



















SERB, AICTE, CSIR, IIIE Mumbai Chapter, Turnitin and Apex Subscription **Sponsored**

Sardar Patel International Conference

| | Track: Mechanical Engineering | | | |
|-----------|-------------------------------|--|---|--|
| | Session Schedule | | | |
| > Session | n Number | r: S9/5 – M1 | | |
| ➤ Date: 2 | 22/12/22 | | | |
| > Time: | | _ | | |
| | f Session | | | |
| | | ical Engineering | | |
| | | oom No. 114 | FD1.13 | |
| Sr. No. | Paper ID | Authors | Title | |
| 1 | 6243 | Ishani Prabhudesai and Nilesh Raykar | Banana Fiber Sandwich Panel as a Green Alternative to Synthetic Foams for Insulation in Transportation industry | |
| 2 | 2725 | Madan Narayanan, Shashank Phulmali and Suraj Swami | 3d Simulation Design Analysis and Testing of Cams to Obtain Optimum Pressure Angle and Minimum Radius of Curvature for Textile Application. | |
| 3 | 2785 | Jayram Gholave, Kiran Shelke, Sharad Valvi, Haseen Shaikh, Balwant Bhasme, Kiran Bhole, Rahul Chavhan, Vishal Dake, Snehjit Kumbhar and Pravinchandra Gaikawad | Ionic Liquid Mediated An effective synthesis of 2-Arylbenzothiazol | |
| 4 | 3517 | Sanket Chaudhari, Santosh Raneand Kiran Bhole | 'Digital Twin' Modelling for Monitoring Process Heater Design Performance | |
| 5 | 7731 | Bhavik Modi and Santosh Rane | Artificial Intelligence Technology: A Bibliometric Analysis and Future Research Direction for Manufacturing Industry | |















Review





SPICON 2022

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Sardar Patel International Conference

| | Track: Mechanical Engineering | | | | |
|-----------|-------------------------------|---|---|--|--|
| | | Session Schedule | | | |
| > Session | n Number | r: S8/4 – M2 | | | |
| Date: | 22/12/22 | | | | |
| > Time: | 2pm to 3 | pm | | | |
| > Type | | | | | |
| | | ical Engineering | | | |
| Venue | e / Link: R | oom No. 237/249 / https://meet.goo | ogle.com/ejj-xufh-yws?authuser=0 | | |
| Sr. No. | Paper ID | Authors | Title | | |
| 1 | 335 | Priyanka Pawar and Dr. Samir Kumbhar | Effect of phase transformation on shift in natural frequency of Epoxy- Shape Memory Alloy Composite Beam. | | |
| 2 | 388 | Bhooshan Kamble, Nilesh Raykar and Dattatray Jadhav | Design and Analysis of Hydrogen Storage Pressure Vessel | | |
| 3 | 585 | Nupur Avasare, Rutwik Bhangale and Vinit Joshi | Nanobots in Medical Field: A comprehensive review | | |
| 4 | 807 | Sushil Ingle and D. N. Raut | Hard Turning of Harder Metals (45HRC) at High-Speed using a single point cutting Tool – A | | |



















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| | Track: Mechanical Engineering | | | |
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| | | Session Schedule | | |
| > Session | n Numbe | r: S11/5 – M3 | | |
| Date: 2 | 22/12/22 | | | |
| > Time: | | | | |
| > Type o | | | | |
| | | nical Engineering | | |
| Venue | / Link: R | oom No. 114 | | |
| Sr. No. | Paper ID | Authors | Title | |
| 1 | 4382 | Ranjeeth kumar Singh and Balwant Bhasme | Effect of Change in Vapour Quality Of Ammonia on The Heat Transfer in Brazed Plate Heat Exchangers | |
| 2 | 4494 | Sainath Bidikar and Dr. Santosh B.Rane | Perspective of Lean Six Sigma and Industry 4.0 For Product Development | |
| 3 | 5376 | Abhijeet Digalwar, Manan Jain and Prasanna Tillu | A Comparative Review of Bevs And Hevs On the Technical, Economic, And Environmental Basis for Sustainable Mobility: Challenges and Prospects In India | |
| 4 | 5421 | Anuj Kumar Shrivastava, Dr. Santosh Dalvi, Shreyas Mohite, Nainesh Lad, Sudarshan More, Abhishek Maske and Tanay Shigavan | Mathematical Modelling and Analysis to Derive Optimum Brake Pressure for Hill Start Assist System in Commercial Vehicles | |
| 5 | 5899 | Tanishq Kale, Divyesh Jilka, AdityaThakkar and Parag Muley | Condition Monitoring- An Emerging Predictive Maintenance Technique in Continuous Process Plants | |



















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| Track: Mechanical Engineering | | | |
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| | | Session Schedule | |
| > Session | n Number | r: S10/5 – M4 | |
| Date: 2 | 22/12/22 | | |
| | 3pm to 4 | _ | |
| | | : Online | |
| | | ical Engineering | |
| Venue | / Link: R | oom No. 237/249 / https://meet.goo | ogle.com/ejj-xufh-yws?authuser=0 |
| Sr. No. | Paper ID | Authors | Title |
| 1 | 903 | Mrs. Priya Bramhwanshi, Sagar Dhotare and Chinmay Rohekar | Investigation of VRM to minimize Grinding Oil Leakage in Iron Ore Pellets Manufacturing Industry |
| 2 | 916 | Gayatri Abhyankar, Santosh Raneand Milind Kirkire | Revisiting Sustainable Supply Chain from Industry 4.0 Perspective |
| 3 | 1099 | Suresh Jadhav, Sharad Valvi, Kunal Patil, Haseen Shaikh, Jayram Gholave, Balwant Bhasme and Kiran Bhole | Prediction of Turbine Housing JointMechanical Loading |
| 4 | 1199 | Shreyas Kale, Kartik Shah, PallaviWar and Santosh Rane | Voice command based axially extending mechanism for Fan |
| 5 | 8231 | Rahul Dandage and Santosh Rane | Developing a framework for international project risk management- A Comparative study of various international standards |





















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| Track: Mechanical Engineering | | | | |
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| | Session Schedule | | | |
| > Session | n Number | r: S13/5 – M5 | | |
| > Date: 2 | 22/12/22 | | | |
| | | to 5:15pm | | |
| | | : Offline | | |
| | | ical Engineering | | |
| > Venue | | oom No. 114 | | |
| Sr. No. | Paper ID | Authors | Title | |
| 1 | 2227 | Sharad Valvi, Suresh Jadhav, Haseen Shaikh, Jayram Gholave, Kiran Bhole, Kiran Shelke, Balwant Bhasme, Rahul Chavhan, Vishal Dake and Snehjit Kumbhar | Design of Experimental Setup of Desalination of Seawater Using Fresnel Lens | |
| 2 | 7340 | Ayush Raina, Harshal Panchal, Ayush Kakani, Pavan Nayar and Anesh Raina | Implementation of Industry 4.0 in Indian SME's: A Conceptual Model | |
| 3 | 7779 | Swati Donde and Ram Subhash Maurya | Passive Cooling of Buildings- A Review of cooling Potential of an Earth Air Heat Exchanger in India | |
| 4 | 7811 | Allen Pinto | Design and scrutinize a trellis frame using different materials | |
| 5 | 8160 | Amit Patil, Vivek Sunnapwar, KiranBhole, Rohit Patel, Manas Bharambe and Sachin Shinde | Investigation of Open Pocket 3D Milling of Ti6Al4V by Grey Relational Approach | |



















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| | Track: Mechanical Engineering | | | |
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| | | Session Schedule | | |
| > Session | n Numbe | r: S12/5 – M6 | | |
| Date: 2 | | | | |
| | | to 5:15 pm | | |
| | f Session | | | |
| | | ical Engineering | 1 / " (1 0 1 0 | |
| | | oom No. 237/249 / https://meet.goo | | |
| Sr. No. | Paper ID | Authors | Title | |
| 1 | 1837 | Hemlata Karne, Aditi Gadre, Shreeja Gawande, Krutika Khetade, Pradnya Kolsundkar and Swarada Kulkarni | Artificial Flavours - A Review | |
| 2 | 1950 | Shreyas Khare, Mangesh Panchal, Parth Khamkar and Kiran Bhole | Study of the Effect of Infill Patterns:Static Failure, Cost and Build TimeAnalysis | |
| 3 | 2514 | Ajinkya Lale and Usha Pawar | Opportunities and challenges of Green manufacturing under Make inIndia PLI scheme | |
| 4 | 2692 | Bhaveshkumar Pasi, Pallavi Dongare and Suman Joshi | A Cost-Effective Smart Inventory Retrieval System: A Framework | |
| 5 | 2776 | Varsha Magar and Naveen KumarAgrawal | Spring back Analysis in V Bending Process Of Sheet Metal Through Finite Element Method. | |



















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| | Track: Mechanical Engineering | | | |
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| | | Session Schedule | • | |
| > Session | n Number | r: S15/5 – M7 | | |
| > Date: 2 | 22/12/22 | | | |
| | | o 6:15pm | | |
| | of Session | | | |
| | | ical Engineering | | |
| Venue | / Link: R | oom No. 114 | | |
| Sr. No. | Paper ID | Authors | Title | |
| 1 | 9815 | Shrikant Baste and Sudhakar Umale | Effect of Piston Geometry on Combustion Characteristics with and Without EGR when Fueled with Methyl Ester in VCR Engine | |
| 2 | 9573 | Sachin Sawant, Yadnesh Chhatre, Aadesh Chawla and Vedant Chaware | Simulation Study, Synthesis and Testing of Cell-Phone Protection Cover | |
| 3 | 9543 | Vivek Dahake and Usha Pawar | A systematic review on Industry 4.0 technologies inmanufacturing area | |
| 4 | 9885 | Shrikant Baste and Sudhakar Umale | Effects of Injection Pressure on Brake Thermal Efficiency and Specific Fuel Consumption when Fuel with Methyl Ester | |
| 5 | 9888 | Avdhoot Lendhe and Nilesh Raykar | Machine Learning Based Prediction of Fatigue Crack Growth Rate in Carbon Steel | |



















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| | Two also Machanical Engineering | | | |
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| | | Track: Mechanical Engi | | |
| | | Session Schedule | | |
| | | r: S14/5 – M8 | | |
| Date: 2 | | | | |
| | | to 6:15 pm | | |
| > Type o | | | | |
| | | ical Engineering | | |
| | | oom No. 237/249 / https://meet.goo | | |
| Sr. No. | Paper ID | Authors | Title | |
| 1 | 3010 | Suresh Jadhav, Sharad Valvi, Haseen Shaikh, Jayram Gholave, Kiran Bhole, Balwant Bhasme and Pirsab Attar | Design and Analysis of Thermal Magnetic Release for Moulded Case Circuit Breaker | |
| 2 | 3068 | Usha Pawar, Pravinkumar Dahiwadkar, Kiran Bhole andMansing Rathod | Numerical Simulation of Water Jet— Guided Laser Micro- Machining of Diamond | |
| 3 | 3186 | Manav Mepani, Tanish Mishra, Kshitika Gala and Kiran Bhole | Generalized Design Procedure for a Cooking Robot Arm | |
| 4 | 3608 | Prachi Sahu, Dhanashree Mehare, Isha Likhite, Vaibhav Ramesh, Harsh Habbu, Sagar Kadel and Sakshi Kolekar | Effective Utilisation of Simulation Tools in the design of an Unmanned Aerial Vehicle | |
| 5 | 9601 | Nupur Avasare, Rutwik Bhangale, Sagar Patel and Vinit Joshi | Perception System in an Autonomous Vehicle: A comprehensive review | |





















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| | Track: Mechanical Engineering | | | |
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| | | Session Schedule | | |
| > Session | n Number | r: S32/5 – M9 | | |
| Date: 2 | | | | |
| | 10 am to | | | |
| 7 1 | f Session | | | |
| | | ical Engineering (1) | 1 / '' (1 0 1 0 | |
| | | oom No. 237/249 / https://meet.goo | | |
| Sr. No. | Paper ID | Authors | Title | |
| 1 | 3937 | Swati Shinde, Pradeep Jadhav and Pradip Shinde | Design of Various Rotor Geometries for Twin Lobe Blower Using Parametric Equations | |
| 2 | 4046 | Abhijeet Digalwar and Sankalp Gawande | Modeling of Various Issues in Orange Supply Chain: An ISM Approach | |
| 3 | 4430 | Anil Magare and Usha Pawar | Cloud ERP Adoption by SMEs: A Systematic Review | |
| 4 | 4814 | Avdhoot Lendhe, Kiran Bhole, Nilesh Raykar and Bharatbhushan Kale | Machine Learning Approach to predict Viscous Fingering in Hele-Shaw cells | |
| 5 | 4851 | Pranjal Jejurkar and Dr. Yogesh Gupta | A Survey on Optimizing Energy Distribution At Charging Stations For Public Transport- Electric Vehicles (EVs) For Navi Mumbai City, Maharashtra, India | |



















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"Industry 4.0 - Nascent Technologies and Sustainability for 'Make in India' Initiative"

| | Track: Mechanical Engineering | | | |
|-----------|-------------------------------|---|--|--|
| | | Session Schedule | <u> </u> | |
| > Session | n Numbei | r: S33/5 – M10 | | |
| Date: 2 | 23/12/22 | | | |
| | | to 12.15 pm | | |
| V 1 | of Session | | | |
| | | ical Engineering (1) | | |
| | | oom No. 237/249 / https://meet.goo | | |
| Sr. No. | Paper ID | Authors | Title | |
| 1 | 5984 | Rupendra Nehete, Shivam Varade, Shubham Varade, Prayag Gorule and Aaris Saudagar | Floating Trash Collector 3D CADModel: Sustainable Solid Waste Management for Municipal Corporations | |
| 2 | 6306 | Ruchita Shrimali, Naveen Kumar Agarwal and Kamal Kumar Agarwal | Impact of Insulated Roof on Energy Consumption under Variable Indian Climatic Conditions: An Approach Toward Sustainable Buildings | |
| 3 | 6461 | Ranjit Patil, Santosh Rane and Samir Kumbhar | The transient vibration analysis of Shape Memory Alloy (SMA) reinforced composite | |
| 4 | 6511 | Kailash Bhosale | Material Flow Optimisation for Multistage, Multiproduct Parallel Lines by Real Coded Genetic Algorithm (RCGA) | |
| 5 | 6742 | Yash Kulkarni, Vinayak Chougule, Ankur Harge, Shantanu Kumbhar, Prachi Gadekar and Sagar Kadam | Battery Pack Design and Thermal Management System for Formula Student Electric Race Car | |



















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| Track: Mechanical Engineering | | | |
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| | | Session Schedule | |
| > Session | n Number | r: S34/6 – M11 | |
| Date: 2 | 23/12/22 | | |
| | | to 1.15 pm | |
| • • • | f Session | | |
| | | ical Engineering (1) | |
| > Venue | | oom No. 237/249 / https://meet.goo | ogle.com/ejj-xufh-yws?authuser=0 |
| Sr. No. | Paper ID | Authors | Title |
| 1 | 7063 | Devarpan Chakraborty, Ashish Pawar and Dr. Dinesh Kamble | Performance Evaluation of Electrolytes used in Electro Chemical Machining of titanium block using COMSOL Tool |
| 2 | 7196 | Megha Nagrale, Suhail Niyaz Sayed and Amit Nirmal | Comparison of Time Required for Solar PV Plant Cleaning with Robotic and Manual Technique |
| 3 | 7221 | Nayan Gadhari, Suyog Patil, Sharad Upadhyay, Viswanath Patil, Kiran Bhole, Suresh Jadhav and Jayram Gholave | Development and Validation of A Stability-Indicating Hplc-Uv Method For The Simultaneous Determination Of Erythromycin And Its Related Impurities in Bulk Drug Formulations |
| 4 | 7329 | Ajinkya Patil, S.V. Chaitanya and Sharad Patil | A Review on Recent Trends and Techniques in Heat and Mass Transfer of Metal Hydride Hydrogen Storage Reactor |
| 5 | 7772 | Vishal Kurle, Dattatray Jadhav and Nilesh Raykar | Tessellation and CFD Analysis of Radome |
| 6 | 6135 | Suresh Jadhav, Sharad Valvi, Haseen Shaikh, Jayram Gholave and Kiran Bhole | Analysis of Connecting rod using FEA. |



















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| | Track: Mechanical Engineering | | | |
|-----------|-------------------------------|--|---|--|
| | | Session Schedule | | |
| > Session | n Number | r: S35/5 - M12 | | |
| > Date: 2 | | | | |
| | 10 am to | | | |
| | of Session | | | |
| | | ical Engineering (2) | | |
| | | oom No. 234 / https://meet.google.c | - | |
| Sr. No. | Paper ID | Authors | Title | |
| 1 | 7810 | Parimal Bhambare, Sudhir Chitrapady Vishweshwara and Varghese Manappallil Joy | Technical analysis of Solar Scheffler concentrator for its energy availability, and the weather data conditions at Al Seeb Oman | |
| 2 | 7941 | Prakarsha Meshram, Sanchit Manhas, Jui Karmalkar and Nilesh Raykar | Design of Resilient Shock Absorber System | |
| 3 | 8851 | Sagar Joshi, Smit Mamaniya and Ruchit Shah | Integration of Intelligent Manufacturing in Smart Factories aspart of Industry 4.0- A Review | |
| 4 | 9237/ 249 | Usha Pawar and Bhushan Shinde | Optimization of Diesel Engine Calibration by Fuel Pump to Enhance the Engine Power | |
| 5 | 1518 | Jayram Gholave, Vitthal Shivankar, Nitin Mirgane, Kiran Bhole and Gurumeet Wadhawa | Synthesis of Benzimidazole Using Plant Assisted Zinc Sulphide By Green Approach | |





















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| Track: Mechanical Engineering | | | | | |
|--|-------------|--|--|--|--|
| Session Schedule | | | | | |
| ➤ Session Number: S36/4 – M13 | | | | | |
| ➤ Date: 23/12/22 | | | | | |
| > Time: 11.15 am to 12.15 pm | | | | | |
| > Type of Session: Online | | | | | |
| > Track: Mechanical Engineering (2) | | | | | |
| Venue / Link: Room No. 234 / https://meet.google.com/iaq-xwzw-amd?authuser=0 | | | | | |
| Sr. No. | Paper ID | Authors | Title | | |
| 1 | 0020 | Ankit D. Oza, Manoj Kumar, Mit C. Patel, B. Suresh Kumar, Ashish Goyal, Manisha Makwana | Present research trends in advanced machining process: A Review | | |
| 2 | 2566 | Rajendra Chaudhari, Subhash Mahajan and Santosh Rane. | Exploring the Challenges in Establishing Green Supply Chain in Manufacturing Industries Perspective of Industry 4.0 Technology: A Review | | |
| 3 | 6488 | Allen Pinto, Nishant Satghare and Vedang Chavan | Unmanned aerial vehicle for a Hilly Region | | |
| 4 | 8723 | Nandkumar Gilke and Dr. | Strengthen of Construction filler material Brick and it's Environmental Impact | | |



















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| Track: Mechanical Engineering | | | | | |
|--|-------------|---|---|--|--|
| Session Schedule | | | | | |
| ➤ Session Number: S37/5 – M14 | | | | | |
| ➤ Date: 23/12/22 | | | | | |
| > Time: 12.15 am to 1.15 pm | | | | | |
| > Type of Session: Online | | | | | |
| > Track: Mechanical Engineering (2) | | | | | |
| Venue / Link: Room No. 234 / https://meet.google.com/iaq-xwzw-amd?authuser=0 | | | | | |
| Sr. No. | Paper ID | Authors | Title | | |
| 1 | 3905 | Karthick Munuswamy and AnanthSai Shankar V | Property exploration and investigational analysis of eco- friendly refrigerant blend (HFO/HFC) as a drop-in replacement for HCFC in VCRS | | |
| 2 | 9609 | Megha Nagrale, Prasad Kanedkhedkar and Ashish Vajir | Numerical Analysis of Solar Floats Made of LDPE for Upwind Condition | | |
| 3 | 9813 | N Tamilarasan, R Sakthivel and K Balaji | Kinetic and Thermodynamic Analysis of Moringa oleifera Seed Cake pyrolysis using TG-DSC | | |
| 4 | 7816 | Jayaram Gholave, Vitthal Shivankar, Paresh Gaikar, Nitin Mirgane, Kiran Bhole and Gurumeet Wadhawa | Green Protocol for The Synthesis ofBenzimidazole Derivatives and Antiproliferative Activity | | |
| 5 | 9945 | Manisha Makwana Manisha, Ajay Patel, Ankit Oza and Ashish Goyal | Influence of Stone Wales and divacancy Defects on the Dynamic Behavior of Single Layer Graphene | | |