



**VIT**<sup>®</sup>  
Vellore Institute of Technology  
(Deemed to be University under section 3 of UGC Act, 1956)

**2<sup>nd</sup> INTERNATIONAL CONFERENCE**

**ON**

**ROBOTICS, INTELLIGENT  
AUTOMATION AND CONTROL  
TECHNOLOGIES  
(RIACT 2021)**

**Theme: Design, Intelligent Automation, Control,  
Communication of Robots & Machines**

**Sep 23-25, 2021**

**In Association with**



**Sponsored By**



***robotics***

an Open Access Journal by MDPI

**RIACT 2021**

**CHIEF PATRONS**

**Chief Patron**



**Dr. G. VISWANATHAN**

Chancellor, Vellore Institute of Technology, India.

**Patrons**



**Shri SANKAR VISWANATHAN**

Vice-President, Vellore Institute of Technology, India.



**Dr. SEKAR VISWANATHAN**

Vice-President, Vellore Institute of Technology, India.



**Shri G. V. SELVAM**

Vice-President, Vellore Institute of Technology, India.



**Ms. KADHAMBARI S. VISWANATHAN**

Assistant Vice-President, Vellore Institute of Technology, India.

**Dr. Rambabu Kodali**

Vice-Chancellor, Vellore Institute of Technology, India.

**Dr. V S Kanchana Bhaaskaran**

Pro Vice-Chancellor, Vellore Institute of Technology, Chennai, India.

**Dr.P.K.Manoharan**

Additional Registrar, Vellore Institute of Technology, Chennai, India.

## **ADVISORY COMMITTEE**

### **Prof. M. Osman Tokhi**

Professor, Head of Cognitive Systems Research Centre, School of Engineering, London South Bank University, London, UK

### **Prof. Yang Gao**

Professor, Space Autonomous Systems, Faculty of Engineering and Physical Sciences, University of Surrey, UK.

### **Prof. Daniel Schilberg**

Vice Dean, Vice Dean Mechatronics and Research, Head of Institute, Institute of Robotics and Mechatronics, University of Applied Sciences Bochum, Germany

### **Dr. Asuman Suenbuel**

Senior Director at SAP Startup Accelerator, SAP Labs, Silicon Valley, USA

### **Prof. Alamgir Hossain,**

Professor, Department of Computing, Teesside University

### **Dr. Hao Su**

Director, Biomechatronics and Intelligent Robotics (BIRO) lab and Director of Assistive and Personal Robotics for Independent Biologically Inspired Engineering, City University of New York, City College, USA.

### **Prof. Attila Vidacs**

Associate Professor, Faculty of Electrical Engineering and Informatics, Budapest University of Technology, Budapest

### **Prof. Dumitru Burdescu**

Professor, University of Craiova, Romania

### **Prof. Minoru Sasaki**

Senior Professor, Department of Mechanical Engineering, Gifu University, Japan

### **Prof. Hiroshi Sakai**

Professor, Faculty of Engineering, Kyushu Institute of Technology, Japan

### **Dr. Milena Y Krumova**

Founder and Director of European Institute for Technologies, Education and Digitalisation, Bulgaria

### **Mr. Stefano Tonello**

CEO, IT+Robotics, Italy

### **Mr. Vincenzo Marchica**

Founder and CEO, Vincix Group, London, UK

### **Mr. Erik Pekkeriet**

Wageningen University & Research, Netherlands

### **Prof. Sivaramakrishnan R**

Professor & Head, Department of Production Technology, MIT Campus, Anna University, India

### **Dr. N Seetharaman**

Scientist G, CVRDE, DRDO, Chennai, India

**Dr. Arunachalam N**

Associate Professor, Department of Mechanical Engineering, Indian Institute of Technology, Madras, India

**Dr. Sreekumar M**

Associate Professor, Department of Mechanical Engineering, Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram, India

**Dr. Ponnambalam S G**

Professor (Higher Academic Grade), SMEC, VIT Vellore, TN, India

**Dr Annamalai K**

Professor, Design and Automation Research Group, SMEC, VIT Chennai, TN, India

**Dr. V. Sugumaran**

Professor, Design and Automation Research Group, SMEC, VIT Chennai, TN, India

**TECHNICAL REVIEW COMMITTEE****External Members****Dr Mark Ovinis**

Senior Lecturer, UTP, Malaysia

**Dr Latifah Nurahmi**

Senior Assistant Professor, ITS Nopember, Indonesia

**Dr Sasitharan Subramanian**

Senior R&D Engineer, ABB, Ludvika, Sweden

**Dr. Richard L Jayaraj**

Medical Research Specialist, CMHS, UAE

**Dr. T Ram Prabhu**

Assistant Director / Scientist, DRDO, Bangalore, India

**Dr Subhasis Bhaumik**

Professor, IEST, West Bengal, India

**Dr Joseph Davidson**

Associate Professor, School of Mechanical Engineering, NIT Warangal, India

**Dr Sudheer A P**

Assistant Professor, NIT Calicut, India

**Prof Ravi Prakash Tewari**

Professor, MNNIT, Allahabad, India

**Dr S Poonguzhali**

Associate Professor, CEG Campus, Anna University, India

**Dr N Rino Nelson**

Assistant Professor, IIITDM, India

**Dr Vedvyas Jayprakash Dwivedi**

Vice Chancellor, Gokul Global University, India

**Dr Elangovan Rajagopalan**

Professor, KCG College of Technology, India

**Dr K. Badrinath**

Professor, Department of Mechanical Engineering, SVCE, Sriperumbudur, TN, India

**Dr S S Ohol**

Professor, COEP, Pune, India

**Dr G B Krishnappa**

Dean R&D, VVCE, Karnataka, India

**Dr. Dinakaran D**

Professor, HITS, Tamil Nadu, India

**Dr. S. Shankar**

Professor, Kongu Engineering College, Tamil Nadu, India

**Dr Balamurugan Balusamy**

Professor, Chief Research Coordinator, Galgotias University, India

**Dr Tanya Singh**

Professor, School of Engineering and Technology, Amity University, India

**Dr Jacob T Varghese**

Professor, School of Mechanical Engineering, Saintgits College of Engineering, Kottayam, Kerala, India

**Dr T Lalitha**

Professor, Sastra University, India

**Dr Rajkumar Muthusamy**

PDF, Khalifa University Centre for Autonomous Robotic Systems, UAE

**Dr Varun Menon**

Head of the Department, SCMS School of Engineering and Technology, Kerala, India

**Dr V Balambika**

Professor and Head, Department of Mechatronics, Bharat Institute of Higher Education and Research, India

**Dr. I Thirunavukkarasu**

Associate Professor, MIT MANIPAL, India

**Dr. Poongodi C**

Associate Professor, Kongu Engineering College, India

**Dr. P Pal Pandian**

Associate Professor, CHRIST (Deemed to be University), Karnataka-State, India

**Dr. G. Satheesh Kumar**

Associate Professor, SSN, Tamil Nadu, India

**Dr. S. Pravin Kumar**

Associate Professor, SSN, Tamil Nadu, India

**Dr T Muthuramalingam**

Associate Professor, SRM, TN, India

**Dr R Senthilnathan**

Associate Professor, SRM, TN, India

**Dr G Shanmugasundar**

Associate Professor, Sri Sai Sairam Institute of Technology, TN, India

**Dr Prem Ananth**

Associate Professor, Department of Mechanical Engineering, SVCE, Sriperumbudur, TN, India

**Dr Kuppan Chetty**

Associate Professor, Department of Mechanical Engineering, HITS, TN, India

**Dr B Sumathy**

Associate Professor, Sri Sairam Engineering College, TN, India

**Dr. G. Ananthi**

Assistant Professor, Thiagarajar College of Engineering, Madurai, India

**Dr P.D. Rathika**

Assistant Professor, PSG College of Technology, TN, India

## **Internal Members**

**Dr. N. Maheswari**

Professor, School of Computer Engineering, VIT Chennai, TN, India

**Dr Francis Xavier**

Professor and Head, School of Mechanical Engineering, VIT Bhopal, India

**Dr. V.G. Sridhar**

Professor, School of Mechanical Engineering, VIT Chennai, TN, India

**Dr. R. Ganesan**

Professor, School of Computer Engineering, VIT Chennai, Tamil Nadu, India

**Dr CH.Pradeep Reddy**

Professor, School of Computer Science and Engineering, VIT AP, India

**Dr. I.S. Rajay Vedaraj**

Professor, School of Mechanical Engineering, VIT Vellore, Tamil Nadu, India

**Dr Nageswara Guptha M**

Senior Associate Professor, School of Computing Science and Engineering, VIT Bhopal, India

**Dr. T.S.Pradeepkumar**

Associate Professor, School of Computer Engineering, VIT Chennai, TN, India

**Dr. Sathis Kumar B**

Associate Professor, School of Computer Engineering, VIT Chennai, TN, India

**Dr. P.S. Nithya Darisini**

Associate Professor, School of Computer Engineering, VIT Chennai, TN, India

**Dr. M.Sivagami**

Associate Professor, School of Computer Engineering, VIT Chennai, TN, India

**Dr. R. Maheswari**

Associate Professor, School of Computer Engineering, VIT Chennai, TN, India

**Dr. R.Manoj Kumar**

Associate Professor, School of Electronics Engineering, VIT Chennai, TN, India

**Dr. D.Subbulekshmi**

Associate Professor, School of Electrical and Electronics Engineering VIT Chennai, TN, India

**Dr. V.Berlin Hency**

Associate Professor, School of Electronics Engineering, VIT Chennai, TN, India

**Dr Keyur B Joshi**

Associate Professor, School of Mechanical Engineering, VIT Vellore, TN, India

**Dr Pushpdant Jain**

Assistant Professor, School of Mechanical Engineering, VIT Bhopal, India

**Dr. Angaleswari**

Assistant Professor, School of Electrical and Electronics Engineering VIT Chennai, TN, India

**Program Committee Members**

**Dr Maher Al-Greer**

Senior Lecturer, Department of Engineering, Teesside University

**Dr Hossein Habbibi**

Senior Lecturer, Department of Engineering, Teesside University

**Dr Vladimir Vukovic**

Senior Lecturer, Department of Engineering, Teesside University

**Dr Sean Williams**

Lecturer, Department of Engineering, Teesside University

**Dr Tracey Crosbie**

Reader (Associate Professor), Department of Engineering, Teesside University

**Dr Claudio Angione**

Reader (Associate Professor), Department of Computing, Teesside University

**Dr Rajesh Shankar-Priya**

Senior Lecturer, Business School, Teesside University

**Organizing Committee Members**

**Dr Sasikumar M**

Professor, School of Mechanical Engineering, Vellore Institute of Technology, Chennai, India

**Dr Lenin Babu M C**

Senior Associate Professor, School of Mechanical Engineering, Vellore Institute of Technology, Chennai, India

**Dr Jafferson J M**

Associate Professor, School of Mechanical Engineering, Vellore Institute of Technology, Chennai, India

**Dr Elango M**

Assistant Professor (SG), School of Mechanical Engineering, Vellore Institute of Technology, Chennai, India

**Co-Convenor**

**Dr Michael Short**

Professor, Teesside University, UK

**Convenor**

**Dr Arockia Selvakumar Arockia Doss**

Senior Associate Professor, School of Mechanical Engineering, VIT, Chennai, TN, India