

## ORAL PRESENTATIONS SCHEDULE

### DAY 1 (23/11/2020)

#### SESSION I: 11.05 AM - 1.00 PM

#### ENERGY STORAGE & CONVERSION

| S.No. | Paper Title & Authors                                                                                                                                                                                                              | Paper ID  | Page Number |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|
| 1.    | <b>Effect of urea on ionic conductivity and dielectric relaxation of PEO-Mg(CF<sub>3</sub>SO<sub>3</sub>)<sub>2</sub> polymer electrolyte</b><br><i>C. Maheshwaran, D. K. Kanchan*, Khushbu Gohel, Deepak Kumar, Poonam Sharma</i> | OP-ES-103 | 10          |
| 2.    | <b>Cyclic Voltammetric Study of synthetic Organic Material 2,4-Bis(o-Methoxyphenyl)-3-azabicyclo[3.3.1]nonan-9-one</b><br><i>V. Kanishkar, R. S. Hariharan, G. Baskar*</i>                                                         | OP-ES-123 | 10          |
| 3.    | <b>Cyano-Bridged Coordination Polymers as Photomagnetic Materials</b><br><i>Pawanjeet Kaur*, Himanshu Arora</i>                                                                                                                    | OP-ES-127 | 11          |
| 4.    | <b>A Low-cost Rechargeable Battery with Aluminum and Graphite</b><br><i>Shyamal Kumar Das*</i>                                                                                                                                     | OP-ES-132 | 12          |
| 5.    | <b>Waste Derived Low Cost PbO-Carbon Composite and its Energy Storage Application</b><br><i>Hirock Jyoti Das, Aungat Shah, L Robindro Singh*, Mrityunjy Mahato*</i>                                                                | OP-ES-133 | 12          |

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| 6.  | <b>Structural and FT-IR spectroscopic studies: Ni-Cu-Zn ferrite nanoparticles useful for Multilayer Chip Inductor</b><br><i>K. S. Ramakrishna, Ch. Srinivas, S. S. Meena, D. M. Potukuchi, D. L. Sastry*</i>                                                                              | OP-ES-154 | 13 |
| 7.  | <b>Waste Derived Preparation of Iron Oxide-Carbon Nano-Composite and its Energy Storage Application</b><br><i>Jenis Samuel, Aungat Shah, Dinesh Kumar, Robindro Singh*, Mrityunjoy Mahato*</i>                                                                                            | OP-ES-157 | 14 |
| 8.  | <b>Fabrication of ZnO/NiO:rGO coated Ni Foam Binder-Free Electrode Via Hydrothermal Method for Supercapacitor Application</b><br><i>S. Arunpandiyar, A. Arivarasan*</i>                                                                                                                   | OP-ES-158 | 14 |
| 9.  | <b>Superior Electrochemical Performance of Iron Vanadate Nanoparticles as a Pseudocapacitor Electrode Material</b><br><i>S. Ezhil Arasi, A. Arivarasan*</i>                                                                                                                               | OP-ES-159 | 15 |
| 10. | <b>Ceria-Based Composite Materials for Low Temperature Solid Oxide Fuel Cells</b><br><i>Vishnu Palle, Sanjay Rathore</i>                                                                                                                                                                  | OP-ES-173 | 16 |
| 11. | <b>Environmental Economic Dispatch of Micro-grid Including Distributed Generation and Energy Storage Using Whale Optimization Algorithm</b><br><i>Naveen Prakash. S*</i>                                                                                                                  | OP-ES-193 | 17 |
| 12. | <b>Synthesis and Study of Fe<sub>2</sub>O<sub>3</sub> and Fe<sub>2</sub>O<sub>3</sub>/N-rGO Nanoballs Composite Using Microwave-Assisted Hydrothermal Method for the Application of Li-Ion Batteries</b><br><i>G. Kanimozhi, Durga S Nair, N. Naresh, Harish Kumar, N. Satyanarayana*</i> | OP-ES-194 | 17 |

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| 13. | <b>Microwave-Assisted Hydrothermal Synthesis of Mn<sub>2</sub>O<sub>3</sub> as Anode Material for High Performance Lithium-Ion Batteries</b><br><i>G. Kanimozhi, Bharath Chandran N, Naresh G, Ramesh Babu, N. Satyanarayana*</i>         | OP-ES-205 | 18 |
| 14. | <b>Facile One-Step Hydrothermal Synthesis of NiCoS/rGO Composite as Active Electrode Material in Non-Aqueous Electrolyte for Supercapacitors Application</b><br><i>K. Narthana, G. Durai, P. Kuppusami*, J. Theerthagiri*, S. Sujatha</i> | OP-ES-239 | 20 |
| 15. | <b>Perovskite Type Multiferroic Materials Multiple State Memory Elements and Other Integrated Ferroelectric Devices</b><br><i>V.Uma, Perumal Seenuvasakumaran</i>                                                                         | OP-ES-252 | 21 |
| 16. | <b>Photovoltaic Performance of pure and Doped ZnS Thin Film for Solar Cell Application</b><br><i>A.Sundhar</i>                                                                                                                            | OP-ES-282 | 22 |

**SESSION II: 2.45 PM – 5.00 PM****MATERIALS BEHAVIOR & ENERGY STORAGE**

| S.No. | Paper Title & Authors                                                                                                                                                                                                   | Paper ID  | Page Number |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|
| 1.    | <b>Effect of Curing Conditions on Thermo Mechanical Strength and Microstructure of Fly-Ash and GGBS Blend Geopolymer Concrete</b><br><i>Poornima Natarajan, Dheeraj Katya, Sivasakthi M, Revathy T, R. Jeyalakshmi*</i> | OP-MB-108 | 30          |
| 2.    | <b>Electrical Conductivity of Cobalt Substituted Copper Ferrites</b><br><i>Ch. Venkateshwarlu, Ch. Gopal Reddy, M. Prasad, G. Vinod, K. Rajashekhar, J. laxman Naik*</i>                                                | OP-MB-109 | 31          |
| 3.    | <b>Synthesis and Characterization of Composites of AA6063 with Graphene and Graphite towards Corrosion</b><br><i>Manas M Bhat, Mukund Upadhyaya, Kiran Shastry, Mahesh Navada, A V Goutham Rao, Trishul M Ashok*</i>    | OP-MB-121 | 32          |
| 4.    | <b>Study of Hot Corrosion Behavior of Hastelloy X and Inconel 625 with Molten Salts in an Aggressive Environment</b><br><i>Kamatchi Hariharan M, A.Anderson*</i>                                                        | OP-MB-135 | 33          |
| 5.    | <b>Influence of Carbon Nanofiller in GFRP under Dynamic Loading Conditions at an Elevated Temperature</b><br><i>Balaji Rajendran, Dinesh Kumar P K, Paveen Sailakumar, Vishal S</i>                                     | OP-MB-141 | 34          |
| 6.    | <b>A study of Electrodeposited Nickel Coating on S275JR Mild Steel Using Design of Experiments</b>                                                                                                                      | OP-MB-145 | 34          |

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|     | <i>T. Sathish*</i>                                                                                                                                                                                                   |           |    |
| 7.  | <b>Optical Limiting Behavior of 2-Amino 5-Nitropyridinium Tetrafluoroborate Decorated Graphene Oxide</b><br><i>G. Muruganandi, M.B.Jessie Raj, T.C. Sabari Girisun</i>                                               | OP-MB-153 | 35 |
| 8.  | <b>Experimental Investigation on Strength Properties of Hybrid Fiber Reinforced Concrete</b><br><i>R. Devananth</i>                                                                                                  | OP-MB-163 | 36 |
| 9.  | <b>Taylor-Grey Rider Based Deep Recurrent Neural Network Using Feature Level Fusion For Cryptography Enabled Biometric System</b><br><i>Ankit Arora*, Rohit Miri</i>                                                 | OP-MB-165 | 37 |
| 10. | <b>Dielectric Relaxation and Co-Operative Dynamics of Propylene Glycol – Ethanol Mixtures Using Time Domain Spectroscopy</b><br><i>P. A. Bhadane, Y. S. Joshi*, K. S. Kanse, D. N. Rander, A. C. Kumbharkhane</i>    | OP-MB-169 | 37 |
| 11. | <b>Calcination Temperature: Effect on the Properties and Applications of Bio Extract Mediated Titania Nanoparticles</b><br><i>N. Saikumari*, S. Monish dev, S. Avinaash dev</i>                                      | OP-MB-178 | 38 |
| 12. | <b>Performance of ZnSO<sub>4</sub> Doped CeO<sub>2</sub> Nanoparticles and their Antibacterial Mechanism</b><br><i>T.Lohitha, Helen Merina Albert*, Karthik Alagarsamy, C. Alosious Gonsago, Vinita Vishwakarma*</i> | OP-MB-192 | 39 |
| 13. | <b>Wave Motion at the Interface of Two Swelling Porous Elastic Media</b><br><i>Divya*</i>                                                                                                                            | OP-MB-211 | 40 |

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| 14. | <b>In situ high temperature oxidation behavior of novel Co/Cr/W/Ni (KCN20WN) Alloy at High Temperature Environment</b><br><i>S. Kathiravan, Gobi Saravanan Kaliaraj,*, A.M. Kamalan Kirubaharan</i>       | OP-MB-238 | 41 |
| 15. | <b>Bio-based Chitosan/Sodium Alginate/Ag@ZnO Nanocomposites Loaded with Psidium Guajava: Development and Its Antibacterial and Anticancer Activity</b><br><i>P.Nivedha, S. Devikala</i>                   | OP-MB-251 | 42 |
| 16. | <b>Synthesis, Characterization and Microbial Studies of Naphthyl Pyrazole Docked with Thiazole</b><br><i>L. Ilavarasan, A. Ravi, M. Ganapathi, D. Jayaseelan, S. Guhanathan, S. Selvaraj, K. Mohanraj</i> | OP-MB-253 | 43 |
| 17. | <b>Structural and Optical Properties of ZnO and Ni Doped ZnO Nanoparticles</b><br><i>Balaji Ravikumar, Suganya Murali, Perumal Seenuvasakumaran</i>                                                       | OP-MB-264 | 43 |
| 18. | <b>Interaction Studies on Aqueous Solutions of Anionic Surfactant with Electrolytes at Different Temperatures</b><br><i>A. Panneerselvam, V. Karikalan, S. Punitha</i>                                    | OP-MB-271 | 44 |
| 19. | <b>A Review on Theoretical and Experimental Investigation of Nonlinear Optical Effects on Nano Fibers and its Technological Applications</b><br><i>Parvathi R, Anandhi S</i>                              | OP-MB-283 | 45 |
| 20. | <b>Antibacterial and Cytotoxic Effect of ZnO Nanoparticles Biosynthesized from Artocarpus Hirsutus</b><br><i>S. Shobana, C. Reeves David, S. Veena, S. S. M. Sameer, L. A. Vishal*</i>                    | OP-MB-287 | 45 |

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| 21. | <b>Anti-diabetic Potential of Green Synthesized Silver Nanoparticles from Sprouted Zingiberaceae Species</b><br><i>S. M. Sathak Sameer, L. Ansel Vishal*, S. Veena, S. Shobana, M. Ysasve</i> | OP-MB-289 | 46 |
| 22. | <b>Development of Porous polysaccharide -Hydroxyapatite Composite Scaffolds via Freeze Drying Method</b><br><i>J.Anita Lett, S.Anandhi, Bavani Latha, Suresh Sagadevan</i>                    | OP-MB-290 | 47 |

**DAY 2 (24/11/2020)****SESSION III: 10.45 AM – 1.00 PM****SURFACE ENGINEERING & TRIBOLOGY**

| S.No. | Paper Title & Authors                                                                                                                                                                                                                     | Paper ID  | Page Number |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|
| 1.    | <b>Influence of Substrate Temperature on Sputtered TiC Thin Films for Tribological Applications</b><br><i>Suresh Udaiyappan, P. Kuppusami*, A.M. Kamalan Kirubaharan, R. Ramaseshan, S. Dhanalakshmi</i>                                  | OP-SE-160 | 59          |
| 2.    | <b>“Biobrick with topical coating of Silver nanoparticles” – A novel approach towards masonry industry</b><br><i>Kannan K</i>                                                                                                             | OP-SE-164 | 60          |
| 3.    | <b>Enhancement of Corrosion Inhibition on Mild Steel in 1 M HCl Solution by Green Synthesised Nano MnO<sub>2</sub> Coating</b><br><i>Y.A. Syed Khadar, V. Gowthambabu, S. Surendhiran, S Halimabi Alias Shakila Banu, A. Balamurugan*</i> | OP-SE-212 | 61          |
| 4.    | <b>The Enhancement of Thermal Conduction and Convection Utilizing Thin Films and Nanoparticles</b><br><i>T. Sivakumar P. Venkateswari, B. AnandhaPriya, A. Ganesh, P. Gurudevi</i>                                                        | OP-SE-219 | 62          |
| 5.    | <b>Synthesis of Pure and Cd, Zn Doped CuO Thin Films Using Spray Pyrolysis Technique</b><br><i>S.J.Helen, R. Chandramohan</i>                                                                                                             | OP-SE-236 | 63          |

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| 6.  | <b>Investigation on the Role of Thickness of Fe Doped TiO<sub>2</sub> Thin Films on Photo Degradation of Congo red Organic Dye</b><br><i>R. Vidhya*, R. Gandhimathi, R. Karthikeyan, K. Neyvasagam</i>                    | OP-SE-243   | 120 |
| 7.  | <b>Impact of Cheap N, O, S Based Abbreviated Additives on Bio Gel Polymer Electrolytes for the Performance of Dye-Sensitized Solar Cells</b><br><i>J.M. Abisharani, S. Devikala</i>                                       | OP-SE-246   | 82  |
| 8.  | <b>Tribological Properties of Aluminium 2024-Carbon Nano Tubes Surface Composites Produced by Friction Stir Processing</b><br><i>Bhargavi Rebba</i>                                                                       | OP-SE-258   | 146 |
| 9.  | <b>Highly Volatile Dimethylamine Vapor Sensing Studies Using Titanium -Vanadium Mixed Oxide Thin Films</b><br><i>Veera Prabu Kannan, Veena Mounasamy, Sridharan Madanagurusamy</i>                                        | OP-SE-263   | 139 |
| 10. | <b>Influence of Substrate Temperature on the Growth of Doped Nanocrystalline Diamond Thin Films</b><br><i>Salila Kumar Sethy, Kamatchi Jothiramalingam Sankaran*</i>                                                      | OP-SE-277   | 142 |
| 11. | <b>Study on the Wear Behavior of Aluminum Metal Matrix Composites Reinforced with Hexagonal Boron Nitride and Cubic Boron Nitride</b><br><i>E. Naveen, Sethu Velappan P, Kamaraj M, Ravi Raj, Ramanan</i>                 | OP-MECH-106 | 31  |
| 12. | <b>Evaluating the Tribological Properties of Aluminium Based Hybrid Composites Reinforced with Al<sub>2</sub>O<sub>3</sub> &amp; ZrO<sub>2</sub> Nanoparticles</b><br><i>Shreyas P S, B.P.Mahesh, Rajanna S, Rajesh N</i> | OP-MECH-190 | 40  |

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| 13. | <b>Experimental Investigation on Mechanical and Wear Properties of Al7075-B4C-Al<sub>2</sub>O<sub>3</sub> Composite</b><br><i>Balasubramanian T, Subramanian M, Arunkumar N, Ganesh M, Udayakumar ASM</i>                              | OP-MECH-206 | 63  |
| 14. | <b>High Temperature Tribological Behaviour of YSZ and GZ Based Thermal Barrier Coatings</b><br><i>M. Rajasekaramoorthy, A. Karthikeyan*, A. Anderson**, A. M. Kamalan Kirubaharan</i>                                                  | OP-MS-187   | 64  |
| 15. | <b>Structural and Optical Analyses of Thin Films Prepared by Spray Pyrolysis Process of as-Deposited and Annealed CoFe<sub>2</sub>O<sub>4</sub></b><br><i>D. Kshamitha, V. Manjunath, O. Ravi, S. Dastagiri, M. V. Lakshmaiah*</i>     | OP-RE-148   | 65  |
| 16. | <b>Effect of Annealing on Structural and Optical Properties of Mn:ITO Thin Films</b><br><i>Deepannita Chakraborty, K. Chaitanya Kumar, S. Kaleemulla*</i>                                                                              | OP-RE-116   | 66  |
| 17. | <b>2D-Layered Semi-metallic WTe<sub>2</sub> Contacts for CdTe by Electron Beam Assisted Tellurization on RF-Sputtered Tungsten</b><br><i>Kulandai Velu Ramanathan, Balakrishnan Shankar, Shantikumar V Nair, Mariyappan Shanmugam*</i> | OP-RE-122   | 66  |
| 18. | <b>Long Term Study on Evaluation of the Corrosion Behavior of Buried Mild Steel Structures</b><br><i>S Suganya, R Jeyalakshmi*</i>                                                                                                     | OP-MB-112   | 111 |
| 19. | <b>In situ high temperature oxidation behavior of novel Co/Cr/W/Ni (KCN20WN) Alloy at High Temperature Environment</b><br><i>S. Kathiravan, Gobi Saravanan Kaliaraj*, A.M. Kamalan Kirubaharan</i>                                     | OP-MB-228   | 119 |

**SESSION IV: 2.00 PM – 4.00 PM****MATERIALS SCIENCE**

| S.No. | Paper Title & Authors                                                                                                                                                                                        | Paper ID  | Page Number |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|
| 1.    | <b>Enhanced Biological and Mechanical Properties of Sol-Gel Derived HAp-Ti-rGO Nanocomposites</b><br><i>H. Sirajunisha, T. Balakrishnan*</i>                                                                 | OP-MS-120 | 74          |
| 2.    | <b>Green Synthesis and Characterization of Zero Valent Iron Nanoparticles from the Leaf Extract of Abies Webbiana Plant and Their Antibacterial Activity</b><br><i>K. Sowmiya, J. Thomas Joseph Prakash*</i> | OP-MS-124 | 75          |
| 3.    | <b>Green Synthesis of Ferric Nanoparticles using Justicia Adhatoda Leaf Extract and their Antibacterial Activities</b><br><i>D. Devi Priya, J. Thomas Joseph Prakash*</i>                                    | OP-MS-125 | 75          |
| 4.    | <b>Room-temperature Ammonia Sensing Properties of MoS<sub>2</sub> / Multiwalled Carbon Nanotubes Composite</b><br><i>Sukhwinder Singh, Sandeep Sharma</i>                                                    | OP-MS-129 | 76          |
| 5.    | <b>Biosynthesis of CuFe<sub>2</sub>O<sub>4</sub> Nanoparticles and its Biological Applications</b><br><i>R. Resmi*, Jumna Yoonus, B. Beena,*</i>                                                             | OP-MS-138 | 76          |
| 6.    | <b>Recent Development in Biomaterials of Sugars</b><br><i>Mani Rajasekar*</i>                                                                                                                                | OP-MS-142 | 77          |

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| 7.  | <b>XRD, FTIR and Other Studies of MgO Nanoparticles Prepared by Green Synthesis Using Grape Fruit Juice</b><br><i>A.Suba*, P.Selvarajan, J. Jebaraj Devadasan</i>                                                                                                                                       | OP-MS-149 | 78 |
| 8.  | <b>Studies on Growth and Characterization of Potassium Chromium Sulphate Crystals</b><br><i>K.Thilaga, P.Selvarajan, S. M. Abdul Kader</i>                                                                                                                                                              | OP-MS-156 | 79 |
| 9.  | <b>Green Synthesis of Reduced Graphene Oxide using Orange Juice and Characterization</b><br><i>S. Prema Thanapackiam, P. Selvarajan, K. Gnanaprakasam Dhinakar</i>                                                                                                                                      | OP-MS-168 | 80 |
| 10. | <b>Thermal Analysis and Structural Confirmation of Chitosan and 5-Chlorosalicylaldehyde with Aniline by TG-GC/MS, 1H-NMR and 13C-NMR-FTIR</b><br><i>A. Deepika , Sivaranjani, R. Ida Malarselvi*, K.Viswanthan</i>                                                                                      | OP-MS-172 | 81 |
| 11. | <b>Synthesis, Crystal Growth and Studies of Tri-urea Oxalic Acid Crystals</b><br><i>S. Vasumathi*, H. Johnson Jeyakumar, P. Selvarajan</i>                                                                                                                                                              | OP-MS-175 | 81 |
| 12. | <b>Revealing the Effect of Tb Doping in ZnO Nanoparticles by Studying its Structural, Optical and Antibacterial Properties</b><br><i>C.Selvaraju*, R.Karthick</i>                                                                                                                                       | OP-MS-188 | 83 |
| 13. | <b>Thermoanalytical and Calorimetric of the Three Polymorphs Phase Behaviour of (E)-4-Fluoro-2-[(phenylimino)methyl]phenol Single Crystal and Biomedical Application</b><br><i>R. Priscilla, G. Swetha, R. Ida Malarselvi*, K. Viswanathan, B. Deepak sundar, P. Ruba, B. Krishnapriya, J. Priyanka</i> | OP-MS-189 | 84 |
| 14. | <b>Influence of lithium ions on the XRD, Dielectric and Thermal properties of KDP single crystals</b>                                                                                                                                                                                                   | OP-MS-198 | 85 |

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|     | <i>Mitesh B. Solanki*, Satyam Shinde, Bharat B. Parekh*, Mihir Joshi</i>                                                                                                                                                                                    |           |    |
| 15. | <b>Synthesis, Characterization, Antioxidant Property and Antimicrobial Studies of a Novel Maleimide Derivative and its Metal (II) Complexes</b><br><i>G.Banu Karthi, M. Yosuva Suvaikin*, C. Kalaivanan</i>                                                 | OP-MS-200 | 86 |
| 16. | <b>Utilization of Blended Mineral Admixtures in Geopolymer Concrete with Slaked Lime under Atmospheric Curing</b><br><i>Vigneshkannan S , Mohana Sundari S, Hemapriya S</i>                                                                                 | OP-MS-203 | 86 |
| 17. | <b>Investigation on the Non Linear Optical Properties of Allylthiourea Cadmium Chloride (ATCC) Single Crystals</b><br><i>Sreekanth G, Santhosh Kumar R</i>                                                                                                  | OP-MS-209 | 87 |
| 18. | <b>Fabrication of Photoluminescent Electrospun Poly (Styrene-Co-Methyl Methacrylate) Nanofibers Doped with LaPO<sub>4</sub>:Eu<sup>3+</sup> for Optical Applications</b><br><i>Vinitha Varkey, Aswathy R Chandran, E.Tomlal Jose, Issac Paul, Gijo Jose</i> | OP-MS-223 | 88 |
| 19. | <b>Incorporation of Some Carbon-Based Materials into Polypyrrole (PPy) Matrix for Anticorrosion Application</b><br><i>Madhusudhan C.K, Narasimha Raghavendra, Muhammad Faisal*</i>                                                                          | OP-MS-237 | 89 |
| 20. | <b>Electrochemical and Spectrophotometric Studies on Mn (III) Porphyrin Complex Prepared by Precipitation Route</b><br><i>V. Thandiayyakone, A. Murugan, C. R. Ravikumar, T. Rajkumar, P. Thillai Arasu, H. S. Yadav, P. Kotteswaran</i>                    | OP-MS-247 | 90 |
| 21. | <b>Structural and Photoluminescence Studies of Rare Earth Doped Gadolinia Phosphor</b>                                                                                                                                                                      | OP-MS-249 | 91 |

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|     | <i>J S Revathy, Deepthi N Rajendran</i>                                                                                                                                                                                                                         |           |    |
| 22. | <b>Effect of Molarity on Structural, Morphological, Optical and Photocatalytic Property of (Cu<sub>1</sub>-X-Cox) -TiO<sub>2</sub> Nanoparticles Synthesized Via Hydrothermal Method</b><br><i>A M Kalamma*, T Subba Rao, Ambreensaba Mulla, Mohammed Afzal</i> | OP-MS-257 | 92 |
| 23. | <b>Facile Synthesis of Visible Region Luminescent Silver Decorated Graphene Oxide Nanohybrid for Biomedical Applications</b><br><i>Anjumol Joy, Gayathri Unnikrishnan, Megha Kuttykrishnan, Elayaraja Kolanthai*, Senthil Kumar Muthuswamy*</i>                 | OP-MS-262 | 93 |
| 24. | <b>Role of Surfactant Concentration on Thermoelectric Properties of Calcium Cobalt Oxide Nanoparticles</b><br><i>S. Berbeth Mary*, A. Leo Rajesh</i>                                                                                                            | OP-MS-265 | 94 |
| 25. | <b>Synthesis and Characterization of Lanthanum Oxide Nanostructures: A Study on the Effect of Surfactants</b><br><i>S. Karthikeyan*, K. Dhanakodi, K. Shanmugasundaram, S. Surendhiran</i>                                                                      | OP-MS-266 | 95 |
| 26. | <b>Bio Remediation of Xenobiotic Compound: Reclamation Approach for Environmental Sustainability- A Review</b><br><i>G Subbulakshmi, Anamika Debbarma, Anjali sinha, Sagnika Panda</i>                                                                          | OP-MS-268 | 96 |
| 27. | <b>Monitoring and Defending from the Destructive Energy</b><br><i>Viswanathan K, T. Ravi</i>                                                                                                                                                                    | OP-MS-272 | 96 |

**DAY 3 (25/11/2020)****SESSION V: 10.45 AM – 1.00 PM****MECHANICAL**

| S.No. | Paper Title & Authors                                                                                                                                                                                                                                                           | Paper ID    | Page Number |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|
| 1.    | <b>Theoretical Simulation on Thermal Performance of the Nano Coated Heat Exchanger Surfaces</b><br><i>M. Meikandan, M. Kamal, S. Abilash, P. Ganesh Kumar</i>                                                                                                                   | OP-MECH-101 | 108         |
| 2.    | <b>Indigenous Development of Single Screw Conveying Machine for Pyrolysis of Waste Plastics Using Nano Zeolite Particles in Fixed Bed Reactor</b><br><i>Sundarraaj Moorthi, Meikandan Megaraj</i>                                                                               | OP-MECH-102 | 109         |
| 3.    | <b>Experimental Investigation of Various Techniques to Adapt Waste Plastic Oil as Fuel on Diesel Engine</b><br><i>Vetere Selvan E, Periyasamy P, Kamaraj M, Sethu Velappan P, Ramanane, Naveen E</i>                                                                            | OP-MECH-105 | 110         |
| 4.    | <b>Mechanical, Thermal and Micro-Structure Properties of Nano (nTiO<sub>2</sub>, nAl<sub>2</sub>O<sub>3</sub>, nCaCO<sub>3</sub>) Modified Fly Ash Blended Ordinary Portland Cement Mortar</b><br><i>Vanitha N, Ramasamy Gopalakrishnan, Ramaswamy Jeyalakshmi,* Uma Suresh</i> | OP-MECH-111 | 112         |
| 5.    | <b>Investigation towards Surface Roughness &amp; Material Removal Rate in Wire-EDM of Aluminium Alloy 6061 And 5083 Using Taguchi Method</b><br><i>Satyam Tiwari, Mohd Saif</i>                                                                                                 | OP-MECH-137 | 113         |

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| 6.  | <b>Computational Analysis of Influencing Parameters of Ceramic Particles Reinforced Hybrid Aluminium Surface Composites Processed by Friction Stir Processing</b><br><i>B.Varun, S.Gopi, D.R. Medhun Hashini, L.Jeryraj Kumar</i>     | OP-MECH-139 | 113 |
| 7.  | <b>Characterization and mechanical behavior analysis of MIG welded Stainless Steel 316</b><br><i>T. Sathish*</i>                                                                                                                      | OP-MECH-144 | 114 |
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