

OCT TO DECEMBER 2023

DEPARTMENT OF ELECTRONICS AND COMMUNICATION



Newsletter



VISION

To create a centre for imparting technical education of international standards and conduct research at the cutting edge of electronics & communication technology to meet the current and future challenges of technological development.

MISSION

To create technical manpower for meeting the current and future demands of industry and academia; to recognize education and research in close interaction with electronics & communication & related industry with emphasis on the development of leadership qualities in the young men and women entering the portals of the institute with sensitivity to social development and eye for opportunities for growth in the international perspective.



Basudha Devi, M. Ravi Kumar, "1 Gbps visible light communication system utilizing Mach-Zehnder Modulator" , Journal of Optics - India Volume :52 / 406-416 / 2023

Mohit Yadav, Muquaddar Ali and R.P.Yadav, "A Compact and Economical AMC backed Antenna Solution for Wearable Biomedical Applications" , International Journal of Microwave and Wireless Technologies Volume :10 / 1-10 / 2023

Basudha Dewan, Shalini Chaudhary and Menka Yadav, "A Label-Free Dielectric-Modulated Biosensor Using SiGe-Heterojunction Dual cavity Dual Metal Electrically Doped TFET" , Engineering Research Express Volume :1 / - / 2023

A. Sharma, S. J. Nanda, "A many objective chimp optimization algorithm to de-cluster earthquake catalogs in space time domain" , Soft Computing Volume :1 / 1-34 / 2023 ISBN: ISSN 1433-7479

JOOHI GARG, SANJEEV YADAV, and M M SHARMA, "A novel miniaturized loop based angularly stable and polarization independent multiband bandpass FSS structure for Wi-Max and WLAN applications" , sadhana Volume :48 / 1-7 / 2023

Geetanjali Sharma, Amit M Joshi, Deepshikha Yadav, Saraju P. Mohanty, "A Smart Healthcare Framework for Accurate Detection of Schizophrenia using Multi-Channel EEG" , IEEE Transactions on Instrumentation and Measurement. Volume :XX // 2023

Pankaj Binda, Sagnik Banerjee, Rajendra Mitharwal, Sarita Nanda, "Adjustable Broadband Absorber based on Vanadium Dioxide Multiple Coupled Diagonally Sliced Square Ring Shaped Structure For THz Frequency" , Photonics and Nanostructures - Fundamentals and Applications Volume :0 // 2023

Asif Mohammad Bhat a, Ritu Poonia , Arathy Varghese, Nawaz Shafi and C. Periasamy, "AlGaIn/GaN high electron mobility transistor for various sensing applications" , Micro and Nanostructures (Elsevier) Volume :1 / 207528 / 2023

Pankaj Binda, Raghvendra Kumar Singh, Rajendra Mitharwal, "An ultra-thin, polarization free wide-angle stable quad-band metamaterial absorber for applications in C, X, and Ku bands" , AEU - International Journal of Electronics and Communications Volume :0 // 2023

Sandeep Mandia, Rajendra Mitharwal, Kuldeep Singh, "Automatic student engagement measurement using machine learning techniques: A literature study of data and methods" , Multimedia Tools and Applications Volume :00 / 1573-7721 / 2023

Ravi Mali, D. Lodhi, and S. Singhal, "Conformal Strip Fed Circularly Polarized Defected Dielectric Resonator Antenna (CPDDRA) for 6G Applications" , Waves in Random and Complex Media Volume :0 // 2023 ISBN:1745-5049

D. Lodhi and S. Singhal, "CPW Fed Shovel Shaped Super wideband MIMO Antenna for 5G applications" , AEU - International Journal of Electronics and Communications Volume:0 / 1-15 / 2023

N. Sinha, M. A. G. Kumar, A. M. Joshi and L. R. Ceneramaddi,, "DASMcC: Data Augmented SMOTE Multi-class Classifier for prediction of cardiovascular diseases using time series features." , IEEE Access Volume :11 / 117643 - 117655 / 2023

Vandana Singh Rajawat, Ajay Kumar, Bharat Choudhary, "Impact on DC and analog/RF performances of SOI based GaN FinFET considering high-k gate oxide" , Memories-Materials, Devices, Circuits and Systems Volume :5 (2023) / 1-9 / 2023

Abhilasha Joshi, K.K. Sharma, "Dense deep transformer for medical image segmentation: DDraMIS" , Multimedia Tools and Applications Volume :00 // 2023

Geetanjali Sharma, Amit M. Joshi, Richa Gupta, Linga Reddy Ceneramaddi, "DepCap: A Smart Healthcare Framework for EEG based Depression Detection using Time-Frequency Response and Deep Neural Network" , IEEE Access Volume :XX // 2023

R. Sharma, A. M. Joshi, C. Sahu, S. J. Nanda, "Detection of false data injection in smart grid using PCA based unsupervised learning" , Electrical Engineering, Springer Volume :32 / 1-14 / 2023 ISBN: ISSN 0948-7921

Puneet Sharma, Ritu Sharma, Vijay Janyani, Deepak Verma, "Development of a multi-modal graphene nanoparticles (GNP)- Polydimethylsiloxane (PDMS) flexible sensor for human activity monitoring and health assessment" , International Journal of Electrochemical Science Volume :18 / 9 / 2023

PK Inaniya, RK Maddila, R Mehra, "Development of rGO based photodetector for visible light detection applications" , Materials Today: Proceedings Volume :in press // 2023

Devenderpal Singh, Priyanka Yadav, Menka Yadav, "A 2-bit Multiplication Operation using Si-SiGe-Si Channel FinFET 8T-SRAM cell" 9th International symposium on smart electronic systems (iSES-2023) .

Devenderpal Singh, Shalini Chaudhary, Basudha Dewan, Menka Yadav, "A Junctionless Tri-Gate SOI FinFET 8T-SRAM Cell with improved Noise Margin" IEEE Silicon 2023.

Ajay Kumar, Neha Gupta, Aditya Jain, Rajeew Gupta, Bharat Choudhary, Kaushal Kumar, Amit Kumar Goyal, Yehia Massoud, "Digital-logic assessment of junctionless twin gate trench channel (JL-TGTC) MOSFET for memory circuit applications" , Memories-Materials, Devices, Circuits and Systems Volume :6(2023) / 1-6 / 2023

Book Chapter" "Role of photonics for the realization of future 6G communication systems Chapter 10, Book: 5G Wireless Communication System in Healthcare Informatics, 1st Edition ISBN:9781032312194 published by - CRC Press (Routledge, Taylor & Francis Group) Year 2023 Authors- Kamal Kishor Choure, Manisha Prajapat, Ankur Saharia, Nitesh Mudgal, Manish Tiwari, Puspa Devi Pukhrabam, Ghanshyam Singh

Book Chapter" A High-Speed Architecture for Lung Cancer Diagnosis ISBN:ISBN 978-166-84-6525-7 published by - Book-Structural and Functional Aspects of Biocomputing Systems for Data Processing, IGI Global Year 2023 Authors- R. Ratnakumar, Shilpa K., S. J. Nanda

PROJECTS

Project Investigator:

Dr Bharat Chaudhary

Title of the Project:

Development of Silicon Proven IP Cores, Transceiver IC and System Prototype for mmWave Radar Sensing in Healthcare and Security Applications

Funding Agency: MEITY

Amount: 288 Lakhs

Duration: 2023-2028

Project Investigator:

Dr Amit Mahesh Joshi

Title of the Project:

Onboard spectral preprocessing for multispectral image compression using FPGA

Funding Agency: ISRO

Amount: 18.62 lakhs

Duration: 2023-2025

Project Investigator:

Dr. Ritu Sharma

Title of the Project:

Design , Fabrication and performance Evaluation of Flexible Piezoelectric Biomechanical Energy Harvester

Funding Agency: SERB-Power Grant

Amount: 59.97 lakhs

Duration: 2022-2025

Project Investigator:

Dr. Kuldeep Singh

Title of the Project:

Development of techniques for data traffic based analysis of smart systems

Funding Agency: DRDO, Ministry of Defense , Govt. of India

Amount: 103.49 lakhs

Duration: 2023-2025

Project Investigator:

Dr Amit Mahesh Joshi

Title of the Project:

iGLU Intelligent Glucose Measurement Device

Funding Agency: DST

Amount: 10.5 lakhs

Duration: 2023-2024

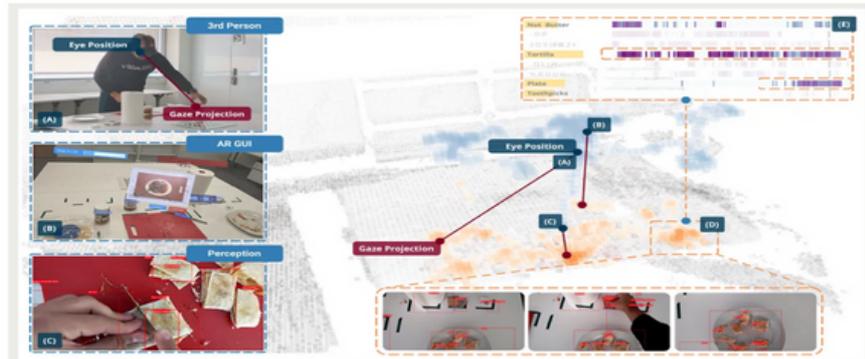
5G USE CASE
LABORATORY AWARDED
TO MNIT JAIPUR BY
DOT, GOVT. OF INDIA



Best Paper Award

KL Thakral Best Paper Award of the 9th International symposium on smart electronic systems (iSES-2023) conferred to “Devender pal Singh, Priyanka Yadav, Menka Yadav” for the paper “A 2-bit Multiplication Operation using Si-SiGe-Si Channel FinFET 8T-SRAM cell” presented on Dec 19, 2023

Industrial Visit



NYU Tandon researchers led by computer science and engineering professor Claudio Silva are exploring knowledge transfer, perceptual grounding, perceptual attention, and user modeling to develop dynamic, intelligent agents that can assist with complex tasks.

If you've ever learned to cook, you know how daunting even simple tasks can be at first. It's a delicate dance of ingredients, movement, heat, and techniques that newcomers need endless practice to master.

But imagine if you had someone - or something - to assist you. Say, an AI assistant that could walk you through everything you need to know and do to ensure that nothing is missed in real-time, guiding you to a stress-free delicious dinner.

source: IEEE Spectrum

PLACEMENTS 2023

UG Students Placed-89.09 %
Highest LPA-64

Average LPA-17.19

PG Students

VLSI : Highest LPA-37.49
ECE : Highest LPA-32.46
WOC : Highest LPA-30
Embedded : Highest LPA-30

Average LPA-18.49
Average LPA-14.04
Average LPA-13.99
Average LPA-17.23

