# **Organizing Committee**

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Prof. Vasudevan R. Dean School of Mechanical Engineering, VIT, Vellore.

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School of Mechanical Engineering, VIT, Vellore.

Prof. Mallikarjuna Reddy D Head of the Department,

Department of Design and Automation, VIT, Vellore.

# **Organizing Chairs**

Prof. Ramakrishnan R School of Mechanical Engineering, VIT, Vellore.

Prof. Kalaiarassan G School of Mechanical

Engineering, VIT, Vellore.

Prof. Gunji Bala Murali School of Mechanical

Engineering, VIT, Vellore.

Prof. Boopathi M

School of Mechanical Engineering, VIT, Vellore.

Prof. Giriraj M

School of Mechanical Engineering, VIT. Vellore.

Prof. Kanish T.C

School of Mechanical Engineering, VIT. Vellore.

**Prof. Raghuraman DRS** 

School of Mechanical Engineering, VIT, Vellore.

Prof. Rajay Vedraj I.S

School of Mechanical Engineering, VIT. Vellore.

Prof. Sathish paulraj Gundupalli School of Mechanical Engineering, VIT. Vellore.

**Prof. Senthil Kumar S** 

School of Mechanical Engineering, VIT, Vellore.

Prof. Sudhir Raj

School of Mechanical Engineering, VIT. Vellore.

## **Invited Speakers**

academicians Eminent and researchers from KIT Germany, University west Sweden, City University & University of Manchester from London, Duy Tan University Vietnam, University of Nantes & University of Lorraine from France, National Taiwan University of Science and Technology, Taiwan along with technologists industrial of institutions like Delta Electronics, Valeo, Honey well, Cadopt Technologies and Mahindra have agreed for presenting the latest trends and innovations in Conference.

#### **About Conference**

Virtual Conference on "Mechatronics, Automation and Cyber-Physical Systems" (MAC 2020) will be held online during 26-27 June 2020. MAC 2020 is organized by the Cyber Physical Systems Research Group, Department of design and automation, School of Mechanical Engineering, VIT. Vellore.

MAC 2020 aims to bring leading researchers academicians, and students around the globe to exchange and share their research experiences and results on all aspects of Mechatronics, Automation and Cyber-Physical Systems. It also provides a versatile interdisciplinary platform and forum discuss the most recent innovations, trends, and concerns in fields Mechatronics, of Automation and Cyber-Physical Systems.

# **Topics of Interest**

- Autonomous system
- Advanced Control system
- Cyber Security and networking Cyber physical systems
- Digital Manufacturing
- Electric vehicles
- Factory automation
- Fluid power systems
- Industry 4.0
- Internet Of Things Machine vision systems
- Mechatronics
- Modelling and simulation
- Robotics and automation
- Soft robotics
- Wireless networks Virtual & Augmented reality

# Who can attend?

Academicians, researchers, graduate students and industrialist who are working in the interdisciplinary areas such as mechatronics, automation and cyber physical systems.

# **Paper Submission**

Authors can prepare and submit the research abstracts and papers in IEEE format and send as an email attachment to: vitcps@gmail.com

# Registration

The registration for the Virtual Conference MAC 2020 can be done by filling the Google form:

#### **Publication**

The selected papers of the conference will be published in the Conference Proceedings with ISBN after peer reviewing. E-certificates will be issued to all authors of submitted manuscripts.

# **Contact**

For more details and clarifications, authors can contact the organizers through Email: vitcps@gmail.com hod.da@vit.ac.in.

Phone:+91-9444868585, | +91-8668034606 | +91-9894026763 |

### **Important dates:**

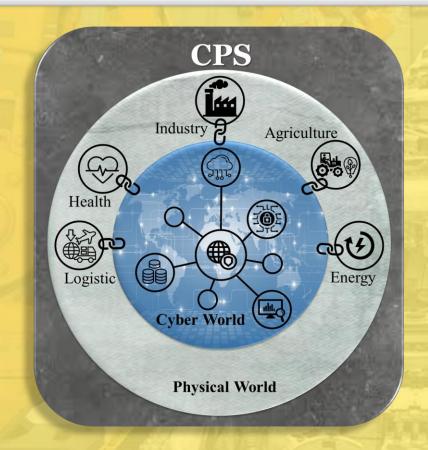
Last date for registration: 20.06.2020 : 15.06.2020 **Abstract Submission** Full paper Submission : 20.06.2020

: 26.06.2020 Conference Dates 27.06.2020



"Mechatronics, Automation, and Cyber Physical Systems"

> (MAC 2020) 26 & 27th June 2020



Organized by **Cyber Physical System Research Group** 

Department of Design and Automation School of Mechanical Engineering Vellore Institute of Technology, Vellore

# List of Speakers



**Dr. Anand Nayyar**Graduate School
Duy Tan University, Vietnam



**Dr. Damien CHABLAT**CNRS Research Director
Laboratory of Digital Sciences of Nantes
University of Nantes, France



**Dr. Michael Ericsson,** Professor Conducts research in engineering and technology, production technology University west, Trollhättan, Sweden



**Dr. Mayank Shekhar Jha**Associate Professor, Polytech Nancy,
University of Lorraine
France.



**Dr. Ragupathyraj Valluvan**Department of Electrical and Electronic Engineering,
Faculty of Engineering, University of Jaffna, Srilanka



**Dr. Saranarayanan Ramachandran**Post Doctoral Research Associate
University of Manchester
United Kingdom (UK)



Dr.Steffen Gerhard Scholz
Institute for Automation and Applied Informatics
Karlsruhe Institute of Technology (KIT)
Leopoldshafen, Germany.



**Dr.Thileepan Stalin**Research Associate at Singapore University of Technology and Design (SUTD), Singapore.



**Dr. Zhengzhong sun**Department of Mechanical Engineering and Aeronautics
City university London, UK

# **About School of Mechanical Engineering**

School of Mechanical Engineering (SMEC) is amongst the premier schools of VIT which started functioning right from 1984. The **school** has got a team of highly qualified **faculty** members, many holding PhDs from the elite institutes across the globe, to teach and train the best minds of this country. The pride of the school lies in the significant research funding received from several government agencies such as DST, DRDO, MNRE, CSIR, CVRDE, CPDO, IE, AR&DB, BRNS, ISRO, UGC, NRB, AICTE and also from international funding agencies such as DSTUKIERI, Royal Academy of Engineering, Indo-German etc., and Memoranda of Understanding (MoU) with various Industry, Research Organisations and leading Universities.

The Department of Science and Technology, Govt. of India has recognized the school for its research activities and supported in 2003 and 2010 under FIST scheme. The School has modern facilities, enabling cutting edge research in a wide spectrum of technological areas. The school actively assists local industries in product design, complex-part manufacturing and Computational Fluid Dynamics.

SMEC has modern facilities enabling cutting edge research in a wide spectrum of technological areas. Three of the Bachelor's Degree Programmes offered by the school, B. Tech. in Mechanical Engineering, B. Tech. Mechanical with Specialisation in Automotive Engineering, B. Tech. Mechanical with Specialisation in Energy Engineering are accredited by Engineering Accreditation Commission of ABET. M.Tech degree programs like CAD/CAM, Mechatronics, Manufacturing and Mechanical with specialization in cyber physical systems are also offered to the students. The courses offered cater to the needs of Aerospace, Defence, Manufacturing, Energy and Automotive industries.

### **Conference Sessions**

#### **Session:1 (Keynote presentation)**

This conference is focused on delivering the advancements in the areas of Mechatronics, Automation, Cyber-Physical Systems by academicians, researchers and industrialists all across the world.

#### Session:2( Workshops and On demand presentations)

This session involves online workshops on Advanced Control systems, Deep learning using MATLAB. Pre-recorded Participant presentations will be streamed based on the requests and demands of the participants.

### **About Vellore Institute of Technology**

Vellore Institute of Technology (VIT), Vellore, one of the premier institutes in India Tamil Nadu, was established in 1984. It is a major, comprehensive, student-centred research institution dedicated to excellence in teaching, research and service. VIT comprises of various schools and interdisciplinary research centres offering undergraduate, post graduate and research programmes in various engineering disciplines. The institute was established with the aim of providing quality higher education at par with International standards. VIT Vellore campus has a cosmopolitan atmosphere with students from all corners of the globe. Memoranda of Understanding with various international universities and industries are the major strength of VIT.

Mission of VIT is to educate students from all over India, including those from the local and rural areas, and from other countries, so that they can become enlightened individuals, improving the living standards of their families, industries and society. VIT provides individual attention, world-class quality education and takes care of character building. There are student and faculty exchange programs, to encourage joint research projects for the mutual benefit. VIT Vellore obtained grade "A" for all the programs offered by the University during the re-accreditation processes in February 2015. The University was recently Ranked No.1 Private Engineering Institution by MHRD, Govt. of India. VIT – Recognized as Institution of Eminence (IoE) by Government of India

# **About Cyber Physical System Research Group**

Cyber-Physical Systems (CPS) Research Group is part of the Department of Design and Automation at Vellore Institute of Technology, Vellore. Primary interests of CPS research group are research and technology development in the interdisciplinary engineering domains of mechatronics, robotics, cyber physical systems, automation, Industry 4.0, wireless network, cyber security, artificial intelligence and machine learning, computer vision and image processing. Major objectives of the CPS Research group are given below:

- To promote interdisciplinary research and industry driven innovation in the cutting edge areas of cyber physical systems and mechatronics.
- To provide the knowledge and skill in intelligent product development and upgrading skills in interdisciplinary engineering areas.
- > To support industries by developing cost effective engineering technologies and providing novel solutions through consultancy services.
- ➤ To enable a collaborative research mechanism for creating innovative technologies in the areas of cyber physical system and mechatronics.