

Conference Schedule

International Conference on Future and Recent Advances in Mechanical Engineering
(FRAME-2024)
NIT Kurukshetra (15 -17 October, 2024)

Tuesday | October 15 | 2024 (Day-1)

| Time | Event Details | Mode |
|---|--|-------------|
| 09:00 - 10:00 | Registration and Collection of Conference Material | Senate Hall |
| 10:00 – 10:45 | Inaugural function (Video call link: https://meet.google.com/umi-jqst-pvg) | Senate Hall |
| 10:15 - 10:20 | Address by HOD and Conference Chairman Prof. Hari Singh, HOD (Mechanical Engineering) (Video call link: https://meet.google.com/umi-jqst-pvg) | Senate Hall |
| 10:20 - 10:30 | Address by Chief Guest (Prof. B V Ramana Reddy, Director NIT Kurukshetra) (Video call link: https://meet.google.com/umi-jqst-pvg) | Senate Hall |
| 10:45 – 11:20 | Keynote address 1 (Prof. R. K. Pandey, IIT Delhi) (Video call link: https://meet.google.com/umi-jqst-pvg) | Senate Hall |
| 11:20 – 12:00 | High Tea | Senate Hall |
| 12:00 – 12:45 | Keynote address 2 (Prof. Kuma, Ambo University, Ethiopia) (Video call link: https://meet.google.com/umi-jqst-pvg) | Senate Hall |
| 12:45 – 01:00 | Photo Session | Senate Hall |
| 01:00 – 02:00 | Working Lunch | Guest House |
| Technical Session-1 (Offline) Venue: Conference Room, Mechanical Engineering Department Session Chairs: 1) Prof. Gian Bhushan MED NIT Kurukshetra 2) Prof. Rajesh Kumar (D), MED NIT Kurukshetra (Video call link: https://meet.google.com/umi-jqst-pvg) | | |
| 02:00 - 02:20 | (Paper ID- 131) Prof. (Dr) Gurrala Srinivasa Rao- Indian Naval Academy Ezhimala <i>Optimization of Afterburner for Suitable V-Gutter Based on Computational Analysis</i> | Offline |
| 02:20 - 02:40 | (Paper ID- 119) Dr. Basil Kuriachen - NIT Calicut <i>Experimental Investigation and Surface Morphological Analysis of Micro-EDM Drilled Holes in Ti-6Al-4V</i> | Offline |

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| | | |
|---|--|---------|
| 02:40 - 03:00 | (Paper ID- 152) Ajay Sharma- Gautam Buddha University <i>A Review on the Recent Developments in Rolling Bearings for Improvement of Tribodynamic Performance</i> | Offline |
| 03:00 - 03:20 | (Paper ID- 97) Vikram Kumar- MB College of Engineering and Technology <i>Numerical Analysis of Sloshing Induced Bouncing and Pitching Motions in A Tank-Truck During Braking Conditions</i> | Offline |
| 03:20 - 03:40 | Tea Break (Venue: Conference Room) | |
| Technical Session-2 (Offline) Venue: Conference Room, Mechanical Engineering Department Session Chairs: 1) Prof. Rajneesh, MED NIT Kurukshetra 2) Prof. Srinivasa Rao Gurralla, INA, Ezhimela, Kerala 3) Prof. Vikas Kumar (D), MED NIT Kurukshetra (Video call link: https://meet.google.com/umi-ijst-pvg) | | |
| 03:40 - 04:00 | (Paper ID- 153) Dr. Pavan Kumar- IIT Bombay <i>Exploring Pre-Strain Effects from Marciniak Test on Miniature Forming Limit Diagram of Interstitial-Free High Strength Steel</i> | Offline |
| 04:00 - 04:20 | (Paper ID- 33) Shagun Smith- PEC Chandigarh <i>An Exploration of Financial Challenges in Adoption of Circular Supply Chain Operations in Indian Manufacturing Sector</i> | Offline |
| 04:20 - 04:40 | (Paper ID- 62) Sanjay Sitaram Sharma- Indus University <i>Comparative Analysis of Tensile Strength and its surface topography for different printing temperatures for ABS and PETG filaments in Fused Filament Fabrication</i> | Online |

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Wednesday | October 16 | 2024 (Day-2)

Technical Session-1 (Online)

Venue: Conference Room, Mechanical Engineering Department

(Video call link: <https://meet.google.com/umi-ijst-pvg>)

Session Chairs: 1) Prof. Gopal Krishan, WelTec, New Zealand
2) Prof. Lalit Thakur, MED NIT Kurukshetra
3) Prof. Rajesh Kumar (T), MED NIT Kurukshetra

| Time | Event Details | Mode |
|---|--|---------|
| 09:00 - 09:20 | (Paper ID- 36) Nivedita Pandey- Coer university, Roorkee (U.K) <i>Review of Nucleate Pool Boiling Enhancement by Surface Modification.</i> | Offline |
| 09:20 – 09:40 | (Paper ID- 162) Kamakshi Sharma- NIT Kurukshetra <i>Through-thickness microstructural characterization of DEDED built-up of Titanium Gr-II material</i> | Offline |
| 09:40 - 10:00 | (Paper ID- 74) Dr Sikta Panda- Indian Institute of Technology, ISM Dhanbad <i>Experimental investigation of dry turning of high carbon steel (AISI 1561) and process optimization using statistical approach</i> | Online |
| 10:00 – 10:20 | (Paper ID- 37) Noor Zaman Khan- NIT Srinagar <i>Investigation on Microstructure and Mechanical Properties of Friction Stir Processed Rare Earth Magnesium Alloy</i> | Online |
| 10:20 – 10:40 | (Paper ID- 96) Ravikant Sharma- Amity University Haryana <i>Comparative Finite Element Investigation for different Bio-compatible Prosthesis Models under Patient Specific Loadings</i> | Online |
| 10:40 – 11:00 | (Paper ID- 58) Devang A Patel- GTU, Ahmedabad <i>An Investigation of Springback, Thickness Distribution, and Sheet Thinning in Incremental Sheet Metal Forming Process for Aluminum Alloy AA8011</i> | Online |
| 11:00 – 11:20 | High Tea (Venue: Conference Room) | |
| 11:20 – 11:50 | Keynote address 3 (Prof. R. K. Sehgal, NIT Hamirpur) (Video call link: https://meet.google.com/umi-ijst-pvg) | Online |
| Technical Session-2 (Online) | | |
| (Video call link: https://meet.google.com/umi-ijst-pvg) | | |
| Session Chairs: 1) Prof. N.R. Chauhan, IGDTUW, Delhi 2) Prof. Chandrashekhar M., MED NIT Kurukshetra 3) Prof. Sushil Kumar, CSE NIT Kurukshetra | | |
| 11:50 – 12:05 | (Paper ID- 95) Ketan Ganatra- Jadavpur University, Kolkata <i>Numerical Investigation of Impinging Jet using Hybrid Nanofluids</i> | Online |

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|--|---|--------|
| 12:05 – 12:20 | (Paper ID- 111) Tabasum Hafiz– Sri Sai College of Engineering & Technology Pathankot, Punjab <i>Evaluating the Performance and Optimization of Grid Connected Solar Photovoltaic using PVsyst and HOMER Software</i> | Online |
| 12:20 – 12:40 | (Paper ID- 69) Naganathan MR - SASTRA Deemed to be University <i>Influence of ring and straight stiffeners on metal-ceramic functionally graded shells under thermal environment</i> | Online |
| 12:40 – 01:00 | (Paper ID- 43) Nidhi Singh- Indira Gandhi Delhi Technical University for Women, Delhi <i>Impact of Drones on Various Industries</i> | Online |
| 01:00 – 01:20 | (Paper ID- 107) Shaikh Sohel. Mohd Khalil- Institute of Chemical Technology, Matunga, Mumbai <i>A comparative study investigates the effectiveness of steady and pulsed air jet impingement in industrial applications for improving heat transfer through varying local Nusselt profiles</i> | Online |
| 01:00 – 02:00 | Working Lunch (Venue: Guest House, NIT KKR) | |
| Technical Session-3 (Online) (Video call link: https://meet.google.com/umi-ijst-pvg) Session Chairs: 1) Prof. Satnam Singh, MED NIT Kurukshetra 2) Prof. Karamdeep Singh, ECE, NIT Kurukshetra 3) Prof. MPR Prasad, EED NIT Kurukshetra | | |
| 02:00 - 02:20 | (Paper ID- 42) Dr. Naser A. Alsealeh- Mohammad Ibn Saud Islamic University, Saudi Arabia <i>Improving External and Internal Dimensional Accuracy of Low-Cost 3D Printed Objects through Solid Model Tuning</i> | Online |
| 02:20 - 02:40 | Keynote address 4 (Prof. Jacqueline Bridge, University of West Indies) (Video call link: https://meet.google.com/umi-ijst-pvg) | Online |
| 02:40 - 03:00 | (Paper ID- 133) Vidyapati Kumar - Indian Institute of Technology Kharagpur <i>Development of a Robust Decision-Making Rule for Material Selection in Ankle-Foot Prosthetic Pylon Rods</i> | Online |

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|---|---|--------|
| 03:00 - 03:20 | (Paper ID- 142) Kunal Jangid – National Institute of Technology, Delhi <i>Role of Topology Optimization in Modern Engineering: Techniques, Benefits, and Challenges.</i> | Online |
| 03:20 – 03:40 | Tea Break (Venue: Conference Room) | |
| Technical Session-4 (Online) (Video call link: https://meet.google.com/umi-ijst-pvg) Session Chairs: 1) Prof. N K Singh, MED NIT Kurukshetra 2) Prof. Basant Singh Sikarwal, Amity University, Noida 3) Prof. Naveen Sharma, PTU Punjab | | |
| 03:40 - 04:00 | (Paper ID- 158) Dr Thejaraju R – CHRIST University, Bangalore <i>Thermal Performance Evaluation of Vertical slotted circular fins over turbulence flow regime in a heat sink</i> | Online |
| 04:00 - 04:20 | (Paper ID- 144) Savant Panwar – NIT Delhi <i>Advancing Hydrogen Technology: Pathways and Challenges in Transitioning from Fossil Fuels to Sustainable Energy Solutions</i> | Online |
| 04:20 - 04:40 | (Paper ID- 126) Raj Soni – NIT Delhi <i>Advancement and Challenges in Thermochemical Biomass Conversion: A Comprehensive Review</i> | Online |
| 04:40 - 05:00 | (Paper ID- 55) Romi Dhakad – Indian Institute of Technology Roorkee, Uttarakhand, India <i>Calibration of Hyperelastic Constitutive Model for Natural Rubber 63 Shore A using Finite Element Software</i> | Online |
| 05:00 - 05:20 | (Paper ID- 113) Ravi Kumar – Lovely Professional University <i>Investigations on Mechanical Properties of Secondary Recycled PLA Reinforced with Almond Skin Powder for Use in 3D Printing Applications</i> | Online |

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Thursday | October 17 | 2024 (Day-3)

Technical Session-1 (Online)

(Video call link: <https://meet.google.com/umi-ijst-pvg>)

Session Chairs: 1) Prof. Pankaj Sahlot, MED, NIT Kurukshetra
2) Prof. Ranjit Kumar, MED, NIT Kurukshetra
3) Prof. Ashok Devangan, NIT, Delhi

| Time | Event Details | Mode |
|---|--|--------|
| 09:00 - 09:20 | (Paper ID- 147) Riya Kharbanda - Shiv Nadar School <i>Advancing Maternal Health: Real-Time Sleep Position Monitoring for Pregnant Women</i> | Online |
| 09:20 – 09:40 | (Paper ID- 25) Venkata Ramarao Mutyala- National Institute of Technology Warangal <i>Influence of Porosity on the Dry Sliding Wear of Aluminium Syntactic Foams</i> | Online |
| 09:40 - 10:00 | (Paper ID- 109) Shubham Tiwari- Galgotias University <i>Solar panel assisted automobile with an angular fixture</i> | Online |
| 10:00 – 10:20 | (Paper ID- 128) Atul Kumar- NIT, Delhi <i>Optimization of Battery Thermal Management Systems Using Phase Change Materials: A Simulation-Based Analysis for Electric Vehicle Applications</i> | Online |
| 10:20 – 10:40 | High Tea (Venue: Conference Room) | |
| Technical Session-2 (Online) | | |
| (Video call link: https://meet.google.com/umi-ijst-pvg) | | |
| Session Chairs: 1) Prof. Chandrashekhar M., MED NIT Kurukshetra 2) Prof. Barun Haldar., IMSI University, Saudi Arabia 3) Dr. OM Prakash, Technical Education Department, Haryana | | |
| 10:40 – 11:00 | (Paper ID- 93) Ravi Kant Ravi- Dr B.R. Ambedkar National Institute of Technology, Jalandhar <i>Experimental study of heat and fluid flow characteristics of two pass solar air collector provided with double sided roughened absorber plate</i> | Online |
| 11:00 – 11:20 | (Paper ID- 106) Rashmi Sawant- IIITDM Jabalpur | Online |

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| | <i>Finite Element Analysis of Steel Circular Cored Sandwich Panels Exposed to Blast Loading</i> | |
| 11:20 – 11:40 | (Paper ID- 41) Sunil Kumar- IIT Roorkee <i>Finite Element Modelling of Rubber Isolators for Shock Isolation in Laptop HDDs</i> | Online |
| 11:40 – 12:00 | (Paper ID- 122) Chetan Kumar- National Institute of Technology Karnataka, Surathkal <i>The Experimental Analysis of Heat Transfer Characteristics of a Hot Surface Impinged by a Lateral Air Jet</i> | Online |
| 12:00 – 12:20 | (Paper ID- 13) Mr. Vijay Baban Jadhav - MATS University, Raipur <i>Optimize production defects in the hot forging process with the initial rolling operation.</i> | Online |
| 12:20 – 12:40 | (Paper ID- 143) Gaurav Singh – NIT Delhi <i>Thermal Analysis and Optimization in Wire Arc Additive Manufacturing of Low Carbon Steel: A Comprehensive Review</i> | Online |
| 12:40 – 01:00 | (Paper ID- 30) Drashti Jansari – Pandit Deendayal Energy University, Gandhinagar <i>Design And Optimisation of Obround Pressure Vessel Nozzle</i> | Online |
| 01:00 – 02:00 | Working Lunch | Guest House |
| Technical Session-3 (Online) (Video call link: https://meet.google.com/umi-ijst-pvg) Session Chairs: 1) Prof. Vishal Wankhede, IIM Bodhgaya 2) Prof. Dinesh W Rathod, MED NIT Kurukshetra 3) Prof. Ravi Pratap Singh, MED NIT Kurukshetra | | |
| 02:00 – 02:15 | (Paper ID- 31) Darshan Bhatt – Pandit Deendayal Energy University, Gandhinagar <i>Response Surface Methodology in Additive Manufacturing : A Systematic Review</i> | Online |
| 02:15 – 02:30 | (Paper ID- 46) Barun Haldar – College of Engineering, Imam Mohammad Ibn Saud Islamic University, KSA <i>3D Printing in Cost-Effective Rapid Casting</i> | Online |

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|--|---|--------|
| 02:30 – 03:00 | (Paper ID- 32) Ritu Rani – PEC Chandigarh <i>Impact of Digital Disruption: Transforming Supply Chain for the Future</i> | Online |
| 03:00 – 03:15 | (Paper ID- 120) Vibhuti Rehalia – Sri Sai College of Engg & Tech Pathankot, Punjab <i>Speed Control of DC Motor Using PID Controller, Ant Colony Optimization and Artificial Neural Network</i> | Online |
| 03:15 – 03:30 | (Paper ID- 130) Manjit Dhull – UIET, KUK Kurukshetra <i>Adsorption Performance of Silica Gel Desiccant with Different Grain Shapes: A CFD Simulation</i> | Online |
| 03:30 – 03:45 | Tea Break (Venue: Conference Room) | |
| Technical Session-4 (Online) (Video call link: https://meet.google.com/umi-ijst-pvg) Session Chairs: 1) Prof. Rajeev Rathi, MED NIT Kurukshetra 2) Prof. Vikas Kumar, MED NIT Kurukshetra | | |
| 03:45 – 04:00 | (Paper ID- 35) Mohit Sharma –PEC, Chandigarh <i>Success Factors Filtration for Realizing the Sustainable Notions for Improving the Performance of Circular Supply Chain</i> | Online |
| 04:00 – 04:15 | (Paper ID- 63) Suneel Choudhary – NIT, Srinagar <i>Fatigue life behavior of Al 7075-T651 alloy: A comprehensive review</i> | Online |
| 04:15 – 04:30 | (Paper ID- 160) Aishwarya Sinha – IGDTUW, Delhi <i>Tribological Characteristics of Dental Crowns</i> | Online |
| 04:30 – 04:45 | (Paper ID- 161) Tarana – IGDTUW, Delhi <i>On Various Approaches for Improving Contact Lens Performance</i> | Online |
| 04:45 – 05:15 | Valedictory Function (Venue: Conference Room) | |

*For more information, Contact at

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