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.

Research is to see what everybody else has seen and to think what nobody else has thought-

-Albert Szent-Gyorgyi

R. K. Garg , M.V. D. Nair , S. Singhal and R. Tomar, "A Double-Leaf-Shaped Four-Port MIMO Antenna for Ultra-Wideband Applications" , International Journal of RF and Microwave Computer Aided Design Volume :0 / 1-10 / 2022

Jyoti Sharma, Gaurav Kumar Sharma, Tarun Varma, Dharmendar Boolchandani, "A high speed phase detection circuit with no dead zone suitable for minimal jitter and low power applications (https://doi.org/10.1142/S021812662250267X)" , Journal of Circuits, Systems and Computers Volume :accepted / 111 / 2022

R. Ratnakumar, S. J. Nanda, "A high-speed unsupervised hardware architecture for rapid diagnosis of COVID-19" , International Journal of Circuit Theory and Applications, Wiley Volume :1 / 1-38 / 2022 ISBN: ISSN: 1097-007X

Ritu Poonia, Aasif Mohammad Bhat C.Periasamy, Chitrakant Sahu, "A highly sensitive Nano Gap Embedded AlGaN/GaN HEMT sensor for Anti-IRIS antibody detection" , Micro and Nanostructures Volume :169 / 207342 / 2022

Krishna Chauhan, Kamalesh Kumar Sharma, Tarun Varma, "A method for simplifying the spoken emotion recognition system using a shallow neural network and temporal feature stacking & pooling (TFSP)(DOI 10.1007/s11042-022-13463-1)" , Multimedia Tools and Applications, Springer Volume :Accepted / 111 / 2022

Ajith J., S. J. Nanda, R. K. Maddila, "A Multi-Objective Natural Aggregation Algorithm for Optimizing User Allocation Matrix in Visible Light Communication" , Optik - International Journal for Light and Electron Optics, Elsevier Volume :267 / 169692 / 2022 ISBN: ISSN: 0030-4026

Riyaz Ahmad, AMIT JOSHI, Dharmendar Boolchandani, "A novel instrumentation amplifier with high tunable gain and CMRR for biomedical applications" , Turkish Journal of Electrical Engineering & Computer Sciences Volume :30 / 996-1015 / 2022

Geetha P., S. J. Nanda, R. P. Yadav , "A Parallel Chaotic Sailfish Optimization Algorithm for Estimation of DOA in Wireless Sensor Array" , Physical Communication, Elsevier Volume :51 / 101536 / 2022 ISBN: ISSN 1874-4907

Pankaj Binda, Akshay Pratap Singh, Kuldeep Singh, Rajendra Mitharwal, "An equivalent surface dipoles based source reconstruction for estimating radiated emissions numerically from shielded PCBs" , AEU - International Journal of Electronics and Communications Volume :157 / 154407 / 2022 ISBN: 1434-8411

N. Reddy, D. K. Panda, and R. Saha, "Analytical modelling for surface potential of dual material gate overlapped-on-drain TFET(DM-DMG-TFET) for label-free biosensing application" , AEU – International Journal of Electronics and Communications Volume :151 / 154225 / 2022

S. J. Nanda, "Band selection in hyperspectral image with chaotic binary MOCLONAL algorithm" , SN Computer Science, Springer Volume :3 / 410 / 2022 ISBN: ISSN 2661-8907

Maisarah Mansor, Nadiah Husseini Zainol Abidin, Josephine Ying Chyi Liew, Mohammed Thamer Alresheedi, Amit Kumar Garg, Vijay Janyani, Mohd Adzir Mahdi, "Cerium oxide/polydimethylsiloxane composite tapered fiber saturable absorber for mode-locked pulsed erbium-doped fiber laser" , Infrared Physics and Technology Volume :125 / 0-0 / 2022

Deepshikha Lodhi and S. Singhal, "CPW fed quasi complementary super-wideband MIMO antenna" , Optical and Quantum Electronics Volume :0 / 1-8 / 2022

Shreyas Tiwari and Rajesh Saha, "DC and RF/analog performances of split source horizontal pocket and hetero stack TFETs considering interface trap charges: A simulation study" , Microelectronics Reliability Volume :137 / 114780 / 2022

G. Sharma, A. M. Joshi and E. S. Pilli , "DepML: An Efficient Machine Learning-Based MDD Detection System in IoMT Framework" , SN Computer Science, Springer Volume :3 / 1-8 / 2022

Namrata Saxena, Varshali Sharma, Ritu Sharma, Kamlesh Kumar Sharma, Kapil Kumar Jain , "Design, parametric analysis and comparison of fixed-guided two beam and four beam vibrational piezoelectric energy harvesters" , Microsystem Technologies Volume :28 / 1203-1212 / 2022

R. K. Vijay, S. J. Nanda, "Earthquake pattern analysis using subsequence time series clustering " , Pattern Analysis and Applications, Springer Volume :1 / 1-18 / 2022 ISBN: 1433-7541

Soma Ghosh, Vineet Sahula, Lava Bhargava, "Enhanced Multi-Core Performance Using Novel Thread Aware Cache Coherence and Prefetch-Control Mechanism (Doi-10.1109/LES.2022.3187418)" , IEEE Embedded Systems Letters Volume :99 / 4 / 2022 ISBN: 1943-0671

Porwal, Ankita, Shafi, Nawaz, Sahu, Chitrakant, "Fabrication and pH Sensing Characteristics Measurement of Back Gate ZnO Thin Film Planar FET" , Silicon Volume :Accepted / 1-8 / 2022

Pathak, V., Nanda, S. J., Joshi, A. M., Sahu, S. S, "FPGA implementation of high-speed tunable IIR band pass notch filter for identification of hot-spots in protein." , International Journal of Circuit Theory and Applications Volume :49 / 3748-3765 / 2022

Abhilasha Joshi , K K Sharma, "Graph deep network for optic disc and optic cup segmentation for glaucoma disease using retinal imaging" , Physical and Engineering Sciences in Medicine (Volume :70 / 1-10 / 2022

Shobha Sharma, Tarun Varma, "Graph signal processing based underwater image enhancement techniques (https://doi.org/10.1016/j.jestch.2021.09.005)" , Engineering Science and Technology, an International Journal Volume :32 / 101059 / 2022

Khairnar, Avadhoot and Chauhan, Bhavuk and Sharma, Geetanjali and Joshi, Amit M, "High-Performance 32-Bit Parallel Hybrid Adder Design Using RNS and Hybrid PTL/CMOS Logic}" , Journal of Circuits, Systems and Computers Volume :00 / 2250200 / 2022

V. Pathak, S. J. Nanda, A. M. Joshi, S. S. Sahu, "Identification of characteristics frequency and hot-spots in protein sequence of COVID-19 disease" , Biomedical Signal Processing and Control, Elsevier Volume :78 / 103909 / 2022 ISBN: ISSN: 1746-8094

Shreyas Tiwari and Rajesh Saha, "Improved optical performance in near visible light detection photosensor based on TFET" , Microelectronics Journal Volume :in press / 105554 / 2022

Harshit Jain, Mukul Kumar, Amit M Joshi, "Intelligent energy cyber physical systems (iECPS) for reliable smart grid against energy theft and false data injection" , Electrical Engineering Volume :104 / 331-346 / 2022

Agrawal, Harshita and Jain, Prateek and Joshi, Amit M, "Machine learning models for non-invasive glucose measurement: towards diabetes management in smart healthcare" , Health and Technology Volume :online / 11 / 2022

S. Bhaskar, M. G. Siddiqui, S. Singhal, A. Bansal, "Miniaturized circularly polarized Vicsekcross-shaped slot antenna for UHF-RFID reader handset applications" , IEEE Journal of Radio Frequency Identification Volume :0 / 1-8 / 2022

Ritu Poonia, Aasif Mohammad Bhat, C Periasamy, Chitrakant Sahu, "Performance Analysis of MOS-HEMT as a Biosensor: A Dielectric Modulation Approach" , Silicon Volume :1 / 1-8 / 2022

D. Deb, R. Goswami, R. Baruah, R. Saha and K. Kandpal, "Role of gate electrode in influencing interface trap sensitivity in SOI tunnel FETs" , Journal of Micromechanics and Microengineering Volume :32 / 044006 / 2022

Girdhar Gopal, Heerak Garg, Harshit Agrawal, Tarun Varma, "Stacked ferroelectric heterojunction TFET on BOX substrate for enhanced electrical performance" , Semiconductor Science and Technology Volume :Accepted / 111 / 2022

Shalini Chaudhary, Basudha Dewan, Chitrakant Sahu, Menka Yadav ., "Steep-Subthreshold Slope Dual gate Negative Capacitance Junction less FET with Dead Channel: TCAD Approach for Digital/ RF Applications" , Microelectronics Journal Volume :127 / 105518 / 2022 ISBN: 0026-2692

Tripathi, S. K., and Amit M. Joshi. , "Sub-10 pA/V Transconductance Amplifier Using 0.9 V, 32 nm Carbon Nanotube Field Effect Transistor" , Journal of Circuits, Systems and Computers Volume :2220002 / 11 / 2022

Mayur Kumar Chhipa, B. T. P. Madhav, Bhuvneshwer Suthar, Vijay Janyani, "Ultra-compact with improved data rate optical encoder based on 2D linear photonic crystal ring resonator" , Photonic Network Communications Volume :0 / – / 2022

Vipul Sharma, Amit M Joshi, "VLSI Implementation of Reliable and Secure Face Recognition System" , Wireless Personal Communication Volume :122 / 3485-3497 / 2022

S. Singhal, "Wide Angle Insensitive and Polarization Independent Graphite Based Superwideband Absorber" , Optical and Quantum Electronics Volume :0 / 1-15 / 2022

Poonam Devi, Ravi Kumar Maddila, "A Survey on Advances and Future Prospects of Modulation Schemes for VLC" , 3rd IEEE International Conference of Emerging Technologies (INCET-2022) by :IEEE at Belgaum, India / / 2022 ISBN: 978-1-6654-9499-1

CONFERENCES/WORKSHOPS/ FDP

- International Short Term Course on From Zero to Chip Design Workshop using OpenPOWER cores (IBM) from 22-08-2022 to 02-09-2022
- National Short Term Course on Two Week Online Global Summer Faculty Development Program on Advanced Optimization Techniques and Hands-on with MATLAB/SCILAB (AOT 2022) at Electronics and ICT Academy, from 08-08-2022 to 19-08-2022
- International FDP on Research methodology and authoring/reviewing Manuscripts from 25-07-2022 to 05-08-2022
- International Conference on International Conference on Paradigms of Communication, Computing and Data Sciences (PCCDS 2022)) from 05-07-2022 to 07-07-2022
- National Workshop on Research Methodology from 18-04-2022 to 29-04-2022

Research Projects

Sr. No.	Project Investigator	Title of the Project	Funding Agency	Amount (Lacs)	Duration
1	Dr. Bharat Choudhary	Development of Artificial Intelligence based functional prototype for the diagnosis of Urinary Tract Infection	M/S Techjivaa Software Private Ltd.	10.00	2022-2023
2	Dr Amit Mahesh Joshi	Febsz Intelligent Febrile Seizure Monitoring Device for Children	DST	10.00	2022-2023
3	Dr. Kuldeep Singh	Prototype Development of Artificial Intelligence based Portable Computer Aided Diagnosis System for Silicosis	Directorate of Specially abled People , Govt. of Rajasthan	150.00	2022-2024
4	Dr Ritu Sharma	Design, Fabrication and performance Evaluation of Flexible Piezoelectric Biomechanical Energy Harvester	SERB-Power Grant	59.97	2022-2025
5	Dr Amit Mahesh Joshi	Insulin Management System for Type-1 Diabetes People	MeiTY	25.00	2022-2023
6	Dr Amit Mahesh Joshi	iGLU Non-Invasive Glucose Measurement Device	MSME	15.00	2022-2024

PLACEMENT

UG Placement Stats

B. Tech	Maximum Package (LPA)	Min Package (LPA)	Average Package (LPA)
	41	8	15

PG Placement Stats

M. Tech	Maximum Package (LPA)	Min Package (LPA)	Average Package (LPA)
	48	5.5	10.48

Internship Stats

Program	Students got Internship	Maximum Stipend	Average Stipend
UG	40	1.3 Lacs	30,000

TOP COMPANIES