



International Conference on Science Technology Engineering & Maths for Sustainable Development



(ICSTEMSD-2024)

15th to 16th February, 2024

ACE/Conference/FR/61/2023-2024

Report on ICSTEMSD 2024

The year 2024 has blossomed with heightened vibrancy, significance, and zeal, all thanks to the resounding success of ICSTEMSD 2024! Under the esteemed blessings of **Hon. Shri. Sunil Rane Sir**, Executive President of Atharva Group of Institutes and Founder Secretary of AET, and with the invaluable guidance of Conference Chair, **Dr. P.N. Nemade**, Director of Atharva College of Engineering, and **Dr. Ramesh Kulkarni**, Principal of Atharva College of Engineering, alongside the dedicated support of Organizing Chair, **Dr. Ritu Sharma**, Head of Department for Humanities and Applied Sciences, along with the collective efforts of all teaching and non-teaching staff, as well as our esteemed advisory committee, ICSTEMSD 2024 has undeniably served as a paramount hub for knowledge exchange and skill augmentation across various domains.

We extend our sincere gratitude to all the esteemed members of the Technical Program Committee and International Advisory Committee. It brings us immense pleasure to announce that ICSTEMSD 2024 has attracted submissions from a diverse array of vital domains, including but not limited to AI-ML, Data Science, Cloud Computing, Big Data, Virtual Reality, Embedded Systems, IoT, Block chain, Robotics, Communication and Networking, E-learning, and Applied Science.

ICSTEMSD 2024 has organized the technical papers and posters into six distinct tracks. These tracks encompass a wide range of research topics, including "Technology Trends in Electrical Engineering," "Advancements in Electronic Telecommunication and Network," "Applied Computing and Data Science," "Recent Trends in Information Technology," "Embedded Systems and IoT," and "eLearning & Applied Sciences."



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Benefiting from the insightful reviews provided by both internal and external reviewers, and mindful of the originality and depth of content within each submission, we are pleased to note the high Caliber of papers received from various regions across India and beyond. Our submissions comprise contributions from students, research scholars, industry professionals, and academia. Notably, our pool of contributors and Reviewers includes esteemed academicians affiliated with institutions such as VIT Pune, MIT Manipal, RGIT, K J Somaiya College of Engineering, Thadomal Shahani Engineering College, Vidyalkar Institute of Technology, D.J Sanghavi College of Engineering, Shree L R Tiwari College of Engineering, A P Shah Institute of Technology, as well as researchers from Sandip University.

To begin with the inauguration ceremony, marked the welcome address **Dr. Ritu Sharma** & gave the opening remarks.

We were fortunate to have our Chief Guest **Dr. Y. Rama Mohan Rao (Editor, IJTE UGC Journal)** amongst us. Sir suggested that our ability to navigate the Covid-19 pandemic successfully is attributable to our **commitment to sustainability**. He also imparted **nine principles** to our students to facilitate their success in life.

Our guest, **Dr. Roy Kshemendra from Tata AIA Life Insurance**, shed light on the conference theme 'Fifth Industrial Revolution' by discussing the evolution of Tata's involvement across various stages of industrial revolutions.

Our guest, **Mr. Prashant Prakash Angarakh, a Scientist at ISRO Hyderabad**, elucidated the fundamental pillars of sustainability, encompassing social, economic, and environmental aspects. Additionally, he delved into the array of technologies employed by ISRO to foster sustainable development.



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Our Principal Dr Ramesh Kulkarni Sir gave concluding remarks. He also discussed the importance of attending conferences. Vote of thanks was proposed by **Dr Kavita Bani**, HOD ECS department.

The post-lunch session generated significant anticipation as researchers eagerly awaited the opportunity to present their research papers before experts. Their enthusiasm stemmed from the prospect of receiving valuable feedback, guidance, and suggestions to propel their research endeavors in their specific fields.

We received 250+submissions which were reviewed by 54 internal and 66 External reviewers. After review and acceptance 230 papers were presented in parallel sessions on day 1 and day 2. Each session was appended with particular track having expert judges belonging to the same track. Each session was a great experience not just for the authors to present their papers but for the experts to explore the diversity!

We had arranged for the virtual presentation using Google Meet platform for a few out station authors.

Total **27** Posters were presented by **106** students during ICSTEMSD 2024 from all the branches. Dr. Amey K Naik from K.J. Somaiya was external and Prof. Shilpa Gaikwad was Internal for Judging the Poster competition. The students did a good job in presenting recent innovative solutions of the Problem statement related to the social cause from their Poster presentation. Judges appreciated the effort taken by Engineering students in using their technical knowledge to solve problem related to Research or related to social cause.

Second day started with parallel sessions of Paper presentation, it was followed by Keynote session by Rajesh Vasta, Senior Scientist BARC Mumbai. The



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speaker highlighted on significance of STEM in sustainable Development. He also focused on how STEM is basis for modern life. He enlightens us the use Scientific and Engineering knowledge for practical purpose in everyday life. He quoted “Good Science and good engineering fuel technological innovation”. He summed up **Research Development Demonstration and Deployment (RD³)** are interlinked. Chain of interlinked activities necessary for technological success must be **sustained**.

The Second keynote speaker for the day was Dr. Navin Chandra Shimpi, Professor University of Mumbai, Santacruz. He highlighted on Synthesis of novel nano structures and their applications.

The results of the winners are as follows:

Poster Winners:

Position	Name of the Participant	Department	Title
1	Shamit Shetty, Om Vishwakarma Ayush Salian, Sakthivel Nadar	ETRX/ECS	Virtus 2.0 AIML Model
2	Jai Solanki, Sarthak Tapare, Advait Chavale, Soham Rane	Ground Station Team	Balloon Transmitter
3	Adoitya Nipdhadkar, Manan Kotecha, Sunil Kadam, Parv Parikh	Electrical	Dynamic Charging

Paper Winners:

Students:

Position	Paper ID	Title of the Paper	Authors
1	79	Design and development of context	Shravani Sawant, Aditya



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		sensitive dictionary (CSD) using computational linguistic approach	Shinde, Vinayak Utekar
	99	Skin Disease Detection using Convolutional Neural Network	Sonia Ashok Mohanty, Harshika Mhaske, Rishikesh Nikale, Anshul Patel, Anagha Dhavalikar
2	1	Smart Wearable for Blind People	Shruti Jha, Neel Shinde, Nagendran Shetty, Kavita Bani
	109	Battlefield Awareness using IoT in Network Centric Warfare : Soldiers Health Integration for Enhanced Location Deployment (SHIELD) System	Priyanka Mane
3	147	"JEEVAN" - Your personal health assistant	Sanya Shaikh, Atharv Shirke, Simran Singh, Dr. Jyoti Mali
	172	Smart UV Sanitization Dispenser	Sanket Rajam, Yuvraj Bagul, Pruthvi Jadhav, Ambar Bhosle, Sangeeta Kotecha

Faculty Members:

Department	Paper Id	Title of the Paper	Authors
HAS	194	Electrochemical Properties of	Dr. Abhishek Kakade,



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		Magnetic Supercapacitor Co _{0.9} Ni _{0.1} Fe ₂ O ₄ Electrode Prepared by Hydrothermal Method	Dr. S. B. Kulkarni
	103	Impact of Digital Technologies on LSRW Proficiency in Language Learning	Dr. Ritu Sharma, Dr. Kavita Bani
EXTC	43	To study NLMS Algorithm for adaptive echo cancellation	Sandip Zade, Mohan Kumar, Vivek Ramakrishnan
	27	Analyzing and positioning the joint movements and controlling the angular position to achieve a half squat - sit and rise motion while minimizing the risk of fall for a humanoid robot	Dr. Bhavin C. Shah, Prof. Mohan Kumar, Dr. Vivek Ramakrishnan Savithri, Prof. Sandip Zade
ECS	56	Unveiling the Future of Internet of Things (IoT): Applications and Market Trends	Dr. Kavita Piyush Bani, Dr Ritu Sharma
CMPN	48	Bridging the Gap: Data Science empowers Patients through Personalized Healthcare Experiences	Aswathy s
ELEC	190	A multi objective approach for optimal positioning of sectionalizers in Distribution N	Sakthibala Danapal, Prajakta Borole, Tushar surwadkar, Ranjith Kumar
INFT	266	Role Based Access Control in	Deepali Maste, Dr



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	Healthcare : Review	Leena Ragha
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The organizing committee of this conference extends its sincere appreciation to all the authors who contributed to ICSTEMSD 2024, enhancing the conference's value and productivity.



**Inauguration Ceremony ICSTEMSD 2024 at Phase 3, Seminar Hall,
ACE**



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ICSTEMSD 2024 Proceedings Revealed



ACE Faculty with Guests & Principal sir



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Keynote Session by Mr. Prashant Prakash Angarakh (ISRO Scientist)



Keynote Session by Dr. Navin Chandra Shimpi (Professor at UoM)



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Keynote Session by Dr. Rakesh Vasta (BARC Scientist)



Words of Appreciation by Dr. P N Nemade (Director, ACE)

Dr. Ritu Sharma
Conference Organizing Chair

Dr. Ramesh Kulkarni
Principal- ACE