

## SPECIAL SESSION (SS03)

# Special Session: Innovative practices, tools, techniques, technologies for enabling Cyber-Physical System (CPS)

### Organizers:

**Dr. R. K. Nadesh,**

*Associate Professor, School of Information Technology and Engineering , Vellore Institute of Technology , Vellore.*

*Contact : rknadesh@live.in , (M) +91-94441-39524*

R .K. Nadesh is a Full-time Associate Professor of School of Information Technology and Engineering, VIT Vellore since June 2007. He was previously a visiting faculty at Anna University, Chennai 2001-2007. He has about Eighteen years plus experience in academic and research. He works on Hybrid Wireless Networks, Mobile Cloud Computing, Cyber-Physical Systems, IoT and Connected Devices, IoE & Enterprise Systems. His focus is on investigating the possibilities for building smart environment that contributes smart solutions to the society. The goals of his work are to discover the design principles and then instantiate them in the real time environment. He has guided many student initiatives and developed prototypes to his credit and published papers in the peer reviewed journals. At VIT, he served as Program Chair - B.Tech (Information Technology) programme during 2014-2016 and Division Chair - Information Systems during 2014-2016. He had received Active Participation (youth) award –Region -VII from Computer Society of India during 2016-17 & 2017-18 , VIT research award & VIT service award in 2018.

**Dr. P.M. DuraiRaj Vincent,**

*Associate Professor, School of Information Technology and Engineering , Vellore Institute of Technology , Vellore.*

*Contact : pmvincent@vit.ac.in, (M) + 91-99949-11503*

P.M. Durai Raj Vincent, received his B.E. and M.E. from Anna University, Chennai, India. He also received his Ph.D., from VIT University Vellore in 2015. He is presently working as an Associate Professor in the School of Information Technology and Engineering at Vellore Institute of Technology (VIT), India. He is having more than 13 years of teaching and research experience. He has been working in VIT University for more than 10 years and among that, he was holding the position of Head of the Department in School of Information Technology and Engineering for about 2 years and 3 months (Regular Tenure of a HoD in VIT). He has more than 45 publications in the peer reviewed Scopus indexed journals and his h-index is 7. Currently he is guiding few research scholars in the field of Machine Learning. He is serving as a reviewer in several journals including IEEE Access. He has organized few international conferences and several workshops in the past. He has delivered several invited talks and served as a session chairs in international conferences. He had strong industrial connection and he has handled classes for Wipro and CTS employees.

## Details of Proposed Session

The advancement of technology clues to the growth of smart industries & the development of smart and secure environments in various domains. Industry 4.0 marks a new phase in the Industrial Revolution that focuses heavily on interconnectivity, automation, machine learning, and real-time data. Industry 4.0 takes the emphasis on digital technology from recent decades to a new level with the help of interconnectivity through the Internet of Things (IoT), access to real-time data, and the introduction of cyber-physical systems. Smart Manufacturing combines operational technology with information technology to provide digital business technology. The complementary techniques in machine learning and big data analytics provide a more holistic and better-connected ecosystem for companies that focus on manufacturing and supply chain management. The prerequisite of artificial intelligence in the industry is witnessed through Industry 5.0 which is emerging as the Cognitive Cyber-Physical System. Not only focused on industry, but the theme of the special session also focuses on the development of Smart City, Digital Transactions, Health Care Systems, Agriculture Things, and Smart Irrigation.

This special session seeks original research and technological development for addressing real and complex issues related to society and technology.

### ***A research area for this special session includes but not limited to:***

1. Cloud Computing tools for Enterprise Resource Planning (ERP)
2. Technologies for Supply Chain Management (SCM)
3. Tools for Customer Relationship Management (CRM)
4. E-commerce, M-commerce
5. Industrial Internet of Things
6. Artificial intelligence (AI) for Smart Environment
7. Machine-to- Machine interaction
8. Application for Digitization
9. Machine learning for Smart Environment
10. Security and Privacy for smart factory
11. Data Analytics
12. Tools and Environment for Real-time data processing
13. Ecosystem
14. Edge Computing for Internet of Things
15. Resource Scheduling for Edge/FOG/Cloud Environment
16. Mobile Application for Digitization
17. Latest Communication Technologies
18. Role of 5G in building smart and secure environment
19. VR/AR in smart city development
20. Authentication and Authorization for Digital Transactions
21. Internet of Medical Things
22. Internet of Agricultural Things

  


2020  
ICSTCEE  
10-11 July 2020

International Conference on  
Smart Technologies in Computing,  
Electrical and Electronics

Venue: REVA Universtiy, Bengaluru, India



23. Health Care Systems
24. Innovative practices for Smart Agriculture and Smart Irrigation
25. Mobile Computing for Industry 4.0
26. Cognitive Cyber Physical System (Industry 5.0)
27. Advanced architectures, operating systems, networking models for developing smart applications.
28. Automated Systems