Pre-Conference Workshop on Industry 4.0

Organised by CEFC I4.0India@IISc under the SAMARTH Udyog Programme of DHI (GoI) at CPDM, IISc
7th International Conference on Product Lifecycle Modelling, Simulation and Synthesis (PLMSS 2019)
16-17 December 2019, Hotel Taj MG Road, Bengaluru

The workshop is intended to provide an overview of key concepts and technologies underlying Industry 4.0, the fourth industrial revolution, which is disruptively reshaping the design and manufacturing of the future. The workshop is intended for students, academics, practitioners and policymakers that work in or with the areas of design, manufacturing, innovation and entrepreneurship. The workshop is offered by though leaders in industry and academia in the area of Industry 4.0, and is organised by the leadership at the Common Engineering Facility Centre (CEFC) that is developing one of India's first Smart Factory Platforms at Indian Institute of Science called I4.0India@IISc under the SAMARTH Udyog Programme of the Department of Heavy Industries (DHI) of Government of India. The workshop takes place before the 7th International Conference on Product Lifecycle Modelling, Simulation and Synthesis (PLMSS 2019, see weblink http://plmss.org.in/plmss-2019/) organised jointly by CBS DRDO and CPDM IISc takes place at the same venue.

An outline of the Programme is given below:

16 December 2019	
10.00 - 10.30 AM	Coffee and Icebreaker
10.30 – 11.30 AM	**"Overview of Industry 4.0 and its Key Technologies"** By Professor Amaresh Chakrabarti, Chairman, Centre for Product Design and Manufacturing, IISc, Bengaluru.
11:30 – 12:30 PM	**"Cyber Physical Systems"** By Prof. L.M. Patnaik Honorary Professor with the Department of Electronic Systems Engineering, Indian Institute of Science, Bangalore, and INSA Senior Scientist and Adjunct Professor with the National Institute of Advanced Studies, Bengaluru.
12:30 – 13:30 PM	Lunch
13:30 – 14:30 PM	**"Digital Manufacturing"** By Prof. B. Gurumoorthy, Professor, Centre for Product Design and Manufacturing and Chief Executive, SID, IISc, Bengaluru.
14:30 – 15:30 PM	**"Computational Ergonomics"** By Prof. Dibakar Sen, Professor, Centre for Product Design and Manufacturing, IISc, Bengaluru.
15:30 – 16:00 PM	Tea/Coffee Break
16:00 – 17:00 PM	**"Virtual Reality, Augmented Reality, Mixed Reality"** By Dr. Pradipta Biswas, Assistant Professor at the Centre for Product Design and Manufacturing and affiliated faculty at the Robert Bosch Centre for Cyber Physical Systems of Indian Institute of Science, Bengaluru.
17:00 – 18:00 PM	**"Additive Manufacturing"** By Dr. Dheepa Srinivasan, Chief Technology Office at INTECH, DMLS, India's first and largest service provider of metal 3D printing and Adjunct faculty at the Indian Institute of Technology, Ropar, Visiting faculty at Vellore Institute of Technology, Vellore, and Research Professor at Vel Tech University, Chennai.

17 December 2019	
10.00 - 10.30 AM	Coffee
10.30 – 11.30 AM	**"Robotics and Autonomous Systems"** By Prof. Ashitava Ghosal, Department of Mechanical Engineering, IISc, Bengaluru.
11:30 – 12:30 PM	**"Artificial Intelligence"** By Dr. V. Susheela Devi, Department of Computer Science and Automation, IISc, Bengaluru.
12:30 – 13:30 PM	Lunch
13:30 – 14:30 PM	**"Data Analytics"** By Dr. Ashish Joglekar, Member of Technical Staff at Robert Bosch Centre for Cyber-Physical Systems, IISc, Bengaluru.
14:30 – 15:30 PM	**"IoT and Communication Protocols"** By Prof. TV Prabhakar, Principal Research Scientist, Department of Electronic Systems Engineering, IISc, Bengaluru.
15:30 – 16:00 PM	Tea/Coffee Break
16:00 – 17:00 PM	**"Block Chain"** By Dr. Praphul Chandra, Founder & Chief Scientist of Cryptoeconomics, Platform Architecture at the Koinearth, Professor at Insofe, Bengaluru.
17:00 – 18:00 PM	**"Sensors and Mechatronics"** By Dr. Manish Arora, Assistant Professor, Centre for Product Design and Manufacturing, Indian Institute of Science, Bengaluru.