

SMPM 2019
Conference Programme

Thursday, 7th of March, 2018						
14:00	18:00	Arrival and registration of delegates at hotel lobbies				
Friday, 8th of March, 2018						
8:00	9:00	Arrival of delegates				
9:00	10:00	Welcome Ceremony				
10:00	10:15	Group Photograph				
10:15	10:35	Tea Break				
Plenary Session A Chair - T.C. Jen						
10:35	11:05	Plenary 1 - Prof S. Kailas Quest for high-strength high-ductility materials				
11:05	11:35	Plenary 2 - Prof Peter Butala / Prof K. Mpofu From Isolated toward open manufacturing systems~ will the fourth industrial revolution break the walls?				
11:35	12:05	Plenary 3 - Prof L. Ilon How Knowledge Economics Integrates Sustainable Communities into Engineering Education				
12:05	12:50	Lunch Break				
Plenary Session B Chair - E.T. Akinlabi						
12:50	13:20	Plenary 4 - Prof I. Dunmade Lifecycle Engineering for Sustainable Materials Processing and Manufacturing				
13:20	13:30	Venue Description				
		Venue 1 Session 1 Chair - K. Gupta	Venue 2 Session 2 Chair - C.O. Aigbavboa	Venue 3 Session 3 Chair - C. Danga	Venue 4 Session 4 Chair - P. Shetty	Venue 5 Session 5 Chair - D. Deepak
13:30	13:45	An Overview of a Prolific University from Sustainable and Policy Perspective Paper ID: 118 Author: O. O. Fayomi	A Study on the Mechanical Microstructural Properties Al-TiC Composites Produced by Spark Plasma Sintering Paper ID: 261 Author: Prince Cobbinah	The Effect of Flow Obstacles of Different Shapes for Generating Turbulent Flow for Improved Performance of the Solar Air Heater Paper ID: 360 Author: N Yagnesh Sharma	A comparative study of arc melted and spark plasma sintered Ni-Fe-Al alloy with varying Fe and AL composition Paper ID: 346 Author: K.I Dube	Precise control of precursor Sticking Coefficient on substrates with large aspect ratios in ALD Paper ID: 70 Author: T.J. Kunene
13:45	14:00	Enhancing the quality of practical skills assessment in National Certificate in Electrical Power Engineering in Zimbabwean Polytechnic Education Paper ID: 129 Author: Mabika Patience	A review on the Construction Project Delay Factors Related to the Project Participant in the Construction Industry Paper ID: 104 Author: Omotola Olasehinde	An intralogistics-oriented Cyber-Physical System for workshop in the context of Industry 4.0 Paper ID: 379 Author: Jihong Yan	Effect of media shape on particle breakage in a batch ball mill: Lessons learnt from Population Balance Model and Attainable Region technique Paper ID: 34 Author: N. Hlabangana	Influence of mechanical milling on spark plasma sintered nickel based alloys Paper ID: 348 Author: B J Babalola

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14:00	14:15	Novel Master Program in Renewable Energy Engineering: A lesson from PASS Paper ID: 189 Author: Amevi Acakpovi	Chemical treatment of phosphogypsum and its potential application for building and construction Paper ID: 222 Author: TP Mashifana	A Turbulence Inducer Side Wall Treatment for a Solar Collector for Performance Improvement Paper ID: 361 Author: K. Vasudeva Karanth	Microstructure and mechanical properties of sputtered Aluminum thin films Paper ID: 303 Author: F.M. Mwema	A review of ironmaking by direct reduction processes: Quality requirements and sustainability Paper ID: 77 Author: Comfort Ramakgala
14:15	14:30	The Role of Mechanical Engineers in Achieving Sustainable Development Goals Paper ID: 267 Author: I.P. Okokpujie	Ergonomics of domestic building structure on occupants' health Paper ID: 396 Author: J.O. Dirisu	Performance Evaluation of Data Mining Techniques in Steel Manufacturing Industry Paper ID: 219 Author: Thembinkosi Nkonyana	Methanol Synthesis Chemistry and Process Engineering Aspects- A Review with Consequence to Botswana Chemical Industries Paper ID: 123 Author: Babusi Balopi	Effect of Particle size and Alkali-Laccase on the Properties of Pterocarpus Angolensis (Mukwa) Wood Flour Paper ID: 157 Author: K. Setswalo
14:30	14:45	Winning research through ideal research laboratory Paper ID: 390 Author: O. S. I. Fayomi	Mechanical Function of the Human Knee Joint Region during Triple Jump by Combined Multi-body Dynamics and Finite Element Analysis Paper ID: 312 Author: Shou-Jun Huang	Implementation of Lean techniques for Sustainable workflow process in Indian motor manufacturing unit Paper ID: 382 Author: Shiva Prasad H C	Potentiodynamic Polarization and Gravimetric Evaluation of Corrosion of Copper in 2M H ₂ SO ₄ and its inhibition with Ammonium Dichromate Paper ID: 141 Author: Cleophas Loto	Microstructural evolution and corrosion properties of laser clad Ti-Ni on titanium alloy (Ti6Al4V) Paper ID: 398 Author: L. R. Kanyane
14:45	15:05	Tea Break				
		Session 6 Chair - Y. Sharma	Session 7 Chair - C. Mbohwa	Session 8 Chair - N. Hlabangana	Session 9 Chair - T. Shomana	Session 10 Chair - H.C.S. Prasad
15:05	15:20	Scavenging differential evolution algorithm for smart grid demand side management Paper ID: 211 Author: Ima Essiet	Thermochemical Characterisation and Potential of Animal Horns and Hooves for Carbonitriding Treatment Paper ID: 278 Author: Ismaila Idowu Ahmed	An Innovative Surface Morphology for a Solar Air Heater to Augment its Performance Paper ID: 359 Author: Madhwesh N	Adsorption and Performance Assessment of Environmentally Benign Natural Corrosion Inhibitor for Stainless Steel in Acid Solution Paper ID: 328 Author: O .Sanni	Influence of sintering temperature on microstructural evolution of spark plasma sintered Inconel738LC Paper ID: 372 Author: O.F Ogunbiyi
15:20	15:35	Lifecycle Assessment Education in Nigeria: An Exploratory Evaluation of the Trend Paper ID: 147 Author: Dunmade, I.S.	Reverse Engineering as a tool for industrialization in Zimbabwe. Paper ID: 95 Author: Malven Takaidza	A techno-economic analytical approach of laser-based additive manufacturing processes for aerospace application Paper ID: 56 Author: Moses Oyesola	Effect of Temperature on Densification, Microstructural Evolution and Mechanical Properties of Ti-5Al-1Mo Developed via Spark Plasma Sintering Technology Paper ID: 351 Author: Samson O. Jeje	ASSESSING EFFICIENCY IN A UNIFIED SIZE REDUCTION PLANT: WHEN REDUCING LARGE ORE INTO POWDER PARTICULATE MATTER. Paper ID: 272 Author: Gaesennge Gaesennge
15:35	15:50	Municipal wastewater treatment technologies: A review Paper ID: 341 Author: Daniel Madyira	Faults Classification and Identification on Smart Grid: Part-A Status Review Paper ID: 212 Author: T. S Hlalele	DRIVERS AND BARRIERS TO COMPETITIVE CARBON FOOTPRINT REDUCTION IN MANUFACTURING SUPPLY CHAIN: A BRIEF REVIEW Paper ID: 325 Author: Olatunji O. O.	Influence of Sintering Temperature on Densification, Microstructure and Mechanical Properties of Ti-6Ni Alloy Developed via Spark Plasma Sintering Paper ID: 352 Author: Azeez Lawan Rominiyi	Effect of Unburnt Rice Husk on the Properties of Concrete Paper ID: 221 Author: Lawal Abdul Qayoom Tunji

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15:50	16:05	Influence of equal channel angular extrusion on the tensile behaviour of aluminum 6063 alloy Paper ID: 416 Author: Abioye O. P	Corrosion Inhibition of Mild Steel in 1M Hydrochloric Acid using Haematostaphis barteri Leaves Extract Paper ID: 402 Author: Abubakar Ishak	Performance of a Domestic Refrigerator infused with Safe Charge of R600a refrigerant and various concentrations of TiO2 nanolubricants Paper ID: 374 Author: D.S Adelekan	Microstructural evolution and hardness properties of coir-coconut husk powder reinforced polymer composites subjected to an acidic environment Paper ID: 250 Author: D.O Obada	Microstructural evolution and mechanical properties of Zn-Ni composite coatings with Y2O3 Paper ID: 279 Author: K. Gandazha
16:05	16:20	The Impact of ISO 14000 Standards on Green Supply Chains and Logistics: A Case of Hi-Tech Products Manufacturing Companies in Zimbabwe Paper ID: 53 Author: Charles Mazhazhate	FEA of Rectangular Activflo Clarifier under Hydrostatic Pressure with Horizontal Stiffeners Paper ID: 136 Author: P. Maqina	Hydrazide derivative as an efficient inhibitor for mild steel corrosion in 1N HCl medium Paper ID: 397 Author: Prakash Shetty	Big data analysis for gas sensor using convolutional neural network and ensemble of evolutionary algorithms Paper ID: 220 Author: Ima Essiet	Processing and characterization of chalcopyrite s(CuFeS2) sample from Botswana Paper ID: 161 Author: Nenguba Poloko
16:20	16:35	Social Lifecycle Impact Assessment of Informal Petroleum Products Retailing in Nigeria Paper ID: 151 Author: Dunmade, I.S.	Municipal wastewater treatment technologies: A review Paper ID: 339 Author: Mmontshi L. Sikosana	Wire Spark Erosion Machining of Ni rich NiTi Shape Memory Alloy for Bio-Medical applications Paper ID: 135 Author: Neeraj Sharma	Synergistic effect of sage and jojoba oil extracts on the corrosion inhibition of mild steel in dilute acid solution Paper ID: 99 Author: Roland Tolulope Loto	Synthesis, Optimization and Characterization of Silicon Carbide (SiC) from Rice Husk Paper ID: 313 Author: Shatumbu T. Alweendo
16:35	16:50	The Significance of Active Evaporative Cooling System in the Shelf Life Enhancement of Vegetables (Red and Green Tomatoes) for Minimizing Post-Harvest Losses Paper ID: 395 Author: K. O. Babaremu	Waste Management and Treatment of Copper slag BCL, Selebi Phikwe Botswana: RTeview Paper ID: 162 Author: T.S. Gabasiane	Multi-Response Optimization of Process Parameters in AWJ Machining of Hybrid GFRP Composite by Grey Relational Method Paper ID: 386 Author: D Deepak	Utilization of Waste Cooking Vegetable Oils and Beef Tallow for the Production fo Toilet "Bath" Soap Paper ID: 174 Author: Tlanelo Maotsela	Prediction performance of improved decision tree based algorithms: a review Paper ID: 235 Author: Ibomoiye Domor Mienye

Saturday, 9th of March, 2018

8:00	8:30	Arrival of delegates			
		Venue 1 Session 11 Chair - K.B. Mcanyana	Venue 2 Session 12 Chair - F.V. Adams	Venue 3 Session 13 Chair - M. Nagaraja	Venue 4 Session 14 Chair - I.D. Ibrahim
8:30	8:45	Reduction crystallization of nickel with hydrazine in the presence of an additive ethylene maleic anhydride Paper ID: 223 Author: TP Mashifana	A Review of the Current Municipal Solid Waste Management Practices in Johannesburg City Townships Paper ID: 340 Author: Zelda Z. Rasmeni	Microstructural Evolution Influence of Laser Clad Ni-ZrB2 Coatings on Surface Properties of Ti-6Al-4V Alloy Paper ID: 332 Author: Ayokunle Farotade	Beneficiation of iron from smelter slag in Botswana Paper ID: 237 Author: T. Moalosi

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8:45	9:00	Energy Demand Management and Integration of Sustainable Energy Sources to determine a “Best Mix Approach” to Energy Generation Paper ID: 127 Author: Ibrahim Rasaq	Challenges to the Implementation of Lean Construction Practices in the South African Construction Industry Paper ID: 264 Author: Ayodeji Oke	An Innovation Concept towards Bridging the Gaps Between Teaching and Research Paper ID: 266 Author: O. S. I. Fayomi	Effect of Zn-MgO/MnO ₂ Additives on the Structural Properties of Zinc Electroplated Mild Steel Paper ID: 84 Author: L. Rudolf Kanyane
9:00	9:15	Influence of inoculum to substrate ratio on methane production in Biochemical Methane Potential (BMP) tests of sugarcane distillery waste water Paper ID: 80 Author: Helene Caillet	Critical evaluation of aluminium dross composites and other potential building ceilings Paper ID: 383 Author: J. O Dirisu	An Android Based Mobile Robot for Monitoring and Surveillance Paper ID: 367 Author: Azeta J	Investigating the feasibility of using agricultural waste as an adsorbent of gold ions in small scale gold processing plants Paper ID: 37 Author: A.Tapfuma
9:15	9:30	Modelling and experimentation of heat exchangers for Ocean Thermal Energy Conversion during transient operation Paper ID: 93 Author: Alexandre Dijoux	Initial reaction mechanism on the atomic layer deposition of platinum on a graphene surface: A density functional theory study Paper ID: 393 Author: Lesogo Mohlala	EFFECT OF THE OPERATION PARAMETERS ON THE FISCHER TROPSCH SYNTHESIS PROCESS USING DIFFERENT REACTORS Paper ID: 119 Author: E. Makhura	Microstructure and Microhardness Characterization of Cp-Ti/SiAlON Composite Coating on Ti-6Al-4V by Laser Cladding Paper ID: 86 Author: P.N. Sibisi
9:30	9:45	Review of dual axis solar tracking and development of its functional model Paper ID: 208 Author: Emmanuel Karabo Mpodu	Municipality solid waste management system for Mukono District, Uganda Paper ID: 214 Author: Abdulfatah Abdu Yusuf	Performance of an Iso-Butane Driven Domestic refrigerator infused with various concentrations of Graphene based Nanolubricants Paper ID: 371 Author: D.S Adelekan	Processing and structural characterization of Si-based carbothermal derivatives of bamboo leaf Paper ID: 131 Author: Adeolu Adesoji Adediran
9:45	10:00	Preliminary Characterisation of Iron Ores for Steel Making Processes Paper ID: 365 Author: Odusote Jamiu Kolawole	Tillage Condition Effects on Soil/Plough-breast Flow Interaction of a Horizontally Reversible Plough Paper ID: 320 Author: Zhu Lin	And now to confuse you! How is the public expected to understand water footprinting metrics? Paper ID: 248 Author: Kevin Graham Harding	The effect of a sulphate-reducing bacteria on the rate of corrosion of steel alloys Paper ID: 164 Author: L. Shaku
10:00	10:20	Tea Break			
		Session 15 Chair - E.K. Mpodu	Session 16 Chair - N. Perry	Session 17 Chair - T. Odubiyi	Session 18 Chair - R. Abubakar
10:20	10:35	Design of an intelligent single axis solar tracking system Paper ID: 167 Author: Simon Chinguwa	A Review Of The Desulphurization Methods Used For Pyrolysis Oil Paper ID: 262 Author: R. Serefentse	A Review of Recent Application of Machining Techniques, based on the Phenomena of CNC Machining Operations Paper ID: 353 Author: I.P. Okokpujie	Corrosion Behavior of Additive Manufactured Ti-6Al-4V Alloy Components Paper ID: 66 Author: Sharlotte Mamatebele Kubjane
10:35	10:50	EXPERIMENTAL INVESTIGATION OF WASTE VEGETABLE OIL – DIESEL FUEL BLENDS EFFECTS ON PERFORMANCE OF COMPRESSION IGNITION ENGINE Paper ID: 345 Author: Sunday O. Oyedepo	Challenges to the Use of Modern Technologies for Effective material Management in South African Construction Industry Paper ID: 277 Author: Tawakalitu Bisola Odubiyi	Assessment of the Level of Awareness of Robotics and Construction Automation in the South African Construction Industry Paper ID: 255 Author: Opeoluwa Akinradewo	Effects of Lavandula and Ricinus Communis Oil as Inhibitors of Mild Steel Corrosion in HCL and H ₂ SO ₄ Media Paper ID: 140 Author: Cleophas A. Loto

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10:50	11:05	Investigation of effect of batch-separation on the micro-energy generation in M.indica L. dye-sensitized Solar Cells Paper ID: 401 Author: Abodunrin T.J	Densification and Tensile Properties of Titanium Grade 4 Produced Using Different Routes Paper ID: 285 Author: Muziwenhlanhla A. Masikane	Local heat treatment of a laser build-up Paper ID: 124 Author: Maritha Theron	Investigating the natural degradation of textiles under controllable and uncontrollable environmental conditions Paper ID: 240 Author: Kevin Graham Harding
11:05	11:20	Numerical analysis of the performance of an adjustable thermoacoustically-driven thermo-acoustic refrigerator Paper ID: 257 Author: A.C Alcock	Modeling and Simulation of Mechanical Wear of Carburized Cutting Tool Paper ID: 355 Author: Sunday A. Afolalu	Process Knowledge for improving quality in sand casting foundries: A literature review Paper ID: 120 Author: Cindy Sithole	Near Burner Region Flame Dynamics in a Variable Load Coal Burner: A Review Paper ID: 180 Author: Slzwe Makubo
11:20	11:35	Sensitivity Analysis And Optimization Of A Compressed Air Energy Storage (CAES) System Powered By A Photovoltaic Plant To Supply A Building Paper ID: 47 Author: Sidiki Simpure	Numerical Investigation of Injury Mechanism on the Human Knee of Long-jumpers Paper ID: 404 Author: Jun Huang	Sustainable selection of optimum toolpath orientation in milling AISI 1018 steel alloy Paper ID: 197 Author: Vincent A. Balogun	Production and Application of Advanced Composite Materials in Rail Cars Development: Prospect in South African Industry Paper ID: 158 Author: ID Ibrahim
11:35	11:50	A framework for the design of a Reconfigurable and Mobile System Paper ID: 96 Author: Thecle ALIX	Use of coal fly ash to manufacture a corrosion resistant brick Paper ID: 163 Author: V. Moyo	Investigation of Pyrolysis of Barley Spent Grains (BSG) Paper ID: 273 Author: Thapelo Shomana	The extraction of free fatty acids from crude soyabean oil using isopropyl alcohol as a solvent in liquid-liquid extraction. Paper ID: 309 Author: Dennis Chakawa
11:50	12:35	Lunch Break			
		Session 19 Chair - S. Da Silva	Session 20 Chair - D.V.V. Kallon	Session 21 Chair - T. Alix	Session 22 Chair - K. Setswalo
12:35	12:50	Analysis of Tyndall effect on output performance of P.macrophylla Benth. dye-sensitized solar cells Paper ID: 168 Author: Temitope Abodunrin	A Review On Material And Energy Recovery From Waste Tyres Paper ID: 68 Author: W. Ruwona	A Sustainable Hybrid Inductive Joining Technology for Aluminum and Composites Paper ID: 48 Author: Alexander Fröhlich	Corrosion Resistance of Carbon Nanotubes Reinforced Pure Aluminium Composites. Paper ID: 110 Author: Zwivhuya Lucia Madala
12:50	13:05	Powering the future university campuses: a mini-review of feasible sources Paper ID: 11 Author: Paul A. Adedeji	A survey on reinforcements used in friction stir processing of aluminium metal matrix and hybrid composites Paper ID: 306 Author: Omolayo M. Ikumapayi	Composite Coating and Its Industrial Applications: The Impact and Trends Paper ID: 338 Author: O. S. I. Fayomi	Environmental evaluation of recycling technology and the impact of the transport of Aluminum cables Paper ID: 40 Author: Guilhem GRIMAUD
13:05	13:20	Experimental performance assessment of a solar powered baking oven Paper ID: 172 Author: Hilda. D. Moseme	Effects of Vibrations on Track Deterioration in the Belfast to Steelpoort Railway Line Paper ID: 343 Author: Bingo Balekwa	Microhardness profiling of Ti-6Al-4V components repaired through multiple laser additive re-melt technique Paper ID: 298 Author: Tawanda Marazani	Investigating the quality and conformity of carbon steel AISI 1035 under varying heat treatment conditions Paper ID: 363 Author: Daniyan, I. A
13:20	13:35	Emissions Comparison of loose biomass briquettes with cow dung and cactus binders Paper ID: 45 Author: Reuben Shuma	Investigating the Effect of Pretreatment on a Waste Copper Smelter Dust for Likely Higher Copper Recovery Paper ID: 144 Author: Okanigbe D.O	Internet of things architecture for a smart passenger-car robotic first aid system Paper ID: 26 Author: Joseph G. Kurebwa	On the efficiency of transition metals impregnated on kaolin based ZSM-5 for diesel soot oxidation Paper ID: 249 Author: D.O. Obada

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13:35	13:50	Optimization of the design and manufacture of a solar-wind hybrid street light Paper ID: 89 Author: Wilson R. Nyemba	Rotor unbalance fault diagnosis using DBN based on multi-source heterogeneous information fusion Paper ID: 380 Author: Jihong Yan	Process Mechanisms and their Relevance for Sustainable Machining Processes Paper ID: 121 Author: Vincent A. Balogun	Spark Plasma Sintering Consolidation of Equi-Atomic TiAlMoSiW High Entropy Alloy. Paper ID: 318 Author: L. Rudolf Kanyane
13:50	14:05	Key limitations to the adoption of Life Cycle Assessment in the South African Construction Industry: Perspectives of Stakeholders Paper ID: 125 Author: Clinton Ohis Aigbavboa	Waste Crown Corks as Alternative Materials for Solar Air Heater Absorber Plates: A Preliminary Experimental Evaluation Paper ID: 52 Author: Howard O. Njoku	Techniques to Investigate the Application of Cold Spray in Fabrication of Nanoplasmonic Films: Parameter Identification Paper ID: 111 Author: Kando Hamiyanze Moonga	The novel use of calcium sulphate dihydrate as a bleaching agent for pre-processing beef tallow in the soap manufacturing process Paper ID: 301 Author: D.P. Chakawa
14:05	14:25	Tea Break			
		Session 23 Chair - A. Kidane	Session 24 Chair - E. Muzenda	Session 25 Chair - L. Tartibu	Session 26 Chair - G. Danha
14:25	14:40	Barriers and Prospects of Smart Grid Adoption in Ghana Paper ID: 392 Author: Amevi Acakpovi	The Characteristics of Heat Transfer in Plate Phase Change Energy Storage Unit Paper ID: 413 Author: Changnian Chen	The Fluid Flow Effect on the Inlet Injection of the Thin Film Deposition in a Square Type Atomic Layer Deposition Reactor Paper ID: 69 Author: Rigardt Alfred Maarten Coetzee	Dynamic voltage restorer based power quality optimization using differential evolution algorithm Paper ID: 206 Author: John Saveca
14:40	14:55	Drinking seawater: Investigations into desalination Paper ID: 252 Author: Kevin Graham Harding	Evaluation and feasibility assessment of the sustainability of refrigeration systems devoid of harmful refrigerants for storage of vaccines Paper ID: 90 Author: Wilson R. Nyemba	Effects of thread shape on strength and stability of dental mini-screws against orthodontic forces Paper ID: 342 Author: Fatemeh Mottaghi Dastenaiei	EXPERIMENTAL ANALYSIS OF THE EFFECT OF TRI-NANO ADDITIVES ON WEAR RATE OF MILD STEEL DURING MACHINING. Paper ID: 133 Author: Sunday A. Afolalu
14:55	15:10	An Investigation into the labour productivity trends in the Northwest Province of South Africa Paper ID: 15 Author: Dineo Moswane	Constitutive Model to Analyse the effect of Variation in Temperature Distribution on the Rate of Heat Transfer around a Spur Gear Tooth Paper ID: 73 Author: Enesi Y. Salawu	Intelligent Waste Classification System Using Deep Learning Convolutional Neural Network Paper ID: 213 Author: Olugboja Adedeji	Literature Approach to Investigating the Available Materials in Africa and the Barriers to their Adoption Paper ID: 274 Author: Dosumu, oluwaseun Sunday
15:10	15:25	Mashonaland West Biogas Baseline Survey Paper ID: 190 Author: Garikai Kajau	Experimental Investigation of a Vapour Compression Refrigeration System with 15nm TiO ₂ -R600a Nano-Refrigerant as the Working Fluid Paper ID: 387 Author: D.S Adelekan	Modelling and dynamic simulation of solar heat integration into a manufacturing process in Réunion Island Paper ID: 42 Author: Christophe Maillot	On-line coating of metallic pipeline internals using GRP Paper ID: 192 Author: Nyangani Mtimkulu
15:25	15:40	Performance Evaluation of a Smart Multi feedstock Biodiesel Plant Paper ID: 364 Author: Daniyan, I. A	A Multi-Objective Optimization Approach to Robot Localization of Single and Multiple Emission Sources Paper ID: 260 Author: Samuel Obadan	On the Accuracy of FEM of 3D Printed Parts Paper ID: 57 Author: D.W. Abbot	Studies on Microstructure, and Mechanical, properties of Aluminium Foam prepared by Spray Forming Route Paper ID: 292 Author: Amarish Kumar Shukla

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15:40	15:55	Waste valorisation opportunities for bush encroacher biomass in savannah ecosystems: A comparative case analysis of Botswana and Namibia. Paper ID: 319 Author: Gratitude Charis	Structural Characterization of Silica based Carbothermal Derivatives of Rice Husk Paper ID: 145 Author: Adeolu Adesoji Adediran	Predictive Modelling of a K-Unit Bottling Plants for Reliability Improvement Paper ID: 38 Author: Enesi Y. Salawu	The use of calcium sulphate dihydrate (CaSO ₄ .2H ₂ O) as a bleaching agent for crude soya bean vegetable oil Paper ID: 271 Author: D.P. Chakawa
15:55	16:10	An Industry 4.0 approach to develop auto parameter configuration of a bottling process in a small to medium scale industry using PLC and SCADA Paper ID: 247 Author: KAHIOMBA Sonia KIANGALA	Experimental Investigation of Nano-Lubricants Effects on Temperature Distribution of Mild Steel Machining Paper ID: 354 Author: I.P. Okokpujie	ANALYTICAL MODELLING OF DRIVEN PENDULUM WITH SMALL ANGULAR DISPLACEMENT USING UNDETERMINED COEFFICIENT'S METHOD Paper ID: 234 Author: Michael C. Agarana	Wear behavior of Electron beam surface melted Inconel 718 Paper ID: 294 Author: Sumit K. Sharma
16:10	18:30	Extended Break			
18:30	21:30	Gala Dinner / Award Ceremony			
		Plenary Session C Chair - P. Mativenga			
18:30	18:40	Chairman's Welcome			
18:40	19:10	Plenary 5 - Prof AL. Adelard Kinetic study of anaerobic co-digestion, analysis and modelling			
19:10	19:40	Plenary 6 - Prof L. Zhu Prediction of Commuting Effects of Varying Hydraulic Cylinder Movements on Soil-Ploughbreast Interaction with a HRP			
		Sunday, 10th of March, 2018			
8:00	8:30	Arrival of delegates			
		Venue 1 Session 27 Chair - T. Mashifana	Venue 2 Session 28 Chair - R.A.M. Cotzee	Venue 3 Session 29 Chair - E. Salawu	Venue 4 Session 30 Chair - H. Moonga
8:30	8:45	Comparative Analysis of a Four Stroke Spark Ignition Engine Performance Using Local Ethanol and Gasoline Blends Paper ID: 358 Author: bEfemwenkikie U. K	Bio char production from sugar cane bagasse and its application sugarcane processing wastewater treatment Paper ID: 28 Author: Musaida M. Manyuchi	Agent-based Control System: A Review and Platform for Reconfigurable Bending Press Machine Paper ID: 32 Author: Olukorede Tijani Adenuga	Effect of Chloride Electrolyte Additive on the Quality of Electrorefined Copper Cathode Paper ID: 268 Author: Nkuna, E.H
8:45	9:00	EFFECT OF ORGANIC LOADING RATE ON BIOGAS YIELDS OF PIG SLURRY IN A CONTINUOUSLY STIRRED TANK REACTOR AT MESOPHILIC TEMPERATURE Paper ID: 113 Author: A.O. Adebayo	DESIGN OF AUTOMATED HEAVY-DUTY HANDLING SYSTEM BASED ON INDUSTRY 4.0 PRINCIPLES Paper ID: 61 Author: S.Z. Mafokwane	Forensic Investigation of a Failed Intermediate Starwheel Spur Gear Tooth in A Filler Machine Paper ID: 39 Author: Enesi Y. Salawu	Fretting Wear Resistance of Titanium Foam Developed by Powder Metallurgy Route Paper ID: 286 Author: D. Dutta Majumdar
9:00	9:15	Identification of Tower-Wake Distortion Using Lidar Measurement Paper ID: 236 Author: Maduako E. Okorie	Effects of Biomass/Coal co-pyrolysis parameters on the product yield: a review Paper ID: 159 Author: Ntebogang Thibanyane	Modelling additive manufacturing of superalloys Paper ID: 79 Author: Lars-Erik Lindgren	Manufacturing System Paper ID: 98 Author: Roland Tolulope Loto

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9:15	9:30	Migration from Low to High Voltage Distribution Systems: An Optimization of Selected Unit Transformers Using Linear Programming with Matlab Paper ID: 183 Author: Issah B. Majeed	New Trend in Thin Film Composite Coating Deposition: A Mini Review Paper ID: 337 Author: O. S. I. Fayomi	Numerical modelling and experimental analyses of heat treated titanium additive manufactured component. Paper ID: 327 Author: A.S. Ngoveni	OPTIMUM CURE CYCLES OF AUTOCLAVE PROCESS FOR POLYMER MATRIX COMPOSITES USING GENETIC ALGORITHM Paper ID: 25 Author: Adeodu A. O
9:30	9:45	Powering the future: zinc-air batteries and solar panels Paper ID: 253 Author: Kevin Graham Harding	Passenger car safety and emergency healthcare: a literature review Paper ID: 31 Author: Joseph G. Kurebwa	Performance of Developed Mathematical Models of Hot Air Balloon for Drone Application Paper ID: 357 Author: Azeta J	Surface treatment of magnesium AZ61 alloy with stainless steel powder by friction stir processing Paper ID: 350 Author: Lorraine M. Sithole
9:45	10:00	Valorisation of coffee waste to biogas Paper ID: 29 Author: Musaida M. Manyuchi	Sustainable Design and Manufacture of a Maize Seed Grading Machine for Small Scale Farmers Paper ID: 85 Author: Charles Danga	Sensitivity analysis of an outdoor swimming pool under dynamic conditions Paper ID: 43 Author: Maité BERNHARD	Thermally Sprayed Inconel 625 Coating on 304 Stainless Steel: A Neutron Diffraction Stress Analysis Paper ID: 391 Author: O.P. Oladijo
10:00	10:20	Tea Break			
		Session 31 Chair - I. Daniyan	Session 32 Chair - J. Chigerwe	Session 33 Chair - I. Okokpujie	Session 34 Chair - O. Johnson
10:20	10:35	Wear Resistance and Morphological Characterization of High-power Laser Clad Coatings on Ti-6Al-4V Alloy Paper ID: 263 Author: Phala M.F	Design and Simulation of an Integrated Steering System for All-purpose Sport Utility Vehicles (SUVs) – Case for Toyota Paper ID: 33 Author: Joseph Kurebwa	Suitability Of Selected Nigerian Clays For Foundry Crucibles Production Paper ID: 415 Author: Matthew Adeoti	Effect of interstitial filling, ball and feed size on particle breakage in a laboratory ball mill: An Attainable Region technique Paper ID: 35 Author: P. M. Tembo
10:35	10:50	Social lifecycle impact assessment of cocoyam chips hawking in Lagos, Nigeria Paper ID: 150 Author: Dunmade, I.S.	DEVELOPMENT OF AN AUTONOMOUS MOBILE PLANT IRRIGATION ROBOT FOR SEMI STRUCTURED ENVIRONMENT Paper ID: 24 Author: Adeodu A. O	Numerical analysis of the flow pathlines in thermo-acoustic couples Paper ID: 78 Author: L.K. Tartibu	Influence of a novel doping of Zn-CeO ₂ + MnO ₂ on the physical properties of a deposited coating Paper ID: 83 Author: K. Gandazha
10:50	11:05	The Role of Corporate Governance in Sustainable Supply Chain Management Paper ID: 54 Author: Charles Mazhazhate	Impact of Design Parameters on the Performance of Centrifugal Pumps Paper ID: 62 Author: M. E. Matlakala	The Characteristics of Temperature Distribution of Plate Phase Change Energy Storage Unit Paper ID: 414 Author: Changnian Chen	Mechanical Properties of Heat-treated Medium Carbon Steel in Renewable and Biodegradable Oil Paper ID: 71 Author: Oluwagbenga T, Johnson
11:05	11:20	An Experimental Evaluation of LTA on the performance of a drone Paper ID: 369 Author: Azeta J	Investigating the development of low-cost sanitary pads Paper ID: 210 Author: Kevin Graham Harding	Design of Optimal Hybrid Renewable Energy System for Sustainable Power Supply to Isolated-grid Communities in North Central, Nigeria Paper ID: 87 Author: Ohijeagbon, O.D	Polypropylene/nanoclay Composite: A solution to refrigerated vehicles Paper ID: 58 Author: Chukwunonso Aghaegbulam Uwa

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11:20	11:35	Heat and mass transfer local modelling applied to biomass briquette drying Paper ID: 55 Author: Guillou Paul	Resource Efficient Process Chain Development of a Modular CubeSat Spaceframe Paper ID: 302 Author: J F Oberholzer	Fabrication of nanocomposites with enhanced thermo-mechanical properties Paper ID: 412 Author: Addis Kidane	Sustainable Production of Slow Release Fertilizers for Eco-Nutrient Delivery in Nutrient Deficient Soils Paper ID: 126 Author: Chioma Ehis-Eriakha
11:35	11:50	Value addition of woody biomass (saw dust) to bio ethanol Paper ID: 27 Author: Musaida M. Manyuchi	Towards the Design of the OTS Ceiling Suspension Unistruts of the XR-646 Medical Equipment Paper ID: 63 Author: K.B, Mcanyana	A Numerical And Statistical Approach For Optimization Of Tab Design For Non-Crimp Fabric Composites Paper ID: 280 Author: Kwame Anane-Fenin	Tungsten carbide thin films review: Effect of deposition parameters on film microstructure and properties Paper ID: 166 Author: R.R. Phiri
11:50	12:05	Lunch Break			

Please note that this schedule is subject to slight changes.