

First International Conference on
Advances in Smart Sensor, Signal Processing & Communication Technology
(ICASSCT 2021)

19 - 20, March 2021 | Goa University | Goa, India | www.icasst.com

Tentative Program Schedule

Date	Time	Event	
19.03.2021	09.30 am – 10.00 am	Inaugural Function (Physical & Online)	
	10.00 am – 10.15 am	Tea Break	
	10.15 am – 11.00 am	Keynote 1 (Physical)	
	11.10 am – 04.30 pm	Session: PHY01 (Physical Mode)	
		Session: CS01(online)	
		Session : EC01(online)	
		Session : EC02(online)	
		Session : EE01(online)	
Session : MA01(online)			
2.30 pm – 3.15 pm	Keynote 2 (Online)		
20.03.2021	09.30 am – 10.30 am	Session: PHY02 (Physical Mode)	
	10. 30 am – 11.15 am	Keynote 3 (Online)	
	11.15 am – 11.30 am	Tea Break	
	09.30 am – 04.00 pm	Session: EC07(online)	
		Session : CE08(online)	
		Session : ME09(online)	
Session : PH10 (online)			
04.15 pm	Valedictory Function (Physical & Online)		

CS-Computer Science & Engineering;
 EC-Electronics & Communication Engineering
 CE-Applied Civil Engineering

EE-Electrical & Electronics Engineering
 PH- Applied Physics
 MA – Applied Mathematics

Note:

1. Start time given above indicates Indian Standard Time (IST).
2. Presentation will be conducted using Google Meet.
3. Participants can join their respective sessions by clicking the meet link given
4. Mode of presentation should be powerpoint presentation(ppt or pptx)
5. Duration of presentation: 15 minutes (presentation) + 5 minutes(Queries)
6. Participant using Google Meet will be admitted at any time prior to their scheduled time.
7. Participants are requested to follow the scheduled time; especially regarding the time for your talk.
8. Participants are requested to contact the respective session In-Charges for presentation related queries.
9. If any problem connecting to session, please text to the respective session In-Charges (Or) ICASSCT Whatsapp group during presentation date(s).

Session: PHY01

VENUE: Seminar Hall-1, The International Centre Goa,
GOA, INDIA

Date: 19.03.2021 (Friday)

Time: 11.10 am to 04.30 pm

Session In-charge: **Prof. A. D. Shaligram**, Faculty of Technology, Pune University, IndiaSession in-charge Contact Number: **Will be updated**

Time	Paper ID	Paper Title
11.10 am	SCT 2066	Performance of an OWC device placed over stepped bottom in random waves environment
11.30 am	SCT 2087	Regional Atmospheric Radiation and Meteorological parameters in presence of Aerosol from CERES and MODIS: A Case Study of Observational Satellite Remote Sensing
11.50 am	SCT 3001	Automated detection of Alzheimer's Disease using Deep Learning in MRI
12.10 am	SCT 3048	Enhanced Spectrum Sensing Techniques in Cognitive Radio Based Internet of Things
12.30 pm	SCT 3053	Comparative Analysis of OFDM MIMO and IDMA OFDM MIMO using Aqua Sim Simulator for Underwater Communication
12.50 pm	SCT 3074	Implementation and quality measures of graph theory model based image segmentation process in medical application
01.10 pm	SCT 3083	Performance of an OWC device placed over multi-stepped bottom in random waves environment
01.30 pm	SCT 4018	Trajectory planning of a 5 DOF feeding serial manipulator using 6th order polynomial method
03.30 pm	SCT 4026	Preparation and humidity sensing behavior of cadmium – zinc ferrite nanocomposite
03.50 pm	SCT 4031	Thermoelectric properties of $(\text{Cu}_7\text{Te}_4)_{0.8}(\text{Ag}_2\text{Te})_{0.2}$ nanocomposite prepared by polyol method
04.10 pm	SCT 4035	Semi-Autonomous UAV based Weather and Air Pollution Monitoring System

Session: PHY02

VENUE: Seminar Hall-1, The International Centre Goa,
GOA, INDIA

Date: 20.03.2021 (Saturday)

Time: 09.30 am to 03.30 pm

Session In-charge: **Dr. Kevin Kreger**, Kallows-IndiaSession in-charge Contact Number: **Will be added**

Time	Paper ID	Paper Title
09.30 am	SCT 2038	Development of LED based OSL dosimeters for personal monitoring
09.50 am	SCT 2056	Design of a Low Cost Solar Simulator by using Light Emitting Diode (LED)
10.10 am	SCT 2067	Sharp transition FIR bandpass filter for processing bioelectric signals
11.30 am	SCT 2081	DC conductivity of Li ₂ O and SrO doped borophosphate glasses
11.50 am	SCT 2090	DSC, FTIR Studies of Borophosphate Glasses doped with SrO, Li ₂ O
12.10 pm	SCT 2096	Synthesis and optical properties of Er/Yb/Ag modified bismuth – tellurite based glasses
12.30 pm	SCT 3017	Hidden Markov Model energy conservation approach for continuous monitoring of vital signs in geriatric care applications
01.50 pm	SCT 3068	Development of Altera NIOS II Soft-core system to predict total Hemoglobin using Multivariate Analysis
02.10 pm	SCT 3093	Graphene-gated GaAs OPFET photodetector and oscillator for 5G applications
02.30 pm	SCT 3098	Design of Vedic multiplier based FIR filter for signal processing applications
02.50 pm	SCT 3099	Cross-spectral Gender Classification Using Multi-spectral Face Imaging

Session: CS01 (Computer Science & Engineering)

Date: 19.03.2021 (Friday)

Time: 11.10 am to 05.30 pm

Session In-charge: **Dr. Niranjana U. C.**, MIT India/ **Dr. Kiran B. Raja**, NTNU, Norway/
Dr. S. Nickolas, National Institute of Technology (NIT) Tiruchirappalli/
Dr. Annapa B, National Institute of Technology (NIT) Suratkal

Session Link: **Will be added**Session in-charge Contact Number: **Will be added**

Time	Paper ID	Paper Title
11.10 am	SCT 2016	An Efficient Technique to Extricate Keypoints from a digital image
11.30 am	SCT 2044	Development of Multilanguage Voice Control for Smart Home with IOT
11.50 am	SCT 2089	An Approach for Morse Code Translation from Eye Blinks using Tree Based Machine Learning Algorithms and Opencv
12.10 am	SCT 3013	Rain Streaks Removal Using Discrete Cosine Transform and Diffusion based Technique
12.30 pm	SCT 3022	A High-Availability and Integrity Layer for Cloud Storage, Cloud Computing Security: From Single to Multi-Clouds
12.50 pm	SCT 3034	Analysis of machine learning algorithms in diabetes mellitus prediction
01.10 pm	SCT 3063	Human Anomalous Activity Detection: Shape and Motion Approach in Crowded Scenes
01.30 pm	SCT 3065	Design of Network on Chip (NoC) Computing Node for Mesh Topology using Soft-core NIOS-II Processor
03.30 pm	SCT 3070	Route Optimization of Unmanned Aerial Vehicle by using Reinforcement Learning
03.50 pm	SCT 3073	Care-giver alerting for bedridden patients using hand gesture recognition system
04.10 pm	SCT 3092	Bio-Inspired Routing Protocol to Enhance Performance of Wireless Sensor Network
04.30 pm	SCT 5003	Hierarchical based Tumor Segmentation by Detection using Deep Learning Approach.
04.50 pm	SCT 4025	Back-Propagation Neural Network (BP-NN) model for the detection of borer pest attack

Session: EC01 (Electronics & Communication Engg.)

Date: 19.03.2021 (Friday)

Time: 11.10 am to 05.30 pm

Session In-charge: **Prof. K. R. Anupama**, Birla Institute of Technology & Sciences (BITS), Pilani,
Prof. Suresh Gosavi, Pune University, Pune, India

Session Link: **Will be added**Session in-charge Contact Number: **Will be added**

Time	Paper ID	Paper Title
11.10 am	SCT 2003	Image Fusion using Multi Resolution transforms with Human Visual System
11.30 am	SCT 2014	Identification of Autism Spectrum Disorder using Deep Neural Network
11.50 am	SCT 2015	Automatic clustering based approach for brain tumor extraction
12.10 am	SCT 2017	Removal of Artifacts from Electroencephalography Signal Using Multiwavelet Transform
12.30 pm	SCT 2019	Development of an Automated Nebulizer Spray Pyrolysis System and Its Application in the P-N junction Diode Fabrication
12.50 pm	SCT 2022	Micro-Doppler signature based target recognition using covariance based S-transform
01.10 pm	SCT 2023	Volumetric Analysis of GTEM Cell for Wide Frequency Application
01.30 pm	SCT 2029	Performance analysis of multiuser MIMO OFDM systems incorporating feedback delay and feedback error
03.30 pm	SCT 2030	Enhancement of Clustering Techniques Efficiency for WSN Using LEACH Algorithm
03.50 pm	SCT 2033	Comparative performance analysis based short channel effects for TG Nano FinFETs
04.10 pm	SCT 2040	Simulation platform of a free-space optical network under multipath fading channel
04.30 pm	SCT 2041	Comparison study on speech emotion prediction using machine learning
04.50 pm	SCT 3062	A Novel Loadless 6T-SRAM Cell with Isolated Read Port

Session: EC02 (Electronics & Communication Engg.)

Date: 19.03.2021 (Friday)

Time: 11.10 am to 05.30 pm

Session In-charge: **Dr. Rahul Chaurasiya**, National Institute of Technology, RaipurSession Link: **Will be added**Session in-charge Contact Number: **Will be added**

Time	Paper ID	Paper Title
11.10 am	SCT 2060	Reliability Evaluation of Underwater Sensor Network in Shallow Water Based on Propagation Model
11.30 am	SCT 2078	Novel hybrid metamaterial to improve the performance of a beamforming antenna
11.50 am	SCT 2093	Design of Solar Blind Photodetectors for Communication with Red Signal ($\lambda = 0.65\mu\text{m}$) in Space. Part I
12.10 am	SCT 2098	Design of microstrip patch antenna at 2.4 GHz for Wi-Fi and Bluetooth applications
12.30 pm	SCT 3002	Smart Phone Camera based Weighing Scale for Kitchens in Household Applications
12.50 pm	SCT 3004	Leaky wave antenna for millimeter wave utilization
01.10 pm	SCT 3005	Modified ML-kNN and Rank SVM for Multi-label Pattern Classification
01.30 pm	SCT 3006	Lie Detection using Speech Processing Techniques
03.30 pm	SCT 3015	Semi-supervised Learning Techniques for Speech Emotion Recognition
03.50 pm	SCT 3016	Design of compact MIMO antenna with improved isolation for UWB applications
04.10 pm	SCT 3019	Design and Comparison of the effect of SRR Metamaterial on the performance of Microstrip Patch Antenna of various shapes at millimetre-wave band Useful for 5G enabled Internet of Things Applications
04.30 pm	SCT 3033	Read Textual features in Images and convert to Editable form by extended use of Artificial Neural Networks, Deep learning and Maximally Stable Extremal Region techniques
04.50 pm	SCT 2097	Improving Accuracy of Source Localization Algorithms Using Kalman Filter Estimator

Session: EE01 (Electrical & Electronics Engg.)

Date: 19.03.2021 (Friday)

Time: 11.10 am to 05.00 pm

Session In-charge: **Prof. N S Dinesh**, CEDT, Indian Institute of Science (IISc.), Bangalore, India/
Dr. Niyan Manchon, PCCE College, Goa

Session Link: **Will be added**Session in-charge Contact Number: **Will be added**

Time	Paper ID	Paper Title
11.10 am	SCT 2083	A mobile air particle system using an optical sensor for haze measurement
11.30 am	SCT 2084	IMPLEMENTATION OF ANN TRAINED VOLTAGE CONTROL SCHEME FOR GRID ISLANDED DG SYSTEM
11.50 am	SCT 2088	Effect of high-k dielectric material on the characteristics of Single Gate and Double Gate Multi-Channel Junctionless Nanowire Transistors
12.10 am	SCT 3009	Implementation of Chaotic PWM method for Four phase Interleaved Boost Converter
12.30 pm	SCT 3040	Hybrid energy harvesting based on piezoelectric and electromagnetic systems
12.50 pm	SCT 3041	The influence of the extraneous field on the conductivity tensor in cylindrical quantum wire with electron-optical phonon scattering
01.10 pm	SCT 3058	Transverse Forced Vibrations of the Plates, the Dissipative Properties of Which are Described Memory Functions
01.30 pm	SCT 3075	Performance analysis of Parabolic Trough Collector using TRNSYS(R) - A case study in Indian coastal region
03.30 pm	SCT 3087	Loss Reduction in Distribution System using Best Practice
03.50 pm	SCT 4019	Autonomous mobile robot development based on duckietown platform for recognizing and following the traffic sign
04.10 pm	SCT 4023	Self-Adaptive Firefly Algorithm for solving Unit Commitment Problem in Power System
04.30 pm	SCT 4037	Dynamic prediction of energy and power usage cost using linear regression-machine learning analysis

Session: MA01 (Mathematics & Biomedical Engg.)

Date: 19.03.2021 (Friday)

Time: 11.10 am to 04.50 pm

Session In-charge: **Prof. G. M. Naik / Prof. R. K. Kamat**, Shivaji University, Maharashtra, IndiaSession Link: **Will be added**Session in-charge Contact Number: **Will be added**

Time	Paper ID	Paper Title
11.10 am	SCT 2065	Mathematical model for dynamic force analysis of printed circuit boards
11.30 am	SCT 2069	Methods and models of calibration of vector network analyzers
11.50 am	SCT 3018	Bianchi –III inflationary universe with flat potential in general relativity
12.10 am	SCT 3038	A Comparison Study on Shape Parameter Selection in Pattern Recognition by Radial Basis Function Neural Networks
12.30 pm	SCT 3044	1e-Domination on Cartesian Product of Path Semigraphs
12.50 pm	SCT 3045	Mathematical representation of Wind Turbine Power reliability
01.10 pm	SCT 3057	Propagation of Natural Waves on a Multilayer Viscoelastic Cylindrical Body Containing the Surface of a Weakened Mechanical Contact
01.30 pm	SCT 4039	Bianchi -VI inflationary model with flat potential in general relativity
03.30 pm	SCT 2007	Blood Vessel Segmentation for diabetic retinopathy
03.50 pm	SCT 2012	Reduction of Vortex Formation in Mechanical Heart Valve During LV Filling
04.10 pm	SCT 2046	Implementation of different techniques for removing artifacts in diaphragmatic sEMG, and evaluation of these in automatic and online applications.
04.30 pm	SCT 3097	An External Aid for Amyotrophic Lateral Sclerosis (ALS) and Drooping Head Syndrome (DHS) Patients

Session: EC03 (Electronics & Communication Engg.)

Date: 20.03.2021 (Saturday)

Time: 09.30 am to 03.30 pm

Session In-charge: **Prof. J. T. Devraju**, Bangalore University, India/
Prof. D. Sridharan, Anna University, Tamil Nadu

Session Link: **Will be added**Session in-charge Contact Number: **Will be added**

Time	Paper ID	Paper Title
09.30 am	SCT 3067	Investigation of Graphene as a Sensing Layer for Future Prostate Cancer Biosensing Applications
09.50 am	SCT 3077	Miniaturised UWB MIMO antenna with improved isolation and band notch capability at 5.5 GHz
10.10 am	SCT 3078	Forecasting performance comparison of daily maximum temperature using ARMA based methods
11.30 am	SCT 3079	CpG islands identification in DNA sequences using modified P-spectrum based algorithm
11.50 am	SCT 3089	DESIGN AND DEVELOPMENT OF QUASI DIGITAL SENSOR BASED SPIROMETER
12.10 pm	SCT 3090	A simple semi-circular arc shaped frequency and polarization reconfigurable antenna
12.30 pm	SCT 4002	New Carry Maskable Adder Using Modified Full Swing GDI
01.50 pm	SCT 4004	Sum-Rate Analysis of Intelligent Reflecting Surface Aided Multi-User Millimeter Wave Communications System
02.10 pm	SCT 4009	A Reconfigurable Wearable Antenna for Mid Band 5G Applications
02.30 pm	SCT 4027	UVM based verification of iAPX 186 processor modules
02.50 pm	SCT 4038	Gaussian Vortex Beam modeling for multiplexing in data communication using OAM
03.10 pm	SCT 3084	EMG Signal Classification for Detecting Neuromuscular Disorders

Session: CE01 (Civil Engineering)

Date: 20.03.2021 (Saturday)

Time: 09.30 am to 03.30 pm

Session In-charge: **Prof. Shikhar Sarma**, Guhati University/
Dr. M. Tariq Banday, University of Kashmir

Session Link: **Will be added**Session in-charge Contact Number: **Will be added**

Time	Paper ID	Paper Title
09.30 am	SCT 2031	Effect of cascara/testa natural fiber reinforced (epoxy based) hybrid composites
09.50 am	SCT 2039	Zinc tungstate doped polyaniline as room temperature humidity sensing composite
10.10 am	SCT 2042	Actual quantification of probabilities for selected bridge failure scenarios
11.30 am	SCT 2049	Experimental Behaviour of Smart Concrete Embedded with micro Carbon fibres as a Sensing Material
11.50 am	SCT 2050	Design, assembly and use of a simple, economical water sampler for suspended sediment collection
12.10 pm	SCT 2073	Stability of nonlinear vibrations of plate protected from vibrations
12.30 pm	SCT 2031	Effect of cascara/testa natural fiber reinforced (epoxy based) hybrid composites
01.50 pm	SCT 2085	Modeling of spatial natural oscillations of axisymmetric systems
02.10 pm	SCT 3042	On the Possibility of Propagation of Pipe and Lamb Waves in Cylindrical Wells Filled With Liquid
02.30 pm	SCT 4024	Preparation and humidity sensing behavior of cadmium – zinc ferrite nanocomposite
02.50 pm	SCT 2074	A review of free fatty acid determination methods for palm cooking oil

Session: ME02 (Mechanical Engineering)

Date: 20.03.2021 (Saturday)

Time: 09.30 am to 03.00 pm

Session In-charge: **Prof Shirodkar**Session Link: **Will be added**Session in-charge Contact Number: **Will be added**

Time	Paper ID	Paper Title
09.30 am	SCT 2064	The Timoshenko Beam Theory based Spectral Finite Element to Analyse Effects of Shear Deformation on Electrostatically Actuated Narrow Thick Clamped Microbeams
09.50 am	SCT 3021	Ground transmitted vibrations in course of innovative vinyl sheet piles driving
10.10 am	SCT 4005	Novel design of electrostatic micro cantilever for enhanced travel range
11.30 am	SCT 4006	Experimental investigations on effect of surface treatment of aluminum based metal matrix composites using laser
11.50 am	SCT 4013	Modelling the electromechanical sensitivity of silicone composites using response surface methodology
12.10 pm	SCT 4014	Identification of fault size of rolling element bearing on outer race from vibration signature analysis
12.30 pm	SCT 4028	Analysing the effect of mechanical properties of various proportions of filler material on jute fibre/epoxy reinforced composites
01.50 pm	SCT 4034	Performance evaluation of simple DPHX with helical baffles in annulus side
02.10 pm	SCT 4036	Evaluation of improvement in performance of FRP composite by using Al (OH ₃) as secondary reinforcement
02.30 pm	SCT 2045	A Study of power plant selection process – a graph theoretic approach

Session: PH01 (Physics)

Date: 20.03.2021 (Saturday)

Time: 09.30 am to 04.00 pm

Session In-charge: **Prof. G. M. Naik / KRP /
Prof. Desa/ Prof. GEC**

Session Link: **Will be added**Session in-charge Contact Number: **Will be added**

Time	Paper ID	Paper Title
09.30 am	SCT 2026	Investigation of a novel 5nm top bottom gated junctionless FinFET for improved switching and analog performance
09.50 am	SCT 2055	Measurement, processing and analysis of stress magnetocardiograms
10.10 am	SCT 2059	Effect of Pt-doped on the photocurrent of MSM photodetector
11.30 am	SCT 2061	Microstructure of ITO for Transparent Electrode on Glass Slide Prepare by RF Sputtering Technique
11.50 am	SCT 2082	A novel approach to determine blocking temperature in bulk materials
12.10 pm	SCT 2086	Formation of Non-equilibrium Alloys Through Nanocluster Deposition: The Ag _{0.3} Al _{0.7} Supersaturated Alloy
12.30 pm	SCT 3007	Thermal Analysis of an Alkali Titanate: Sodium Hexa-Titanate (Na ₂ Ti ₆ O ₁₃) in Pure and Doped (Zinc) States rtitle
01.50 pm	SCT 3056	On Indirect Excitation of Lateral Vibrations of the Table of the Electrodynamical Stand Suspended on Viscoelastic Shock Absorbers
02.10 pm	SCT 3059	Investigate the fast melting process of 2D SiC model by molecular dynamics
02.30 pm	SCT 3066	Effect on Doping of EDTA on Structural, Optical and Mechanical Properties of KDP Crystal
02.50 pm	SCT 3094	Nanodot Optically Stimulated Luminescence Dosimeter for Entrance Surface Dose measurement at selected Health Clinic in Perak, Malaysia
03.10 pm	SCT 4003	Dynamics of magnetic pulse compression circuit of metal vapor laser
03.30 pm	SCT 4022	Theoretical modeling of Pd-SnO ₂ based ethanol gas sensor