



Karunya INSTITUTE OF TECHNOLOGY AND SCIENCES

(Declared as Deemed to be University under Sec.3 of the UGC Act, 1956)

A CHRISTIAN MINORITY RESIDENTIAL INSTITUTION

AICTE Approved & NAAC Accredited



SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
5th IEEE International Conference on Devices, Circuits and Systems (ICDCS'20)

PROGRAMME SCHEDULE

DAY1:5th MARCH (THURSDAY) 2020				
08:30 A.M - 09:30 A.M	Registration at Conference Venue			
09:45 A.M - 10:30 A.M	INAUGURATION – Elohim Auditorium			
10:30 A.M - 10:45 A.M	Tea Break –Elohim Auditorium			
10:45 A.M – 11:45 A.M	KEYNOTE TALK-1: AlGaN/GaN HEMT Device Technology for Microwave Applications Dr.D. S. Rawal Associate Director, Solid State Physics Laboratory, Delhi. Venue: Elohim Auditorium			
11:45A.M – 12:45P.M	KEYNOTE TALK-2: GaN on Silicon Manufacturing Excellency in CMOS foundry Dr.Manish Kumar Professor, Head –Technology Development Division, Semi-Conductor Laboratory, Department of Space, Govt. of India, Mohali. Venue: Elohim Auditorium			
12:45 P.M – 02:00 P.M	Lunch Break			
02:00 P.M- 02:45 P.M	KEYNOTE TALK-3: Transistor 70, IC 60, and next? Dr. Wen-Kuan Yeh, Professor, Electrical Engineering Department, National University of Kaohsiung,Taiwan. Venue : ECE Seminar Hall (Ground Floor)			
02:45 P.M – 04:30 P.M	<i>Paper Presentation</i>			
	<u>SESSION -1</u>	<u>SESSION -2</u>	<u>SESSION -3</u>	<u>SESSION - 4</u>
	Venue: ECE Seminar Hall (Ground Floor)	Venue: ECE Seminar Hall (First Floor)	Venue: EEE Seminar Hall	Venue: E& I Seminar Hall
03:15 P.M – 03:30 P.M	Tea Break - Near Respective Venues			
04:45 P.M	<i>End of Day One</i>			



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DAY 2:6 th MARCH (FRIDAY) 2020				
09:45A.M – 10:30A.M	KEYNOTE TALK-4: Dr.SubhasChandh Scientist, Solid State Physics Lab-DRDO Venue :ECE Seminar Hall (Ground Floor)		KEYNOTE TALK-5: Mr. J.Murali Shankar Altran technologies, Venue :ECE Seminar Hall (First Floor)	
10:30 A.M 10:45 A.M	Tea Break: Near Respective Venues			
10:45A.M- 12:45 P.M	<i>Paper Presentation</i>			
	<u>SESSION – 5</u>	<u>SESSION – 6</u>	<u>SESSION - 7</u>	<u>SESSION - 8</u>
	Venue: ECE Seminar Hall (Ground Floor)	Venue: ECE Seminar Hall (First Floor)	Venue: EEE Seminar Hall	Venue: E& I Seminar Hall
12:45 P.M - 02:00 P.M	Lunch Break			
02.00 P.M 02.45 P.M	KEYNOTE TALK-6: Dr.Sachin Kumar University of Delhi, Delhi Venue: EEE Seminar Hall (Ground Floor)			
02:00 P.M – 03:40 P.M	<i>Paper Presentation</i>			
	<u>SESSION - 09</u>		<u>SESSION - 10</u>	
	Venue: ECE Seminar Hall (Ground Floor)		Venue: ECE Seminar Hall (First Floor)	
03:15 P.M – 03:30 P.M	Tea Break - Near Respective Venues			
03.45 P.M- 04:20 P.M	VALEDICTORY Venue: ECE Seminar Hall (First Floor)			
04:20 P.M	<i>End of Day Two and ICDCS'20</i>			



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5th IEEE International Conference on Devices, Circuits and Systems (ICDCS'20)

Session: 1

Date : 05/03/2020

Time : 02.30 p.m –04.30 p.m

Venue : ECE Seminar Hall (Ground Floor)

S.NO	Paper ID	Paper Title
1	02	A Cognitive Based Channel Assortment Using Ant-Colony Optimized Stable Path Selection In An IoTN
2	11	Machine Vision and Machine learning techniques for Intelligent Agrobots: A review
3	13	Mapping of Prosopis Juliflora by a Fusion assisted Pattern Based Classification
4	22	Skin Cancer Detection Using Gray Level Co-occurrence Matrix Feature Processing
5	25	Feasibility Study of Energy Extraction from Wind Pressure of Outdoor Fan of Refrigerator Using Small Scale Wind Turbine: Bangladesh Perspective
6	52	Analysis of OSNR and Data Rate Selection Using ML Techniques for Optical Networks
7	53	Performance Study on Nonlinearity Distortion Mitigation in Modulated Optical Interconnects based on Machine Learning
8	61	Analysis of Activity Of Muscles Acting on Ankle Joint in Sitting And Standing From Chairs Of Different Heights



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Session: 2
Date : 05/03/2020

Time : 02.30p.m –04.30p.m
Venue : ECE Seminar Hall (First Floor)

S.NO	Paper ID	Paper Title
1	15	A 624 μ W Variable Gain Amplifier with 45dB peak Gain using Current Controlled Degeneration
2	12	IoT Based Prepaid Energy Meter
3	03	MOS only voltage reference with improved line regulation for LDO voltage regulator applications
4	16	Quasi-Ballistic Transitions in AlGaIn/SiC Heterojunction Bipolar Transistors
5	17	Design and analysis of LIM hybrid MTJ/CMOS logic gates
6	18	Design and Implementation of 32-bit Functional Unit for RISC architecture applications
7	32	Modeling the Impact of a Non-Ohmic Contact on the Delay of Complementary OTFT Inverters
8	36	AC Gain analysis of Multi-stage Common Source Amplifier Using GAA-CNTFET
9	71	Device-Level Performance Comparison of some Pocket Engineered III-V/Si Hetero-Junction Vertical Tunnel Field Effect Transistor



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Session: 3
Date : 05/03/2020

Time : 02.30p.m –04.30p.m
Venue : EEE Seminar Hall

S.NO	Paper ID	Paper Title
1	26	Isolation Improvement in Closely Coupled MIMO Antennas
2	31	IoT and Cloud hinged Smart Irrigation System for Urban and Rural Farmers employing MQTT Protocol
3	34	Implementation Of The Anti-Pilferage And Anti Leakage System For Fuel Tankers
4	40	Applications of Internet of Things (IoT) - An Overview
5	44	An Early Alert System for Sleep Apnea Disorder Using IoT
6	50	Design and Analysis Of A Small Implantable Antenna For Blood Glucose Monitoring
7	54	Peak-to-Average Power Ratio reduction in OTFS modulation using companding technique
8	74	Improving the prediction accuracy of Parkinson's Disease based on pattern techniques
9	76	Diagnosis of Parkinson's Disease using Fast Fourier Transform



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Session: 4

Date : 05/03/2020

Time : 02.30 p.m –04.30 p.m

Venue : E& I Seminar Hall

S.NO	Paper ID	Paper Title
1	47	Design and Simulation of Multiple Quantum well based InGaN/GaN Light Emitting Diode for High power applications
2	48	Comparative Analysis Of Control Design For Uncertain MIMO Systems
3	49	Implementation of Elliptic Curve Cryptography over a Server-Client network
4	51	Fuel Cell Based Sapf System With Dual Mode Operation
5	55	Implementation of VARMA Model for Ionospheric TEC Forecast over an Indian GNSS Station
6	56	Influence of Temperature on p-GaN HEMT for High Power Application
7	72	A Compact Wearable 2.45 GHz Antenna for WBAN Applications
8	75	Comparative Analysis of JunctionlessFinFET and Inverted Mode FinFET as Phosphine (PH ₃) Gas Sensor
9	104	Investigation of AlGaIn/GaN HEMT Breakdown analysis with Source field plate length for High power applications



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5th IEEE International Conference on Devices, Circuits and Systems (ICDCS'20)

Session: 5

Date : 06/03/2020

Time : 10:45 A.M – 12:45 P.M

Venue : ECE Seminar Hall (Ground Floor)

S.NO	Paper ID	Paper Title
1	24	Design and Development of (1.2-2.7)GHz HEMT basedn broadband power amplifier
2	41	An Algorithmic Approach for Vital Parameters Measurement and Monitoring in Public Healthcare Environment
3	63	Real-time Scene Change Detection with Object Detection for Automated Stock Verification
4	79	Performance analysis of ScAlN/GaN High Electron Mobility Transistor (HEMT) for biosensing application
5	83	Self-Operating Paint Bot
6	90	Recent Research Trends in Solar Photovoltaic Systems
7	92	Design and Analysis of 8-bit Stable SRAM for Ultra Low power Applications
8	115	Self-Heating Analysis of GaN-HEMT for Various Temperature and Substrate Thickness
9	130	DESIGN AND IMPLEMENTATION OF DNA BASED CRYPTOGRAPHIC ALGORITHM
10	133	Preparation and Analysis of Nano materials for Smart textile in Continuous Monitoring of Physiological Parameters



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Session: 6

Date : 06/03/2020

Time : 10:45 A.M – 12:45 P.M

Venue : ECE Seminar Hall (First Floor)

S.NO	Paper ID	Paper Title
1	64	Comparative Performance Analysis of DTC fed Three-Phase and Five-Phase Induction Motor
2	67	Memristor Based Cryptographic Information Processing for Secured Communication Systems
3	68	Performance Assessment of Polarity Tunable–Ferroelectric–Field Effect Transistor at High Temperature —Part I
4	69	Performance Assessment of Polarity Tunable–Ferroelectric–Field Effect Transistor at High Temperature —Part II
5	94	A Novel Multilevel Hybrid Segmentation and Refinement Method for Automatic Heterogeneous True NSCLC Nodules Extraction
6	99	Study paper in design of Automatic Speed Controlling System
7	101	IOT Based Patient Monitoring System Using Nodemcu
8	141	Heterojunction Tunnel Field Effect Transistors - A Detailed Review
9	143	Silicon-on-Insulator based MOSFET for Biosensing Applications



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Session: 7

Date : 06/03/2020

Time : 10:45 A.M – 12:45 P.M

Venue : EEE Seminar Hall (Ground Floor)

S.NO	Paper ID	Paper Title
1	113	Design and Control Strategies of Quasi – Z Source Inverter For Photovoltaic Power Generation Systems
2	116	Image Compression Using HAAR Discrete Wavelet Transform
3	117	Improved Reliability by Controlled Local Electric Field (CLEF) in an HfO ₂ based RRAM Device
4	118	Water Quality Monitoring System Based on IOT
5	119	Analysis of GAA SNTFT with Different Dielectric Materials
6	124	Design and Simulation of 22nm FinFET Structure Using TCAD



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Session:8

Date :06/03/2020

Time : 10:45 A.M – 12:45 P.M

Venue : EIE Seminar Hall (First Floor)

S.NO	Paper ID	Paper Title
1	125	Effect of AlGa _N Back Barrier in AlGa _N /Ga _N high electron mobility transistor on Ga _N substrate
2	129	An Improved Reversible Data Hiding on Encrypted Images by Selective Pixel Flipping Technique
3	131	Medical Image Fusion using Transform Techniques
4	135	A detailed review on Double Gate and Triple Gate Tunnel Field Effect Transistors
5	136	Low Power Design of 4-bit Simultaneous Counter using Digital Switching Circuits for Low Range Counting Applications



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Session: 9

Date : 06/03/2020

Time : 02.00p.m –3.00 p.m

Venue : ECE Seminar Hall (Ground Floor)

S.NO	Paper ID	Paper Title
1	80	Equivalent Channel Temperature in GaN HEMT with Field Plate
2	139	Impact on Voltage Stability With Integration of Multiple STATCOM at Different Loading Conditions
3	105	Fault Detection and Diagnosis of Multi-Phase Induction Motor Drives Using MFRF Technique
4	109	An Optimization Technique for General Neural Network Hardware Architecture
5	111	Man of the League Algorithm Based Space Vector Modulated Inverter in Photovoltaic System
6	14	Virtual Reality based System for Training and Monitoring Fire Safety Awareness for Children with Autism Spectrum Disorder

Session: 10

Date : 06/03/2020

Time : 02.00p.m –3.00 p.m

Venue : ECE Seminar Hall (First Floor)

S.NO	Paper ID	Paper Title
1	39	Performance Analysis of Radio Frequency (RF) Low Noise Amplifier (LNA) with various Transistor Configurations
2	144	A Review of Literature on Braille Tab and the Underlying Technology
3	30	Monitoring & Controlling of Substation Using IOT in Distribution Power Grid.
4	42	Internet of Medical Things (IoMT) - An Overview