18th IBCAST 2021: Control & Signal Processing

January 12-15, 2021

Technical Program

	1000 – 1130							1150 – 1305						1400 – 1600					
Day-1 **January 12, 2021** **Tuesday**	**Control-I**							**Control-II**						**Invited Talk-I**		**Invited Talk-II**			**C-III**
	21CSP 2	21CSP 396	21CSP 6	21CSP 382	21CSP 389	21CSP 493		21CSP 325	21CSP 296	21CSP 263	21CSP 426	21CSP 93		**Prof. Asif Sabanovic** Sabanci University, Turkey		**Prof. Mohammad Osman Tokhi** London South Bank University, UK			21 CSP 370
Day-2 **January 13, 2021** **Wednesday**	**Control-IV**							**Invited Talk-III**				**C-V**		**Invited Talk-IV**		**Invited Talk-V**			**C-VI**
	21CSP 417	21CSP 444	21CSP 518	21CSP 387	21CSP 367	21CSP 483		**Prof. Xing Wu** NUAA, China				21CSP 488		**Prof. Mukhtar Ullah** FAST NUCES, Islamabad		**Dr. Umar Iqbal Bhatti** IST, Islamabad			21CSP 71
Day-3 **January 14, 2021** **Thursday**	**Invited Talk-VI**				**SP-I**			**SP-II**						**Invited Talk-VII**		**SP-III**			
	Dr. Hammad FAST, Pakistan				21CSP 391	21CSP 8		21CSP 517	21CSP 92	21CSP 383	21CSP 36			**Prof. Jonathon Chambers** University of Leicester, UK		21CSP 233	21CSP 9	21CSP 484	21CSP 10
Day-4 **January 15, 2021** **Friday**	**Invited Talk-VIII**			**Invited Talk-IX**															
	Dr. Riaz Naseer Ciena Corporation, USA			**Dr. Faisal Nadeem** UET Taxila, Pakistan															

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Day 1: January 12, 2021

09:30-09:45	**Opening Message**	
09:45–10:00	Short Break	
10:00 – 11:30 **Control-I**	**21CSP 2: Novel Sensor Fault Detection and Isolation for an Unmanned Quad rotor Vehicle**	**Zahid Ullah** Abasyn University Peshawar, Pakistan
	21CSP396: Fall Detection of Riders using Inertial Sensors: A Smart Helmet	**Muhammad Ehatisham-Ul-Haq** UET, Taxila, Punjab, Pakistan
	21CSP6: Daily life Log Recognition based on Automatic Features for Health care Physical Exercise via IMU Sensors	**Sheikh Badar Ud Din Tahir** Air University, Pakistan
	21CSP382: Design and Implementation of a New Control Reconfiguration Scheme to Exploit Actuator Redundancy in Aerospace Application	**Muhammad Moin** COMSATS, Islamabad, Lahore Campus
	21CSP389: Cooperative Guidance Scheme for Flight of Multiple Combat UAVs against a Non-Accelerating Moving Target	**Zishan Ahmed Malik** IST, Islamabad Pakistan
	21CSP493: Application of Modified Chebyshev Picard Iteration to the Relative Orbital Dynamics Problem	**Faizan Sikandar Wains** UET Lahore, Pakistan
11:30 – 11:50	**T E A**	
11:50 – 13:05 **Control-II**	**21CSP325: Integrated AFS and DYC using predictive controller for vehicle handling improvement**	**Muhammad Wasim** UET, Taxila, Punjab, Pakistan
	21CSP296: Evaluating different Kinematic Models of Mobile robots using Linear and Non-linear controls	**Muhammad Ismail Mansoor** SZABIST, Pakistan
	21CSP263: Optimal Placement and Kinematic Design of 2-DoF Robotic Arm	**Kashif Khalid** NUST, Islamabad, Pakistan
	21CSP426: Tracking Control of Flexible Joint Single Link Robotic Manipulator via Extended High-Gain Observer	**Hameed Ullah** NUST, Islamabad, Pakistan
	21CSP 93: Mobile Robots Path Planning based on A* Algorithm Improved with Jump Point Search	**Muhammad Aaqib Zafar** Wuhan University of Science and Technology, China
13:05-14:00	**L U N C H**	
14:00 – 16:00 **Control-III**	**Disturbance Observers and applications to motion control**	**Prof. Asif Sabanovic** Sabanci University, Turkey
	Bio/Nature-inspired swarm intelligence	**Prof. Mohammad Osman Tokhi** London South Bank University, UK
	21CSP370: FPGA Implementation of a Power Efficient DC-DC Converter Design and Control for DC Micro-Grids	**Farooq Alam** NUST, Islamabad, Pakistan

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Day 2: January 13, 2021

10:00 – 11:30 Control-IV	21CSP 417: Robust Model Predictive Voltage Control of Three-phase Inverter with Output LC Filter	**Arslan Hameed** Riphah International University Islamabad, Pakistan
	21CSP 444:Nonlinear Back stepping Based Control of Single Phase Inverter in a Standalone Photo-voltaic System	**Adil Latif** COMSATS Islamabad, Pakistan
	21CSP 518: Modified control of Virtual Synchronous Generator for Micro grid Stability Improvement	**Rana Sarmad Mahmood** COMSATS, Islamabad, Lahore Campus
	21CSP 387: NeuroFuzzy Full-Recurrent Hybrid B-Spline Wavelet Based Feedback Linearization Control for PMSG-WECS in a Grid-connected Hybrid Power System	**Muhammad Awais** COMSATS, Islamabad, Abbottabad Campus
	21CSP 367: Vehicle to Grid Implementation Considering Electric Vehical Battery Health Constraints	**Moiz Jamal** Air University Islamabad, Pakistan
	21CSP 483: Wireless Model for High Voltage Direct Current Measurement using Hall Sensor	**Haider Ali** UET Lahore FSD Campus, Pakistan
11:00 – 11:30	T E A	
11:50 – 13:00 Control-V	Coordinated Control of Two Automated Guided Ground Tractors for a Heavy-Duty Robotic Vehicle	**Prof Xing Wu** NUAA, China
	21CSP 488: Design of Speed Controller for a Brushless DC Motor using Feedback Linearization	**Jawad Mehmoood** PIEAS, Pakistan
13:00 – 14:00		
14:00 – 16:30 Control-VI	Exergy Based Control	**Prof. Mukhtar Ullah** FAST NUCES, Islamabad
	High Altitude Platforms (HAP): A harbinger of spin-off companies in Pakistan	**Dr. Umar Iqbal Bhatti** IST, Islamabad
	21CSP 71: Application of Fixed Frequency Sliding Mode Control for D-STATCOM in Power Systems	**Toqeer Ahmed** Bahria University, Islamabad Campus, Pakistan

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Day 3: January 14, 2021

10:00 – 11:30 SP-I	**Applications of AI in IoT Based Health Monitoring Systems**	**Dr. Hammad** FAST, Pakistan
	21SP 391: Exploiting Spatiotemporal Features for Action Recognition	**Usairam Bin Muslim** University of the Punjab, Lahore
	21SP 8: Pose Estimation and Detection for Event Recognition using Sense-Aware Features and Adaboost Classifier	**Israr Akhter** Air University, Islamabad
11:30 – 11:50	**Break**	
11:50 – 13:00 SP-II	**21SP 517: Automated Body Parts Estimation and Detection using Salient Maps and Gaussian Matrix Model**	**Ayesha Arif** Air University, Islamabad
	21SP 92: Hybrid Algorithm for Multi Person Counting and Tracking for Smart Surveillance	**Mahwish Pervaiz** Air University, Islamabad
	21SP 383: Classification of Breast Cancer from Mammogram images using Deep Convolution Neural Networks	**Sobia Shakeel** University of Engineering and Technology, Taxila
	21SP 36: RGB-D Images for Objects Recognition using 3D Point Clouds and RANSAC Plane Fitting	**Zeeshan Sarwar** Air University, Islamabad
13:00 – 14:00	**Break**	
14:00 – 16:00 SP-III	**Opportunities in Adaptive Signal Processing and Machine Learning**	**Prof. Jonathon Chambers** University of Leicester, UK
	21SP 233: A New Approach for Dehazing and Enhancement of Infrared Images	**Mariam Nawaz** University of Engineering and Technology, Taxila
	21SP 9: Two staged data preprocessing ensemble model for software fault prediction	**Ehsan Elahi** COMSATS University, Islamabad
	21SP 484: An efficient architecture of modified booth multiplier using hybrid adder	**Ahsan Rafiq** University of Engineering and Technology, Taxila
	21SP 10: Wearable Sensors based Exertion Recognition using Statistical Features and Random Forest for Physical Healthcare Monitoring	**Madiha Javeed** Air University, Islamabad

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Day 4: January 15, 2021

10:00 – 11:30 **SP-IV**	**Signal Integrity in PCBs**	**Dr. Riaz Naseer** Ciena Corporation, USA
	Power flow on AC transmission Lines	**Dr. Faisal Nadeem** UET Taxila, Pakistan
11:30 – 11:50	**Break**	
Closing Message		