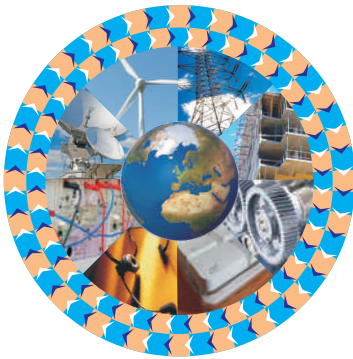


2015 IEEE International Conference

on

**SMART TECHNOLOGIES AND MANAGEMENT
FOR COMPUTING, COMMUNICATION, CONTROLS,
ENERGY AND MATERIALS**



ICSTM 2015

6TH - 8TH MAY 2015

CALL FOR PAPERS

JOINTLY ORGANISED BY



TECHNICAL SPONSORS



SUPPORTED BY



VENUE

VEL TECH Dr. RR & Dr. SR TECHNICAL UNIVERSITY

(VEL TECH RANGARAJAN DR. SAGUNTHALA R&D INSTITUTE OF SCIENCE AND TECHNOLOGY)

#42, Avadi-Vel Tech Road, Avadi, Chennai - 600 062, Tamil Nadu, INDIA.

VEL TECH DR.RR & DR.SR TECHNICAL UNIVERSITY

VEL TECH group of institutions were established in 1990 by a well-known Founder couple Prof. Dr.R.Rangarajan & Dr.Mrs.Sagunthala Rangarajan. They strongly believe that the nation's development and economic growth depends on the developments of education which creates wealth and health and that technology is the key to safety, security, progress and prosperity of our country. The Vel Tech city of education with a current student strength of 18000, houses a deemed university, three Engineering colleges affiliated to Anna University, four business schools, nursing college, polytechnic college and schools. VEL TECH RANGARAJAN Dr.SAGUNTHALA R&D INSTITUTE OF SCIENCE AND TECHNOLOGY(VEL TECH Dr.RR & Dr.SR TECHNICAL UNIVERSITY), Chennai duly declared as DEEMED to be UNIVERSITY under UGC Act 1956 by the UGC and notified by the Ministry of Human Resource Development, Government of India, New Delhi, and ISO 9001:2008 Certified Institution. VEL TECH offers a wide range of programmes in Engineering, Technology & Management, under the Schools of Mechanical & Construction Engineering, Electrical & Computing and Management. The curriculum is highly innovative and a fine blend of academic and industry requirements. Most part of the curriculum is designed by the industry itself. Vel Tech has 170 active MoU's (Research Institutes/Public Sector, Foreign Universities & MNCs) for various joint activities across the globe. The main objectives of the MoUs include: Joint Research in emerging areas, Joint / Dual / Credit transfer PG and Doctoral programmes, Arrangements for Internship, In-Plant Training, Industrial Visits, Faculty & Student Exchange, Joint Research, Projects, Conferences / Workshops / Seminars, Value Added Course, Finishing School Training etc. Ten hostels housing more than 3500 students provide hygienic accommodation and healthy food.



OKLAHOMA STATE UNIVERSITY

The university founded on December 25, 1890 is located in Stillwater, a north-central Oklahoma community at approximately 60 miles from the Tulsa and Oklahoma city. The University is co-educational and has an enrollment of over 33,000 students on its four campuses. It offers bachelor's, master's and doctoral degree in a large number of fields as well as the professional doctor of osteopathic medicine and doctor of veterinary medicine degrees. Specialist in education degrees are also offered in selected fields. The university has many distinct infrastructural facilities. OSU's 2 million volume library backed by its original counterparts, its modern research laboratories and equipment, excellent physical education, recreation and student union facilities, nationally-recognized residence halls programs, outstanding cultural events and 36 nationally-affiliated fraternities and sororities etc, all provide a stimulating educational and social environment.

SCOPE

IEEE ICSTM 2015 offers a unique opportunity to all researchers across the globe to share the knowledge of smart technologies and management on Computing, Communication, Controls, Energy and Materials. In recent times, Multidisciplinary research plays a vital role in technological growth. Several research groups are tackling highly complex systems by designing experiments that give unambiguous information even under complex situations. IEEE ICSTM 2015 provides an excellent platform for academicians, researchers and industrialist to discuss various issues in interdisciplinary areas that provide sound knowledge for advancement of research. In addition this conference will facilitate in fostering close relationship among researchers and felicitate for strengthening their domain knowledge and field of research.

OUTCOMES

The delegates are able to

- Gain knowledge from various domains and also attainment of facing practical problems.
- Refine their idea will motivate their involvement in research activities.
- Exposed about the recent advancement in their particular domain.
- Publish their research articles in IEEE digital library which is indexed by Scopus and also in Scopus indexed referred journal.

CALL FOR PAPERS

IEEE ICSTM 2015 invites Research articles from engineering professionals, industries, R&D organizations, academicians, employees of government departments and scholars across the globe. The full length original research manuscript should not exceed eight pages and it has to be as per the IEEE double column format. Further the manuscript should contain the name of the corresponding author with e-mail id and affiliation of all authors. The softcopy of the full length manuscripts (in .doc or .pdf) shall be submitted through <https://easychair.org/conferences/?conf=icstm2015> as per the IEEE prescribed format.

COMPUTING

- ❖ Big Data
- ❖ Bioinformatics & Computational Biology
- ❖ Brain Computing
- ❖ Cloud Computing
- ❖ Computing and Processing
- ❖ Context-aware intelligent computing
- ❖ Data Mining & Data Warehousing
- ❖ Green Computing
- ❖ Simulation and computational modeling
- ❖ Soft Computing
- ❖ Ubiquitous Computing
- ❖ Grid Computing
- ❖ Intelligent e-Technology such as e-Science, e-Business, e-Learning, e-Finance, e-Government and related technologies.
- ❖ Mobile ad-hoc Networks
- ❖ Mobile Computing
- ❖ Network Security
- ❖ Neural Networks
- ❖ Pervasive Computing
- ❖ Quantum computing
- ❖ Sensor Networks

COMMUNICATION

- ❖ Antennas, RF microwave
- ❖ Broadband and Cellular Networks (3G/4G, WiMAX / LTE, UWB)
- ❖ Communication, Cognitive Radio and Cognitive networks
- ❖ Communication, Networking and Broadcast Technologies
- ❖ Communications Systems Integration & Modeling
- ❖ Cyber security and Encryption techniques
- ❖ Digital Image Processing
- ❖ Fault Detection and Management
- ❖ Multimedia and multicast communications
- ❖ Multi-model Communications Networks
- ❖ Next-generation Communication Networks
- ❖ Routing and Flow Control in LANs, WANs and PANs
- ❖ Signal Processing and Analysis
- ❖ Video Distribution (IPTV, Mobile Video, Video on Demand) .
- ❖ VLSI Based System Design and Embedded System
- ❖ Wireless Communication

CONTROLS

- ❖ Adaptive / Robust / Optimal Control
- ❖ Aerospace
- ❖ Biomedical Instrumentation and applications
- ❖ Components, Circuits, Devices and Systems
- ❖ DSP and VLSI base process control
- ❖ Earth Station Systems and Technology
- ❖ Industrial Drives and Control
- ❖ Intelligent Control
- ❖ Mechatronics
- ❖ Neural networks and Fuzzy Systems
- ❖ Power Convertors Topologies and Design
- ❖ Process Control and Control Systems
- ❖ Real Time Control Systems
- ❖ Robotics and Automation .
- ❖ Tuning of PID Controller
- ❖ Virtual Instrumentation

ENERGY

- ❖ Advancement in Solar Energy System
- ❖ Energy Audit, Conservation & Green Energy technologies.
- ❖ Environment friendly Design and Systems
- ❖ Fields, Waves and Electromagnetics
- ❖ Future Challenges and Directions for RES
- ❖ Geoscience
- ❖ Micro and Nano technologies in Energy Systems.
- ❖ New Trends and Technology for RES
- ❖ Power, Energy and Industry Applications
- ❖ Renewable and alternate energy technologies
- ❖ Safety and Security of Renewable Energy System .
- ❖ Tidal, Wind, Geothermal & Ocean Energy and other emerging technologies.

MATERIALS

- ❖ Composite materials and Structural dynamics
- ❖ Damage and fracture mechanics
- ❖ Engineered Materials, Dielectrics and Plasmas
- ❖ Magnetic Materials
- ❖ Thermo Electric Materials
- ❖ Bio Materials
- ❖ Ceramic Materials
- ❖ Nano Materials and Devices
- ❖ Nuclear Materials
- ❖ Optical and Photonic Materials and Devices
- ❖ Smart Materials / MEMS and Sensors
- ❖ Super Conducting Materials
- ❖ Topological Insulator Materials.

PAPER SUBMISSIONS

The softcopy of the full length manuscripts (in .doc or .pdf) shall be submitted through <https://easychair.org/conferences/?conf=icstm2015> in the IEEE prescribed format as specified in the following link http://www.ieee.org/conferences_events/conferences/publishing/templates.html

AUTHOR INSTRUCTIONS

The manuscript should contribute original research ideas, development areas, result analysis, research based findings, etc. The manuscript should not be communicated/accepted/published either in any of the journals/magazines or conference proceedings and it should not go under reviews of any of them.

All the papers must follow the IEEE format.

➤ Manuscript Templates

MS Word and pdf templates for conference papers (US-letter or A4 page size) are provided at:http://www.ieee.org/conferences_events/conferences/publishing/templates.html

Authors are requested to refer the IEEE Pdf Express Instructions from conference website for the submission of final camera ready copy manuscripts.

<http://www.ieee.org/web/publications/pubservices/confpub/pdfexpress.html>

➤ Important IEEE Policy Announcement

Papers are reviewed on the basis that they do not contain plagiarized material and have not been submitted to any other conference at the same time (double submission). These matters are taken very seriously and the IEEE will take action against any author who has engaged in either practice.

IEEE Web Page on Plagiarism: http://www.ieee.org/web/publications/rights/Plagiarism_Guidelines_Intro.html

IEEE Web Page on Double Submission: http://www.ieee.org/web/publications/rights/Multi_Sub_Guidelines_Intro.html

PROCEEDINGS

The accepted & registered manuscripts after reviewing will be published in the conference proceedings (IEEE PRINT Part No: CFP15B55-PRT, ISBN: 978-1-4799-9854-8, IEEE CD-ROM Part No: CFP15B55-CDR, ISBN: 978-1-4799-9853-1). Upon the recommendations received from the reviewers and session chairs, recommended papers will be published in IEEE Xplore (IEEE XPLORE Complaint Part No: CFP15B55-ART, ISBN: 978-1-4799-9855-5) (Satisfying the Rules and Regulations of IEEE CPP).

The Manuscripts Selected for Poster Presentations of ICSTM 2015 will be recommended to publish in SCOPUS INDEXED Journals (Refer: www.veltechuniv.edu.in/icst2015) with Authors concern.

IMPORTANT DATES

| | | |
|---|---|--|
| Submission of full length paper not more than 8 pages | - | 15 th March 2015 |
| Notification of Acceptance | - | 29 th March 2015 |
| Submission of camera ready paper with Registration | - | 09 th April 2015 |
| Conference Dates | - | 6 th , 7 th & 8 th May 2015 |

ACCOMMODATION

Accommodation will be provided in the hostels inside the campus or in nearby hotels in Chennai on request. On prior intimation, reservation will be made in hotels in Chennai City. Hotel tariff ranges from ₹1000-3000. Transport will be available from the hotels to the venue of the conference.

CONFERENCE FEE

| Category | IEEE members | Non IEEE members |
|------------------------------------|--------------|------------------|
| Industry / R&D | ₹ 5,000/- | ₹ 6,000/- |
| Academic Institutions | ₹ 4,000/- | ₹ 5,000/- |
| UG/PG Students & Research Scholars | ₹ 3,000/- | ₹ 4,000/- |
| Foreign Delegates | US \$ 200 | US \$ 300 |
| Tutorial / Workshop* | ₹ 1,000/- | ₹ 2,000/- |

*Tutorial / Workshop topic will be displayed in the conference website by March 2015

ORGANIZING COMMITTEE

CHIEF PATRONS

Col Prof. Dr. Vel R. Rangarajan
Founder Chancellor & President, VTU.

Dr. Mrs. Sakunthala Rangarajan
Foundress President, VTU.

PATRONS

Mrs. Rangarajan Mahalakshmi. K
Chairperson & Managing Trustee, VTU.

Mr. K. V. D. Kishore Kumar
Vice President, VTU.

Dr. R. P. Bajpai
Chancellor, VTU.

Prof. Beela Satyanarayana
Vice Chancellor, VTU.

CO-PATRONS

Dr. R. RamaKumar
Regents Professor, Oklahoma State University, USA.

Dr. Paul Tikalsky
Dean, CEA&T, Oklahoma State University, USA.

Dr. James C. West
Professor, Oklahoma State University, USA.

CONFERENCE CHAIRS

Dr. E. Kannan
Registrar & Professor-CSE, VTU.

Dr. P. Sarasu
Director - R&D, VTU.

CONFERENCE CO-CHAIRS CUM ORGANISING SECRETARIES

Prof. E. Kamalanaban
Dean, SoE&C, VTU.

Dr. P. Visu
Associate Professor & Head, CSE, VTU.

Dr. S. Koteeswaran
Associate Professor, CSE, VTU.

Dr. Subhash Kak
Regents Professor, Oklahoma State University, Stillwater, U.S.A.

Prof. Pratapsinh Kakaso Desai
President, ISTE, India

Prof. Ezendu Ariwa
University of Bedfordshire, UK.

Dr. Rajkumar Buyya
Professor, The University of Melbourne, Australia.

Dr. Eric S. Ackerman
Dean & Associate Professor, Nova Southeastern University, Florida, U.S.A.

Dr. G. Thomas Bellarmine
Professor, Florida A&M University, Florida, USA.

Prof. Subramaniam Ganesan
Oakland University Rochester, USA.

Dr. Mia Torres Dela Cruz
Professor, Legenda Education Group, Malaysia.

Prof. Rajkumar Velu
AUT University, New Zealand.

Dr. Roman
Director, Special Scientific Engineering Company, Ukraine.

Dr. X. Z. Gao
Docent (Adjunct Professor), Aalto University School of Electrical Engineering, Finland.

Dr. Bhanu Prasad
Associate Professor, Florida A&M University, USA.

Dr. N. R. Alamelu
Chair, IEEE Madras Section & Principal of Ramakrishna Engineering College, Coimbatore.

Mr. H. R. Mohan
Chair, IEEE Computer Society (CS), IEEE Madras Section & President of Computer Society of India.

Dr. N. Kumarappan
Chair, IEEE Computational Intelligence Society (CIS), IEEE Madras Section & Professor, Annamalai University, Chidambaram.

Er. T. S. Rangarajan
Immediate Past Chairman, IEEE Madras Section & Principal Consultant, TCS, Chennai.

Lion Dr. P. Suresh Chander Pal
Melvin Jones Fellow, Ombudsman, IEEE Madras Section, Chennai.

Mr. K. V. Rupchand
Chair, TEMS & Immediate Past Chair, PES Madras Chapters, IEEE Madras Section

Prof. S. Elangovan
Chair, IEEE Young Professional Affinity Group, IEEE Madras Section & Professor, Akshaya College of Engineering and Technology, Coimbatore.

Dr. D. Ebenezer
Professor, Easwari Engineering College, Chennai.

Dr. G. S. N. Raju
Vice Chancellor, Andhra University, Visakhapatnam.

Dr. Prahlada
Adjunct Faculty, IISc, Bengaluru.

Dr. K. C. Vora
Deputy Director & Head of ARAI Academy, ARAI Pune.

Dr. Rama Chandran
Director, National Institute of Technology Nagaland Chumukedima, Dimapur.

Dr. C. Siva Ram Murthy
Professor, IIT Madras, Chennai.

Dr. U. Chandrasekhar
Director, ESCI (Ex-Officer), Hyderabad, Andhra Pradesh.

Dr. N. Ramesh Babu
Professor, IIT Madras, Chennai.

Dr. Dharanipragada Janakiram
Professor, IIT Madras, Chennai.

Prof. P. S. Avadhani
Professor, Andhra University, Visakhapatnam.

Dr. P. Shanmugam
Scientist E2, CLRI, Chennai.

Dr. R. Sarathi
Chair, PES Madras Chapter & Professor, IITM

TECHNICAL PROGRAMME COMMITTEE

Prof. Ezendu Ariwa
University of Bedfordshire, UK.

Dr. X. Z. Gao
Docent (Adjunct Professor), Aalto University School of Electrical Engineering, Finland.

Prof. Subramaniam Ganesan
Professor, Oakland University Rochester, USA.

Dr. Mia Torres Dela Cruz
Professor, Legenda Education Group, Malaysia.

Dr. George Yang
Professor, Missouri Western State University, USA

Dr. R. Sreeram Kumar
Professor, King Abdulaziz University Jeddah, Saudi Arabia.

ADVISORY COMMITTEE

Dr. Karl N Reid
Professor, Oklahoma State University, USA.

Dr. Keith. A. Teague
Professor, Oklahoma State University, USA.

Dr. Gary G. Yen
Professor, Oklahoma State University, U. S. A.

Dr. Martin T. Hagan
Professor, Oklahoma State University, U. S. A.

Dr. Chris Hutchens
Associate Professor, Oklahoma State University, U.S.A.

Dr. J. Alamelu Mangai

Senior Lecturer, Birla Institute of Technology & Science, Pilani

Dr. Pamini Thangarajah

Associate Professor, Mount Royal University, Alberta

Dr. Bhanu Prasad

Associate Professor, Florida A&M University, USA.

Dr. K. Manisekar

Professor, National Engineering College, TamilNadu.

Dr. Garimella Rama Murthy

Associate Professor, International Institute of Information Technology, Hyderabad .

Dr. K. Ramji

Professor, College of Engineering, Andhra University, Visakhapatnam.

Prof. S. Lakshmivarahan

George Lynn Cross Research Professor, University of Oklahoma, Norman, USA

Dr. Shripal Singh

Scientist & Officer-in-Charge, CIMFR Nagpur Unit-II, Nagpur.

Prof. Abdul Quaiyum Ansari

Professor, Jamia Millia Islamia, New Delhi.

Dr. Anwar Shahzad Siddiqui

Professor, Jamia Millia Islamia, New Delhi.

Mr. Sajeewan. G

Joint Director, Pune University Campus, Pune, India

Prof. P. S. Avadhani

Andhra University, Visakhapatnam.

Dr. T. Ravichandran

Professor, Hindustan Institute of Technology, Coimbatore.

Dr. R. Manoharan

Professor, Pondicherry Engineering College, Pondicherry.

Dr N. Kumarappan

Chair, IEEE Computational Intelligence Society(CIS), IEEE Madras Section & Professor, Annamalai University, Chidambaram.

Prof. S. Elangovan

Chair, IEEE Young Professional Affinity Group, IEEE Madras Section & Professor, Akshaya College of Engineering and Technology, Coimbatore.

Dr. R. Ponalagusamy

Professor, National Institute of Technology, Trichy.

Dr. P. Anandakumar

Professor, Anna University (MIT Campus), Chennai.

Dr. E. Ilavarasan

Professor, Pondicherry Engineering College, Pondicherry.

Dr. R. Krishnamoorthy

Dean Prof. & Head, Anna University of Technology, Tiruchirappalli.

Shri. M. Venkateshkumar

Vice Chairman, IEEE Young Professional Affinity Group, IEEE Madras Section.

Dr. D. Ebenezer

Professor, Easwari Engineering College, Chennai.

Dr. M. Raj Mohan

Professor, Anna University, Chennai.

Dr. S. Appavu alias Balamurugan

Professor, K.L.N. College of Information Technology, TamilNadu.

Dr. T. Sheela

Professor, Sri Sai Ram Engineering College, Chennai.

Dr. S. Thangaprakash

Professor, SVS College of Engineering, Coimbatore.

Dr. M. Amutha Prabhakar

Professor, R.V.S. College of Engineering & Technology, Dindugal.

Dr. P. Somasundharam

Professor, Anna University, Chennai.

Dr. G. Nagarajan

Professor, Anna University, Chennai.

Dr. S. K. Srivatsa

Rtd. Professor, MIT, Chennai.

Dr. G. Appa Rao

Associate Professor, IIT, Madras.

Dr. G. Ravi

Professor, Pondicherry Engineering College, Pondicherry India.

Dr. M. Jayaprakasan

Deputy Director, Advanced Training Institute, CTI Campus, Chennai.

Dr. S. Padmanabha

Professor, T.John Institute of Technology, Bangalore, Karnataka.

Dr. S. Iniyan

Professor, Institute for Energy Studies, Anna University, Chennai.

Dr. Gnanou Florence Sudha

Professor, Pondicherry Engineering College, Puducherry.

Dr. Prabu Sevugan

VIT University Vellore, Tamil Nadu, INDIA.

Dr. R. Kesavan

Professor, M.I.T.Campus, Anna University, Chennai.

Dr. A.Venkataswamy Reddy

Professor, N.I.T Tiruchirappalli.

Dr. P. Venkatesan

Retd.Senior Scientist, Indian Council of Medical Research (ICMR), Chennai.

Dr. S. Muthuramalingam

Professor, Thiagarajar College of Engineering, Madurai.

Dr. Senthamarai Kannan

Professor, Kalasalingam University, Krishnan Kovil, Tamilnadu, India

Prof. Dr. Natarajan Gajendran

The Editor, Indian Journal of Science and Technology, Chennai, India.

Dr. S. Geetha

Professor, VIT University, Chennai.

Dr. V. Anandkrishnan

Professor, NIT, Trichy.

Dr. K. Manivannan

Professor, R.M.K. Engineering College, Chennai.

Dr. N. Duraipandian

Professor, Velammal Engineering College, Chennai.

Prof. Dr. Gabriel M Kumar

Park College of Engineering and Technology, Coimbatore.

Dr. G. S. R. Emilselvan

Professor, Thiagarajar College of Engineering, Madurai.

Dr. S. Chandrasekar

Professor, VIT University, Vellore, Tamil Nadu, India.

Dr. K. Dinakaran

Professor, R.M.D. Engineering College, Chennai.

Dr. M. Omkumar

Professor, Anna University, Chennai.

Dr. S. Prabakar

Professor, Kathir College of Engineering, Coimbatore.

FOR REGISTRATION AND FURTHER INFORMATION CONTACT

Dr.E.Kannan, Conference Chair, Mobile: +91 9445049400

Dr.P.Visu, Conference co- Chair, Mobile:+91 9884002675

Dr. S. Koteeswaran, Conference co- Chair, Mobile: +91 9884378785

#42, Avadi-Vel Tech Road, Avadi, Chennai - 600 062, Tamil Nadu, INDIA.

E-mail: : icst2015@veltechuniv.edu.in, icstm2015@veltechuniv.edu.in, veltech@vsnl.com

Website: www.veltechuniv.edu.in/icst2015