



Fourth International Conference on Advances in Materials Studies 2024

17-18 Dec 2024

In-person and Online Conference Schedule

Google Meet Links are sent through email. Contact us, if not received.

Date & Day: 17 Dec 2024, Tuesday		
Activity	Time (Indian Std. Time)	In-person / Online
Registration	09.00 am to 09.45 am	In-person
Breakfast	09.00 am to 09.45 am	In-person
Inauguration	10.00 am to 10.45 am	In-person and Online
Keynote 1	11.00 am to 11.45 am	In-person and Online
Networking	12.15 pm to 12.45 pm	In-person
Lunch	01.00 pm to 02.00 pm	In-person
Session F01	02.00 pm to 04.00 pm	In-person and Online
Session F02	02.00 pm to 04.00 pm	Online
Session F03	03.00 pm to 05.00 pm	

Date & Day: 18 Dec 2024, Wednesday		
Activity	Time (Indian Std. Time)	In-person / Online
Keynote 2	9.30 am to 10.15 am	Online
Keynote 3	11.00 am to 11.45 am	
Session S01	11.45 am to 01.45 pm	
Session S02	01.00 pm to 03.00 pm	
Session S03	03.00 pm to 05.00 pm	
Session S04	03.00 pm to 05.00 pm	

ICAMS 2024 / ICAEEE 2024: Keynote Speeches

Sr.	Speaker	Affiliation	Date and Time
1	Prof. Soteris Kalogirou	Department of Mechanical Engineering and Materials Sciences and Engineering of the Cyprus University of Technology, Limassol, Cyprus	17 Dec 2024, Tue 11.00 am to 11.45 am
2	Prof. David Wood	Professor of Renewable Energy (retired), University of Calgary, Canada	18 Dec 2024, Wed 9.30 am - 10.15 am
3	Prof. Veera Gnanaswar Gude	NiSource-Meyer Charitable Foundation Professor of Energy and The Environment Director, Purdue University Northwest Water Institute Professor, Civil & Environmental Engineering, Mechanical & Civil Engineering Department Purdue University Northwest, Indiana, USA	18 Dec 2024, Wed 10.15 am to 11.00 am

Important Guidelines for Authors

- ❖ All sessions will be initiated 10 minutes before scheduled time. All authors are requested to join at least 5 minutes before the start of the session.
- ❖ Authors are requested to attend the full session from the start. The internal session sequence may be subject to change in case of No Show Paper.
- ❖ **Non presented papers will not be considered for the further publication process.**
- ❖ The time allotted for each paper is 12 minutes (10 minutes for presentation and 2 minutes Q & A)
- ❖ Authors are free to select their PPT template. Please add Paper Title, Authors Names and Affiliations in the First slide. Use appropriate font color and size.
- ❖ You are kindly invited to attend the Conference Inauguration on 17 Dec 2024.
- ❖ The session can be attended by all authors. The answers during Q & A can be given by any author. Corresponding authors are requested to share the meeting links with co-authors.
- ❖ Please attend all keynote speeches, as they offer invaluable insights from experts and enhance your knowledge of cutting-edge developments and trends in the field.
- ❖ Please refer to the conference website for updates. www.icams.in
- ❖ Please add the paper ID, Authors, Title and Session during communication so that we can assist you quickly. Email: info.icams@gmail.com

ICAMS 2024: Paper Presentation Sessions

Session: F01 Day/Date: Tuesday, 17 Dec 2024 Time: 02.00 pm to 04.00 pm (IST) In-person and Online		
Paper ID	Authors	Paper Title
210	Pankaj K. Sharma, M. K. Samal, Ather Syed and J. Chattopadhyay	Identification of Anisotropic Mechanical Properties in Rolled Plates of Alloy 690 Material used in Nuclear Processing Plants
212	Kadam Kaveri Somnath and Vijay S Gadakh	Effect of Graphene Reinforcement on Microstructure and Mechanical Properties of Zn-Mg-Zr Composite
211	Anil B. Penurkar, Mahendra K. Samal, Ather Syed and J. Chattopadhyay	Assessment of the Strength Characteristics of Different Thickness of Float Glass Material Using Cylindrical Indentation
610	Swapnil Gund, Sandeep Thorat and Sachin Pawar	Balancing Sustainability and Safety: Flammability Properties of rPET Carpets in Automotive Applications
611	Supriya R. Tambe and Ravindra R. Navthar	Review on Chiral Structure and Application of Machine Learning Technique in Chiral Structure Analysis
704	Kanif Machindre Markad and Vivek Popat Patekar	Experimental Investigation of Modified Polymer Matrix Reinforced with Multiwalled Nanofillers
904	Dattatraya Karbhari Nannaware and Vijay S. Gadakh	Joining of Dissimilar Metals Using Friction Welding Process: A Review
901**	Umamaheswarrao P, Vijay Praveen D, Narendra Babu Y and Krugon S	Friction Stir Welding of AA1100-AA6082: Multi-objective Optimisation of Process Parameters Using MOORA Approach
902**	Suprim Sardar, Sutanu Misra, Partha Pratim Dey and Utpal Kumar Maity	Experimental Investigation on The Effects of Friction Stir Spot Welding Process Parameters for Dissimilar Al-Alloy/Cu-Alloy Using Taguchi Orthogonal Array
903**	Shardul S Bodhe, Sarvesh V Bongirwar, Digvijay S Bhingare, Shruti R Bawankar, Aditya Y Chafekar and Ganesh D Korwar	Parameter Optimisation for FDM Type Additive Manufacturing Using Desirability Approach

** Online Presentation

Paper ID	Authors	Paper Title
201	B Mohan Rao and Shiv Brat Singh	Alloy Design of Low Carbon Low Alloy Carbide-Free Bainitic Steel for Automotive Application
202	Priyeshiv Kumar Gurmaita, Rosang Pongen, Yogendra Kumar Verma and Shival Kumar Gurmaita	Effect of MoS ₂ Reinforcement on the Microstructural, Mechanical and Wear Properties of Al7075 Alloy
203	Ankur Sharma and Anish Upadhyaya	Microstructural and Mechanical Characteristics of Microwave Sintered ZrB ₂ -TiC Composites
205	Chandrika Yadav K and Abhilash Ravikumar	Electronic and Structural Properties of Ca:Zr Co-Doped Hexagonal BaTiO ₃
206	Abhay Gupta, Shashi K Das, Ayush Sagar and Krishna K Maurya	Health Assessment of Copper Plate using Sensor based Electro-Mechanical Impedance Technique
207	M Sudhakar, Samavedam Santhi, J Jhansi, PVSL Narayana and Bhomik K Deogade	Reduction of Oxygen Content for Water Atomized Iron Powder
208	Aman J. Shukla, Jit Mohan Das and Dibyendu Das	Study on Microstructure and Mechanical Properties of Cast-Mg-Zn-Ca Alloy During Single Pass Warm Rolling
209	Kanjarla Vijay and Rosang Pongen	Synergistic Strengthening of A713 Alloy with FeNb Reinforcement on Mechanical and Microstructural Characteristics
607	Mayank Sanjay Gupta, Yash Nitin Sharma, Hari Vasudevan and Vinayak H. Khatawate	Design and Optimization of Rear Suspension Geometry of an ATV

Paper ID	Authors	Paper Title
101	Gopal Nandan Tiwari, Satinder Paul Singh, and Devendra Kumar Dubey	Multiscale Studies for Estimation of Elastic Properties of B. Mori Silk Fibroin and Hydroxyapatite Composite
102	Biswabandita Samantara and Ganeswar Nath	Microwave absorption analysis based on surface condition of rGO/SBF/EPOX Composites
103	Swati K Dhamale, Sunilkumar S Honnungar, Lokeshwari Navalgund and Vijaykumar S Jatti	Comparative Study of Hydroxyapatite and Titanium Hydroxyapatite to Prepare Biomaterial for Orthopedic Implant
104	Divya Padmanabhan, Richa Agrawal and Gurminder Singh	A Review on Polycaprolactone (PCL) Based Composites Used In Biomedical Applications
105	Mohammadazar Nisar Bargir	Titanium Alloy Performance in Knee Arthroplasty: A Multi-Ortho Center Data Study
106	Prajakta Pritam Desai, Vivek V. Kulkarni and ShailendraV.Dhanal	Experimental Investigation of Surface Roughness and Morphological Analysis of Novel Biocomposite for 3D Printing Applications
701	Bhava A, U. Sandhya Shenoy and D. Krishna Bhat	Cuboctahedral Silver doped Barium Titanate for Enhanced Photocatalytic Degradation of Binary Mixture of Toxic Dyes
703	Pinky Saikia and Rajib Lochan Goswamee	Preparation of Mixed-Metal Oxide Based Structured Catalyst by Dip-coating of SiO ₂ @LDH Nanocomposite alcogel Synthesized by Sol-Gel Method
702	Uma P I, U. Sandhya Shenoy and D. Krishna Bhat	Microwave Assisted Calcination Approach: A Facile Route for the Synthesis of SrTiO ₃ Nanospheres for Dye Photodegradation

Paper ID	Authors	Paper Title
401	Ashokrao B. Patil, Poonam V. Bhoir, Akash N. Ghoti and Satish K. Pardeshi	Visible Light Solar Photocatalytic Hydrogen Production Over Dy@ZnO from Aqueous Methanol Solution
402	Angelin Abraham and M. Junaid Bushiri	Role of Structural Water in Hydrated WO ₃ .0.33H ₂ O Nanostructures
403	Shailendra Vilasrao Dhanal, Prajakta Pritam Desai and Tanaji Balwant Shinde	Shape Memory Alloys Advancements and Future Prospects: A Brief Review
404	Jennet R. Rabo, Takashi Tsuchiya, Kazuya Terabe and Rinlee Butch Cervera	Fabrication of Porous ScYSZ Films via PLD for Solid Oxide Electrochemical Cells Applications
405	Sakshi Pare and Geeta Paryani	Adsorption of Methylene Blue dye using Biochar Derived from Aegle Marmelos Impregnated with Various Acids
406	Thandar Zaw Win, Cho Win Aung and Gaurav Khandal Sabyasachi Ghosh	Wiedemann-Franz Law Violation Domain for Graphene and Nonrelativistic Systems
407	Vivek Kumar C, Suresh T, Harshada Reddy Kondapalli and Rajendra Prasath C	Development and Strength Characteristics of Recycled Aggregate Concrete Derived from Partial Replacement of Construction and Demolition Waste
408	Laksham Sanassee, Abdus Cadarsa	Recycled Glass Powder and Eggshell Powder as supplementary Cementitious Materials in Concrete for A Global Shift Towards Sustainable Production
501	Ojaswini Mohanta	Development of Sr Based Hard Ferrites Permanent Magnets Prepared by Microwave Assisted Combustion Method
502	Pragya Pandit, Khasim Saheb, Nelleswar Sahu and A. K. Singh	Giant Dielectric Permittivity and Ac Conduction of FexCr _{2-x} O ₃ (x=0.5, 0.7&1.5) ceramics

Paper ID	Authors	Paper Title
601	Sameen Mustafa, Elias Ganthaler, Thomas Villgrattner and Angelika Peer	Estimation of Crack-Lengths in Metal Powder Compacts using Machine Learning models
602	Darshit S. Rathod, Hari Vasudevan and Vinayak H. Khatawate	Optimization of a Lightweight Brake Master Cylinder for Formula Student Vehicle
603	Kumar Mukesh and Ankita Yadav	Synthesis and Characterizations of Boron Nitride for Gas Sensing
606	Vinayak H Khatawate, Hari Vasudevan, Krisha Vora, Bhavik Kapadia, Mann Dave and Prathamesh Desai	Torsional Rigidity of a FSAE Space Frame Chassis
605	Kalyani S. Kulkarni and Sanjay H. Sawant	Structural Analysis of Alloy steel for Automotive Chassis Applications
604	Gunjal Popat Nanasaheb and Vijay Kumar Pandey	Evaluating the Impact of Mango Kernel Biodiesel on the Performance Characteristics of Single Cylinder Diesel Engines
608	Rahul Ramesh Joshi, Sanjay Hari Sawant, Sonali Patil and Ajit Ashok Katkar	Investigation of Combined Gear Bearing Fault in Bevel Gear Box Using Artificial Neural Network
609	Dipak Arun Khanore, Kiran Anil Khanore, Tapobrata Dey and Atul B. Patil	Design and Development of a Fixture for Bush Removal and Fitment in the Upper Wishbone Assembly
612	Harsh Joglekar, Divya Asija, R. K. Viral	Fabrication of Universal Socket Driver on Various Threaded Fasteners

Paper ID	Authors	Paper Title
301	Rajat Kumar, Hiralal Bhowmick and Bikramjit Sharma	Challenges and Advances in Cold Weather Applications of Ice-Phobic Polymer Coatings
302	S. Prashanth, Rosang Pongen, Abhishek Kumar and Yogendra Kumar Verma	Mechanical Behavior of Bamboo Fiber Reinforced Hybrid Epoxy Composites Enhanced with TiO ₂ filler
303	Nand Mohan Jha, Amit Kumar Singh, Amrit Puzari and Yogendra Kumar Verma	Effect of Vacuum Bagging on The Mechanical Properties of Surface Modified Banana Fibre Reinforced Hybrid Polymer Composite
304	Shinde Amit Shivaji and Vijay Kumar Pandey	Acoustic Performance of Bagasse-Based Natural Fiber Materials for Sustainable Sound Absorption Applications
305	Bhagwat Kiran Somnath and Pramod Kumar Faujdar	Influence of Fiber Length on Tensile Properties of LLDPE-Banana Fiber Composites: Optimizing Strength, Modulus, and Ductility
801	Abhishek Kumar, Rosang Pongen, S. Prashanth and Yogendra Kumar Verma	Wear Parameters Evaluation of Stir-Cast A356 Aluminum Alloy Reinforced with Bamboo Stem Ash Particulates
802	Madjid Meriem Benziane and Bilal Fettah	Enhancing Safety in Bearing Systems Through Lubricating Grease Additives
803	Megha V. Sabnis, Deepak S. Pawar, Milind Mhaske and P. D. Kabudke	Experimental Evaluation of the Tribological Properties of Coconut Oil for the Application of Engine Lubricant with Different Additives
804	Vikas Kumar	Performance and Applications of Solid Lubricants in Modern Industries: A Review

Paper ID	Authors	Paper Title
204	Nilesh B Landge, Amit M Adhaye and Laxman B Abhang	Advanced Reinforcements In Hybrid Aluminium Metal Matrix Composites - For Industrial and Automotive Applications
306	Rajkumar Wagmare, Rahul Harshe, Jaising Pednekar, T Umashankar Patro	Tow level infusion study and effect of compaction pressured on unidirectional carbon fiber-reinforced epoxy composites prepared by additive manufacturing
805	Rajendra E. Kalhapure, Gaurav Kumar Gugliani, Ravindra R. Navthar, Prashant N. Nagare	Surface Roughness Improvement of Bearing Steel SAE 52100 on Magnetic Abrasive Finishing Process Set up using Aluminium Oxide Abrasive - an Experimental Approach
806	Laxman B Abhang, Shubham Kadaskar	Effect of Load and Temperature on the Tribological Properties of Hybrid Polymer Composites in Reciprocating Conditions
807	Bharat Namdev Kharad, Rajendrakumar Giridharilal Tated, Jayant Hemchandra Bhangale	Optimizing Performance: A Comprehensive Review of Tilting Pad Journal Bearings
905	Yogesh R. Gunjal, Vijay S. Gadakh, V. J. Badheka, Mrinal Sahu	Effect of FSW Process Parameters and Interlayers on Dissimilar Al-Steel Joining
906	Narayan S. Khemnar, Vijay S. Gadakh, V. J. Badheka, Mrinal Sahu	Effect of process parameters on dissimilar Al-steel Joining using Friction Stir Scribe Technique
808	Gorad Sagar Ramchndra, Satish Babu Boppana, S. G. Mukunda	Corrosion Studies of Al ₂₂₁₉ -Si ₃ N ₄ Composites Fabricated through Squeeze Casting
409	Chakali Sowmya and Tummala Srinivas	Water Absorption Capacity and Sorptivity of Geopolymer Concrete made with Manufacturing sand and Polypropylene Plastic Waste