

# **Programme Schedule**



## **5<sup>th</sup> International Conference on**

**“Recent Advances in Mechanical Engineering Research and Development (ICRAMERD-24)”**

**Organized by  
Department of Mechanical Engineering,  
Institute of Technical Education and Research  
Siksha ‘O’ Anusandhan (Deemed to be) University  
Bhubaneswar, Odisha-751030**

**12<sup>th</sup> to 14<sup>th</sup> December 2024**

**Conference website: [www.icramerd.com](http://www.icramerd.com)**

**Inaugural Ceremony, 12<sup>th</sup> December, 2024**

**Venue: Bansuri guru Auditorium 1<sup>st</sup> floor**

**ITER, SOA DU, Bhubaneswar**




**Time: 3.00 PM to 4.00 PM**

**ICRAMERD-2024 SCHEDULE**




### Day 1, 12<sup>th</sup> December, 2024, Thursday

| Date  | Time (IST)<br>GMT + 5:30 | Programme  |
|---|--------------------------|--|
| Day 1, 12 <sup>th</sup><br>December 2024,<br>Thursday | 3.00 – 4.05<br>PM        | Inauguration Ceremony<br>Bansuri guru Auditorium 1st floor<br>ITER, SOA DU |
|   | 4.05-4.15 PM             | High Tea - Bansuri guru Auditorium-1 <sup>st</sup> Floor                   |
|   | 4:15-4:45 PM             | Technical Session – I (Bansuri guru Auditorium)                            |
|   | 4:45-5:30 PM             | Cultural Program   |

### Day 2, 13<sup>th</sup> December 2024, Friday

| Date  | Time (IST)<br>GMT + 5:30 | Programme   |  |
|---|--------------------------|---|--|
| Day 2, 13 <sup>th</sup> December 2024, Friday | 10:50-11:20 AM           | Speakers,<br>affiliation  | <br><b>Dr. Prabhas Chandra Beuria,</b><br>Chief Scientist<br>CSIR-Institute of Minerals & Materials<br>Technology, Bhubaneswar<br>Venue: Seminar Hall, Department of<br>Mechanical Engineering |
|   | 11:20-11:30 AM           | Tea Break-Seminar Hall, Department of Mechanical Engineering  |  |
|   | 11:30-01:00 PM           | Technical Session -II (TS-II)   |  |
|   | 01:00-02:00 PM           | Lunch Break- DMS-III (Central Workshop)   |  |
|   | 02.00 – 02.30 PM         | Speakers,<br>affiliation  | <br><b>Dr. Narsing Kumar Jha</b><br>Assistant Professor<br>Department of Applied Mechanics<br>Indian Institute of Technology Delhi<br>Online Presentation                                     |
|   | 02:30-04:00 PM           | Technical Session -III (TS-III)   |  |
|   | 04.00-04.15 PM           | Tea Break-Seminar Hall Department of Mechanical Engineering   |  |
| 04:15-04:45 PM                                | Speakers,<br>affiliation | <br><b>Prof. Jayadev Bala</b><br>Retd. Professor, Siksha O Anusandhan<br>Deemed to be University, Bhubaneswar<br>Topic: Generative AI for Mechanical<br>Engineering Research<br>Venue: Seminar Hall, Department of<br>Mechanical Engineering |  |

**Day 3, 14<sup>th</sup> December 2024, Saturday**

| Date  | Time (IST)<br>GMT + 5:30 | Programme   |   |   |
|---|--------------------------|---|---|---|
| Day 3, 14 <sup>th</sup> December 2024, Saturday | 10:15-10:45 AM           | Speakers, affiliation   |    | <p align="center"><b>Prof. (Dr.) Mohan Lal Kolhe</b><br/>Professor<br/>University of Agder, Norway<br/>Online Presentation</p>  |
|   | 10:50-11:20 AM           |   |    | <p align="center"><b>Dr. Bivas Panigrahi</b><br/>Assistant Professor<br/>National Chin-Yi University of Technology,<br/>Taiwan<br/>Online Presentation</p>  |
|   | 11:25-11:55 AM           |   |   | <p align="center"><b>Dr. Ranjit Shankarrao Patil</b><br/>Associate Professor<br/>Department of Mechanical Engineering,<br/>Birla Institute of Technology &amp; Science<br/>(BITS) Pilani - K K Birla Goa Campus, GOA,<br/>India<br/>Online Presentation</p> |
|   | 12.00-12.30 PM           |   |  | <p align="center"><b>Dr. Chanchal Loha</b><br/>Senior Principal Scientist<br/>Thermal, Energy Conversion<br/>CSIR-Central Mechanical Engineering<br/>Research Institute, Durgapur<br/>Online Presentation</p>   |
|   | 12:30-02:00 PM           | Technical Session-IV Online (TS-IV)                                 |   |   |
|   | 03:00-04:00 PM           | Valedictory Ceremony- Bansuri guru Auditorium 1 <sup>st</sup> Floor |   |   |

**Online link for all the keynote sessions:**

<https://meet.google.com/yai-utky-cna>

# Day 1, 12<sup>th</sup> December 2024, Thursday

## Technical Session (TS)

| TS-1                     |  |                         |   |
|--------------------------|--|-------------------------|---|
| Session Chair            | Dr. Santosh Parida                                   |                         |   |
| Session Coordinator      | Dr. Tapaswini Das (+91 7978231628)                   |                         |   |
| Venue:                   | 1 <sup>st</sup> Floor, Bansuri Guru Auditorium, ITER |                         |   |
| Time (IST)<br>GMT + 5:30 | Manuscript ID  | Presenting Authors Name | Paper Title   |
| 04.15 to 4.25 PM         | IC24O097   | SUBRAT KUMAR JENA       | Boundary Characteristics Orthogonal Polynomial for Vibration Analysis of Functionally Graded Porous Beam in Kerr Elastic Foundation Using Refined Higher-Order Shear Deformation Theory |
| 4.25 to 4.35 PM          | IC24D120   | AMLAN ADARSH            | Design and Development of Hexapod Spider Bot  |
| 4.35 to 4.45 PM          | IC24D046   | SHASHENDRA KUMAR SAHOO  | Nonlinear Analysis of Mathieu-Duffing Oscillator with Interacting Parametric and External Excitation  |

# Day 2, 13<sup>th</sup> December 2024, Friday

## Technical Session (TS)

Venue: Seminar Hall (B-201), Department of Mechanical Engineering

| TS-2(D)                  |   |                         |  |
|--------------------------|---|-------------------------|--|
| Session Chair            | Dr. Santosh Nayak                             |                         |  |
| Session Coordinator      | Dr. Seshadev Sahoo (+91 7504226308)           |                         |  |
| Venue                    | Seminar Hall, Dept. of Mechanical Engg., ITER |                         |  |
| Time (IST)<br>GMT + 5:30 | Manuscript ID                                 | Presenting Authors Name | Paper Title  |
| 11:30-11:45 AM           | IC24D035                                      | BULBUL BEHERA           | Prediction of Seat-off towards assistance for Sit-to-Stand movement by RBFN  |
| 11.45-12.00PM            | IC24D107                                      | DR. RAJESH KUMAR BEHERA | Numerical Analysis and Optimization Technique for Reducing Emissions of Coke Oven Gas in Coke Plant                  |
| 12.00-12.15PM            | IC24D085                                      | JAY KRUSHNA MOHANTY     | Vibration Analysis and MCSA: Effective Tools for Health Monitoring of HT Motors in an Alumina Plant                  |
| 12.15-12.30PM            | IC24D118                                      | MR MANABHANJAN PANDA    | Dynamic Stability of a Thermally Influenced Beam with Parabolic Thickness and Width Tapers on a Pasternak Foundation |
| 12.30-12.45PM            | IC24D042                                      | SANGITA SARANGI         | Life Enhancement in Hot Forging Dies adopting Finite Element Simulations and Failure Analysis Techniques             |
| 12.45-01.00PM            | IC24O071                                      | DR. SRIKANTA MOHAPATRA  | Load Frequency Control of an Interconnected Power System under load diversity and ELD                                |

# Day 2, 13<sup>th</sup> December 2024, Friday

## Technical Session (TS)

Venue: Department Library (B-114), Department of Mechanical Engineering

| TS-3(T)                  |   |                         |  |
|--------------------------|---|-------------------------|--|
| Session Chair            | Dr. Rabi Narayan Panda (9437841022)                 |                         |  |
| Session Coordinator      | Dr. Manojit Das (+91 8884584025)                    |                         |  |
| Venue                    | Department Library, Dept. of Mechanical Engg., ITER |                         |  |
| Time (IST)<br>GMT + 5:30 | Manuscript ID                                       | Presenting Authors Name | Paper Title  |
| 11:30-11:45 AM           | IC24O106  | SAMARJEET SATAPATHY     | Suppression of low frequency oscillation by optimal mechanical steam-turbine controller  |
| 11.45-12.00PM            | IC24T119  | CHANDAN KUMAR SETHI     | Experimental Evaluation of Ginger in a Solar Dryer Using MWCNT and CuO Nano Materials; Application of Machine Learning Method Using Python |
| 12.00-12.15PM            | IC24T089  | KISHAN DASH             | Development of Self-aspirated Porous Radiant Burner Operating on Biogas  |
| 12.15-12.30PM            | IC24T018  | KISHAN DASH             | Experimental and Performance Prediction of Porous Radiant Burner for Biohythane Using Machine Learning Algorithms                          |
| 12.30-12.45PM            | IC24O043  | REEMA NAYAK             | Solvo-thermally prepared BiOI spherical micro flowers for enhanced photocatalytic degradation of Rhodamine B                               |
| 12.45-01.00PM            | IC24T009  | SHUBHAMSHREE AVISHEK    | PERFORMANCE IMPROVEMENT OF FLAT HEAT PIPE USING STRAIGHT AND CONVEX VERTICAL WICK  |

# Day 2, 13<sup>th</sup> December 2024, Friday

## Technical Session (TS)

Venue: Seminar Hall (B-201), Department of Mechanical Engineering

| TS-4(P)                  |   |                         |  |
|--------------------------|---|-------------------------|--|
| Session Chair            | Dr. Prashant Kumar Pradhan                    |                         |  |
| Session Coordinator      | Dr. Sankar Narayan Das (+91 7008297816)       |                         |  |
| Venue                    | Seminar Hall, Dept. of Mechanical Engg., ITER |                         |  |
| Time (IST)<br>GMT + 5:30 | Manuscript ID                                 | Presenting Authors Name | Paper Title  |
| 02:30-02:45 AM           | IC24P096                                      | SUSHMITA DASH           | Flexural and Vibration Response Analysis of Cenosphere Filled Natural Fiber Hybrid Composites.                           |
| 02.45-03.00PM            | IC24PC113                                     | TEJAS KOCHER            | Characterization of Jute and Bamboo Fiber Reinforced Hybrid Composites   |
| 03.00-03.15PM            | IC24O21                                       | ANUBHAV NAIK            | Sequestration of Cr (VI) over ZnFe <sub>2</sub> O <sub>4</sub> nanoparticles: Insights from Kinetics and Isotherm Models |
| 03.15-03.30PM            | IC24T116                                      | ANUPAMA ROUSTRAY        | Effect on the rheological characteristics of fly ash water slurry due to addition of a suitable mixture of additives     |
| 03.30-03.45PM            | IC24T201                                      | SUVASHIS NATH           | Energy and Exergy Analysis of a Biomass Cooking Stove  |
| 03.45-04.00PM            | IC24T135                                      | SHIVRAJ MOHAPATRA       | Plasma pyrolysis   |
| 04.00-04.15 PM           | IC24O134                                      | ANURAG GIRI             | An overview of airbags in two wheelers   |

# Day 2, 13<sup>th</sup> December 2024, Friday

## Technical Session (TS)

Venue: Department Library (B-114), Department of Mechanical Engineering

| TS-5(O)                  |   |                         |   |
|--------------------------|---|-------------------------|---|
| Session Chair            | Dr. Srikant Mahapatra                               |                         |   |
| Session Coordinator      | Dr. Sangita Sarangi (+91 7978423214)                |                         |   |
| Venue                    | Department Library, Dept. of Mechanical Engg., ITER |                         |   |
| Time (IST)<br>GMT + 5:30 | Manuscript ID                                       | Presenting Authors Name | Paper Title   |
| 02:30-02:45 AM           | IC24O036  | GIRIJA SANKAR PANIGRAHI | Micro Insulin Dispenser (MID) System based on Aquila Optimization (AO) Technique  |
| 02.45-03.00PM            | IC24O037  | ANUJA NANDA             | Stabilisation of Inverted Pendulum System (IPS) based on Backstepping Control Approach                                      |
| 03.00-03.15PM            | IC24O048  | ALOK KUMAR MISHRA       | PQ Improvement with PSO Fuzzy PID based SHAF  |
| 03.15-03.30PM            | IC24O049  | ALOK KUMAR MISHRA       | GWO FOPID Controlled Cuk and SEPIC Converter based PFR  |
| 03.30-03.45PM            | IC24O075  | GIRIJA SANKAR PANIGRAHI | Arithmetic Optimization-based PID Controller Design for a Vehicle Suspension System   |
| 03.45-04.00PM            | IC24O103  | SAMARJEET SATAPATHY     | Multi-machine hydro turbine governor controller for small signal stability enhancement of renewable penetrated power system |



# Day 3, 14<sup>th</sup> December 2024, Saturday

## Technical Session (TS) (ONLINE)

| TS-6(D)                  |   |                            |   |
|--------------------------|---|----------------------------|---|
| Session Chair            | Dr. B.K. Nanda  |                            |   |
| Session Coordinator      | Dr. Subhrajit Beura (+91 9861805100)  |                            |   |
| Link                     | <a href="https://meet.google.com/vkt-axat-xda">https://meet.google.com/vkt-axat-xda</a> |                            |   |
| Time (IST)<br>GMT + 5:30 | Manuscript ID   | Presenting Authors Name    | Paper Title   |
| 12:30-12:45 PM           | IC24D028  | SHASHENDRA KUMAR SAHOO     | Non Linear Responses of Pipe Transporting Fluid with External Harmonic Excitation   |
| 12.45-1.00PM             | IC24D032  | PRITISHA BARIK             | Polypropylene(PP) /Rice Starch Film for Packaging Application   |
| 1.00-1.15PM              | IC24O100  | ANKIT SAMAL                | Compressive Characterization of Different Chemical Treated Banana Leave Fiber for Potential Reinforcement in Polymer Composites |
| 1.15-1.30PM              | IC24D052  | TANU SINGH ,<br>AYUSH SONI | Analysis of G+6 Flat in Zone 4 by using ETABS Software  |
| 1.30-1.45PM              | IC24D072  | AYUSHMAN JENA              | Bezier Curve Optimisation Using Genetic Algorithm for Bell Shape Nozzle Contour Design.   |
| 1.45-2.00PM              | IC24D109  | DR. PULAKESH CHETIA        | Determination of dynamic characteristics of a Rotating Kink Cantilever Tapered Shape Flexible Robotic Link                      |

# Day 3, 14<sup>th</sup> December 2024, Saturday

## Technical Session (TS) (ONLINE)

| TS-7(T)                  |   |                             |  |
|--------------------------|---|-----------------------------|--|
| Session Chair            | Dr. Rajesh Kumar Behera   |                             |  |
| Session Coordinator      | Mrs. Rajeswari Chaini (+91 7205696699)  |                             |  |
| Link                     | <a href="https://meet.google.com/fry-bcmh-hcd">meet.google.com/fry-bcmh-hcd</a> |                             |  |
| Time (IST)<br>GMT + 5:30 | Manuscript ID   | Presenting Authors Name     | Paper Title  |
| 12:30-12:45 PM           | IC24T026  | ASISH SARANGI               | Comparative Analysis of Nanofluid Thermohydraulic Performance in Three-Fluid Helical Coil Heat Exchangers  |
| 12.45-1.00PM             | IC24T027  | ABHISEK SARANGI             | Enhancing Solar Cooker Efficiency: Comparative Analysis of Selective Coatings on Performance   |
| 1.00-1.15PM              | IC24T117  | BABITA SINGH                | Optimization of performance parameters of a CI engine using biodiesel-diesel blend   |
| 1.15-1.30PM              | IC24T062  | SANJAYA KUMAR MISHRA        | Thermodynamic analysis of a low heat rejection compression ignition engine in dual fuel mode using biogas with diethyle ether as a fuel additive |
| 1.30-1.45PM              | IC24T079  | KARTHIK SILAIPILLAYARPUTHUR | Optimum pipe size selection for various fluids and flow rates  |
| 1.45-2.00PM              | IC24P112  | SATYABRATA BARIK            | Multi-Criteria Decision-Making of EDM Parameters for Incoloy 800HT Alloy with Morphological Study  |

# Day 3, 14th December 2024, Saturday

## Technical Session (TS) (ONLINE)

| TS-8(P)                  |   |                            |  |
|--------------------------|---|----------------------------|--|
| Session Chair            | Dr. Ankur Soam  |                            |  |
| Session Coordinator      | Dr. Premananda Pradhan (+91 7008726144)   |                            |  |
| Link                     | <a href="http://meet.google.com/mzu-zmwc-kmo">http://meet.google.com/mzu-zmwc-kmo</a> |                            |  |
| Time (IST)<br>GMT + 5:30 | Manuscript ID   | Presenting Authors Name    | Paper Title  |
| 12:30-12:45 PM           | IC24P066  | SUPRIYA SAHU               | Trajectory Planning of Aristo Robot using Robomaster Simulation and Particle Swarm Optimization  |
| 12.45-1.00PM             | IC24P067  | DR. SMITA PADHAN           | Statistical Investigation of Power Consumption in Dry Turning of Stir-Cast Al7075-SiC-Gr Metal Matrix Composites                                       |
| 1.00-1.15PM              | IC24P076  | TITAS NATH                 | Investigation and Ranking of the Solutions to Barriers in Solar Power Projects in India  |
| 1.15-1.30PM              | IC24P077  | SHANTA CHAKRABARTY         | Comparative Analysis of Flow Stress Distribution in CM247LC Superalloy During Hot Deformation: A Study Using Gleeble 3800 GTC and Q-Form 3D Simulation |
| 1.30-1.45PM              | IC24P108  | DR. SMITIRUPA PRADHAN      | Natural Fiber Reinforced Composite Materials for Asbestos Free Brake Pads: A review  |
| 1.45-2.00PM              | IC24P095  | DR. BIRAJENDU PRASAD SAMAL | Fuzzy Logic Implementation for Evaluating the Impact of Tensile Strength on Al-Mg Alloy Using Modified Stir Casting Technique                          |

# Day 3, 14th December 2024, Saturday

## Technical Session (TS) (ONLINE)

| TS-9(O)                  |   |  |   |
|--------------------------|---|--|---|
| Session Chair            | Dr. Debasmita Mishra  |  |   |
| Session Coordinator      | Dr. Pragyan Patnaik (+91 8249049110)  |  |   |
| Link                     | <a href="https://meet.google.com/psc-cdfi-cfz">https://meet.google.com/psc-cdfi-cfz</a> |  |   |
| Time (IST)<br>GMT + 5:30 | Manuscript ID   | Presenting Authors Name                      | Paper Title   |
| 12:30-12:45 PM           | IC24O003  | 1. PVS SUBHASHINI<br>2. PRASANNA LAXMI KONAM | An Experimental study of Carbon onions to improve Tribological Characteristics of SAE15W40 Lubricating Engine Oil             |
| 12.45-1.00PM             | IC24O040  | CH. NAGA SAI KALYAN                          | 3DOFPID Controller for the Stability of Multi Area Realistic Hydro Thermal Power System with the HVDC Line                    |
| 1.00-1.15PM              | IC24O041  | CH. NAGA SAI KALYAN                          | Coordinated Strategy of BES and SSSC for the Improvement in Load Frequency Control of the Power System under FOPID Controller |
| 1.15-1.30PM              | IC24O045  | SAMAPIKA SAMADARSANI<br>KARAN                | Bearing capacity Prediction of Micropile<br>Developing Multi Variable Regression Model  |
| 1.30-1.45PM              | IC24O050  | MR. ANANT KUMAR                              | Assessment of Mechanical Properties of Sustainable Concrete using Waste Tyre  |
| 1.45-2.00PM              | IC24O053  | DISHA SAHU,<br>SAHIL KUMAR RATRE             | To investigate the mechanical characteristics of Geo-polymer concrete using fly ash & slag                                    |

# Day 3, 14th December 2024, Saturday

## Technical Session (TS) (ONLINE)

| TS-10(O)                 |   |                                    |  |
|--------------------------|---|------------------------------------|--|
| Session Chair            | Dr. Prabhat Ranjan Pati   |                                    |  |
| Session Coordinator      | Dr. Ajay Kumar Behera (+91 8917442278)  |                                    |  |
| Link                     | <a href="https://meet.google.com/sfq-yozh-mhv">meet.google.com/sfq-yozh-mhv</a> |                                    |  |
| Time (IST)<br>GMT + 5:30 | Manuscript ID   | Presenting Authors Name            | Paper Title  |
| 12:30-12:45 PM           | IC24O054  | V V S NARAYANA YIRRINKI            | A Low-Cost Approach for Power Generation Improvement of Solar PV Arrays during Non-Uniform Irradiances |
| 12.45-1.00PM             | IC24O055  | MR. ANANT KUMAR                    | Development Of Sustainable Concrete Using Ceramic Waste and Industrial Waste                           |
| 1.00-1.15PM              | IC24O056  | KUSUMA GOTTAPU                     | Detection of Wind Turbine False Alarms with Machine Learning Techniques                                |
| 1.15-1.30PM              | IC24O059  | SANJIVANI JAIN                     | Integration Of Iron Ore and Fly Ash for Stabilization of Soft Soil                                     |
| 1.30-1.45PM              | IC24O060  | DHAWAL SAHU, MEENAKSHI VISHWAKARMA | Mechanical Properties of Concrete Having Rice Husk Ash as Substitute of Cement                         |
| 1.45-2.00PM              | IC24O061  | ASHWIN J NAIR                      | Comparative study of fly ash concrete, silicon magnesium slag concrete, and normal concrete            |

# Day 3, 14th December 2024, Saturday

## Technical Session (TS) (ONLINE)

| TS-11(O)                 |   |                         |   |
|--------------------------|---|-------------------------|---|
| Session Chair            | Dr. Akshya Kumar Verma  |                         |   |
| Session Coordinator      | Dr. Tanmayee Khuntia (+91 9437672050)   |                         |   |
| Link                     | <a href="https://meet.google.com/kuq-etyy-fic">https://meet.google.com/kuq-etyy-fic</a> |                         |   |
| Time (IST)<br>GMT + 5:30 | Manuscript ID   | Presenting Authors Name | Paper Title   |
| 12:30-12:45 PM           | IC24O063  | AJAY YADAV              | Integration Of Additives for Stabilisation of Flyash Based Soil In Subgrade   |
| 12.45-1.00PM             | IC24O064  | DEVENDRA SAHU           | Experimental Investigation of Plastic material as partial replacement of cement in concrete   |
| 1.00-1.15PM              | IC24O065  | SUBHAM MISHRA           | Characterisation and Evaluation of Mortar Properties with Copper slag and Steel slag  |
| 1.15-1.30PM              | IC24O068  | CH. NAGA SAI KALYAN     | Demonstrating the Impact of Power System Realistic Constraints on the Performance of Load Frequency Control                                 |
| 1.30-1.45PM              | IC24O073  | RUPESH SAHU             | Stabilization Of Black Cotton Soil Using Fly Ash & Lime   |
| 1.45-2.00PM              | IC24O081  | LIMALI SAHOO            | Evaluation of Dielectric and Conductivity Behavior in $(\text{Sn}_{0.9}\text{Ti}_{0.1})\text{O}_2$ Ceramic Composite for Electronic Devices |

# Day 3, 14th December 2024, Saturday

## Technical Session (TS) (ONLINE)

| TS-12(O)                 |   |   |  |
|--------------------------|---|---|--|
| Session Chair            | Dr. Priyadarshi Tapas Ranjan Swain  |   |  |
| Session Coordinator      | Dr. Sikata Samantaray (+91 9692719910)  |   |  |
| Link                     | <a href="https://meet.google.com/qmr-pgyw-yqp">https://meet.google.com/qmr-pgyw-yqp</a> |   |  |
| Time (IST)<br>GMT + 5:30 | Manuscript ID   | Presenting Authors Name                               | Paper Title  |
| 12:30-12:45 PM           | IC24O083  | ADITYA FARENDRA,<br>CHANDRAKUMAR SAHU,<br>TARUN YADAV | Impact of Mechanical Property of Concrete having Waste Marble as Sustainable Material  |
| 12.45-1.00PM             | IC24O084  | DIGVIJAYSINH CHAUHAN                                  | Exploring Structural and optical characteristics of lead zinc niobate (PZN) modified bismuth ferrite   |
| 1.00-1.15PM              | IC24O090  | LIPSA RAY   | Synthesis, characterization and antibacterial activity of CeO <sub>2</sub> nanoparticles derived from Spilanthes acmella leaf extract: Effect of calcination temperature |
| 1.15-1.30PM              | IC24O094  | LAXMI SASIKUMAR                                       | Enhancing Crop Yield Prediction Using a Cascaded LSTM-RF Model: A Robust Approach for Agricultural Planning  |
| 1.30-1.45PM              | IC24O092  | CH. NAGA SAI KALYAN                                   | Evaluating GRC Models for Effective Load Frequency Control in Multi-Area Thermal Systems   |
| 1.45-2.00PM              | IC24D087  | SASANKA KAKATI  | Impact performance of hybrid GLARE having Kevlar layers under multiple low-velocity impacts  |

# Day 3, 14th December 2024, Saturday

## Technical Session (TS) (ONLINE)

| TS-13(O)                 |   |                         |  |
|--------------------------|---|-------------------------|--|
| Session Chair            | Dr. Subhrajit Ray   |                         |  |
| Session Coordinator      | Dr. Sankar Narayan Das (+91 7008297816)   |                         |  |
| Link                     | <a href="https://meet.google.com/vfh-bico-opn">https://meet.google.com/vfh-bico-opn</a> |                         |  |
| Time (IST)<br>GMT + 5:30 | Manuscript ID   | Presenting Authors Name | Paper Title  |
| 12:30-12:45 PM           | IC24D086  | SANTI BEHERA            | Assessment of Crack Conditions in Concrete Gravity Dams: A Comprehensive Mapping Study Using RCD-WD and USBM-4S    |
| 12.45-1.00PM             | IC24O121  | SUBHANGI KALINGANI      | Exploring Structural and Dielectric Insights in 0.1ZnWO <sub>4</sub> -0.9TiO <sub>2</sub> for Advanced Electronics |
| 1.00-1.15PM              | IC24D014  | VIVEK KUMAR VERMA       | Shear Failure Analysis of Multi-Bolted Joints of Hanger Bracket: A Numerical and Theoretical Approach              |
| 1.15-1.30PM              | IC24P102  | Dr SAURABH DEWANGAN     | The properties of Ti-6Al-4V alloy in post-quenched conditions  |
| 1.30-1.45PM              | IC24T013  | VIVEK KUMAR VERMA       | The failure of bolted/riveted joints for industrial application: Review  |
| 1.45-2.00PM              | IC24P105  | DEBASMITA MISHRA        | CHARACTERIZATION OF TEXTILE WASTE/GLASS FIBRE HYBRID COMPOSITE MATERIAL FOR INDUSTRIAL USE                         |

# Day 3, 14th December 2024, Saturday



**Technical Session (TS) (ONLINE)**

| <b>TS-14(O)</b>                  |   |                                |  |
|----------------------------------|---|--------------------------------|--|
| <b>Session Chair</b>             | Dr. Jibitesh Panda  |                                |  |
| <b>Session Coordinator</b>       | Dr. Sasmeeta Tripathy (+91 7008564515)  |                                |  |
| <b>Link</b>                      | <a href="https://meet.google.com/ccq-smvy-ryg">https://meet.google.com/ccq-smvy-ryg</a> |                                |  |
| <b>Time (IST)<br/>GMT + 5:30</b> | <b>Manuscript ID</b>  | <b>Presenting Authors Name</b> | <b>Paper Title</b>   |
| 12:30-12:45 PM                   | IC24P093  | SHUBHASHREE MOHAPATRA          | Co-relating cutting force, tool wear and chip thickness of centrifugally cast tool with HSS M2 tool                            |
| 12.45-1.00PM                     | IC24O069  | MOHAMMAD JAHIDUL ALAM          | Green and Stabilized Nanogold in Eucheuma Seaweed for Reactive Azo catalysis   |
| 1.00-1.15PM                      | IC24O124  | SASMITA MOHAPATRA              | “Knowledge, Attitude, Practice for Smart Phone Disposal.” A Study in Odisha.   |
| 1.15-1.30PM                      | IC24D129  | RAKESH MULIK                   | Enhanced Energy Management in Full Parallel Hybrid Electric Vehicles: An Integrated Testing and Mathematical Modeling Approach |
| 1.30-1.45PM                      | IC24P123  | T RAVITEJA                     | Effect of Zn interface during Electric Discharge Machining of AZ91D/Al7075 FGMs Fabricated through Gravity Casting Dear Author |
| 1.45-2.00PM                      | IC24P122  | T RAVITEJA                     | A Study on Electric Discharge Machining of Al7075/AZ91D With and Without Interfacing Foil                                      |
| 2.00-2.15 PM                     | IC24P111  | PRAJAPATI NAIK                 | Study of Dry Sliding Wear Behaviour of Bio-char Reinforced Composite under Different Constraints                               |

**Day 3, 14th December 2024, Saturday**

## Technical Session (TS) (ONLINE)

| TS-15(O)                 |   |                         |  |
|--------------------------|---|-------------------------|--|
| Session Chair            | Dr. Swayam Bikash Mishra  |                         |  |
| Session Coordinator      | Dr. Manojit Das (+91 8884584025)  |                         |  |
| Link                     | <a href="https://meet.google.com/egr-ikve-gof">https://meet.google.com/egr-ikve-gof</a> |                         |  |
| Time (IST)<br>GMT + 5:30 | Manuscript ID   | Presenting Authors Name | Paper Title  |
| 12:30-12:45 PM           | IC24D024  | BHAKTI SUDHA NAYAK      | 3D printing of a molar tooth and force analysis using Ansys  |
| 12.45-1.00PM             | IC24P128  | SAMBEET KUMAR SAHU      | Impact of Dry Friction Stir Processing on Microstructure, Micro-hardness and Tensile Characteristics of Mg-Al-Zn Alloy                       |
| 1.00-1.15PM              | IC24P127  | DR. SOUMYAJIT DAS       | Synergizing Experimental and Numerical Approaches to Enhance Mechanical Strength in Friction Stir-Welded Industrial-Grade Aluminum Alloys    |
| 1.15-1.30PM              | IC24T202  | RITESH DASH             | Integrating High-Dimensional Quadratic Regression with Penalties Based Predictive Modeling for Hydro Power Plants Accurate Tariff Prediction |
| 1.30-1.45PM              | IC24T203  | RAJARAM MOHANTY         | Performance Evaluation of a Heat Exchanger in a Fluidized Bed Gasifier   |
| 1.45-2.00PM              | IC24O133  | BIBHUTI BHUSAN SAHOO    | Experimental exploration of NiFe <sub>2</sub> O <sub>4</sub> /rGO nanocomposite electrode material for supercapacitor applications           |

# Day 3, 14th December 2024, Saturday

## Technical Session (TS) (ONLINE)

| TS-16 (O)                |   |                         |   |
|--------------------------|---|-------------------------|---|
| Session Chair            | Dr. Ruby Mishra   |                         |   |
| Session Coordinator      | Dr. Debashis Dey (+91 7606987405)   |                         |   |
| Link                     | <a href="https://meet.google.com/pxq-wqpc-xst">meet.google.com/pxq-wqpc-xst</a> |                         |   |
| Time (IST)<br>GMT + 5:30 | Manuscript ID   | Presenting Authors Name | Paper Title   |
| 12:30-12:45 PM           | IC24P125  | SAMBIT SENAPATI         | Evaluation of M30 Grade Concrete's Performance by Using Sugarcane Bagasse Ash, Marble Powder, and Glass Fiber as Partial Replacement of Fine Aggregate              |
| 12.45-1.00PM             | IC24P126  | BIBHUTI BHUSAN SAHOO    | Parametric Investigation of Dry Turning of Ti6Al4V with Double Tempered Cryogenic Treated Cutting Inserts: A Novel Hybrid Taguchi-ARAS-Walrus Optimization approach |
| 1.00-1.15PM              | IC24T131  | AMAN KUMAR PANIGRAHY    | An experimental study towards synthesis, characterizing, and electrochemical measurement of Co3O4/rGO nanocomposite supercapacitor electrode                        |
| 1.15-1.30PM              | IC24P130  | BIBHUTI BHUSAN SAHOO    | Comparative Evaluation of Process Parameters of WEDM Machined AISI P20 Steel Using Taguchi-WASPAS and White Shark Optimization                                      |
| 1.30-1.45PM              | IC24T132  | IMINA UPASANA           | Developing and characterizing of microsphere-shaped-flower-like NiCo-LDHs/rGO nanocomposite for supercapacitor electrode: An experimental Study                     |
| 1.45-2.00PM              | IC24D114  | RUBY MISHRA             | Deep learning for automatic lesion segmentation of liver on CT-scan images  |