerals, non-metallic ores, phosphate rock).

http://www.akamaiuniversity.us/PJST7_1_77.pdf

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Optical Properties of Cuprous Oxide Thin Film Prepared by Chemical Bath Deposition Technique. D.O. Eya, Ph.D., A.J. Ekpunobi, Ph.D., and C.E. Okeke, Ph.D. F.A.S. (Key words: cuprous oxide, Cu₂O, optical properties, thin film, chemical bath deposition, annealing temperature, band gap, PACS Nos: 81.10.Dn, 82.30.Fi, 78.66.-w, 78.20.Ci)
http://www.akamaiuniversity.us/PJST6_2_98.pdf

Bandgap and Optical Properties of Chemical Bath Deposited Magnesium Sulphide (MgS) Thin Films. M.N. Nnabuchi, Ph.D. (Key words: thin film, chemical bath deposition, absorbance, transmittance, reflectance, extinction coefficient, refractive index, absorption coefficient, optical conductivity).

http://www.akamaiuniversity.us/PJST6_2_105.pdf

A Review of Wireless Local Area Network Technologies. S.O. Ajose, Ph.D., I.I. Ezebuiro, Ph.D., D.Sc., and B.O. Oluwo, M.Sc. (Key words: LAN, WLAN, data networks, wireless, data transmission, packet radios).

http://www.akamaiuniversity.us/PJST6_2_111.pdf

A Comparative Review Between Global System for Mobile Communications (GSM) and Code Division Multiple Access (CDMA) Technology. S.O. Ajose, Ph.D., I.I. Ezebuiro, Ph.D., D.Sc., and N.O. Ottun, M.Sc. (Key words: wireless, telecommunications, coverage, clarity, compatibility, security).

http://www.akamaiuniversity.us/PJST6_2_116.pdf

Design and Implementation of a Computerized Frequency Coordination System. S.O. Ajose, Ph.D., I.I. Ezebuiro, Ph.D., D.Sc., and E.U. Udo, M.Sc. (Key words: FM broadcasting, mobile communications, wireless, telecommunications testing, RF, frequency coordination).

http://www.akamaiuniversity.us/PJST6_2_121.pdf

A Rule-Based Approach to Voltage Collapse Estimation: A Case Study of the National Electric Power Authority (NEPA) PLC, Egbin Thermal Station. S.O. Ajose, Ph.D., I.I. Ezebuiro, Ph.D., D.Sc., and A.S. Adegoke, M.Sc. (Key words: electric grid, electricity crisis analysis, power supply failures).

http://www.akamaiuniversity.us/PJST6_2_125.pdf

Enhancing Offshore Oil Operations with Cost-Effective and Innovative Telecommunications Solutions. S.O. Ajose, Ph.D. and I.I. Ezebuiro, Ph.D., D.Sc. (Key words: remote communications systems, Nigerian delta region, wireless, broadband, satellite, radio, telephone).

http://www.akamaiuniversity.us/PJST6_2_132.pdf

An Overview of the Roles of Project Managers in Monitoring and Controlling Engineering Projects. I.I. Ezebuiro, Ph.D., D.Sc. (Key words: engineering quality, cost management, project lifecycle, planning).

http://www.akamaiuniversity.us/PJST6_2_138.pdf

Changes in Human Gestation Period due to Variations in External Environmental Forces. S.K. Lentz, Ph.D. (Key words: lunar cycle, barometric pressure, solar orbit, pregnancy, delivery).
http://www.akamaiuniversity.us/PJST6_2_149.pdf

Groundwater Quality in Lekwesi/Umuicheze Area, Southeastern Nigeria. A.E. Ofoma, Ph.D., O.S. Onwuka, and O.C. Egbu. (Key words: springs, potable water, Coliform, agrarian, rural community).

http://www.akamaiuniversity.us/PJST6_2_170.pdf

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Wild Farm Alliance's Farm Biodiversity Conference and The 25th Annual Ecological Farming Conference - "Shining Sustainable Agriculture": A Summary. Neeraja Havaligi, M.S. (Letters and Communications)

http://www.akamaiuniversity.us/PJST6_1_4.pdf

Chemical Bath Deposition of Bismuth Chloride Oxide (BiClO) Thin Film and its Applications . F.I. Ezema, Ph.D. (Key words: chemical bath deposition, bismuth chloride oxide, optical properties, solar cells).

http://www.akamaiuniversity.us/PJST6_1_6.pdf

Structural and Optical Properties and Applications of Zinc Oxide Thin Prepared by Chemical Bath Deposition Technique. D.D.O. Eya, Ph.D., A.J. Ekpunobi, Ph.D., and C.E. Okeke, Ph.D. (Key words: structural properties, optical properties, band gap, grain size, refractive index, annealing temperature, transmittance, extinction coefficient).

http://www.akamaiuniversity.us/PJST6_1_16.pdf

Optical Properties in PbHgS Ternary Thin Films Deposited by Solution Growth Method.

B.A. Ezekoye, Ph.D. and C.E. Okeke, Ph.D. (Key words: ternary thin film, electroless, optical constants, optical bandgap).

http://www.akamaiuniversity.us/PJST6_1_23.pdf

Accretion Disk as Source of Energy and Power in Astrophysical Objects. R.N.C. Eze, Ph.D. (Key words: accretion disk, cataclysmic variables, angular momentum).

http://www.akamaiuniversity.us/PJST6_1_29.pdf

The Evolution of the Universe: A New Vision. Prof. Kamel Ben Salem (Key words: science and religion, philosophy of science, Islam, astronomy, ancient texts).

http://www.akamaiuniversity.us/PJST6_1_37.pdf

Transient State Analysis of an Active Magnetic Bearing (AMB) System with Six Degree Of Freedoms Using MATLAB. Dr.-Ing. Ogbonnaya I. Okoro. (Key words: control, rotor, active magnetic bearing, transient state, degree of freedoms).

http://www.akamaiuniversity.us/PJST6_1_56.pdf

Induction Motor Control Strategies: Past and Present. Dr.-Ing. Ogbonnaya I. Okoro* and Dr. M.U. Agu. (Key words: induction motor, control strategies, adjustable speed-drives, open loop, closed loop).

http://www.akamaiuniversity.us/PJST6_1_64.pdf

The Health Impacts of Failing to Plan and Design for Children to Walk to School. Jeffery C. Springer, P.E. (Key words: childhood obesity, public health, community transportation planning, pedestrian infrastructure, pedestrian safety).

http://www.akamaiuniversity.us/PJST6_1_75.pdf

Groundwater Exploration in Ikorodu, Lagos-Nigeria: A Surface Geophysical Survey Contribution. D.N. Obiora, Ph.D. and O.S. Onwuka, Ph.D. (Key words: vertical electrical sounding, VES, aquiferous formations, boreholes, groundwater).

http://www.akamaiuniversity.us/PJST6_1_86.pdf

Volume 5, Number 2 (October 2004)

Electroencephalographic (EEG) Pattern in Patients with Generalized Seizures in Adolescents. M.M. Kabiraj, Ph.D., M.A. Jabber, FRCP, A.A. Jamil, M.D. Ph.D., Q.A. Shah, Ph.D., and A. H. Shah, Ph.D., D.Sc. (Key words: generalized seizures, EEG-pattern, clinical neurological pattern, adolescents).

http://www.akamaiuniversity.us/PJST5_2_44.pdf

Electroencephalographic (EEG) Pattern in Patients with Partial Seizures. M.M. Kabiraj, Ph.D., M.A. Jabber, FRCP, A.A. Jamil, M.D. Ph.D., Q.A. Shah, Ph.D., and A. H. Shah, Ph.D., D.Sc. (Key words: EEG, Focal Slowing, Generalized Slowing, Focal Sharp Waves/Spikes, Generalized Sharp Waves/Spikes, Partial Seizures, Neurophysiology)

http://www.akamaiuniversity.us/PJST5_2_50.pdf

Steady State Analysis of Squirrel-Cage Induction Machine with Skin-Effect. O.I. Okoro, Ph.D. (Key words: squirrel-cage, induction machine, steady state, skin effect, conventional model, rectangular rotor bar)

http://www.akamaiuniversity.us/PJST5_2_56.pdf

Transient State Modeling of Asynchronous Generator with Skin-Effect. O.I. Okoro, Ph.D. (Key words: asynchronous machine, wind energy, turbine generators, skin-effect, transient state)

http://www.akamaiuniversity.us/PJST5_2_63.pdf

Characterization of Optimized Grown Calcium Sulphide Thin Films and the Possible Applications in Solar Energy. M.N. Nnabuchi, Ph.D. and C.E. Okeke, Ph.D., FAS. (Key words: photovoltaic material, thin films, chemical deposition, coatings)

http://www.akamaiuniversity.us/PJST5_2_76.pdf

The Use of Geographic Remote Sensing, Mapping, and Aerial Photography to Aid the Recovery of Blue Ice Surficial Meteroites in the Antarctic. A.A. Mardon, Ph.D. (Key words: field study, expedition, meteorite recovery, GIS, Trans-Antarctic mountain range)

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Volume 5, Number 1 (April 2004)

MATLAB Simulation of Induction Machine with Saturable Leakage and Magnetizing Inductances. O. I. Okoro, Ph.D. (Key Words: rotor leakage, inductance, MATLAB, induction machine)

http://www.akamaiuniversity.us/PJST5_1_5.pdf

Analytical Method of Computation of Rectangular-Rotor Bar Impedance for Skin –Effect Using MATLAB. O. I. Okoro, Ph.D. (Key Words: skin-depth, skin-effect, rectangular-rotor bar, complex impedance, squirrel-cage induction machine)

http://www.akamaiuniversity.us/PJST5_1_16.pdf

Preparation and Optical Properties of Chemical Bath Deposited Beryllium Chloride (BeCl_2) Thin Films. F. I. Ezema, Ph.D. and P.U. Azogwa, Ph.D. (Key words: chemical bath deposition, BeCl_2 , thermal coatings, antireflection)

http://www.akamaiuniversity.us/PJST5_1_26.pdf

Investigation of Optical Properties of Barium Oxide (BaO) Thin Films Deposited by Chemical Bath Technique. F. I. Ezema, Ph.D. 1, 2 and P.E. Ugwuoke, M.Sc. (Key words: chemical bath deposition, BeO , thermal coatings, thin films, antireflection)

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A Critical Analysis of the Dunvegan Hydroelectric Project Environmental Impact Assessment.

J.L. Shandro, M.S. (Key Words: EIA, environmental protection, Canadian Environmental Assessment Act, CEAA, NEPA, Navigable Waters Protection Act, Canada, Alberta, fisheries, Peace River)

Effect of Impulse Pressure on the Crop Productivity and Germinating Power of Cucumber (*Cucumis sativus*) Plants.

E.E. Nefedieva, Ph.D. (Key Words: impact wave, stress, hothouse, mid-season hybrids, normal distribution)

Photovoltaic Potentials of Some Chemical Bath Deposited PdS and Bi₂S₃ Thin Films.

F.I. Ezema, Ph.D. (Key Words: solar cells, band gaps, solar adsorption, optical properties)

Estimation of Optical and Electrical Properties of Zirconium Sulphide Thin Films Prepared by the Chemical Bath Deposition Technique and Using a Spectrophotometer.

F.I. Ezema, Ph.D. (Energy dispersive x-ray fluorescence, thermal coatings, antireflection coatings, photothermal applications, photovoltaic applications, energy efficient glazing, ZrS₂)

Optical Properties in CuCl Binary Thin Films Deposited by Solution Growth Method.

B.A. Ezekoye, Ph.D. (Key Words: film, electroless, optical constants, optical band gap, coatings)

Growth and Optical Properties of Cu_{1-x}Pb_xS Ternary Alloy Thin Films.

B.A. Ezekoye, Ph.D. and C.E. Okeke, Ph.D. (Key Words: solution growth method, optical constants, optical band gap; E_g)

Computer Simulation of a Squirrel-Cage Induction Machine with Non-Linear Effects.

O.I. Okoro, Ph.D. (Key Words: dynamic modeling, current, numerical integration technique, no-load, blocked rotor, retardation test, shaft torque)

Thermal Analysis of an Induction Motor Using MATLAB.

O.I. Okoro, Ph.D. (Key Words: thermal behavior, squirrel cage induction machine, no load, rated load, blocked rotor)

Volume 3, Number 2 (February 2003)

Effect of Time on Electrodeposition of Tin Selenide Thin Films from Aqueous Solution. Z. Zainal, Ph.D., N. Saravanan, A. Kassim, Ph.D., M.Z. Hussein, Ph.D., and W.M.M. Yunus, Ph.D. (Key Words: photoactivity, solar cells, photoresponse, thin films, semiconductor, x-ray diffraction)

Photoactivity of Cu₂S Thin Films Prepared through Electrodeposition. A. Kassim, Ph.D., Z. Sainal, Ph.D., R. Vikneshwari, and N. Saravanan. (Key Words: electrodeposition, metal chalcogenides, thin film electrochemistry)

Chemical Bath Deposition of Bismuth Oxide (Bi₂O₃) Thin Film and its Applications. F.I. Ezema, Ph.D. and C.E. Okeke, Ph.D. (Key Words: chemical bath deposition, bismuth oxide)

Investigation of Optical Properties of Chemical Bath Deposited Beryllium Oxide (BeO) Thin Film and its Applications. F.I. Ezema, Ph.D. (Key Words: chemical bath deposition, thermal coatings, bismuth oxide)

The Influence of Impulse Pressure on the Phytohormone Content, Growth and Crop Productivity of Buckwheat Plants (*Fagopyrum esculentum Moench.*, cv. *Aromat*). E.E. Nefedieva, Ph.D. (Key Words: buckwheat, pressure, phytohormones, meristem, mitosis, germination, seedling, yield)

A Reverse Phase High Performance Liquid Chromatographic Procedure for the Determination of Acetaminophen and its Degradation Product 4-aminophenol in Aged Pharmaceutical Formulations. R.M. Rao, Ph.D., R.M. Al-Ashban, M.Sc., Z.A. Khan, Ph.D., and A.H. Shah, Ph.D., D.Sc. (Key Words acetaminophen, 4-aminophenol, determination, HPLC, stability-indication, ageing, post-marketing surveillance)

Pattern of EEG in Patients Suffering from Complex Partial Seizures. M.M. Kabiraj, Ph.D., M.A. Jabber, M.B.B.S, and Q.A. Shah, Ph.D. (Key Words: EEG, focal slowing, generalized slowing, focal sharp waves/spikes, generalized sharp waves/spikes, genealized slowing + focal spikes, complex partial seizures neurophysiology)

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Modern Cardiac Markers and Ischemic Heart Diseases: A Prospective Study. W.A.R.A. Libda, Ph.D., V.P. Gupta, D.F.M., Ph.D., M.M. Kabiraj, Ph.D., and S.M.H. Zaidi, M.R.C.P. (Key Words: angina, myocardial infarction, myoglobin, CKMB mass, troponin, blood assays)

Valproic Acid and Essential Metals. W.A.R.A. Libda, Ph.D., V.P. Gupta, D.F.M., Ph.D., and M.M. Kabiraj, Ph.D. (Key Words: copper, zinc, calcium, magnesium, epilepsy)

Anti-Epileptic Drugs (AEDs) and Anemia: A Prospective Study in Epileptic Children. Q.A. Shah, Ph.D., A.A. Jamil, M.D., V.P. Gupta, D.F.M., Ph.D., M.M. Kabiraj, Ph.D., and A.H. Shah, Ph.D., D.Sc. (Key Words: seizures, hematological parameters, white blood cells, hemoglobin, red blood cells, platelets, hematocrit ration, poly neutrophils, lymphocytes, monocytes, eosinophils)

Effects of Anti-Epileptic Drugs (AEDs) on Biochemical Levels in Epileptic Children: A Prospective Study. Q.A. Shah, Ph.D., A.A. Jamil, M.D., V.P. Gupta, D.F.M., Ph.D., M.M. Kabiraj, Ph.D., and A.H. Shah, Ph.D., D.Sc. (Key Words: epilepsy, seizures, glucose, aspartate amino transferase, alanin amino transferase, alkaline phosphatase, bilirubin)

Anti-Epileptic Drugs (AEDs) and Body Electrolytes in Childhood Epilepsy: A Prospective Study. Q.A. Shah, Ph.D., A.A. Jamil, M.D., V.P. Gupta, D.F.M., Ph.D., M.M. Kabiraj, Ph.D., and A.H. Shah, Ph.D., D.Sc. (Key Words: blood serum, body electrolytes, electrolyte ratios)

The Effect of Impulse Pressure on the Crop Productivity and Physiological Characteristics of Some Tomato (*Lycopersicon esculentum*) Hybrids. E.E. Nefedieva, Ph.D. (Key Words: pressure, stress, hothouse, phytohormone, yield)

Volume 2, Number 2 (December 2001)

Electro-Encephalogram (EEG) Study Following Prolonged Occlusion of Common Carotid Artery in New Zealand White Rabbits. Mohammad Muslim Uddin Kabiraj, M.D. and Alaa El Din Amin Afifi, Ph.D. (Key Words: electro-encephalogram, EEG, brain studies, ischemic stroke, vascular lesion)

Common Drugs Used by Saudi Addicts Detected by Drug Screening. Waleed A. Rahman Abu Lebdeh, Vijay Prakash Gupta, Ph.D., and Mohammad Muslim Uddin Kabiraj, M.D. (Key Words: drug screening, addiction, overdose, inebriants, narcotic analgesics, psycho-stimulants, emergency medicine)

The Evolution of the Protective Mask for Military Purposes: 1918 to Present. Major Humberto E. Galarraga, M.S. (Key Words: gas mask, chemical biological warfare, NBC, CBW, technology evolution, science history, military science)

Case Studies in Drug Toxicity and Symptomology from Riyadh Medical Complex, Central Laboratories: Waleed A.Rahman Abu Lebdeh, Vijay Prakash Gupta, Ph.D., and Mohammad Muslim Uddin Kabiraj, M.D.

- **Suicidal Failure Following A Massive Digoxin Overdose: A Case Report.** (Key Words: therapeutic effect, toxic dose, therapeutic index, lethal dose, poisoning)
- **Rare Case of Tegretol Overdose: A Case Report.** (Key Words: therapeutic effect, toxic dose, therapeutic index, lethal dose, poisoning)
- **Can A Massive Phenytoin Toxicity Be Asymptomatic?: A Case Report** (Key Words: overdose, toxicity, therapeutic range, lethal dose)

Volume 2, Number 1 (June 2001)

Developing a First Generation Space Power Technology: An Available Technology, A Needed Power System. Jonathan A. Greenspon and Austin A. Mardon, Ph.D. (Key Words: space power satellite, electricity generation, space systems, microwave distribution, photovoltaic, energy resources)

Changes in Serum Electrolytes in Childhood Epilepsy: A Hospital Based Prospective. Q.A. Shah, Ph.D., A.A. Jamil, M.D., V.P. Gupta, Ph.D., M.M. Kabiraj, Ph.D. and A.H. Shah, Ph.D., D.Sc. (Key Words: childhood epilepsy, seizures, blood serum electrolytes, sodium, potassium, magnesium, calcium, iron, copper, zinc, electrolyte ratios)

Technology Management in Forensic Science. B.M. Mohan, Ph.D., V.P. Gupta, Ph.D., and A.H. Shah, Ph.D., D.Sc. (Key Words: genetic identification, DNA fingerprinting, crime studies, medicolegal studies, toxicology, forensics)

The Evolution of the Protective Mask for Military Purposes: Inception to World War I. Major Humberto E. Galarraga, M.S. (Key Words: gas mask, chemical biological warfare, NBC, CBW, technology evolution, science history, military science)

The Ecology of Medieval English Monasteries. Austin A. Mardon, Ph.D. (Key Words: conservation, traditional environmental management, technology evolution, historic agriculture techniques, agrarian societies, science history, sustainability studies)

Volume 1, Number 2 (December 2000)

Common Drugs Used for Suicidal Attempts: A Prospective Hospital Based Study in Saudi Arabia. W.A.R.A. Lebdeh, V.P. Gupta, Ph.D., M.M.U. Kabiraj, M.D. (Key Words: drug screening; suicide; overdose; drug investigation; emergency medicine; health studies)

Effects of Long Standing Carpal Tunnel Syndrome on Median Nerve

Conduction. M.M.U. Kabiraj, M.D., V.P. Gupta, Ph.D., A.A. Jamil, M.D., and A.H. Shah, Ph.D., D.Sc. (Key Words: carpal tunnel syndrome; CTS; nerve conduction velocity; terminal latency; retrograde changes; abductor pollicis brevis; health studies)

Biotechnology: Exploring the Science of GMO's. Judith L. Shandro (Key Words: genetically modified organisms, bioengineering, agriculture, genetic manipulation, environment, food safety issues)

Volume 1, Number 1 (June 2000)

Comparison of Terminal Latency Index in Patients with Entrapment and Generalized Neuropathy. M.M.U. Kabiraj, M.D., V.P. Gupta, Ph.D., A.A. Jamil, M.D., and A.H. Shah, Ph.D., D.Sc. (Key Words: carpal tunnel syndrome; CTS; terminal latency index; TLI; neuropathy; nerve conduction studies; clinical studies)

Deregulation Demystified: An Examination of Issues Associated with the Restructuring of the U.S. Electric Generation Industry. Stephen K. Lentz. (Key Words: deregulation, electricity, electrical industry, energy policy, environmental law)

Nature Connected Psychology: Creating Moments that Let Earth Teach. Michael J. Cohen, Ed.D. (Keywords: ecopsychology, psychology, systems thinking, natural thinking, webstings, ecology, natural senses, qualitative studies)



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