PSG Institute of Technology and Applied Research

Neelambur, Coimbatore – 641062
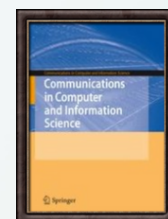
Department of Computer Science and Engineering
and
Colorado State University, Fort Collins, Colorado, USA

2nd International Conference on Next Generation Computing Systems (ICNGCS – 2023)

Springer Theme : Intelligent Communication

17th - 18th March, 2023

Conference proceedings by Springer - CCIS series

Industry Partner

In Collaboration with

Kaar — In Pursuit of Excellence

Computer Society of India — ESTD. 1965

ICT ACADEMY

PSG ITECH

PSG Institute of Technology and Applied Research (PSG iTech) is a part of PSG and Sons' Charities, which aims to realize its objective of enhancing youth empowerment through technical education. PSG iTech, established in the year 2014, as the 30th Institution under the umbrella of PSG Sons and charities, is approved by AICTE and affiliated with Anna University, Chennai. PSG iTech has a great vision to achieve academic excellence and nurture future engineers with the required skills to face global challenges. PSG iTech caters to various engineering disciplines, focusing on learning, industry engagement of students, innovative and inclusive pedagogy and ethics. It aims to transfer knowledge effectively and mold the students into ideal citizens of the country. Within a short span of time, the Institution has emerged as one of the most preferred institutions for engineering aspirants in India with a NIRF ranking of 131. This institute offers five Undergraduate courses: Civil, CSE, ECE, EEE, and Mechanical Engineering. The institute has excellent infrastructure facilities, well-equipped laboratories with state-of-art equipment and Centers of Excellence (CoE) for intensive training, research and consultancy activities. The institute has signed MoU with various research organizations and industries across the globe to promote industry interactions and mold the students industry-ready. The Institute envisions producing engineers with strong interpersonal skills and societal consciousness.

COLORADO STATE UNIVERSITY

Colorado State University is one of the nation's top public research universities and an institution on the rise. In the last decade, CSU has produced record enrollment, built on all-time highs in student diversity and student success; record fundraising far outpacing ambitious goals; groundbreaking research driven by a highly productive faculty; a campus revitalized by a transformational building campaign; and, perhaps most importantly, an unrivaled learning environment where nine of 10 recent graduates say they would choose CSU again and rate their education as excellent. It's one thing to be located in a community, and another entirely to be part of it. To know its attributes, its successes, and its challenges. To be a dedicated partner in seeking solutions that will best position communities and their citizens for the future. The Colorado State University System and its three campuses are just such partners for the state of Colorado. Our programs and our alumni are ingrained in communities across the state, joining every day with fellow citizens, policymakers, businesses, and organizations to spark innovation, hone ideas, and improve economic vibrancy and quality of life for the people of Colorado. At the heart of our work is a profound mission: providing access to educational excellence and opportunities that arise from it.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CSE Department has well-qualified and dedicated faculty members with excellent teaching and research skills. Our faculty members are working in research areas such as Distributed Computing, Security, Embedded Systems, the Internet of Things, Networking, Image processing, Data Mining, Big Data Analytics, and Software Testing. Faculty members are encouraged to carry out research activities by setting up industry-linked labs and receiving funded projects from Government and Private Agencies. The CSE Department has well-established laboratories with good computing facilities, software tools and applications to provide practical exposure to students. The following labs are set up in the Department in line with technology trends: Mobile and IoT laboratory, Cisco laboratory, Cloud and Data Analytics laboratory and SAP laboratory. Value Added Courses, Hands-on workshops, and Technical Talks are conducted throughout the academic year to bridge the gap between the industry and the institute and help students enhance their skillset. Our students regularly participate in Design Contests, Codeathons, etc., and win prizes. The placement for CSE has been excellent and our recruiters include top companies such as Arcesium, Amazon, Accenture, Caterpillar, Citrix, HP Enterprise (R&D), L&T, Oracle, Qualcomm, Societe Generale, Zoho, Cisco, Fiorano, Goldman Sachs, JP Morgan Chase @ Co, Morgan Stanley, Western Digital, TCS, CTS, Wipro, and Infosys.

ICNGCS - 2023

The advancements in computing have led to the development of data-driven and decision-making intelligent systems. Intelligent systems emulate the human cognitive process and respond to fast-changing data and conditions in real time. Intelligent systems are pervasive everywhere, from automated manufacturing to Amazon's personalized shopping suggestions, focusing on how machines and devices perceive their environment to increase customer delight. The key factors that have contributed to the growth of intelligent systems are processor speed and memory capacity along with algorithmic advancements. These systems interact with human users in dynamic, physical and social environments. An intelligent communication system plays many roles in today's society and faces numerous challenges such as uncertainty and dynamism, with multi-threaded and multi-core systems. Engaged convergence between networks, Information Technology (IT), Cloud and IoT lead to the effective communication. Communication systems integrate sensing, computation, control and networking into physical objects and infrastructure, connecting them to the Internet and to each other. The objective of this conference is to facilitate knowledge sharing among industry practitioners and academicians in the above-mentioned areas of research. This conference will have useful keynote speeches and technical sessions in the emerging research areas to create a spark among the research community.

GUIDELINES TO AUTHORS FOR PAPER SUBMISSION

Authors are requested to submit full-length papers of 6 pages maximum in Springer format. Kindly visit the conference website for the Springer template. Submitted research work must be original in content and free from plagiarism. Authors are requested to submit a plagiarism report using iThenticate / Turnitin. Plagiarism should be less than 20% to qualify the paper to be reviewed. The proceedings of the conference will be strictly subjected to inclusion into Springer Communications in Computer and Information Science (CCIS) Series. CCIS is abstracted/indexed in DBLP, Google Scholar, EI-Compendex, Mathematical Reviews, SCImago, and Scopus. Accepted papers will be submitted for inclusion into the CCIS Series subject to meeting the Springer CCIS Series scope and quality requirements. Authors are requested to submit the papers to the e-mail: icngcs23@psgitech.ac.in . Best selected articles will be published in the following ICTACT Journals listed in UGC-CARE (Group 1) :

- ICTACT Journal on Communication Technology
- ICTACT Journal on Image and Video Processing
- ICTACT Journal on Soft Computing
- ICTACT Journal on Microelectronics

IMPORTANT DATES

Paper Submission Due	15 - 02 - 2023
Acceptance Notification	28 - 02 - 2023
Camera Ready Submission	04 - 03 - 2023
Last date of Registration	04 - 03 - 2023

REGISTRATION FEE

Overseas Delegates	US$150
Industry Delegates	Rs. 7500.00
Faculty Members	Rs. 6000.00
Research Scholars	Rs. 5000.00
Students	Rs. 3000.00

CALL FOR PAPERS

The organizing committee of the conference invites papers from research scholars, faculty members, and students of various institutions and professionals from the industry. Topics of interest include, but are not limited to:

COMMUNICATION

- Computer Networks
- VANET
- Wireless/ Mobile Communication
- Signal Processing
- Satellite Communication Systems
- 4G/5G Network Evolutions
- Mobile Adhoc Networks
- IoT
- Sensor Networks
- Communication Protocols
- Cognitive Radio
- Software-Defined Networks
- Mobile Computing

VLSI AND EMBEDDED SYSTEMS

- Analog and Mixed-Signal Design
- Digital ICs and Systems
- Security and Safety
- Sensors Circuits and Systems
- Electronic Design Automation
- Power Electronics
- RF Circuits and Systems
- Embedded System Design
- Test and Reliability
- Packaging and Interconnects
- Chip / Computer Architectures
- High-Performance Computing
- Emerging Technologies and Devices: Neuromorphic Computing, Synaptic Devices, CMOS Technology and Devices, New Age Nano-Electronics, MEMS Devices, GaN, and SiC Devices

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Professor, Department of Computer Science and Engineering, PSG iTech

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Colorado State University, USA   **Department of Computer Science**
                                          Colorado State University (CSU), USA

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