

Agenda Overview

Day 1, Sunday, May 28, 2023

- 9:00 - 9:50 **Log-in Session/registration**
9:50 - 11:30 **Q&A regarding conference proceedings and registration**

Day 2, Monday, May 29, 2023

- 9:00-9:50 **Log-in Session/Introduction**
 Moderator:
9:50 - 10:30 **Opening Remark/Welcome Message**
 Prof. Oluseyi Ajayi, Covenant University, Nigeria
10:30 - 11:15 **Keynote Speaker I**
 Israel Dunmade, PhD, P.Eng, PMP, EP
 Professor (Sustainable Engineering) and Carnegie Fellow
 Earth and Environmental Science Department
 Mount Royal University, Calgary, AB Canada
11:15 - 15:30 **Presentation Sessions**

Day 3, Tuesday, May 30, 2023

- 9:00 - 9:30 **Log-in Session/Introduction**
 Moderators:
9:30 - 10:00 **Guest Speaker**
 Afolalu Adeniran Sunday, PhD, COREN, NSE
 Professor (Mechanical Engineering)
 Mechanical and Mechatronics Engineering Department
 Afe Babalola University Ado, Nigeria
10:00 - 14:30 **Presentation Sessions**

Day 4, Wednesday, May 31, 2023

- 9:00 - 9:30 **Log-in Session**
 Moderator:
9:30 - 10:15 **Keynote Speaker II**
 Prof. Wole Soboyejo
 Provost, Worcester Polytechnic Institute, USA
10:15 - 14:20 **Presentation Sessions**

14:30 -15:00 **Announcements/ Vote of Thanks**

Note: All time are in Eastern Time (e.g. Toronto)

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S/N	CONFERENCE DAY	TIME (EST)	SESSION 1 CHAIR	SESSION 2 CHAIR
1	Sunday (28th May)	9:00 - 11:30	No Presentations	No Presentation
2	Monday (29th May)	11:15 - 13:15	Dr S. Salaudeen	Dr O. Bamidele
	Monday (29th May)	13:20 - 15:30	Prof Shongwe	Dr Kayode Oluwabunmi
3	Tuesday (30th May)	10:00 – 13:00	Prof O. Ajayi	Only one session
	Tuesday (30th May)	13:00 - 15:00	Dr Fatima Haque	Only one session
4	Wednesday (31st May)	10:15 - 12:15	Dr Michael Alabi	Dr. Olaniyi Arowojolu
	Wednesday (31st May)	12:20 - 14:20	Oluwaseun O. Aremu	Dr Desmond Klenam

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Day 2

Presentation Schedule Session 1 Session Chairs: Prof Shongwe/Dr S. Salaudeen	
11:15 - 11:35	Artificial neural network modelling of electrical conductivity in GNP-Al₂O₃ hybrid nanofluids: Effects of mixing ratio and temperature. Adeola Borode, Thato Tshephe and Peter Olubambi
11:40 - 12:00	Novel Enhancement Opportunities in the Thermal and Electrical Conductivity of α-Al-CNTs+AgNPs Nanocomposites PAUL Amaechi Ozor, VICTOR Sunday Aigbodion and NKEIRUKA Eveth Nwobodo-Anyadiiegwu
12:05 - 12:25	Effects of Surfactants on the Corrosion Behavior of Aluminum alloy in Graphene Nanofluid Adeola Borode, Noor Ahmed and Peter Olubambi
12:30-12:50	Emerging Trends in Sustainable Materials for Green Building Constructions Orenuga Oluseyi Solomon, Oluwakemi Deborah Adebisi and Iyabode Abiodun Adediran
12:55-13:15	Mechanical and microstructural behavior of sintered NiAl-based high entropy alloy Olorundaisi Emmanuel, Bukola Joseph Babalola, Moipone Linda Teffo, Peter A. Olubambi
13:20-13:40	Hepatocellular Effect of Copper Poisoning on the Liver and Kidney of Albino Rats (Rattus norvicus) Oyetunde O. Opanike, Olugbenga A. Omotosho, Emmanuel O. Akindele, Omolola O. Yusuf
13:45-14:05	Prediction of Cumulative Biomethane Yield Using Artificial Neural Network – Case Study of an Industrial Biogas Plant DADA Opeoluwa Rotimi, and LASEINDE Opeyeolu Timothy
14:10 - 14:30	Post-buckling Analysis of E-glass Fiber Reinforced Thin-Walled Cylindrical Composite Benedict. N. Ugwu, John N Ani, Sylvester O. and Timine O. suoware

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14:35 – 14: 55	<p>Review of green manufacturing: A sustainable tool to a Cleaner Environment</p> <p>Ayodeji A. Noiki, Mosunmola B. Edun, Enesi Y. Salawu, Sunday A. Afolalu</p>
15:00 – 15: 20	<p>Stress Intensity Factor of E-Glass Fiber Reinforced Polyester Composites</p> <p>MESHACH Osaretin, SYLVESTER Onyemaechi Edelugo, PATRICK Udeme Akpan, CORNELIUS Ogbodo Anayo Agbo, PAUL Amaechi Ozor, NITA Inderlal Sukdeo</p>

<p>Presentation Schedule</p> <p>Session 2</p> <p>Session Chair: Dr O. Bamidele/Dr Kayode Oluwabunmi</p>	
11:15 – 11:35	<p>Geothermal Energy Potentials for Electricity Generation: A review</p> <p>OGUNDANA Ayodeji Kayode, AFOLALU Sunday Adeniran</p>
11:40 – 12:00	<p>Implementing Industry 4.0 Technology in Africa: possible challenges and the State of Readiness</p> <p>Adedotun Adetunla, Bernard Adaramola and , Olugbenga Adetunla and Sunday Afolalu</p>
12:05 – 12:25	<p>The influence of calcium concentration on the mechanical characteristics of a Mg-Al alloy</p> <p>Temitayo Mufutau Azeez, Saheed Akande, Afolalu Adeniran Sunday, Adedotun Adetunla and Bernard Akindade Adaramola</p>
12:30-12:50	<p>Industry 4.0 Implications in Production and Maintenance</p> <p>Joseph F. Kayode, Sunday A. Afolalu, Stella I. Monye and Bernard A. Adaramola</p>

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12:55-13:15	<p>Corrosion Control and Its Application in Marine Environment-A Review</p> <p>Sunday Lukeman Lawal, Sunday Adeniran Afolalu, Tien-Chien Jen and Esther Titilayo Akinlabi</p>
13:20-13:40	<p>Emerging Maintenance Management and Its Application</p> <p>Scope and Overview</p> <p>Stella Isioma Monye, Sunday Adeniran Afolalu, Sunday Lukeman Lawal</p>
13:45-14:05	<p>Overview of Maintenance Ideal Model in Industry-</p> <p>Samuel Obinna Nwankwo, Sunday Adeniran Afolalu, Stella Isioma Monye</p>
14:10 - 14:30	<p>Maintenance Impact on Production Profitability - An Overview</p> <p>Ojo Augustine Oluwatoyin; Sunday Adeniran Afolalu; Stella Isioma Monye</p>
14:35 - 14:55	<p>Corrosion Evaluation and Inhibiting Effect of Chlorpheniramine Drug on Mild Steel in HCl Acid</p> <p>Olayemi Odunlami^{1*}, Olumayowa Ogunleye¹, Sunday Fayomi², Muyiwa Fajobi³</p>
15:00 - 15:20	<p>Process Optimization of Spark Plasma Sintered Parameters for Ti-Al-Cr-Nb-Ni-Cu-Co High Entropy Alloy by Response Surface Methodology</p> <p>U.S. Anamu, E. Olorundaisi¹, O.O. Ayodele¹, B.J. Babalola, P.I. Odetola¹, A. Ogunmefun¹, O.K. Ukoba², T.C. Jen², P.A. Olubambi¹</p>

Day 3

Presentation Schedule Session Chairs: Prof Oluseyi Ajayi/ Dr Fatima Haque	
10:00 – 10:20	Silicon Nanoparticles Derived from Waste Rice Husk as Potential Siliconizing Material for Mild Steel Victor Sunday Aigbodion, Paul Amaechi Ozor and Nita Sukdeo
10:25-10:45	Microstructure, Mechanical Characteristics and Corrosion Resistance of Heat-Treated Carbon-steel - A Review Olufunmilayo.O. Joseph, O.M Aluko, Joseph. O. Dirisu, Oluwasegun .E Falodun, Ikenna.C Ekpe
10:50 -11:10	Application of Digital Lean Manufacturing System in Additive Manufacturing Industries: A Review Michael O Alabi
11:15-11:35	Weibull Technique for Evaluation of Swelling: Composite Graphite Resin Electrode for Electrochemical Treatment of Gold Mining Wastewaters OLAYANJU, Opeyemi Kunle; BOLORUNDURO, Kehinde Adedayo and OKE, Isaiah Adesola
11:40-12:00	Mechanism and Kinetics of Water Absorption of Plantain Fibre Reinforced Bio-Composites Patrick Ehi Imoisili and Tien-Chien Jen
12:05-12:25	Development of a Bone Crushing Machine/Hammer mill for Sustainable Livestock Feed Production Bose Mosunmola Edun, Oluseyi .O. Ajayi, Philips O. Babalola
12:30-12:50	Transesterification and Comparative Analysis of Biodiesel Production using Blighia Sapida (Ackee Seed) as Substrate Rominiyi O.L., Adaramola B.A., Eiche F.J , Oginni, O.T, Ewere D.V, Oni T.O

12:55-13:15	<p>Future of Artificial Intelligence in Developing Sustainable Intelligent Engineering Systems: A Review</p> <p>Oghenevwegba T. Emuowhochere, Enesi Y. Salawu, O.O Ajayi, Samson O. Ongbali</p>
13:20-13:40	<p>Renewable Energy Technologies: Opportunities and Challenges for South Africa</p> <p>Patrick Ehi Imoisili and Tien-Chien Jen</p>
13:45- 14:05	<p>Design And Performance Evaluation of a Cassava Harvester Lifting Unit</p> <p>Bose Mosunmola Edun, L. A. S. Agbetoye, Oluseyi, O. Ajayi, Enesi Y. Salawu</p>
14:10 - 14:30	<p>Thermal Characterization of Bida Oil Shale Using Pyrolysis</p> <p>OLUGBENGA, Adeola Grace, ZIDAFAMOR, Timi-Arede Benaengogha and DAVID, Dakup George</p>
14:35 - 14:55	<p>Phase prediction, microstructure, and microhardness of sintered nickel-based superalloy.</p> <p>Bukola Joseph Babalola*, Rudzani Nengwekhulu, Olusoji Oluremi Ayodele, Emmanuel Olorundaisi, Ufoma Silas Anamu, Peter Ifeoluwa Odetola, Peter Apata Olubambi.</p>

Day 4

Presentation Schedule Session 1 Session Chairs: Dr Michael Alabi/ Oluwaseun O. Aremu	
10:15-10:35	Environmental Impacts of Cement Production on the Total Nitrogen and Nitrate Distribution of Soil and Dust in Selected Areas around Ewekoro, Ogun State Oyetunde O. Opanike, Kristin Ross, Harriet Whiley, Olugbenga A. Omotosho, Emmanuel O. Akindele, Omolola O. Yusuf
10:40-11:00	Effect of Mercerization on the Crystallographic, Macromolecular, and Thermal Properties of Plantain Fibers for Fiber Reinforced Composite Patrick Ehi Imoisili and Tien-Chien Jen
11:05-11:25	Mechanical properties response of heat treated recycled aluminium alloy reinforced with gold nanoparticle (AuNps) extracted from aloe vera leaf AZEEZ Temitayo M., AKANDE Saheed, IKUMAPAYI Omolayo M., KAYODE Joseph F., AFOLALU Adeniran S.
11:30-11:50	Utilization of Macadamia nut oil as a feedstock for a Sustainable Biodiesel Production Malekgatle Linah Mojapelo, Patrick Ehi Imoisili, Tien-chien Jen, Elizabeth Mamookho Makhatha
11:55-12:15	Investigation into stress relaxation and creep rate of C47200 copper alloy AKANDE Saheed, TUOYO Ikomi, AZEEZ Temitayo M., IKUMAPAYI Omolayo M.
12:20-12:40	Development of South Africa Macadamia Nuts and Its Utilization for Biodiesel Production Malekgatle Linah Mojapelo, Patrick Ehi Imoisili, Tien-chien Jen, Elizabeth Mamookho Makhatha

12:45-13:05	Facility Layout Using Computer Routing; A Review Nduka Ekene Udoeye, Ogechi Joy Nnamba, Ojo Sunday Isaac Fayomi, Solomon O. Banjo
13:10-13:30	EMERGING BEHAVIOUR OF ALLOY STEEL MICROSTRUCTURE IN HYDROGEN SULPHIDE ENVIRONMENT -A REVIEW Sunday Lukeman Lawal, Sunday Adeniran Afolalu, Tien-Chien Jen and Esther Titilayo Akinlabi
13:35- 13:55	The influence of calcium concentration on the mechanical characteristics of an Mg-Al alloy Temitayo Mufutau Azeez, Saheed Akande, Afolalu Adeniran Sunday, Adedotun Adetunla and Bernard Akindade Adaramola
14:00 -14:20	Modeling the Influence of Intake Air N₂ Content on Internal Combustion Exhaust Gases Output Januario Da Costa Hossia, Diakanua Nkazi, Josias van der Merwe

	Presentation Schedule Session 2 Session Chairs: Dr. Olaniyi Arowojolu/ Dr Desmond Klenam
10:15-10:35	Waste Plastic in Road Construction: A review OGUNDANA Ayodeji Kayode, AFOLALU Sunday Adeniran
10:40-11:00	Overview of Maintenance Management Strategies in the Industry Bernard A. Adaramola, Joseph F. Kayode, Sunday A. Afolalu, and Stella I. Monye

11:05-11:25	<p>The Overview on Fourth Industrial Revolution and Fourth Generation Maintenance-Its Roles and Impacts</p> <p>Ojo Augustine Oluwatoyin; Sunday Adeniran Afolalu; Stella Isioma Monye, Samuel Obinna Nwankwo</p>
11:30-11:50	<p>Automotive sector and the maintenance culture in developing nations</p> <p>Adedotun Adetunla, Oluwashina Rominiyi, Sunday Afolalu, Temitayo Azeez, Saheed Akande</p>
11:55-12:15	<p>Overview of Maintenance Scope and Reliability in the Manufacturing Sector</p> <p>Joseph F. Kayode, Sunday A. Afolalu, Stella I. Monye and Bernard A. Adaramola</p>
12:20-12:40	<p>Maintenance Strategies and Procedures: An Overview</p> <p>Sunday Adeniran Afolalu, Stella Isioma Monye, Adebayo Tubosun Ogundipe, Omolayo Mathew Ikumapayi, Temitope Mufutau Azeez</p>
12:45-13:05	<p>The Role of Maintenance in the Manufacturing Industry</p> <p>Stella Isioma Monye, Sunday Adeniran Afolalu , Sunday Lukeman Lawal</p>
13:10-13:30	<p>Environmental and Social Implications of Aggregate Extraction : A review</p> <p>OGUNDANA Ayodeji Kayode, AFOLALU Sunday Adeniran</p>
13:35- 13:55	<p>Evolution of Maintenance Processes in Industry 4.0- A Review</p> <p>Sunday Adeniran Afolalu, Samuel Obinna Nwankwo, Stella Isioma Monye, Adebayo Tubosun Ogundipe, Omolayo Mathew Ikumapayi, Temitope Mufutau Azeez</p>