

2021 IEEE Second International Conference on Control, Measurement and Instrumentation (CMI), India, Jan 8-10, 2021

Technical Program Schedule

All timings are in Indian Standard Time (IST)

Daztes	10:00-11:30 AM		11:45 AM-1:15 PM	1:30-2:00 PM	2:00-3:30 PM		3:45-5:15 PM	5:15 - 5:30 PM	5:30 -7:15 PM		7:30-9:00 PM
Jan 8, 2021				Break				5:00-5:30 PM Inaugural session	Keynote Lecture	Break	TS-1: CS 11, 19, 43, 52, 55, 64
Jan 9, 2021	TS-2: Meas 6, 60, 68, 72, 75, 76	Break	TS-3: Robo 5, 22, 35, 61, 70 74		TS-4: PSM&C 4, 26, 37, 51, 65, 69	Break	Plenary Lecture -1	Break	TS-5: CS&BS 7, 45, 50, 63, 66, 73		
Jan 10, 2021	Plenary Lecture -2	Break	TS-6: SP&CI 15, 38, 44, 58, 71		TS-7: Ins&Comm 14, 28, 36, 40, 53, 59	Break	Valedictory session				

Inaugural session (5:00 – 5:30 PM)

Welcome Address by Rajarshi Gupta, University of Calcutta, General Chair, CMI 2021.

Address by Amitava Chatterjee, Jadavpur University, India, founder Secretary IEEE Joint CSS-IMS Kolkata Chapter and General Chair, CMI 2016.

Inaugural Address by the Guest of Honour, Sushmita Mitra, *Fellow IEEE*, Indian Statistical Institute, Kolkata.

Vote of Thanks by Kaushik Das Sharma, University of Calcutta, Technical Program Chair, CMI 2021.

Keynote Session

Title of Talk: “Optimization-based formal synthesis of control strategies for dynamical systems”

Keynote Speaker: Calin Belta, Boston University, USA.

Chair: Amitava Chatterjee, Jadavpur University, India.

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Plenary Session #1

Title of Talk: “LSI Testing: A Core Technology to a Successful Semiconductor Industry”

Plenary Speaker: Xiaoqing Wen, Kyushu Institute of Technology, Japan.

Chair: Amlan Chakrabarti, University of Calcutta, India

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Plenary Session #2

Title of Talk: "Recent advances in non-intrusive sensing based on magnetically or capacitively coupled schemes and related applications".

Plenary Speaker: Bobby George, Indian Institute of Technology, Madras, India.

Chair: Sreeraman Rajan, Carleton University, Canada.

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TS 1: Control Systems (CS)

Chair: Mashuq-un Nabi, IIT Delhi, India

Paper ID	Author Name	Paper Title
11	Rimi Paul	Fractional order Intelligent Controller for Single Tank Liquid Level System
19	Mita Pal	Elimination of Initial undershoot of Non-minimum Phase System using Model Reference Adaptive Control
43	Arpita Bhattacharjee	Estimation of Driver Demand Torque using Parametric and Nonparametric Data-driven Model
52	Madhusree Kundu	Application of Triangular Orthogonal Function in Chemical Process Simulation
55	Sharmisthamandal	Robust Control of Coupled-Tank System using Uncertainty and Disturbance Estimator
64	Sidhanta Mohanty	Decentralized Control of Multi-Input Multi-Output Processes Using Effective Transfer Function Method

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TS 2: Measurements (Meas)

Chair: Bobby George, IIT Madras, India

Paper ID	Author Name	Paper Title
6	Tarikul Islam	A Sensitive Fiber Optic Technique for Remote Measurement of Liquid Flow
60	Debangana Das	Development of Molecularly Engraved Polymer Based Sensor for Detection of Theobromine in Tea
68	Souvik Mandal	Reconstruction of the shape of a Taylor Bubble Rising through a Circular Tube using Parallel Wire Conductivity Probes
72	Elangovan K	A Self-Calibration Circuit for the Resistance Measurement of Parallel R-C sensor
75	SheejaPGeorge	Effect of Electrode Thickness and Spacing in the Sensing Capabilities of Surface Acoustic Wave Delay Lines.
76	Binu Ani Oommen	Wood Moisture Content Measurement using planar Capacitive Sensors

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TS 3: Robotics (Robo)

Chair: Samer Mohammed, UPEC, France

Paper ID	Author Name	Paper Title
5	Shilpee Kumar	Performance Analysis of 2-link Robotic Manipulator with LPF and α -filter Based UDE Controller
22	Sowmya Chervu	Fibonacci Path Planning Algorithm for Robotic Waiters
35	Maria Philip	Pick and Place Operation of a Robotic arm using Multirate Event Triggered Sliding mode Control
61	Saharsh Agarwal	Design and Simulation of a Flexible Three-Module Pipe Climber
70	Arijit Ghosh	Computer Vision based Obstacle Identification using Real-Time Illumination Sensor Data
74	Saurabh Patil	Motion Control of an Internally-Actuated Cubical Robot Balancing on Its Edge

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TS 4: Power System Measurements & Control (PSM&C)

Chair: Swapan Kumar Goswami, Jadavpur University, India

Paper ID	Author Name	Paper Title
4	KazijabedAkram	Cross- Conductive Sensor for Humidity Measurement in Gas for Gas Insulated Switchgears Application
26	Natarajan Janarthanan	IoT and Genetic Algorithm based automated central controller for effective Congestion Management in IoT and Genetic Algorithm based automated central controller for effective Congestion Management in Power System
37	Alexandra Khalyasmaa	Application of Swarm Intelligence Algorithms to Optimize the Power Consumption Model
51	ShanmukhaReddy Vippala	Condition Monitoring of BLDC Motor Using Short Time Fourier Transform
65	Kiruthiga D	Time Series Load Forecasting using Multitask Deep Neural Network
69	BishnuDalal	Meteorological Data Driven Prediction of Global Solar Radiation

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TS 5: Control Systems & Bio Signals (CS&BS)

Chair: Sugata Munshi, Jadavpur University, India

Paper ID	Author Name	Paper Title
7	Sourav Bhowmick	Bipartite Synchronization of Coupled Linear Homogeneous Systems Subjected to Input Saturation
45	Pappa Natarajan	Optimal Tuning of Model Predictive Controller using Chicken Swarm Optimization for Real-time Cultivation of Escherichia coli
50	Munmum Khanra	Performance Comparison of Nonlinear State Estimators for State-of-Charge Estimation of Supercapacitor
63	V V S Vijaya Krishna	Deep Learning Based Soft Sensor for Bioprocess Application
66	SouvikPramanik	Advanced Controller Design for Real-Time Multi-variable Systems
73	Suresh KS	Multi Signal Pulse Wave Analysis for the Identification of Vascular Diseases Leading to Diabetic Foot

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TS 6:Signal Processing &Computational Intelligence(SP&CI)

Chair: Anirban Mukherjee, IIT Kharagpur, India

Paper ID	Author Name	Paper Title
15	Chayan Kumar Basak	Classification of Thermal Tomographic Images using Eigenface Method
38	SrideepMaity	Computer Aided Diabetes Diagnosis using Textural Features of Saliva Crystallogram Images
44	N MohamedThoiyab	Global Robust Stability Analysis for Hybrid BAM Neural Networks
58	Shreya nag	Multivariate Analysis of Formalin Using UV-Vis Spectroscopy
71	Rajarshi Bhadra	Sign Language Detection from Hand Gesture Images using Deep Multi-layered Convolution Neural Network

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TS-7:Instrumentation & Communication (Ins&Comm)

Chair: Kumardeb Banerjee, Jadavpur University, India

Paper ID	Primary Author Name	Paper Title
14	Anirudh A Velamore	Dual cascaded Fractional-order Chaotic Synchronization for Secure Communication with Analog Circuit Realisation
28	Bindu P (Palakkal)	Design and Analysis of DRA based antenna for FPV Applications
36	Annirudh D.	IoT Based Intelligent Parking Management System
40	Martin Scherhäufel	Surface Velocity Estimation of Streams Using a 77 GHz Radar Unit
53	SubhajitBhowmick	IoT Assisted Real Time PPG Monitoring System for Health Care Application
59	Ankita Jha	Realization of Solid Fractional Order Capacitor Using Common Materials

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