

NCIET' 2024

NATIONAL CONFERENCE ON INNOVATION IN ENGINEERING AND TECHNOLOGY

27th April 2024



INSTITUTION'S
INNOVATION
COUNCIL
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(Formerly known as Narasu's Sarathy Institute of Technology)



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ENGINEERING AND TECHNOLOGY**

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BOOK OF ABSTRACTS

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R P Sarathy Institute of Technology

Poosaripatty, Kadayampatty Taluk,

Salem - 636305,

Tamil Nadu, India.

National Conference on Innovation in Engineering and Technology 2024 – NCIET’2024

R P Sarathy Institute of Technology
Poosaripatti, Kadayampatty Taluk,
Salem - 636305,
Tamil Nadu, India.

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Mr.B.NITISH HARIHAR

Chairman, RPSIT



MESSAGE

With great pleasure and anticipation, I welcome all the participants of the National Conference on Innovation in Engineering and Technology (NCIET 2024) organized by all the Departments of R P Sarathy Institute of Technology. This nation-wide gathering of great minds united by the passion for innovation and technology serves as a beacon of collaboration and progress.

In today's rapidly developing world the role of innovation and technology, is undeniably the driving force of advancement and development. Throughout this conference, I encourage each of you to engage wholeheartedly, to share your insights, and to foster meaningful dialogue. Let us seize this opportunity to forge new partnerships, exchange knowledge, and explore innovative solutions to the complex issues facing our world.

I congratulate Heads of various Departments, Conference Coordinators and faculty members for bringing together the great minds for a valuable cause. May our time together be marked by inspiration, collaboration, and transformative breakthroughs.

I wish you all a fruitful and enriching experience at the conference.

Best Wishes,


Mr.B.NITISH HARIHAR

Dr.MUNUSAMI VISWANATHAN, Ph.D., MISTE., FIE.,
Principal, RPSIT



MESSAGE

It is my distinct pleasure to extend a warm welcome to all esteemed guests, scholars, and innovators gathered for the National Conference on Innovation in Engineering and Technology.

As Principal of R P Sarathy Institute of Technology, I am honoured to host this gathering of brilliant minds and forward-thinkers who are driving the cutting edge of innovation in engineering and technology.

Innovation is the heartbeat of progress, propelling society forward through groundbreaking discoveries and advancements. This conference provides a unique platform for scholars, researchers, and practitioners to come together, exchange ideas, and collaborate on solutions to the most pressing challenges of our time. As we navigate through the intricacies of innovation, let us remain steadfast in our commitment to excellence, integrity, and inclusivity.

At R P Sarathy Institute of Technology, we are committed to nurturing the next generation of innovators and thought provoking leaders. Events like this conference play a crucial role in fostering creativity, critical thinking, and a spirit of inquiry among our students and faculty. As we embark on this journey of exploration and discovery, let us remain steadfast in our pursuit of knowledge and progress. Together, we have the potential to shape a brighter, more sustainable future for generations to come.

My hearty congratulations to all the organising committee for their exuberance and dedication in make this conference a huge success.


Dr. MUNUSAMI VISWANATHAN



Dr. V Munusami



Dr. K Arutselvan



Dr. K Sasikala


EDITOR MESSAGE


R P Sarathy Institute is well known for its academic excellence and dedicated approach towards the dissemination of knowledge in the academic world. The College appreciates the role of research in education and is committed to developing an inclination towards research in both faculty and students. In this pursuit, the College has taken the initiative to conduct a National Level Conference on Innovation in Engineering and Technology (NCIET'2024)

This conference aims to bring together academicians, researchers, and students to exchange knowledge and ideas in the fields of engineering science, and technology. We have created a good opportunity for those who have a thirst for knowledge about current developments and also to share their innovative ideas. Furthermore, this conference will also facilitate the participants to discuss and find out-of-the-box solutions for the existing problems in the industry. The conference aims to bridge the researchers working in academia and other professionals through research presentations and keynote addresses in the latest technological trends.

We congratulate all the students & faculty whose research papers are presented at this conference and express our sincere thanks to our college Management, Principal, and Head of various departments.


Dr. V Munusami
Head-MECH


Dr. K Arutselvan
Head-EEE


Dr. K Sasikala
Head-IT

About RPSIT

R P Sarathy Institute of Technology – The most preferred Educational Institution Founded in 2008 by Smt. Mahalakshmi Educational Trust, R P Sarathy Institute of Technology (formerly known as Narasu's Sarathy Institute of Technology) represents a rich tradition of excellence in technology-based education. A premier-league institution among the affiliates of Anna University, R P Sarathy Institute of Technology owes its vision to Late. Sri. R P Sarathy, an entrepreneur, educationalist and philanthropist. R P Sarathy Institute of Technology, in its 15 years of existence, is a reputed institution in the State of Tamilnadu. The college is ACCREDITED BY NAAC WITH 'A++' GRADE.

The college offers Six UG (B.E- CSE, ECE, EEE, Mechanical & B.Tech - IT, AI&DS) with total sanctioned intake of 360 and Two PG programmes [ME (VLSI Design); ME (CSE)]. Located on the Salem-Bangalore Highway, R P Sarathy Institute of Technology presents a picturesque view flanked by the glorious Yercaud. Situated over a sprawling 22.5 acre campus with lush lawns, a beautiful landscape, aesthetic architecture and avant-garde infrastructure, the College epitomizes an exemplary setting for higher learning.

With dedicated efforts of over a decade, the college has emerged into a centre of excellence in engineering education. Building purposive partnerships with the industry, bolstering its wherewithal continually and evolving innovative programmes consistent with changing times, R P Sarathy Institute of Technology strives to maintain its pre-eminent position.

About the Conference

Theme of the Conference

The National Conference on Innovation in Engineering and Technology organised by all the Departments of R P Sarathy Institute of Technology, Salem, is a premier gathering of scholars, researchers, professionals, and students dedicated to advancing the frontiers of engineering and technology. This conference serves as a platform for the exchange of ideas, sharing of research findings, and collaboration on innovative solutions to real-world challenges.

Key features of the conference include:

Diverse Participation: The conference attracts participants from academia, industry, government agencies, and research institutions, fostering interdisciplinary collaboration and networking opportunities.

Cutting-Edge Research: Participants present their latest research findings, innovations, and technological developments through paper presentations, poster sessions, and interactive discussions.

Thematic Tracks: The conference typically encompasses various thematic tracks covering a wide range of engineering and technology disciplines, including but not limited to Artificial Intelligence & Data Science, Computer Science and Engineering, Electrical and Electronics Engineering, Electronics and Communication Engineering, Information Technology and Mechanical Engineering.

Keynote Speakers: Renowned experts and think tanks in the field will deliver keynote addresses, offering insights into emerging trends, challenges, and opportunities in engineering and technology.

Workshops and Tutorials: Specialized workshops and tutorials provide participants with opportunities to delve deeper into specific topics, acquire new skills, and explore emerging technologies.

Networking Opportunities: Formal and informal networking sessions enable participants to connect with peers, establish collaborations, and exchange ideas with fellow researchers and professionals.

Publication Opportunities: Selected papers presented at the conference may be published in peer-reviewed journals or conference proceedings, providing participants with opportunities for dissemination and recognition of their research contributions.

Overall, the National Conference on Innovation in Engineering and Technology NCIET'2024 plays a pivotal role in advancing knowledge, fostering innovation, and driving positive societal impact through engineering and technology.

Call for Paper

Original research articles are invited for the oral presentation on the following topics and related topics,

- *Blockchain Technology*
- *Cloud Computing*
- *5G Technology*
- *Cyber Security*
- *AI-driven Automaton in IT*
- *Augmented Reality (AR) Applications*
- *UI & UX Design*
- *Internet of Things (IoT) in Smart Cities*
- *Deep Learning/Machine Learning for Signal Processing*
- *Image, Video and Multimedia Processing*
- *MIMO and 5G Networks*
- *VLSI Validation and Testing*
- *Control Systems for Power Quality*
- *Renewable Energy Integration*
- *AI in Power Systems*
- *Global Trends in Power Electronics*
- *Additive Manufacturing*
- *Hybrid Electric Vehicle*
- *Robotics and Automation*
- *System Dynamics and Simulation*
- *Artificial Intelligence and Machine Learning*
- *Data Analytics*
- *Regenerative AI*
- *Artificial Neural Network*
- *Emerging Trends in Sustainable Development and Technology*
- *Technology based Language Learning in Recent times*
- *Emerging Trends in Computational Mathematics*
- *Green Organic Synthesis & Corrosion Applications*

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