

2nd International Conference
on
Signal Processing, Communication, Power & Embedded Systems
19th - 21st December 2024
Organized By
Centurion University of Technology and Management, Parlakhemundi , Odisha, India
Technical Co-Sponsored by IEEE Kolkata Section & IEEE Bhubaneswar Sub-
Section

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Prof. (Dr.) Mukti Kanta Mishra, President, CUTM, Odisha & Andhra Pradesh
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Dr. Debendra Kumar Sahoo, CUTM, Odisha

Convener :

Prof. (Dr.) Ashok Misra, CUTM, Odisha

Co-Convener :

Prof. (Dr.) Sangram Keshari Swain, CUTM, Odisha
Prof. Prabhat Kumar Patnaik, CUTM, Odisha
Prof. Satyanarayan Padhy, CUTM, Odisha

Key Note Speaker

Prof. (Dr.) Naeem Hanoon, University of Teknologi MARA, Shah Alam, Malaysia
Prof. (Dr.) Ganapati Panda, Former Dy. Director, IIT BBS, India
Prof. Purna Mohanty, Co-founder and CEO Marquee Semiconductor and Signature IP Corporation
Prof. (Dr.) Amit Mishra, Abenystwyth University, Sweden
Prof. (Dr.) Bansidhar Majhi, VC, VSSUT, Burla, India
Prof. (Dr.) Tapan Gandhi, IIT Delhi, India
Prof. (Dr.) Sarat Patra, Director, NIT Agartala, India

Venue

CUTM, At: Village Alluri Nagar, P.O. : R-Sitapur,
Via: Uppalada Parlakhemundi,
Dist: Gajapati-761211, Odisha, India
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Approach to Venue



Contact Information

SCOPES Office

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Advancing Technology for Humanity



**2nd International Conference
on
Signal Processing, Communication, Power
& Embedded System
(SCOPES-2024)
19 - 21 December 2024**

Organised
by
Department of Electronics and Communication Engineering
School of Engineering and Technology
Centurion University of Technology and Management, Odisha
(Accredited with NAAC Grade A⁺)

Technical Co-Sponsor
IEEE Kolkata Section, Bhubaneswar Subsection






The 2nd International Conference on Signal Processing, Communication, Power, and Embedded Systems (SCOPEs-2024), hosted by the Department of Electronics and Communication Engineering, Centurion University of Technology and Management (CUTM), concluded on a high note on **21st December 2024**. This three-day event served as a vibrant platform for academic and industry experts to share their knowledge and innovations.

The event commenced with welcome addresses by **Prof. (Dr.) Supriya Pattanayak**, Vice-Chancellor of CUTM, and **Prof. (Dr.) Anita Patra**, General Chair and Registrar of the University. Both highlighted the institution's commitment to fostering cutting-edge research and global collaboration. **Dr. Debendra Kumar Sahoo**, Organizing Chair, provided an insightful briefing on the conference's objectives, emphasizing its focus on emerging technologies.

The conference witnessed overwhelming participation, with **654 research papers** submitted by authors from around the world. Approximately **916 reviewers** from across the globe provided their valuable feedback on these technical papers through Microsoft CMT. Following a rigorous review process, **242 papers** were selected for presentation, including **12 international submissions** from countries such as the USA, Australia, South Africa, Sri Lanka, Saudi Arabia, and Malaysia. The selected papers covered a diverse range of topics, including signal processing, communication systems, power electronics, and embedded technologies.

Keynote Sessions by Renowned Experts

SCOPES-2024 featured insightful keynote sessions led by esteemed professionals:

1. Dr. P. S. R. Srinivasa Sastry

Founder & Former Director, DSP, DRDO, Hyderabad

- Delivered a presentation on advancements in defense signal processing.

2. Prof. (Dr.) Naeem Hannon

University of Teknologi MARA, Malaysia

- Spoke about the automation of substations and introduced the concept of Smart Grids, capable of self-healing, equipped with dynamic optimization techniques, real-time measuring equipment, and asset management tools.

3. Dr. Raffaele Scuderi

Electromagnetics Industry Process Consultant and SIMULIA EMAG Specialist

- Discussed innovations in industrial processes, including 5G coverage and channel simulation in complex environments. His talk highlighted how Industry 4.0 and digitalization promise significant advancements in efficiency, productivity, and sustainability through 5G private networks.

4. Ms. Renuka Srinivasan

Director, SIMULIA India, Dassault Systems

- Presented on simulation-driven engineering, focusing on the design of simulation-driven antenna systems for enhanced performance and efficiency.

5. Prof. (Dr.) Ganapati Panda

Former Deputy Director, IIT Bhubaneswar

- Delivered an engaging talk on bio-inspired techniques in signal processing and communication systems, with applications in biomedical engineering, active noise control, natural language processing, and intelligent sensors.

6. Mr. Sunil Sabat

Principal Program Manager, Microsoft Corporation

- Discussed designing data-driven modern electronic systems in the era of cloud and AI, focusing on how platforms like Azure and OpenAI enhance security, collaboration, and scalability in system design.

7. Prof. H. K. Ratha

Chair, IEEE Bhubaneswar Sub-section & Retired Director, ITR, Chandipur

- Encouraged IEEE membership and emphasized its benefits in technical education and organizing technical events.

8. Mr. Purna Chandra Mohanty

CEO, Marquee Semiconductor

- Presented on the future of silicon design, transitioning from monolithic to chiplet-based systems, addressing key technologies, challenges, and opportunities in the global semiconductor market.

9. Dr. Jagannath Nayak

Director, DRDO, Hyderabad

- Highlighted the future of warfare will be heavily shaped by advanced technologies such as AI, robotics, and hypersonic weaponry, with DRDO leading the charge in developing these capabilities.
- DRDO's comprehensive technological advancements are crucial not only for enhancing defense capabilities but also for strengthening India's position in the global defence market.
- Collaboration with private industry is vital for accelerating innovation and ensuring that India's defence sector remains competitive and self-reliant.

The Chief Guest of valedictory function was chaired by Dr. Jagannath Nayak, captivated the audience with insights on defence technology and innovation, highlighting India's potential as a global leader in science and technology.

Prof. D. K. Sahoo, Organizing Chair, delivered the valedictory address, emphasizing the importance of fostering interdisciplinary collaboration to drive innovation.

Dr. Mukti Kanta Mishra

President, Centurion University

- Graced the occasion with his energetic speech. In his address, he emphasized the critical importance of sustainability in addressing the global challenges of climate change, resource depletion, and social inequality.

- He highlighted the role of education in fostering a deeper understanding of sustainability principles and empowering the next generation of leaders to create a more just and equitable future.
- He stated that Sustainability is not merely a buzzword; it is the defining challenge of our time. This conference provides a crucial platform for sharing knowledge, fostering collaboration, and inspiring action among researchers, industry professionals and policymakers.
- Centurion University is deeply committed to sustainability and has integrated these principles into its curriculum, research endeavours and campus operations.

Prof. Biswajit Mishra, Pro Vice-Chancellor, shared their visions for the future of research and education.

The session also included experience sharing by the participants, the felicitation of dignitaries by Prof. Ashok Mishra, Convener SCOPES-2024. The conference SCOPES-2024 successfully brought together over 650 researchers, industry experts, and academicians from around the globe, fostering meaningful exchanges on cutting-edge technologies. The conference featured 242 rigorously reviewed papers, insightful keynote sessions by eminent speakers, and showcased the collaboration between academia and industry in addressing contemporary challenges.

Finally a heartfelt vote of thanks was given by Prof. Prafulla Kumar Panda, Dean of the School of Engineering and Technology. The conference concluded on a high note, inspiring participants to push the boundaries of innovation and contribute to societal progress.

Organizing Team and Success

The event was meticulously coordinated by **Dr. D. K. Sahoo, Dr. Ashok Mishra, Dr. Prafulla Panda, Dr. Sangram Keshari Swain, Dr. Sandipan Pine, Prof. Prabhat K. Patnaik, Prof. Satyanarayan Padhy**, and their dedicated organizing team, ensuring its resounding success.

SCOPES-2024 demonstrated the university's unwavering commitment to bridging academia and industry, fostering innovative solutions to contemporary challenges. The event underscored India's growing role as a global hub for technological collaboration and excellence.

Please find conference website link: <https://scopes24.cutm.ac.in/>

Please

find

souvenir

link: https://drive.google.com/file/d/1nX_0OlbdKHQueb2EpZsoM1RYH-DjTA6q/view?usp=drive_link

Please find the photographs



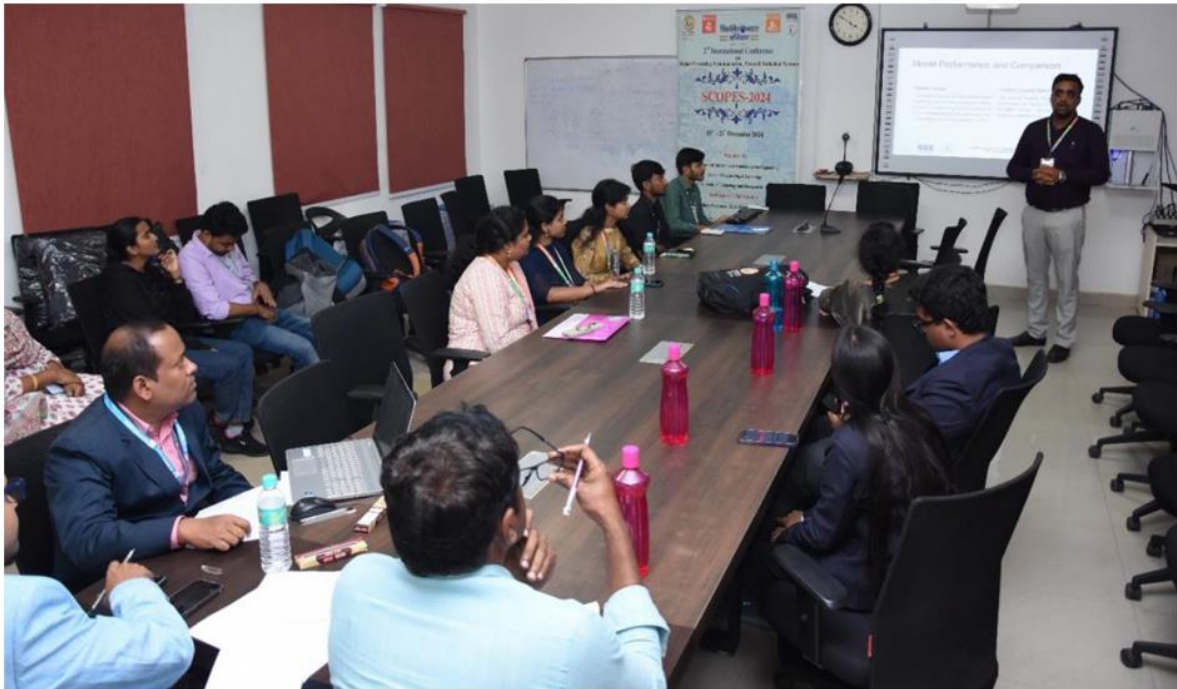


PROF. (DR.) SUPRIYA PATTANAYAK, CENTURION UNIVERSITY, ODISHA



**IEEE SUB-SECTION CHAIR: DR. HARE KRISHNA RATHA, RETIRED
DIRECTOR OF ITC, CHANDIGARH AND CHAIR OF BHUBANESWAR**

PARALLEL SESSIONS



KEYNOTE DAY-1



Dr. PSR Srinivasa Sastry, Former Founder Director, DRDO, Hyderabad

KEYNOTE DAY-2



KEYNOTE DAY-3



KEYNOTE AND VALIDICTORY



Dr. Jagannath Mohanty, Director Chess, DRDO, Hyderabad

Appreciation for the Technical Committee Members



Appreciation for Student Volunteers



Cultural Program





Cultural Program

Pepranash
Convener

SCOPES-2024
HOD
Dept of ECE
CUTM, Paralekhyamundi