



# ICCMEH-2024

## International Conference on Computational Methods in Engineering and Health Sciences

December 16-17, 2024

Jointly organized by



### Program Schedule

**Day-1: 16<sup>th</sup> December 2024**  
**Inauguration and Keynote sessions** **Venue: Library Auditorium**

8:00 – 8:45 AM	<b>Registration</b>	
8:45 – 9:00 AM	<b>Welcome</b>	
9:00 – 9:30 AM	Keynote Address-1 <b>Mr. Dave Daines</b> Director & Past Chair of Board, Asset Management Council, Australia <b>Chair: Dr. Raghuvir Pai</b>	<b>Topic:</b> People Do Asset Management
9:30 – 10:00 AM	Keynote Address -2 <b>Dr. Suresh Sampath</b> Head of Gas Turbine Systems Engineering and Operations Group, Centre for Propulsion and Thermal Power Engineering, Cranfield University, UK <b>Chair: Dr. Satish Shenoy B</b>	<b>Topic:</b> Gas Turbine Engine Fault Diagnostics using Digital Twin and Artificial Intelligence
10:00 – 11:00 AM	<b>Inauguration</b>	
11:00 – 11:30 AM	<b>Tea Break</b>	
	<b>Keynote Address</b>	
11:30 AM – 12:00 NOON	Keynote Address - 3 <b>Suman Gowda N.C</b> Application Manager - Additive Phillips Machine Tools India Pvt Ltd. <b>Chair: Prof. Dayanand Pai</b>	<b>Topic:</b> Advances in Composites manufacturing and Medical grade materials through Additive (3D Printing)
12:00 NOON – 12.30 PM	Keynote Address - 4 <b>Dr. Ramesh Subramaniam</b> Professor, Department of Physics, Faculty of Science, Universiti Malaya, Kuala Lumpur, Malaysia <b>Chair: Prof. Suresh Sampath</b>	<b>Topic:</b> Cutting-Edge Materials in Energy Storage and Clean Energy Technologies.
12:30 – 1:00 PM	Keynote Address - 5 <b>Dr. Lung-Jieh Yang</b> Counselor and Director, Science and Technology Division, Taipei Economic and Cultural Center (TECC), New Delhi, India <b>Chair: Prof. Masaaki Tamagawa</b>	<b>Topic:</b> Scaling laws on flapping wings and Indo-Taiwan research opportunities



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1:00 – 2:00 PM	<b>Lunch break</b>	<b>Venue: KEF Auditorium</b>
<b>Parallel Technical Sessions</b>		
2.00 – 4.30 PM	<b>Parallel Technical Sessions:</b> <b>Day-1, Session-1, Track 1: Health Sciences</b> <b>Chair Persons:</b> <b>Dr. Abhilash Pai &amp; Dr. Navya Hegde</b>	<b>Venue:</b> <b>Academic Block -2, Hall No 03</b>
<b>Paper Code</b>	<b>Title</b>	
2	Ashadeepa A and Ravi Kumar V. Progressive Development of AI-Enhanced Models for Lung Cancer Stage Classification	
7	Animita Das, Sawan Shetty and Chethan Kn. Impact of Electrospinning Technology on Advancing Biomedical Applications: Challenges and Future Directions	
43	Vineeth N, Gowrava Shenoy B, Shah Mohammad Abdul Khader, Raghuvir Pai B, Ravindra Prabhu U and Masaaki Tamagawa. Study of Haemodynamics In Human Renal Artery Branch Using CFD	
<b>TEA BREAK</b>		
18	Nishant Nikam, Dr. Chethan K N, Dr. Satish Shenoy B and Dr. Laxmikant G Keni. Evaluating Circular and Rectangular Stem Designs for Total Hip Arthroplasty Using FEA	
45	Jammi Moksha Tej and Majji Venkata Satya Sai Roshan. NephroVision: A Hybrid CNN Approach integrating with Max pooling and Segmentation to enhance kidney stone detection.	
2.00 – 4.30 PM	<b>Parallel Technical Sessions:</b> <b>Day-1, Session-1, Track 2: Machine Learning</b> <b>Chair Persons:</b> <b>Dr. Muralikrishna S.N. &amp; Dr. Kishor B.</b>	<b>Venue:</b> <b>Academic Block -2, Hall No 04</b>
<b>Paper Code</b>	<b>Title</b>	
20	Harish Bhat N, Satish Shenoy B, Shashi Kumar, Dattathreya Gujjar and D V Manjunatha. Adaptive Reactive Position Control of Quadcopters	
48	Utkarsh Bhalwankar and Narendra Deore. Modeling Unknown Dynamics Using Scientific Machine Learning	
14	Md Imran Alam, Haneef Khan, Mohammad Rafeek Khan, Sarfaraz Ahmed Wahaj, Malik Zaib Alam and Salman Agha Haider. Data-Driven Diabetes Diagnosis: Comparing Supervised Learning Models for Early Detection	
<b>TEA BREAK</b>		
39	Uma Jothi and Arunasree PV. Enhancing the Performance of Proof of Work Consensus Mechanism for Sustainable Blockchain-A Systematic Review	
50	Suhan K and Dolfred Vijay Fernandes. Effect of cathode shape on the performance of an Electrohydrodynamic pump with plate and rod electrodes	
6:30 PM	Travel to Beach by Bus	<b>Academic Block – 1 (Pick-up Location)</b>



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<b>7:00 PM Onwards</b>	<b>Conference Dinner</b> MAHE Beach House, Kadike, Malpe	
<b>Day-2: 17<sup>th</sup> December 2024</b>		
<b>8:30 - 9:15 AM</b>	<b>Welcome</b>	
<b>9.15 – 10.00 AM</b>	<b>POSTER PRESENTATIONS</b> <b>Day-2, Session-1</b> <b>Chair Persons:</b> <b>Dr. Shah Md. Abdul Khadar &amp; Dr. Chandrakant</b> <b>Kini</b>	<b>Venue:</b> <b>Academic</b> <b>Block-2, Sir</b> <b>MV Seminar</b> <b>Hall</b>
PO-1	Kandarp Narendra Talati, Conceptualizing data science applications for one health research toolkit for food safety in raw and processed milk	
PO-2	Divya D Shetty, Next generation thermal management for sustainable electric vehicle battery performance	
PO-3	Deepak Adiga, Hydrogen price, supply and demand: A system dynamics perspective on market evolution	
<b>10.00 AM–12.30 PM</b>	<b>Parallel Technical Sessions:</b> <b>Day-2, Session-1, Track 1: Health Sciences</b> <b>Chair Persons:</b> <b>Dr. Ramesh Subramaniam &amp; Dr. Anoop Kanjirakat Baby</b>	<b>Venue:</b> <b>Academic</b> <b>Block-2, Sir</b> <b>MV Seminar</b> <b>Hall</b>
<b>Paper Code</b>	<b>Title</b>	
17	Yoshiki Yanagita, Abhilash H.N., S.M. Abdul Khader, Prakashini K, V.R.K. Rao, Ganesh Kamath S., Raghuvir Pai and Masaaki Tamagawa. Effect of Various Geometrical Properties of Carotid Artery on the Flow by Computational Fluid Dynamics ( <b>ONLINE PRESENTATION</b> )	
36	Rintaro Obana and Masaaki Tamagawa. Effects of Neutrophil's Pseudopods Generation on the Propulsion Mechanism ( <b>ONLINE PRESENTATION</b> )	
54	Shahistha Parveen Dasnadi, Satish Shenoy B, Rohan Mascarenhas and Kamath Apoorva Shrinivasa. Three- Dimensional Finite Element Analysis of force and stress associated with Mid Facial Skeletal Expander ( <b>ONLINE PRESENTATION</b> )	
30	Izzat Najmi Mohd Yaacob, Nureen Adrieanna, Kamarul Arifin Ahmad, Osmera Ismail, Norafizah Salleh, Suraya Shahedi, Fikri Rasih and Norkhairunnisa Mazlan. Performance analysis of KNO <sub>3</sub> /SB based solid rocket propellant incorporation of graphene and sulphur as burn rate modifier using RSM approach. ( <b>ONLINE PRESENTATION</b> )	



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10.00 AM–12.30 PM	<b>Parallel Technical Sessions: Day-2, Session-1, Track 2: Materials Chair Persons: Suman Gowda N.C. &amp; Dr. Laxmikant G. Kini</b>	<b>Venue: Academic Block -2, Hall No 03</b>
Paper Code	Title	
19	Abhijit Kudva, Mahesha G T and Dayananda Pai. Effect of alkali treatment on the properties of Bamboo fibers	
21	Kallesh V D, Suhas Y Nayak and Chandrakant R Kini. Review of UV Radiation effects on composite materials	
35	Rohit Nandakumar Shenoy, Suhas Yeshwant Nayak, Chandrakant R Kini and B Satish Shenoy. A Review on Post-Processing using Annealing of Material Extruded ABS Polymer for Improved Mechanical Properties	
<b>TEA BREAK</b>		
38	Mirza Faizaan, Satish B. Shenoy, Chandrakant R. Kini and Claudia Creighton. Impact of Lattice Geometry on Compressive Strength: A Finite Element Analysis	
47	Jaideep J P, Suhas Yeshwant Nayak, B Satish Shenoy and Anand Pai. Review on Hybrid/Natural fiber-based Fiber Metal Laminates for Impact Applications	
02.00 – 04.00 PM	<b>Parallel Technical Sessions: Day-2, Session-2, Track 1: Aerodynamics &amp; CFD Chair Persons: Dr. Dolfred Vijay Fernandes &amp; Dr. Krishna Prakasha</b>	<b>Venue: Academic Block -2, Hall No 03</b>
Paper Code	Title	
44	Prathmesh Verekar, Satish Shenoy B., Hamid Yusoff, Irfan Anjum B. Magami Magami, Sarfaraz Kamangar and Mohammad Zuber. Numerical analysis of tandem wing arrangement of dragonfly-inspired wings for forward flight	
40	Gautham Amin, Pramod Salunkhe and Chandrakant Kini. Stall Margin Enhancement of an Axial Flow Rotor using the Tip Injection	
42	Sudheer P N, Chandrakantha Bekal, Manjunath Shetty and Satish Shenoy. Computational Study of Droplets in T-junction microfluidics with different Multiphase Models	
<b>TEA BREAK</b>		
52	Shruti G, Pramod B Salunkhe and B Satish Shenoy. Numerical studies on a Battery Thermal Management System	



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24	Isha Mirasdar, Sanjay N. Havaldar and Dhruv Aher. The effect of addition of winglets on Wind turbine blade aerodynamics: A Review	
<b>02.00 – 04.00 PM</b>	<b>Parallel Technical Sessions: Day-2, Session-2, Track 2: Materials Chair Persons: Dr. Anand Pai &amp; Dr. Manjunath Shetty</b>	<b>Venue: Academic Block-2, Hall No 04</b>
<b>Paper Code</b>	<b>Title</b>	
53	Gowrish Nagvekar, Anand Pai, Suhas Yeshwant Nayak and B Satish Shenoy. Optimizing Fiber Metal Laminates: A Review of Materials, Processing, and Properties for enhanced mechanical properties	
37	Mr. Dheeraj Poojary, Dr. Satish Shenoy B, Dr. Chethan K N and Dr. Anand Pai. 3D printing technologies for healthcare: stereolithography as the superior method for biomedical applications	
51	Ananth Mallya, Suhas Nayak, Satish Shenoy and Binu K G. Improving General Mechanical Attributes of Polymer Composites through Sustainable Approach: A Short Review	
	<b>TEA BREAK</b>	
<b>4:00 – 5:00 PM</b>	<b>Valedictory Function</b>	<b>Venue: Sir M Visvesvaraya Seminar Hall, Academic Block-2</b>

**Please Note:**

Registration will be open from 8 to 11 AM on both days.

All presentations will be of 15 mins. duration followed by 5 mins. Q&A.