CHENNAI

School of Mechanical Engineering

Cordially invites you for the inauguration of

Second Virtual International Conference on

Robotics, Intelligent Automation and Control Technologies

RIACT 2021

SEPTEMBER 23 - 25, 2020

Chief Guest

Prof. Alamgir Hossain

Vice President & Professor of Artificial Intelligence
Cambodia University of Technology & Science (CamTech), Cambodia

Dr.G.Viswanathan

Founder & Chancellor, VIT
Presides

Dr.Shankar Viswanathan **Vice President**	**Ms. Kadhambari S Viswanathan** **Assistant Vice President**
Dr. Rambabu Kodali **Vice Chancellor**	**Dr.V.S.Kanchana Bhaaskaran** **Pro-Vice Chancellor**

VIT - A place to learn; A chance to grow

CHENNAI

School of Mechanical Engineering (SMEC)
Second Virtual International Conference on
Robotics, Intelligent Automation and Control Technologies
RIACT 2021
SEPTEMBER 23 - 25, 2020

INAUGURAL SESSION SCHEDULE FOR September 23, 2021

Time	Program	Name of the Speaker
16.00 – 16.05	Welcome address About the conference	**Professor Michael Short** Co-Convener - RIACT 2021 Professor, School of Computing, Engineering and Digital Technologies, Teesside University, UK
16.05 – 16.10	About the School	**Dr.R.Sivakumar** Dean & Professor, SMEC VIT Chennai
16.10 – 16.15	Felicitation address	**Dr.V.S.Kanchana Bhaaskaran** Pro Vice Chancellor VIT Chennai
16.15 – 16.25	Address by Chief guest	**Prof. Alamgir Hossain** Vice President & Professor of Artificial Intelligence Cambodia University of Technology & Science (CamTech), Cambodia
16.25 – 16.40* **(Yet to get Final Approval)**	**Address by Guest of Honour**	**Dr. G. Viswanathan** **Founder & Chancellor, VIT**
16.40 – 16.45	Vote of Thanks	**Dr. Arockia Selvakumar A** Convener - RIACT 2021 Associate Professor (Senior), SMEC VIT Chennai

Program

Time: 4.45 PM, 23rd September 2021

Topic:

Engineering Challenges of the AI-Enabled Automation and Process Optimisation for Healthcare and Business Domain

By

Professor Alamgir Hossain

Vice President & Professor of Artificial Intelligence
Cambodia University of Technology & Science (CamTech), Cambodia

Keynote Session 2

Time: 5.30 PM, 23rd September 2021

Topic:

Upcoming future of robotics in protected horticulture

By

ing. EJ (Erik) Pekkeriet

Programme Manager Agro Food Robotics, Wageningen University & Research, Netherlands

<p style="text-align:center">**Keynote Session 3**</p>

<p style="text-align:center">**Time: 6.30 PM, 23rd September 2021**</p>

<p style="text-align:center">**Topic:**</p>

<p style="text-align:center">**Intelligent Systems: From Smart Manufacturing and Network Perspectives**</p>

<p style="text-align:center">**By**</p>

<p style="text-align:center">**Dr Tu Nguyen**</p>

<p style="text-align:center">**Director of Intelligent Systems Lab, Department of Computer Science,
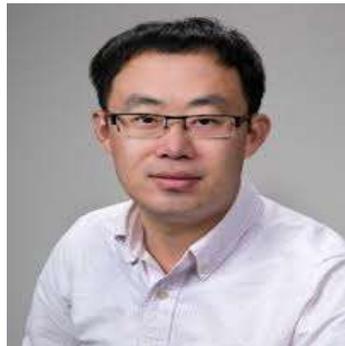Kennesaw State University (KSU), USA**</p>

<p style="text-align:center">**Keynote Session 4**</p>

<p style="text-align:center">**Time: 7.30 PM, 23rd September 2021**</p>

<p style="text-align:center">**Topic:**</p>

<p style="text-align:center">**High-performance surgical and wearable robots for translational medicine**</p>

<p style="text-align:center">**By**</p>

<p style="text-align:center">**Dr. Hao Su**</p>

<p style="text-align:center">**Associate Professor, Department of Mechanical and Aerospace Engineering
North Carolina State University, USA**</p>

Keynote Session 5

Time: 8.30 PM, 23rd September 2021

Topic:

Challenges in Rover Mission

By

Dr. Darrel Robertson

Research Engineer at NASA Ames Research Center, USA

Keynote Session 6

Time: 10 AM, 24th September 2021

Topic:

Two-Degree-of-Freedom Control of Flexible Manipulator

By

Professor Minoru Sasaki

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

Time: 10.45 AM, 24th September 2021

Topic:

Manipulator Rule Generation from Table Data Sets and Its Application

By

Professor Hiroshi Sasaki

Professor, Department of Basic Sciences
Kyushu Institute of Technology, Japan

Keynote Session 8

Time: 1.30 PM, 24th September 2021

Topic:

Enduruns: Long-endurance sea surveying autonomous unmanned vehicle with gliding capability powered by hydrogen fuel cell

By

Dr. Fausto Pedro García Márquez

Professor, Castilla-La Mancha University, Spain

Keynote Session 9

Time: 2.15 PM, 24th September 2021

Topic:

Bio-Inspired Swarm Intelligence with Engineering Applications

By

Professor M. Osman Tokhi

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

Keynote Session 10

Time: 3 PM, 24th September 2021

Topic:

K-Learn for Robotics: Kinesthetic and STREMS

By

Dr. Milena Y Krumova

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

Keynote Session 11

Time: Time: 3.30 PM, 24th September 2021

<u>**Topic:**</u>

Embedded Machine Learning for Decentralized Automation

By

Prof. Dr.-Ing. Daniel Schilberg

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

Keynote Session 12

Time: 4.30 PM, 24th September 2021

<u>**Topic:**</u>

Real-time decentralized control: Design guidelines and applications

By

Dr Michael Short

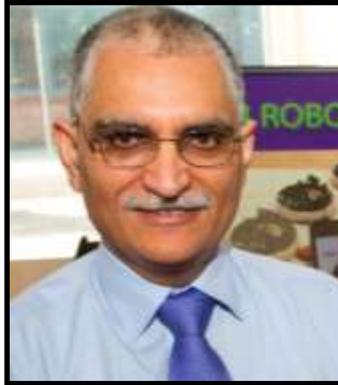**Professor, School of Computing, Engineering and Digital Technologies, Teesside University, UK**

Keynote Session 13

Time: 7.30 PM, 24th September 2021

Topic:

Whole-Body Optimization using Differential Dynamic Programming for Humanoid Robot Applications

By

Prof. Vikram Kapila

Professor, NYU Tandon School of Engineering, USA

Keynote Session 14

Time: 9.30 AM, 25th September 2021

Topic:

How Business Technology Platform Accelerates Your Innovation

By

Dr. Asuman Suenbuel

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

Session Chairs

Dr Mark Ovinis

Senior Lecturer, Department of Mechanical Engineering,

Universiti Teknologi PETRONAS, Malaysia

Professor Subhasis Bhaumik

Dean, Research & Consultancy,

Professor, Aerospace Engineering and Applied Mechanics

Indian Institute of Engineering Science and Technology, Shibpur,

West Bengal, India

Dr. Sudheer. A. P

Assistant Professor, Department of Mechanical Engineering,

National institute of Technology, Calicut,

Kerala, India

Professor Shankar S

Chief Coordinator - R&D Cell,

Professor, Mechatronics Engineering,

Kongu Engineering College, Tamil Nadu, India

Dr. Dinakaran Devaraj

Professor and Head

Centre for Automation and Robotics

Hindustan Institute of Technology & Science

Chennai, Tamil Nadu, India

Dr Satheesh Kumar G

Associate Professor, Department of Mechanical Engineering,

SSN College of Engineering, Tamil Nadu, India

Dr Ganesan R

Professor & Dean, School of Computer Science and Engineering,

VIT Chennai, Tamil Nadu, India

Dr Sugumaran V

Professor, School of Mechanical Engineering,

VIT Chennai, Tamil Nadu, India

Dr Maheswari N

Professor, School of Computer Science and Engineering,

VIT Chennai, Tamil Nadu, India

Dr Sasikumar M

Professor, School of Mechanical Engineering,

VIT Chennai, Tamil Nadu, India

Dr Manoj Kumar R

Associate Professor, School of Electronics Engineering,

VIT Chennai, Tamil Nadu, India

Dr Lenin Babu M C

Associate Professor, School of Mechanical Engineering,

VIT Chennai, Tamil Nadu, India

Dr Vetrivelan P

Associate Professor, School of Electronics Engineering,

VIT Chennai, Tamil Nadu, India

Dr Sivagami M

Associate Professor, School of Computer Science and Engineering,

VIT Chennai, Tamil Nadu, India

Dr Maheswari R

Associate Professor, School of Computer Science and Engineering,

VIT Chennai, Tamil Nadu, India

Dr Subbulekshmi D

Associate Professor, School of Electrical Engineering,

VIT Chennai, Tamil Nadu, India

Dr Jafferson JM

Associate Professor, School of Mechanical Engineering,

VIT Chennai, Tamil Nadu, India

Dr Elango M

Assistant Professor (SG), School of Mechanical Engineering,

VIT Chennai, Tamil Nadu, India

Dr Ananthi G

Assistant Professor,

Department of Electronics and Communication Engineering,

Thiyagarajar College of Engineering (TCE), Madurai, Tamil Nadu, India

Dr Arockia Selvakumar Arockia Doss

Associate Professor, School of Mechanical Engineering,

VIT Chennai, Tamil Nadu, India

RIACT 2021
VALEDICTORY FUNCTION
SEPTEMBER 25, 2021

Time	Program	Name of the Speaker
5.00 - 5.15 PM	Welcome address & RIACT 2021 Report	**Dr. Arockia Selvakumar A** Convener - RIACT 2021 Associate Professor (Senior), SMEC VIT Chennai
5.15 - 5.35 PM	Address by Chief guest	**Prof. Michael Short** Professor, School of Computing, Engineering and Digital Technologies, Teesside University, UK
5.35 - 5.45 PM	Vote of Thanks	**Dr. Arockia Selvakumar A** Convener - RIACT 2021 Associate Professor (Senior), SMEC VIT Chennai

Link for Inaugural, Keynote and Valedictory Sessions

Join Zoom Meeting
https://chennai-vit.zoom.us/j/95013039957?pwd=dGQwVGExUjdZQnRxTE9oWlN0RjZBUT09
Meeting ID: 950 1303 9957
Passcode: 585605