



**30.05.2024: SESSION 1 – METALLURGY – RAJAM HALL**

Prof. Manoj Gupta, Provost Chair Professor, NUS, Singapore

&

Dr.S.Balasivanandha Prabu, Professor, CEG Campus, Anna University, Chennai

Sl. No	RIPE ID	Title	Presenting Author
1.	202410068	Oxidation behaviour of NI-FE-CR based superalloy under air, vacuum and argon environments at high-temperatures	Mohammed Nawaz H <i>Sathyabama Institute of Science and Technology, Chennai</i>
2.	202410161	Experimental Investigation of calcium influence on AZ31 Magnesium alloys	Harikishore R <i>Vel Tech Multi Tech Dr. Rangarajan Dr. Sakunthala Engineering College, Chennai</i>
3.	202410168	Influence of Ca on AZ31 Mg Alloy Corrosion behavior in 3.5 wt.% NaCl	Sivabharathi M <i>Vel Tech Multi Tech Dr. Rangarajan Dr. Sakunthala Engineering College</i>
4.	202410199	Investigation on Mechanical Properties of Biodegradable AZ31 Magnesium Alloys with Calcium Addition	Surya S <i>Saveetha Engineering College (Autonomous), Chennai</i>
5.	202410239	Investigation of mechanical and corrosion properties of SS316L and MONEL 400 metals	Sathish S <i>Chettinad College of Engineering and Technology, Karur</i>

**30.05.2024: SESSION 2 – ADDITIVE MANUFACTURING – Prof. SRK SEMINAR HALL**

Prof. K. P. Karunakaran, Professor, IIT Bombay

&

Dr. Murugaiyan Amirthalingam, Associate Professor, IIT Madras

Sl. No	RIPE ID	Title	Presenting Author
1.	202410079	Wire Arc Additive Manufacturing of Dissimilar Alloys: Tribological Assessment	Vigneshwaran S <i>KPR Institute of Engineering and Technology, Coimbatore</i>
2.	202410105	Machine learning models for predicting dimensional variations in selective laser sintered alumide parts	Rupalin Biswal <i>College of Engineering Guindy, Chennai</i>
3.	202410134	Evolution of Metal Processing Embracing the Future with Wire Arc Additive Manufacturing (WAAM)	Sanjeevikumar S <i>PSG College of Technology, Coimbatore</i>

4.	202410201	Studies on Wire Arc Additive Manufacturing of Stainless Steel-Inconel 625 Functionally Graded Material using Twin Filler wire Gas Tungsten Arc	Koteswararao S R <i>Sri Sivasubramaniya Nadar College of Engineering, Chennai</i>
5.	202410204	Methodological Analysis into the Mechanical and Microstructural Attributes of Functionally Graded Inconel 825-SS304L Manufactured Using Wire Arc Additive Manufacturing	George Jojo Parokkaran <i>Federal Institute of Science and Technology, Kerala</i>

### 30.05.2024: SESSION 3 – COMPOSITE MATERIALS – PONNAVAI HALL

Dr. K. Kalaichelvan, Professor, AC Tech Campus, Anna University, Chennai

&

Dr. V. Arumugam, Professor, MIT Campus, Anna University, Chennai

Sl. No	RIPE ID	Title	Presenting Author
1.	202410069	Dimensional stability of r-glass/epoxy laminate: insights & aerospace implications	Mariselvam P <i>University College of Engineering Villupuram, Villupuram</i>
2.	202410073	Exploring the Tribological Characteristics of Arc-Deposited Nitride Coatings in lubricating condition	Sankar G <i>Adhi College of Engineering &amp; Technology, Kanchipuram</i>
3.	202410174	Mechanical characterization of cordia dichotoma gurke seed filler with jute reinforced bio filler based polymer materials	Dineshkumar E <i>Madras Institute of Technology, Chennai</i>
4.	202410230	Experimental Investigations of Aluminium Metal Matrix Composites	Karthik S <i>Excel Engineering College, Komarapalayam</i>
5.	202410250	Experimental Investigation on PVC Foam Core Sandwich Composite Material with Filler Al(OH <sub>3</sub> ) Using VARTM Method	Jagan J <i>Puducherry Technological University, Puducherry</i>

### 30.05.2024: SESSION 4 – FUNCTIONAL MATERIALS – RAJAM HALL

Dr. Balamurugan J, Professor, Korea Advanced Institute of Science and Technology, South Korea

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Dr. M. Arivanandhan, Professor, AC Tech Campus, Anna University, Chennai

Sl. No	RIPE ID	Title	Presenting Author
1.	202410095	Evaluation of Polypyrrole Coating Doped with TiN for Aluminium Alloy- Based Bipolar Plates in Enhanced PEMFC Performance	Poorna Chandra Rao B <i>Madras Institute of Technology Campus, Chennai</i>
2.	202410103	Zinc oxide nanoparticles synthesized from Ocimum sanctum Linn. For antimicrobial soap	Keerthiga S <i>K.S.Rangasamy College of Technology, Tiruchengode</i>
3.	202410122	Effect of iron fillers to improve Thermal Energy Storage by Epoxy polymer composites	Parthasarathy S <i>Bharath Institute of Higher Education and Research, Chennai</i>
4.	202410162	Mechanical and microwave absorption properties of exfoliated graphite and manganese ferrite nanoparticles on polyvinylidene fluoride thin films	Thamil Amudhu L B

			<i>Sri Sivasubramaniya Nadar College of Engineering, Chennai</i>
5.	202410217	Laser-induced forward transfer (LIFT) of copper nano paste: A study using continuous wave and nanosecond pulsed laser.	<i>Gunasekar N Indian institute of technology Hyderabad</i>
6.	202410236	Structural and TGA of ZnS thin films formed by chemical bath deposition	<i>Arunkumar V University College of Engineering Panruti, Panruti</i>
7.	202410248	Transforming Borassus Flabellifer Sepal Fibers Ash into High-Performance Crystalline Nano particle with innovative Chemical approach	<i>Valarmathi A K.S.Rangasamy College of Technology, Tiruchengode</i>
8.	202410096	Experimental Study of Polypyrrole Coating Doped with Chromium Nitride for Aluminium Alloy-Based Bipolar Plates in Proton Exchange Membrane Fuel Cell	<i>Poorna Chandra Rao B Madras Institute of Technology Campus, Chennai</i>

**30.05.2024: SESSION 5 – FORMING & WELDING – Prof. SRK SEMINAR HALL**

Dr. Sushanta Kumar Panigrahi, Professor, IIT Madras

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Dr. B. Arivazhagan, Scientist, IGCAR

<b>Sl. No</b>	<b>RIPE ID</b>	<b>Title</b>	<b>Presenting Author</b>
1.	202410066	Impact of Solution Treatment on the Microstructure, Tensile Strength and Hardness Characteristics of FS Welded Joints of AA6082 Hybrid Composites	<i>Umar Mohamed J Annamalai Polytechnic College, Chettinad</i>
2.	202410132	Multi Objective Optimisation of Metal Die Support Incremental Sheet Forming of SS 316L sheets using Taguchi Grey Relational Analysis	<i>Visagan A Madras Institute of Technology Campus, Chennai</i>
3.	202410175	Formability Studies on Single Point Incremental Forming of Hemispherical Shape Components: An Experimental and Finite Elemental Study	<i>Sriram S Madras Institute of Technology Campus, Chennai</i>
4.	202410208	Microstructure Pulse multi control (PMC) similar welded P91 joint	<i>Bhuvaneshwar Abhishek SRM Institute of Science and Technology, Kattankulathur</i>
5.	202410237	Silicon Carbide Nanoparticle-enabled strengthening of aluminum and copper dissimilar resistance spot welds	<i>Suresh S Erode Sengunthar Engineering College - Mechanical Engineering</i>
6.	202410243	Effect of Wire Feed Rate on Mechanical Properties of Inconel 718 hard faced layer on Medium Carbon Steel by Cold Metal Transfer	<i>Keerthivasan P St Xaviers Polytechnic College, Devakottai</i>
7.	202410247	Experimental and finite elemental analysis of single point incremental forming for customised implants	<i>Dhanu Malayan L R MIT Campus, Anna University, Chennai</i>
8.	202410251	Identification of Defect in Friction Stir Welding Processed Material Using Microwave Non-Destructive Evaluation and Image Processing	<i>Arunkumar A Sri Sivasubramaniya Nadar College of Engineering, Chennai</i>

9.	202410194	Mechanical and metallurgical characterization of dissimilar INCONEL 718-P92 joints using CMT welding	Chandrasekar R <i>SRM Institute of Science and Technology</i>
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<b>30.05.2024: SESSION 6 – MOBILE ROBOTS – PONNAVAI HALL</b> Dr. L Karunamoorthy, Former Registrar & Professor, Anna University, Chennai & Dr. G. Anitha, Professor, MIT Campus, Anna University, Chennai			
Sl. No	RIPE ID	Title	Presenting Author
1.	202410088	Automatic Wall Climbing Robot Integrated with Pest Cleaner	Vishwanathan V <i>Hindusthan college of engineering and technology</i>
2.	202410143	An Intelligent Vision and Voice-Enabled System for Detection, Guidance and Grasping of Object for Visually-Impaired Community	Sunandhaa V <i>Madras Institute of Technology Campus, Chennai</i>
3.	202410147	Design and development of 360° autonomous fire extinguisher robotic ground vehicle	Karan Cosam <i>Dhanalakshmi srinivasan College of Engineering and Technology</i>
4.	202410181	Innovative Design and Fabrication of 'Jal-bot' with Advanced Rocker Bogie Mechanism and Gyroscopic Principles	Jaithra K <i>Madras Institute of Technology Campus, Chennai</i>
5.	202410213	Exploring depths: An autonomous underwater robot for precise corrosion detection in submerged structures	Gowtham B <i>Sri Sai Ram Engineering College, Chennai</i>
6.	202410238	Multi Robot Navigation using Probabilistic Roadmap and Robot Visualisation	Varun Abileshwar S <i>Madras Institute of Technology Campus, Chennai</i>

<b>31.05.2024: SESSION 7 - MACHINING – RAJAM HALL</b> Dr. M. Kanthababu, Professor, CEG Campus, Anna University, Chennai & Dr. P Hariharan, Professor, CEG Campus, Anna University, Chennai			
Sl. No	RIPE ID	Title	Presenting Author
1.	202410108	Micro Grinding of BK7 Glass- An Experimental Study	Anbarasu K G <i>Indian Institute of Technology Madras</i>
2.	202410118	Weighted Optimization of parameters of drilling of graphene filled epoxy nanocomposite	Mahesh Prabhu S <i>Sri Venkateswara College of Engineering, Chennai</i>
3.	202410164	Machinability of PH steels with minimum quantity lubrication using Textured inserts	Surendhar K <i>Adhi College of Engineering &amp; Technology, Kanchipuram</i>

4.	202410184	Optimizing Electrochemical Micromachining (ECMM) of Beryllium Copper with Cryogenically Treated Electrodes with Genetic Algorithm Outfits	Santhosh Kumar G and Balaji G <i>Hindustan Institute of Technology and Science</i>
5.	202410192	Machine Learning Optimization in Hard Turning of AISI 4100 Steel with Cr <sub>2</sub> O <sub>3</sub> / ZrO <sub>2</sub> / Al <sub>2</sub> O <sub>3</sub> Coating in Cermet Tool Insert	Thiyaneesh Sakthi R <i>Ramco Institute of Technology</i>

### 31.05.2024: SESSION 8 – BIO MATERIALS APPLICATIONS – Prof. SRK SEMINAR HALL

Dr. V. Krishnaraj, Professor, PSG College of Technology, Coimbatore

&

Dr. A. Gnanavelbabu, Professor, CEG Campus, Anna University, Chennai

Sl. No	RIPE ID	Title	Presenting Author
1.	202410076	Experimental Investigation of Fill Pattern topology in Biomedical applications	Rohith Ram R <i>Sri Venkateswara College of Engineering, Chennai</i>
2.	202410100	GO/Ag Bionanocomposite - a rapid and safe detox formulation against cattle tick parasites	Varsha U Priyadharshini M <i>K.S.Rangasamy College of Technology, Tiruchengode</i>
3.	202410129	Influence of infill design in fabrication of 3D printed PLA parts using FDM	Jayaprakash R <i>Gojan School of Business and Technology, Chennai</i>
4.	202410130	Effect of Infill Pattern on Mechanical and Microstructural Properties of CFPLA	Sanjay R <i>Gojan School of Business and Technology, Chennai</i>
5.	202410165	Enhanced in-vitro MG-63 proliferation on elongated A-Ti phase of Ti6Al7Nb alloy for implant applications	G Maaneshwar <i>Easwari Engineering College, Chennai</i>
6.	202410249	Topology optimization of femur bone	Sudalai Vadivoo U <i>Madras Institute of Technology Campus, Chennai</i>
7.	202410252	A Designed experimental study to optimize MAO process parameters to attain minimum porosity, surface roughness and maximum hardness in TiO <sub>2</sub> coatings	Thamotharan J <i>Varuvan Vadivelan Institute of Technology, Dharmapuri.</i>

### 31.05.2024: SESSION 9 – INTELLIGENT SYSTEMS – PONNAVAI HALL

Dr P Varalakshmi, Professor, CEG Campus, Anna University, Chennai

&

Dr. P. Karthikeyan, Assistant Professor (Sr.Gr), MIT Campus, Anna University, Chennai

Sl. No	RIPE ID	Title	Presenting Author
1.	202410128	Region of Interest based estimation of Above Ground Biomass using Deep Learning models	Arumai Shiney S <i>S.A.Engineering College, Chennai</i>
2.	202410195	AI-Enabled Disease Detection and Treatment in Precision Agriculture	Balaji M <i>Anajalai Ammal Engineering College, Tiruvarur</i>
3.	202410205	Design and Fabrication of ACRAWL Robot – A Hybrid Flying Wheeled Robot for Dynamic Terrains and Versatile Applications	Mathen M

			<i>Madras Institute of Technology Campus, Chennai</i>
4.	202410211	Smart irrigation system using IoT'S	Nithishkumar V <i>Sri Sairam Engineering College, Chennai</i>
5.	202410224	6G-Based Smart Grid Networks for Charging and Discharging optimization strategy for electric vehicles using Multi-Fidelity Bayesian Optimization (MFBO)	Evangelin Jeba J <i>SRM Institute of Science and Technology</i>
6.	202410241	An analysis of ATV suspension systems	Sreeram Reji Madhavan <i>SRM Institute of Science and Technology</i>
7.	202410099	Artinger Synergizing Stomach Expansion for Seamless Prosthetic Control	Mohamed Kaif Z <i>Hindusthan College of Engineering &amp; Technology, Chennai</i>

<b>31.05.2024: SESSION 10 – DAMAGE TOLERANT SYSTEM – RAJAM HALL</b> Dr. N. Arunachalam, Professor, IIT Madras & Dr. B Mohan, Emeritus Professor, CEG Campus, Anna University, Chennai			
<b>Sl. No</b>	<b>RIPE ID</b>	<b>Title</b>	<b>Presenting Author</b>
1.	202410031	Endeavoring Sustainable Manufacturing Practices through effective Solid Waste Management	Sharan <i>Kumaraguru College of Technology, Coimbatore</i>
2.	202410123	Energy absorption and damage analysis of glass fibre reinforced polymer spherical core sandwich structures	Pandayaraj V <i>Sri Sai Ram Engineering College, Chennai</i>
3.	202410209	Digital Twin and Fault Prediction in Pneumatic Systems	Nandini D <i>Indian Institute of Technology Dharwad</i>
4.	202410214	Crash test analysis in frontal portion of a car	Bala Murugan R <i>Sri Sai Ram Engineering College, Chennai</i>
5.	202410246	Compression properties of 3D printed composite structures for crashworthiness applications	Prince Jeya Lal L <i>Rajalakshmi Institute of Technology, Chennai</i>

<b>31.05.2024: SESSION 11 – DESIGN AND ANALYSIS – Prof. SRK SEMINAR HALL</b> Dr. V. Anandakrishnan, Professor, NIT Trichy & Dr. M. Pradeep Kumar, Professor, CEG Campus, Anna University, Chennai			
<b>Sl. No</b>	<b>RIPE ID</b>	<b>Title</b>	<b>Presenting Author</b>
1.	202410064	Mamdani Fuzzy Inference Based Approach for predicting surface energy level in sustainable package printing PLA film	E Shanmugapriya <i>College of Engineering Guindy, Chennai</i>
2.	202410093	Effects of SiC on functional characteristics of PLA developed using fused filament fabrication technique	Franklin Sahayaraj M <i>Indian Institute of Information Technology Tiruchirappalli</i>
3.	202410218	Design Optimization & Analysis of Trestle in Ship Construction	Harish Raaj V P



			<i>College of Engineering Guindy, Chennai</i>
4.	202410219	Design & Optimization of Lubrication Pinion in a Wind Turbine	Archishmaan V <i>College of Engineering Guindy, Chennai</i>
5.	202410220	Design of Bucket Elevator System using Granular Flow Analysis	Archishmaan V <i>College of Engineering Guindy, Chennai</i>
6.	202410240	Optimizing Performance: The Role of Transmission Design in ATV Efficiency and Control	Heba Mariam Roji <i>SRM Institute of Science and Technology</i>
7.	202410253	Effect of Nano Fillers on Mechanical and Thermal Properties of Fiber Reinforced Polymer Composite Materials	Sharmilabai V <i>Bharath Institute of Higher Education and Research, Chennai</i>

<b>31.05.2024: SESSION 12 – AUTOMOTIVE SYSTEM – PONNAVAI HALL</b> Dr. K. Annamalai, Professor, MIT Campus, Anna University, Chennai & Dr. M.R. Swaminathan, Professor, CEG Campus, Anna University, Chennai			
<b>Sl. No</b>	<b>RIPE ID</b>	<b>Title</b>	<b>Presenting Author</b>
1.	202410084	Design and Fabrication of Oil spill removing in Sea Water	Prem Ajaykumar Sriarvindkrishnan <i>Sri Sairam Engineering College, Chennai</i>
2.	202410089	Designing and implementation of a Tire monitoring and maintenance system	Guhan S <i>University College of Engineering Kancheepuram</i>
3.	202410127	Biogas production from Scenedesmus acutus algal sludge by bio-flocculating it with L-arginine	Kotteeswaran S <i>PSN College of Engineering &amp; Technology, Dindigul</i>
4.	202410140	Experimental investigations on Cerium Oxide nanoparticles incorporated Diesel + Ethyl acetate alternative fuel	Mohana Jai Ganesh J <i>University College of Engineering, Tiruchirappalli</i>
5.	202410153	Condition Monitoring of Forced Draft Fan (FDF) in Coal-Based Thermal Power Generation System.	SHARIK N <i>B. S. Abdur Rahman Crescent Institute Of Science And Technology, Chennai</i>
6.	202410244	ATV evolution: Crafting a chassis for peak performance	Abbasi Farzan Syed <i>SRM, Chennai</i>