

TABLE OF CONTENTS

SECTION A: BUILDING, CIVIL & GEOTECHNICAL ENGINEERING

Effects of Variability in the Pozzolanic Properties of Rice Husk Ash on the Compressive Strength of Concrete.	G. A. Akeke, D. E. Ewa and F. O. Okafor	694
Study of the Strength Characteristics of Protein-Based Lightweight Foamed Concrete with Cement Partially Replaced with Rice Husk Ash	E. B. Coker, S. Sadiku, J. I. Aguwa and M. Abdullahi	699
Determination of Area and Volume from Dredged Geodata Set	M. O. Ekun, R. Ehigiator – Irughe and E. S. Okonofua	707
Traffic Noise Monitoring at Road Intersections in Urban Settlement; Case Study of Ramat Park Benin City	E. S. Okonofua, R. Ehigiator-Irughe and M. Ekun	713
Compressibility Characteristics of Black Cotton Soil Admixed with Sawdust Ash and Lime	C. C. Ikeagwuani	718
Determination of Stresses Caused by Infinitely Long Line Loads on Semi-Infinite Elastic Soils using Fourier Transform Method	H. N. Onah, N. N. Osadebe, C. C. Ike and C. U. Nwoji	726
Application of the Galerkin-Vlasov Method to the Flexural Analysis of Simply Supported Rectangular Kirchhoff Plates Under Uniform Loads	N. N. Osadebe, C. C. Ike, H. Onah, C. U. Nwoji and F. O. Okafor	732
Safety of Carbon Fibre Reinforced Plastic Hollow Sections in Compression	O. S. Abejide and E. E. Okoro	739
An Appraisal of Construction Management Practice in Nigeria	O. O. Ugwu and I. C. Attah	754
Replacing Orthometric Heights with Ellipsoidal Heights in Engineering Surveys	O.T. Badejo, K.F.A. Aleem and J.B. Olaleye	761
Geometric Models for Lateritic Soil Stabilized with Cement and Bagasse Ash	U. N. Okonkwo, J. C. Agunwamba and U. I. Iro	769

SECTION B: CHEMICAL, INDUSTRIAL, MATERIALS, MECHANICAL, METALLURGICAL, PETROLEUM & PRODUCTION ENGINEERING

Adaptation of Plastic Waste to Energy Development in Lagos: an Overview Assessment	O. Adekomaya and K. Ojo	778
Enrichment Factor of Atmospheric Trace Metal using Zirconium Titanium Iron and Copper as Reference Element	T. F. Ediagbonya	785
Assessment of Household Energy Utilized for Cooking in Ikeja, Lagos State, Nigeria	E. Emagbetere, J. Odia and B. U. Oreko	796
Assessment of Capacity Building Needs Among Motor Vehicle Mechanics Trainers for the Use of Auto Scan Tools	A. O. Ezeama, P. I. Obe and E. O. Ede	805
Development of a Dual Purpose Refrigeration System for Domestic Use	I. K. Adegun and O. V. Obasa	814
Energetic Performance Analysis of Drying Agricultural Products Integrated with Solar Tracking	I. O. Ohijeagbon, L. I. Ogunfowora, J. I. Omale and P. Ameh	825
Directional Well Trajectory Design: The Theoretical Development of Azimuth Bends and Turns in Complex Well Trajectory Designs	P. O. Okpozo, A. Peters and W. C. Okologume	831
Investigation of Dissolution Kinetics of A Nigerian Columbite In Hydrofluoric Acid Using the Shrinking Core Model	O. Sanda and E.A. Taiwo	841

Effect of Turning Parameters on Metal Removal and Tool Wear Rates of AlSi 1018 Low Carbon Steel	C. Mgbemena, C. Mgbemena, G. Etebenumeh and F. Ashiedu	847
Failure Analysis and Shock Protection of External Hard Disk Drive	H. U. Nwosu, C. C. Obieke, A. J. Ameh	855
Transportation Cost Minimization of a Manufacturing Firm Using Genetic Algorithm Approach	R.O. Edokpia and P.E. Amiolemhen	866
Experimental Investigation of the Effect of Microwave Drying and Reactor Temperature on Product Yields from Pyrolysis of Cassava Chaff	P. O. Okekunle, S. O. Adetola, O. E. Itabiyi, I. O. Alayande, H. O. Ogundiran and K. G. Odeh	874
Influence of Polar Solvents on the Enhancement of Light-Ends in Heavy Crude Oil Distillation	O. R. Momoh, E. B. Kolade, C. S. Ajinomoh, S. Bilal, M. S. Galadima and M. I. Uzochukwu	880
Extract of Combretum Micranthum as Corrosion Inhibitor for Al - Si - Mg Alloy in Simulated Sea Water Environment	S. M. Adams, S. A. Yaro, M. Abdulwahab and E. E. Oguzie	888

SECTION C: COMPUTER, TELECOMMUNICATIONS, SOFTWARE, ELECTRICAL & ELECTRONICS ENGINEERING

Development of an Integrated Campus Security Alerting System	A. Abdullahi ^{1*} and P. E. Orukpe ²	895
Development of Microcontroller-Based Monitoring System for a Stand-Alone Photovoltaic System	Y. Y. Agawa and S. I. Birnin-Kudu	904
Electrical-Thermal Coupling of Induction Machine for Improved Thermal Performance	N. V. Irokwe and O. I. Okoro	912
Sizing of Wind Powered Axial Flux Permanent Magnet Alternator using Analytical Approach	A. O. Otuoze, O. O.Oladapo, O. M. Olatunji , A. J. Abdulramon and S. O. Basirah	919
Optimization Design of Ground Grid Mesh of 132/33kV Substation using ETAP	U. U. Uma, L. O. Uzoechi and R. J. Robert	926

SECTION D: AGRICULTURAL, BIORESOURCES, BIOMEDICAL, FOOD, ENVIRONMENTAL & WATER RESOURCES ENGINEERING

Drying Kinetics of Pre-Osmosed Fresh Water Frog (<i>Dicroglossus Occipitalis</i>)	W. Burubai and I. Bratua	935
Spatial Statistics of Poultry Production in Anambra State of Nigeria: A Preliminary for Bio-Energy Plant Location Modelling	E. C. Chukwuma, L. C. Orakwe, D. C. Anizoba and A. I. Manumeh	940
Performance Evaluation of Clay-Sawdust Composite Filter for Point of Use Water Treatment	C. C. Nnaji, C. B. Afangideh and C. Ezeh	949
Agricultural Waste Concept, Generation, Utilization and Management	F. O. Obi, B. O. Ugwuishiwu and J. N. Nwakaire	957
Response of Packaged Tomatoes (<i>Lycopersicon Esculentum</i> Mill.) to Axially and Radially Compressive Loading	F. R. Falayi and E. S. Ajayi	965
Performance Evaluation of Fe (II) Adsorption onto Brewers' Spent Grain	O. C. Izinyon, O. E. Nwosu, L.O. Akhigbe and I. R. Ilaboya	970
Grain Size and Heavy Mineral Analyses of Two Boreholes in Recent to Miocene Aquifer in Benin Formation	O. I. Imasuen, O. M. Omorogieva and N. J. Nwokolo	979
