Day 1: Thursday, Nov 25, 2021	
10:00 - 10:30 A.M.	**Inauguration**
10:30 - 11:30A.M.	**Keynote Talk 1: Prof. Banmali S. Rawat**
11:30 -11:40 P.M.	**Tea Break**
11:40-12:30 P.M.	**Technical Session 1**

	Session-C1.1 : Wireless Communication Systems - I	
	Session Chair: Prof. Bhasker Gupta	
	Session Rapporteur: Ms. Nisha Venkatesh , Session Incharge: Dr. Vineet Khandelwal	
	C1.1.1570753396	**Performance Analysis of 20 Gbps-60 GHz OFDM-RoFSO Transmission with ODSB and OSSB Modulation Using Hybrid Mode**
		Ankur Sood and Rahul Kaushik
	C1.1.1570759121	**Performance Evaluation of Fibonacci Polynomial Based Power Allocation Algorithm for NOMA in VLC System**
		Deepti Chahar, Manan Jani and Parul Garg
	C1.1.1570761935	**Performance Analysis of Polar Codes in 5G New Radio**
		M. Meenalakshmi, Saurabh Chaturvedi and Vivek k. Dwivedi
	C1.1.1570748079	**Smart Footsteps Power Generation System**
		Shivani Mahesh Pandit, Neha Salunke, Trinity Chettiar and Prachi Raut
	Session-S1.1: Signal Processing for System Analysis-I	
	Session Chair: Prof. Alka Tripathi	
	Session Rapporteur: Dr. Rahul Kaushik, Session Incharge: Dr. Megha Agarwal	
	S1.1.1570749229	**Separation of Overlapping Chirp Signals Using STFRFT**
		Rahul Pachauri
	S1.1.1570754016	**Single OTRA-Based Multifunctional Filter Configurations**
		Garima Mann, Pragati Kumar and D. R. Bhaskar
	S1.1.1570755444	**Third Order Low Frequency Sinusoidal Oscillators Employing CFOAs and Grounded Capacitors**

		Ajishek Raj, Pragati Kumar and D. R. Bhaskar
	S1.1.1570756930	**Moving Horizon Estimation Based Stochastic Filtering of RC Circuit**
		Rahul Bansal, Ranu Sharma and Bajrang Bansal

Session-V1.1 : VLSI Circuits and Systems- I

Session Chair: Prof. Ramesh Chand Mittal

Session Rapporteur: Dr. Ajay Kumar, Session Incharge: Ms. Monika Singh

	V1.1.1570762168	**Design of All Optical Universal Gates Using 2-D Photonic Crystals**
		Abyash Gautam and Anil Kumar Shukla
	V1.1.1570758391	**A Simulation Based study and Optimization of CdTe/ZnO/ITO Based Device for Self-Powered Photodetector Perspective**
		Varun Goel, Yogesh Kumar and Hemant Kumar
	V1.1.1570755557	**Light dependency of intended source UTBB FDSOI Based photodetector**
		Nitu Rao, Vimal Mishra
	V1.1.1570754160	**A Comprehensive Assessment of Current Trends in Negative Bias Temperature Instability (NBTI) Deterioration**
		Karan Singh and Shruti Kalra

12:30-1:30 P.M.	**Keynote Talk 2: Mr. Deepak Mathur**	
1:30 - 2:15 P.M.	**LUNCH BREAK**	
2:15-3:15 P.M.	**Keynote Talk 3: Prof. Kumar Vaibhav Srivastava**	
3:15 - 3:30 P.M.	**Tea Break**	
3:30-4:30 P.M.	**Technical Session 2**	

Session-C1.2: Antenna Design

Session Chair: Dr. N. S. Beniwal

Session Rapporteur: Dr. Pankaj Kumar Yadav, Session Incharge: Mr. Vishal N Saxena

	C1.2.1570731698	**Stub-loaded Dual-Band Planar Antenna for 28/38 GHz 5G Applications**
		Shobit Agarwal, Umair Rafique and Vasu Jain
	C1.2.1570753542	**A Wideband Antipodal Vivaldi Antenna**

	Amruta S. Dixit and Sumit Kumar
C1.2.1570756862	**Dual Band Microstrip Patch Antenna and its Gain Enhancement for X Band and Ku Band Application Using Metamaterial**
	Debadrita Saha, Ajay Kumar Choudhary and Tamasi Moyra
C1.2.1570768986	**Thinned Planar Antenna Array Synthesis: A Multiobjective Improved Binary Cat Swarm Optimization Approach**
	Sahiti Vankayalapati, Lakhsman Pappula, KTPS Kumar and Prakash Kumar Panda

Session-S1.2: Signal Processing for System Analysis-II

Session Chair: Prof. Vinod Kumar Yadav

Session Rapporteur: Dr. Akansha Bansal, Session Incharge: Dr. Madhu Jain

S1.2.1570752282	**Comparative Analysis of Compressive Sensing Methods for Speech Enhancement in Hearing Aid Applications**
	Hrishikesh B Vanjari and Mahesh Kolte
S1.2.1570759319	**Emotion Recognition Using Rational Dilation Wavelet Transform For Speech Signal**
	Ravi and Sachin Taran
S1.2.1570759902	**Spoken Language Identification System for Kashmiri and Related Languages Using Mel-Spectrograms and Deep Learning Approach**
	Irshad Ahmad Thukroo and Rumaan Bashir
S1.2.1570755529	**Mathematical and Engineering Solutions Facing COVID-19 Pandemic: A Review**
	Zaineb Alhakeem and Heba Hakim
S1.2.1570763895	**Design and Implementation of FHSS (Frequency Hopping Spread Spectrum) Synthesizer**
	Nagendra Kumar Vishwakarma and Rakesh Kumar Singh

Session-V1.2 : VLSI Circuits and Systems - II

Session Chair: Dr. Satish Chandra

Session Rapporteur: Ms. Jyoti Vyas, Session Incharge: Mr. B. Suresh

V1.2.1570750260	**Performance Analysis of Novel Heterojunction ESDG-TFET for Analogue/RF Applications**

	Priyanka Kwatra, Kaushal Nigam and Sajai Vir Singh
V1.2.1570760551	**Effect of Gate Oxide Material Variability on The Analog Performance of T-Gate GaN-MOS-HEMT with Graded Buffer**
	Megha Sharma, Bhavya Kumar and Rishu Chaujar
V1.2.1570751326	**III-V / Si Heterojunction Based Dual Material Stack Gate Oxide TFETs for Low Power Applications**
	Dharmender, Kaushal Nigam and Satyendra Kumar
V1.2.1570752123	**Influence of Nano Ranged Stack Gate on Junctionless Tunnel Field Effect Transistor**
	Bandi Venkata Chandan and Penjerla Srinivasa Subbarao
V1.2.1570753796	**Performance Analysis of Stack Gate Oxide Underlap TFET Utilising Metal Strip Mechanism**
	Priyanka Verma, Satyendra Kumar and Kaushal Nigam

Day 2: FRIDAY, NOV 26, 2021	
09:30-10:30 A.M.	**Keynote Talk 4 : Prof. Satish Kumar Sharma**
10:30-11:20 A.M.	**Technical Session 3**

Session-C2.3 Wireless Communication Systems-II

Session Chair: Prof. Sunil Kumar Khah

Session Rapporteur: Mr. Ankur Bhardwaj, Session Incharge: Dr. Vivek Dwivedi

C2.3.1570747567	**Beam Steering and Tracking for 5G Mobile Communication Network in mmWave Frequency Band**
	Nallapalem Srinivas, Yasaswini Vellisetty and Prem Chand Jain
C2.3.1570757796	**Structure and Performance Comparison of Ultra-wideband Bandpass Filter: Review Article**
	Ravi Prakash Verma and Bhagirath Sahu
C2.3.1570762170	**Design of Low Cost Substrate Integrated E-plane Waveguide Filter for C-band Applications**
	Arnab Chakraborty and Shweta Srivastava
C2.3.1570760356	**Photonic Crystal Cavity Optimization Using AI**

	Diptimayee Dash, Jasmine Saini and Amit Kumar Goyal
	Session-S2.3: Digital Image Processing
	Session Chair: Prof. Vikas Saxena
	Session Rapporteur: Mr. Mandeep Narula, Session Incharge: Mr. Ritesh Kumar Sharma
S2.3.1570760018	**Implementation of Dual Tree Complex Wavelet Transform with Mean Energy Features to Detect Alzheimer's Disease**
	Neha Garg and Mahipal Chaudhary
S2.3.1570752263	**Enhanced Ultrasound Speckle Reduction Technique Using SLIC Segmentation and Method Noise Compensation**
	Bhawna Gupta and Vineet Khandelwal
S2.3.1570756450	**Underwater Image Enhancement Using Bi-Histogram Equalization with Fuzzy Plateau Limit**
	Shaad Fazal and Daniyal Khan
S2.3.1570755107	**Multispectral Remote Sensing Image Classification Using Modern Machine Intelligence Approach**
	Mohan Singh and Kapil Dev Tyagi
	Session-V2.3: VLSI and Embedded System
	Session Chair: Prof. Vandana Niranjan
	Session Rapporteur: Ms. Monika Singh, Session Incharge: Ms. Jyoti Vyas
V2.3.1570756861	**Design and Implementation of Area-Power Efficient Generic Modular Adder Using Flagged Prefix Addition Approach**
	Tukur Gupta and Shamim Akhter
V2.3.1570760568	**High Efficiency Broadband Mixed Mode Power Amplifier for Patient Monitoring**
	Vaishnavi Surve, Sandeep Kumar and Pradeep Gorre
V2.3.1570758157	**Analysis and simulation of multi-stepped and multi-folded piezoelectric energy harvester**
	Shradha Saxena, Rakesh Dwivedi and Vijay Khare
V2.3.1570758901	**Electrostatic Analysis of Ferroelectric and High dielectric layer assisted MOSFET**
	Rashi Mann, Rishu Chaujar
11:20-11:30 A.M.	**Tea Break**
11:30-12:30 P.M.	**Keynote Talk 5: Prof. Satish Kumar Singh**

12:30 - 1:15 p.m.	LUNCH BREAK	
1:15 - 2:15 p.m.	**Keynote Talk 6: Prof. Ram Bilas Pachori**	
2:15 -3:15 p.m.	**Technical Session 4**	
	Session-WIE2.1: Women in Engineering	
	Session Chair: Prof. Nidhi Goel	
	Session Rapporteur: Ms. Smriti Bhatnagar, Session Incharge: Dr. Rachna Singh	
	WIE2.1.1570750700	**Performance Analysis of Different GAN Models: DC-GAN and LS-GAN**
		Richa Gupta and Vanshika Gupta
	WIE2.1.1570755576	**Deep Convolutional Neural Network with ResNet-50 Learning algorithm for Copy-Move Forgery Detection**
		Vaishali Sharma and Neetu Singh
	WIE2.1.1570755709	**Face Recognition Using Local Multiple Zig-Zag Structure Pattern**
		Ankita Wadhera and Megha Agarwal
	WIE2.1.1570758079	**Conditional Generative Adversarial Network for Devanagari Handwritten Character Generation**
		Mamta Bisht and Richa Gupta
	WIE2.1.1570750938	**Design and Analysis of MIMO FSO System and WDM FSO System for Leh (Ladakh), India under Worst Weather Conditions**
		Rekha Rani and Gurjit Kaur
	Session-YP2.1: Young Professionals	
	Session Chair: Dr. Basant Kumar	
	Session Rapporteur: Dr. Madhu Jain, Session Incharge: Dr. Akansha Bansal	
	YP2.1.1570760130	**H-Plane Bow-Tie SIW Horn Antenna for K Band Applications**
		Abhay Kumar and Shweta Srivastava
	YP2.1.1570748583	**A Compact Dual-Band Monopole Antenna Loaded with CRLH Unit Cell Exploiting Meandered Line Geometry**
		Raghvenda Kumar Singh, Shreya Pourush and Ashish Gupta
	YP2.1.1570754538	**Performance Analysis of Dual Link RF and RF - FSO Transmission System**

		Vishal Narain Saxena
	YP2.1.1570760422	**Multi Feedback LFSR Based Watermarking Of FSM**
		Ankur Bhardwaj and Shamim Akhter

Session-SIGHT2.1: Special Interest Group on Humanitarion Technology

Session Chair: Dr. Krishna Singh

Session Rapporteur: Dr. Vineet Khandelwal, Session Incharge: Dr. Rahul Kaushik

	SIGHT2.1.1570758688	**Prototype Development for IOT Based Contactless Heart-rate and Body Temperature Monitoring System**
		Atul Kumar Dwivedi, Abhishri Dwivedi, Sonali Singh and Abhijeet Tiwari
	SIGHT2.1.1570753005	**An Autonomous Electronic Zoological Feeder**
		Shivam Tripathi, Aditya Dudhane and Shruti Kalra
	SIGHT2.1.1570759419	**Prediction of Heart Disease Risk Using Machine Learning with Correlation-Based Feature Selection and Optimization Techniques**
		Karna Vishnu Vardhana Reddy, Irraivan Elamvazuthi, Azrina Abd Aziz, Sivajothi Paramasivam, Hui Na Chua and Pranavanand Satyamurthy
	SIGHT2.1.1570760325	**Cervical Cancer Risk Prediction Using XGboost Classifier**
		Manika Jha, Richa Gupta and Rajiv Saxena

3:15 - 3:30 p.m.	TEA BREAK
3:30 - 4:30 p.m.	**Technical Session 5**

Session-C2.4 : Wireless Communication Systems - III

Session Chair: Dr. Charu Gandhi

Session Rapporteur: Mr. Ritesh Kumar Sharma, Session Incharge: Mr. Ankur Bhardwaj

	C2.4.1570748790	**Performance Evaluation of Dual Drive Dual Parallel Mach Zehnder Modulator Based Radio Over Fiber link for Wireless Networks**
		Neetu Tyagi and Parvin Kumar
	C2.4.1570759817	**Detection of Tunneling in DNS over HTTPS**
		Hrithik Jha, Iishi Patel, Gang Li, Aswani Kumar Cherukuri and Sumaiya Thaseen
	C2.4.1570760095	**Learn By Share (LBS) -An Effective Handoff Algorithm for IEEE 802.11**

	Manish Puraswani and Ravi Sindal
C2.4.1570759403	**Energy Optimization via Optimal Placement of Cluster Heads in Wireless Sensor Networks with Obstacles**
	Zahraa Hammodi, Ahmed Al Hilli and Mohanad Al-Ibadi
C2.4.1570753853	**An Optimization Technique for Wireless Communication Based on Mesh Topology**
	Zahraa Abdullah Khait and Saad Talib Hasson

Session-S2.4: Machine Learning - I
Session Chair: Prof. Sandeep Kumar Singh
Session Rapporteur: Dr. Megha Agarwal, Session Incharge: Mr. B Suresh

S2.4.1570754959	**Multi-Layer Heterogeneous Ensemble Model for Human Activity Recognition**
	Ganesha H S, Rinki Gupta and Sindhu Hak Gupta
S2.4.1570759731	**Enhancing the Food Image Classification Accuracy Using Ensemble of CNNs and HelperNet**
	Anuj Deshmukh, Gaurav Punjabi and Sandeep Joshi
S2.4.1570755794	**Xplore Word Embedding Using CBOW Model and Skip-Gram Model**
	Kailash Choudhary and Ruby Beniwal
S2.4.1570760282	**Comparison of Agricultural Drones and Challenges in Implementation**
	Manish Sharma and Hema N.

Session-V2.4: IoT
Session Chair: Dr. Shruti Jain
Session Rapporteur: Dr. Ajay Kumar, Session Incharge: Ms. Shradha Saxena

V2.4.1570757664	**Static Performance Assessment of Junctionless Accumulation Mode Gate Stack Gate All Around (JAM-GS-GAA) FinFET Under Severe Temperature**
	Bhavya Kumar, Megha Sharma and Rishu Chaujar
V2.4.1570753962	**Tunnel Field Effect Transistor Based Biosensors: A Review approach**
	Km. Sucheta Singh, Satyendra Kumar and Kaushal Nigam
V2.4.1570753410	**Newly Realized Grounded Capacitance Multiplier Using Single CFDITA**

	Dheeraj Singh, Deva Nand and Atul Kumar
V2.4.1570735816	**Design of Buffer Circuit for Global Interconnects Using Adiabatic Dynamic Logic**
	Himani Bhardwaj, Shruti Jain and Harsh Sohal

Day 3: SATURDAY, NOV 27, 2021

09:30-10:30 A.M.	**Keynote Talk 7: Prof. Ram M. Narayanan**
10:30-11:20 A.M.	**Technical Session 5**

Session-C3.5 : Wireless Communication Systems - IV
Session Chair: Prof. Amrish Kumar Aggarwal
Session Rapporteur: Ms. Smriti Bhatnagar, Session Incharge: Ms. Nisha Venkatesh

C3.5.1570750100	**A UHF RFID Reader Antenna Design for Retail Self-Billing Application**
	Deepak Kumar, Naveen Jaglan and Samir Dev Gupta
C3.5.1570750160	**IoT Based Communication System for Autonomous Electric Vehicles**
	Vishwajit Rahatal, Pratik More, Minesh Salunke, Sahil Makeshwar and Radhika D. Joshi
C3.5.1570758077	**Network Lifetime Improvement for WSN Using Machine Learning**
	Monika Malik, Alok Joshi and Gayatri Sakya
C3.5.1570758257	**GSM Based Smart Energy Meter with Theft Detection and Load Control**
	Anubhuti Anand, Yashee Chaudhary, Ajay Yadav and Rahul Mukherjee

Session-S3.5 : Machine Learning -II
Session Chair: Prof. Arun Sharma
Session Rapporteur: Mr. Mandeep Narula, Session Incharge: Dr. Pankaj Kumar Yadav

S3.5.1570760358	**Fractional Order Butterworth Filter Design Using Bit Level Cat Swarm Optimization Technique**
	Poornima Pateriya, Narendra Singh Beniwal and Atul Kumar Dwivedi
S3.5.1570764698	**Rainfall Prediction: Analysis of Machine Learning Algorithms and Ensemble Techniques**

		Abhinav Sharma, Akshay Khanna, Muskaan Bhargava, and Rutwik Pendse
	S3.5.1570742718	**ImageFake: An Ensemble Convolution Models Driven Approach for Image Based Fake News Detection**
		Anshika Choudhary and Anuja Arora
	S3.5.1570748334	**IsSwap: Deep Fake Detection**
		Aakriti Aggarwal, Siddhant Wadhwa, Pallav Gupta, Nishit Anand, and Rashmi Kushwah

	Session-V3.5 : VLSI Circuits and Systems	
	Session Chair: Prof. R. K. Dwivedi	
	Session Rapporteur: Mr. Vishal N Saxena, Session Incharge: Dr. Vivek Dwivedi	
	V3.5.1570762453	**Single OTA Based Dual Mode First-Order All-Pass Analog Network**
		Shiv Narain Gupta, Bhartendu Chaturvedi and Jitendra Mohan
	V3.5.1570758904	**Analysis of Different Case Studies Based on Industry 4.0**
		Prerna Srivastava, Gaurav Verma and Varun Kumar Kakar
	V3.5.1570758737	**IoT Based Smart Indoor Environment Monitoring and Controlling System**
		Rakhi Bhardwaj, Shiv Narain Gupta, Seema Kumari and Ujala Prajapati
	V3.5.1570758051	**Impact of Different Technology Node on the Delay and Power Dissipation of 6T SRAM Cell**
		Saurabh Kumar, R. K. Chauhan, Manish Kumar and Mangal Deep Gupta

11:20-11:30 A.M.	**Tea Break**
11:30-12:30 P.M.	**Keynote Talk 8: Prof. Parthasarthi Chakrabarti**
12:30-1:00 P.M.	**Valedictory Session**
1:00-2:00 P.M.	**LUNCH**