

TABLE OF CONTENTS

SECTION A: BUILDING, CIVIL & GEOTECHNICAL ENGINEERING

Estimating Formwork Striking Time for Concrete Mixes	F.O. Okafor, D.E. Ewa	1
Evaluation and Retiming of a Pre-Timed Traffic Signal in Benin City, Nigeria	H. A. P Audu, O. O. Obhielo and J. O. Ehiorobo	8
Mode of Collapse of Square Single Panel Reinforced Concrete Space-Framed Structures with Rigid Beam-Column Joints	L. M. Olanitor, J. O. Afolayan and C. Arum	16
Modified Traffic Signal Phasing at Traffic Warden-Controlled Intersection to Accommodate Pedestrian Traffic in Ilorin Metropolis, Nigeria	O. O. Adeleke, Y. A. Jimoh and I. T. Yusuf	25
The Potential use of Fonio Husk Ash as a Pozzolana in Concrete	E. E. Ndububa, J. S. Okonkwo and O. I. Ndububa	31
Effects of Polythene Fibres on Selected Properties of Sandcrete Blocks	F. B. Ijalana, O. E. Adeleke and J. O. Afolayan	37

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

Experimental Characterization of the Performances of a Storage Exchanger with Tube Bank Air-Phase Change Materials	S. Ekomy Ango, D. Bruneau, P. Sebastian and R. Moutou Pitti	43
Performance Evaluation of Some Locally Fabricated Cookstoves in Mubi, Adamawa State, Nigeria	T. Abasiryu, A. Ayuba and A. E. Zira	48
Performance Evaluation of a Pilot Paraplegic Centricity Mobility Aid	F. I. Ashiedu, E.O. Popoola and E. E. Akpan	54
Production and Characterization of Liquid Detergents from Some Agricultural Waste Products	G. S. Abegunde and O. S. Azeez	60
The Study of Thermal Effect on the Surface Properties of Gamma-Alumina Synthesised from Kankara Kaolin.	S. G. Bawa, A.S. Ahmed and P.C. Okonkwo	66
A Factorial Study of Corporate Performance of Nigerian Refineries	A.C. Igboanugo, O. M Garba and I. Okafor	71
Energy Characteristics of Ethanol-Diesel Mix for Automotive Use	W. A. Akpan, A. Offiong. and E. G. Ikrang	80
Finite Element Model for Predicting Residual Stressess in Shielded Manual Metal Arc Welding of Mild Steel Plates	I. U. Musa, M. O. Afolayan and I. M. Dagwa	85
Substrate Reduction Kinetics and Performance Evaluation of Fluidized-Bed Reactor for Treatment of Brewery Wastewater	C. S. Okoli and P. C. Okonkwo	91
Synthesis of Fatty Acid Ethyl Ester from Chicken Fat Using ZnO/SiO ₂ Heterogeneous Catalyst	M. A. Salihu, U. G. Akpan and M. A. Olutoye	97
Analysis of Coconut Ethyl Ester (Biodiesel) and Fossil Diesel Blending: Properties and Corrosion Characteristics	O. D. Samuel, F. I. Ashiedu and B. U. Oreko	107

Performance of an Automotive Bumper from Laloh (<i>Corchorus Triden L.</i>) Plant Fibre Reinforced Epoxy Composite under Dynatup Model 8150 Test	M. Sumaila and A. O. A. Ibhadode	114
Influence of Iron Content and Plastic Deformation on The Mechanical Properties of 8011-Type Al-Fe-Si Alloy	O. H. Yakubu, I. Usman, A. Aliyu and O. O. Emmanuel	122
Investigation of Fouling Effect on Overall Performance of Shell and Tube Heat Exchanger in a Urea Fertilizer Production Company in Nigeria	M. A. Sulaiman, S. I. Kuye and S. A. Owolabi	129

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

Analysis of Rain Rate and Rain Attenuation for Earth-Space Communication Links Over Uyo - Akwa Ibom State	I. E. Afahakan, K. M. Udofia and M. A. Umoren	137
Precise Delta Extraction Scheme for Reprogramming of Wireless Sensor Nodes	E. M. Eronu and S. Misra	144
Improving the Transient Stability of Nigerian 330kv Transmission Network using Static Var Compensation Part I: The Base Study	T. R. Ayodele, A. S. O. Ogunjuyigbe and O. O. Oladele	155
Failure Analysis of a UAV Flight Control System using Markov Analysis	E. G. Okafor and I. H. Eze	167
A General Review and Performance Evaluation of Multi-Level Converters for Efficient Power Generation And Applications	C. O. Omeje	174
Determination of Head for Small Hydropower Development: A Case Study of River Ethiope at Umutu	S. O. Otuagoma, E. A. Ogujor and P. A. Kuale	190

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

Diverse Approaches to Modelling the Assimilative Capacity of a Polluted Water Body	C. M. Chiejine, A. C. Igboanugo and L. I. N. Ezemonye	196
Eudiometric Theoretic-Approach to Modelling the Assimilative Capacity of a River: Incorporation of Bootstrapping Needful for Sensitivity Analysis	C. M. Chiejine, A. C. Igboanugo and L. I. N. Ezemonye	210
Comparison of Electrocoagulation and Chemical Coagulation in the Treatment of Artisanal Tannery Effluents	S. R. Tchamango, O. Kamdoum, D. Donfack, D. Babale and E. Ngameni	219

LATEST INDEXING BODIES

**CrossRef®, African Journal Online (AJOL) ®
Directory of Open Access Journals (DOAJ) ®
Scholar Google®, EBSCO Host®, ProQuest®**