























Green Computing Perspectives of Communication Technologies

ICAHGCT - 2022

25th & 26th February, 2022

Organised by

# DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SONA COLLEGE OF TECHNOLOGY

| An Autonomous Institution | TPT Main Road (Junction), Salem - 636 005 www.sonatech.ac.in/icahact2022 Established in 1920s, the Sona Group has in its fold Sona College of Technology, Thiagarajar Polytechnic College, Sona College of Arts and Science, Vee Technologies, Sona Valliappa Textile mills, Sona Medical College of Naturopathy and Yoga and Sona Valliappa Public School. With nearly a 100 years of experience, Sona offers quality services to the public through its educational and industrial sectors.

Sona College of Technology, one of the top ranking engineering colleges in India, has achieved global identity through its involvement in research in recent technology and successful completion of projects and products.

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Situated in Salem, Tamilnadu, the southern part of India, Sona is the best destination for engineering aspirants. The college offers Bachelor of Engineering, Master of Engineering and Doctoral Degree (Ph.D) in all major disciplines. Sona, which is an ISO Certified Institution, is known for its rich tradition and high values bestowed upon it by its Founder Chairman, Thiru. M.S. Chockalingam. The "AICTE – CII Award for Best Industry – Linked Technical Institute in India" for six times and an acclaimed 'A' grade by 'NAAC' stand testimony to the commitment of the college to impart quality education. Sona is a proud recipient of "Edupreneurs Award" from MHRD, New Delhi, for Emerging Global Destination for Education. It is yet another milestone in the success story of the institute. All eligible Under Graduate and Post Graduate programmes are accredited by NBA.

Sona College of Technology is equipped with world class infrastructure and highly qualified and experienced faculty members. The college adopts the most modern teaching learning methodology. With Lecture Capture System, Blackboard and other advanced e-learning tools, Sona has established itself as a pioneer in progressive pedagogy. With over 36+ R&D Centres, the college nurtures research culture in all evolving areas of science and technology.

Sona's sharp focus on quality education and training has turned it into a premier technical institution ensuring good placements in a wide range of companies. In short, Sona, stands tall as one of the best institutions for world class professional education.



# About the Department of Electronics and Communication Engineering

The Electronics and Communication Engineering Department was established in 1999 and the first batch of students graduated from here in 2003. Thus from a modest beginning in '99, the department has come a long way. Today the department is rated as to one among the leading departments among various colleges of the university. The courses offered are updated regularly to keep pace with the growing demands of the industry and the research community. The laboratories consist of all the latest equipment's to meet the dynamic changes in the curriculum. Apart from the regular labs, the department is setting up labs in image processing, RF system design, etc... The passed out students are working in various reputed industries in India and other countries such as USA, UK,



# About the Conference

International Conference on Agriculture, Healthcare and Green Computing perspectives of Communication Technologies (ICAHGCT - 2022) is to bring together the stakeholders from Academia, Industry and other sectors of Information and Communication Technology (ICT). It focusses to cross-fertilize innovative ideas and to share results of their researches and experiences in ICT. It aims to disseminate the ideas of Researchers, academicians and industrial practitioners in an open forum. The major objective of this conference is to address the role of green communication technologies towards the development of global level necessities in Agriculture and Healthcare sectors. The conference contains keynote speeches, paper presentation and panel discussions. The keynote speeches of the conference will be delivered by the eminent personalities from top ranked institutes and industries. The conference expects good quality manuscripts from academicians, researchers, and industry professionals for presenting their practical and theoretical novelties in the field of communication technologies. To provide a world-wide distribution of knowledge, the papers presented in the conference will be published as a Scopus indexed book series.

# **Topics of Interest**

# Agricultural Technologies

- Cloud Computing in Agriculture
- Cloud Computing Technologies
- Implementation of Cloud Computing in Agricultural Sector
- Cloud Service Models
- Cloud Meployment Models
- Farm Management System
- Cloud Based Autonomic Systems
- Agriculture Application Research on Cloud Computing
- Agricultural Nanotechnologies
- Nanofabrications in Agriculture
- Nanotechnologies for Agriculture and Foods
- Applications of Nanotechnology in the Agriculture and Food Sectors
- Nanomaterials in Plant Protection

- Nanoparticle-Based Delivery Systems for Nutraceuticals
- Internet of Things in Agriculture
- Agricultural Internet of Things Technology
- Strategic IoT Solutions for Smart Agriculture
- Internet of Things Ecosystem
- Water Supply Management
- Precision Agriculture
- Integrated Pest Management or Control
- Food Production and Safety
- Livestock Management

#### Healthcare Sciences and Medical Technologies

- Bioinformatics
- Biomedical Engineering
- Biomedical Science
- Cardiology
- Human Anatomy and Physiology
- Image and Signal Processing for Medicine
- Medical Computer-aided Diagnosis
- Medical Data Analysis
- Medical Education
- Medical Information Systems
- Patient Security
- Surgical Care systems
- Telemedicine
- Community Health
- E-health
- E-learning for Medicine
- Web Based Medical Information Systems

#### **Green Computing Techniques**

- Energy Harvesting Communications
- Energy-efficiency for 5G Networks
- Energy-efficient Data Centers
- Energy-efficient Data, Services and Memory Management
- Energy awareness in Big Data Processing and Storage
- Energy-efficient Protocols and Networking
- Green Scheduling and Resource Allocation for Communications
- Smart Energy and Smart Grid
- Power Quality, Power Electronics and Electric Machines
- Smart Grid Applications: Grid-to-Vehicle, Vehicle-to-Grid, Micro-Grid
- Renewable Energy Generation and New Energy Sources
- Pervasive Energy Services
- Green Technologies and Services
- Smart Sensing, Metering Systems and Smart Cities
- Green Vehicles, Green Homes and Green Buildings
- Green Industrial Automation and Control
- Green Intelligent Transport Systems
- Green Technologies for Mobile, Wireless and Wired Industrial Networking
- Privacy, Safety and Security in Green-aware Services
- Energy-constrained & Power-constrained Devices, Gateways and Systems
- Green Standardizations and Benchmarks for ICT
- Metrics for Sustainability and their Validation
- Ecosystem Modeling
- Power-aware Algorithms and Protocols
- Power-aware Software and Hardware
- Low-power Electronics and Systems
- Application-specific ASICs and FPGAs

#### Emerging Topics in Communication Technologies

- Biometric Security ND Fuzzy Systems
- Data Integrity Models for Authentication, Trust and Authorization
- Wireless Network Security and Information Hiding
- Access Control and Intrusion Detection
- Bio Medical and Bio Informatic Applications
- Bio inspired Algorithms
- Intrusion Detection and Vulnerability Assessment
- Sensor and Mobile Ad Hoc Network Security
- Service and Systems Design and Quos Network Security
- Biological and Nature-Inspired Algorithms
- Distributed Computing, Data Fusion and Aggregation
- Internet of Things (IoT) and Cyber-physical Networked Systems
- Mobile Computing and Vehicle Communications
- Network Management and Autonomic Computing
- Nano Communication Networks
- Privacy Protection Schemes and Sensitive Data Collection
- Recommendation Systems and Networks
- Signal and Information Processing over Networks
- Surveillance Networks and Visual Intelligence
- VLSI Design and Communication Networks
- Wireless Body Area Networks
- Artificial Intelligence and Data science
- Machine Learning/Deep Learning
- Smart Antennas, UWB Antennas
- RF Circuit Design, RF Integrated Circuit Design
- Antenna Design for High frequency Applications

#### **KEYNOTE SPEAKERS**



Prof. Vincenzo Piuri, FIEEE Department of Computer Science, Universita degli Studi di Milano,



Dr. Muthuraju Sangu Neuroscientist, University of Houston, Houston, Texas, USA.



Dr. P. Rajalakshmi
Professor,
Department of Electrical Engineering,
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Telangana.



Dr. S. Raghavan
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Dept. of Electronics & Communication Engg.,
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Tamil Nadu.



Dr. Debnath Bhattacharyya
Professor,
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All supporting staff members of Electronics and Communication Engineering

#### **Important Dates**

Paper submission link opens on : 02<sup>nd</sup> August, 2021

Paper submission link closes on : 20th November, 2021

Communication of Review comments : 03<sup>rd</sup> January, 2022

Submission of modified manuscript : 18th January, 2022

Intimation of final acceptance : 28<sup>th</sup> January, 2022

Last date of registration : 10<sup>th</sup> February, 2022

#### Registration Fee Details

International Delegates : ₹ 3,000/-\* (INR)

National Delegates : ₹ 2,000/-\* (INR)

Attendees : ₹ 1,000/-\* (INR)

50% Registration Fee Exempted for : ₹ 1,000/-\* (INR) SC/ST Participants

\*(Amount in Rupees Inclusive of GST)

#### Selected papers will be published in the following journals

1. AIP Conference Proceedings (Scopus Indexed)
Rs.10,000/- with Registration Fee

2. UGC approved ICTACT Image and Video Processing Journal (At free of Cost by Panel Decision)

Paper format link: https://aip.scitation.org/apc/authors/preppapers

#### Paper Submission Link



For any query, please mail to icahgct2022@sonatech.ac.in For registration and submission of paper: https://easychair.org/conferences/?conf=icahgct2022

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