



Institute of Infrastructure, Technology,  
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(An Autonomous University Established by Government of Gujarat)

International Conference on



Space Society of Mechanical Engineers  
(SSME)  
Space Applications Centre, ISRO Ahmedabad

## Futuristic Advancements in Materials, Manufacturing and Thermal Sciences



(ICFAMMT 2022)

20<sup>th</sup> – 22<sup>nd</sup> January, 2022



Jointly organised by

*Department of Mechanical & Aero-Space Engineering, IITRAM Ahmedabad, Gujarat, India &  
Space Society of Mechanical Engineers (SSME), Space Applications Centre, ISRO, Ahmedabad*

### *Best Technical Session Award*

Session: Materials

Paper Title: Magnetic steady shear flow response of water and silicon oil-based magnetorheological fluid

Author(s) name: **Chandra Shekhar Maurya** and Chiranjit Sarkar



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### Best Technical Session Award

Session: Thermal & Fluid

Paper Title: Magnetic Devices for Improving (R134a) Refrigerant Properties

Author(s) name: **Aditya Alagatu**, Santosh Jaju, Ashish Raut, Shivam Katkar, Rahul Dakare, Sarthak Lautawar  
and Shantanu Darlinge



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### *Best Technical Session Award*

Session: Thermal & Fluid

Paper Title: Truncated Double Layer Micro-channel Heat Sink and Performance Improvement By Implicating Secondary Channel Combined with Appropriate Cavities and Ribs in Channel Flow

Author(s) name: **Dipak Debbarma**, Krishna Murari Pandey and Abhishek Paul



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### *Best Technical Session Award*

Session: Thermal & Fluid

Paper Title: Computational Analysis on the Flow Behaviour and Performance Evaluation of Single and Double  
Offset Butterfly Valves

Author(s) name: **Kushal Saxena**, Nivedita Bhadauria and Vivek Kumar Patel



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### Best Technical Session Award

Session: Manufacturing

Paper Title: Cryogenic Behavior of TIG Welded Ni-based Superalloy (IN617)

Author(s) name: **Paresh Mandal**, Akash Kurian Lalu, Amal Michael Saji and Manu M Jacob



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### *Best Technical Session Award*

Session: Thermal & Fluid

Paper Title: Spiral wound gasket in a typical liquid engine convergent -divergent nozzle

Author(s) name: Suman Sharma, Chitaranjan Pany and Suresh R



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### *Best Technical Session Award*

Session: Materials

Paper Title: Brush plating on Aluminum for High-reliable Use

Author(s) name: **Dr. Vaishali Umrania**, Vimal M Shah and Sharad Shukla



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### Best Technical Session Award

Session: Manufacturing

Title: A comparative study of the surfaces formed by WEDM and WEDT configurations based on image  
processing

Author(s) Name: **Biplab Kumar Roy**, Vishal Kumar and Amitava Mandal



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### Best Technical Session Award

Session: Materials

Paper Title: Development and characterization of low thermal conductivity material from reinforced Areca husk  
fibre composite

Author(s) name: **Chethan G**, Sunil K C and Yerol Narayana



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### *Best Technical Session Award*

Session: Manufacturing

Title: Surface roughness analysis in high speed turning of Ti-6Al-4V with coated carbide inserts using Vibration signals

Author(s) Name: **Grynal Dmello** and Srinivasa Pai P



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### *Best Technical Session Award*

Session: Design

Paper Title: Design and Numerical Investigation of bicycle freewheel mechanisms under combined loading

Author(s) name: **Mohammad Ahmed Basri** and Talvinder Singh



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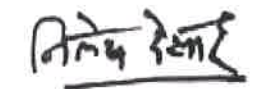
Session: Manufacturing

Paper Title: Laser Micro-Texturing of Silicon for Reduced Reflectivity

Author(s) name: **Sangeeth Purushothaman**, Shanmuka Srinivas M and Mamilla Ravi Sankar



  
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### *Best Technical Session Award*

Session: Design

Paper Title: Design of Differential Mounts and Rear Inboard Braking for an FSAE Vehicle

Author(s) name: **Shubhayu Das**, Pragma Gogoi, Mihir Agrawal, Rounak Deswal and Lokavarapu Bhaskara Rao



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### *Best Technical Session Award*

Session: Nanoscience & Others

Paper Title: An Integrated Approach of Gearbox Fault Diagnosis

Author(s) name: **Vikash Kumar**, Subrata Mukherjee and Somnath Sarangi



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Session: Design

Title: Comparative Study of the Modified Potential Field Algorithm for Obstacle Avoidance

Author(s) Name: **Zozimus Labana**, Jaasim Mulla, Rahul Jaiswal, Rajat Mondal, Ravindra Singh and Mehta

Tapan



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