Newsletter October to December 2020

**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.
Seminar/Symposia/Workshop/Conference/STC Organized:

1. National Workshop on Online Training Program on Python for Engineers at MNIT, Jaipur, India from 20-12-2020 to 24-12-2020
2. National Short Term Course on Methodologies and Challenges in Digital IC and Memory Design at MNIT, Jaipur, India from 11-12-2020 to 15-12-2020
3. National Workshop on Emerging CMOS Technologies and Beyond: Trends and Challenges at MNIT Jaipur, Jaipur, India from 26-11-2020 to 30-11-2020
4. National Workshop on ATAL Academy sponsored 5 day Faculty Development Program on Quantum Computing at MNIT, Jaipur, India from 23-11-2020 to 27-11-2020
6. National Symposia on Vigilance Awareness Week at MNIT Jaipur, Jaipur, INDIA from 27-10-2020 to 02-11-2020
9. National Workshop on Verilog/System Verilog skill development at MNIT, Jaipur, India from 12-10-2020 to 06-11-2020
10. National Workshop on Recent Trends in VLSI devices/circuits and applications at MNIT Jaipur, Jaipur, India from 01-10-2020 to 05-10-2020

Publications

- S. Singhal ,"Four Arm Windmill Shaped Superwideband Terahertz MIMO Fractal Antenna" , Optik - International Journal for Light and Electron Optics (ACCEPTED) Volume :0 / 1-8 / 2020
• R. K. Garg, M.V. D. Nair, S. Singhal and R. Tomar, "A New Type of Compact UWB Planar Fractal Antenna With WLAN Band Rejection", MICROWAVE and OPTICAL TECHNOLOGY LETTERS (Accepted) Volume: 0 / 1-8 / 2020


• N Sajwan, I Sharma, A Kumar, LK Balyan, "Performance of Multiplierless FIR Filter Based on Directed Minimal Spanning Tree: A Comparative Study", CIRCUITS SYSTEMS AND SIGNAL PROCESSING Volume: 39 / 1-25 / 2020


• Tau Raphael Rasethuntsa, Manpreet Kaur, Sandeep Kumar, Puspraj Singh Chauhan, Kuldeep Singh, "On the performance of DF-based multi-hop system over $\alpha - \kappa - \mu$ and $\alpha - \kappa - \mu$-extreme fading channels", Digital Signal Processing Volume: 109 / 1-11 / 2020


• Hemant Sharma, K K Sharma, "Sleep apnea detection from ECG using variational mode decomposition", Biomedical Physics and Engineering Express Volume: 00 / 4 / 2020
• A. Kumar, N. Agrawal, I. Sharma, S. Lee and H. N. Lee ,"Hilbert Transform Design Based on Fractional Derivatives and Swarm Optimization" , IEEE transactions on cybernetics Volume :49 / 1-10 / 2020
• AASIF MOHAMMAD BHAT Arathy Varghese, Nawaz Shafi, and C.Periasamy ,"A Dielectrically Modulated GaN/AlN/AlGaN MOSHEMT with a Nanogap Embedded Cavity for Biosensing Applications" , IETE Journal of Research (Taylor and Francis) Volume :1 / 1-10 / 2020
• Usha Choudhary, Vijay Janyani ,"Dual Frame OFDM with Optical Phase Conjugation for MIMO System in Multimode Fiber" , Optical and Quantum Electronics Volume :0 / 01-01 / 2020 ISBN: ACCEPTED
• K. Vanlalawmpuia, R. Saha,B. Bhowmick ,"Study of effect of oxide thickness variation on electrical parameters and high frequency characteristic induced by work-function variation for delta-doped Germanium source vertical TFET" , Semiconductor Science and Technology Volume :0 / -- / 2020
• Jaiverdhan Sarthak Singhal Mahendra M. Sharma Rajenddra Prasad Yadav ,"Epsilon-shaped circularly polarized strip and slot-loaded ultra-wideband antenna for


- **Placement Data**

1. 54 UG students got placed in reputed companies like Nokia, Walmart, Apple, Goldman, Deloitte, Airtel, Texas Instruments, Paytm.
2. Highest package of 43 Lacs is offered to Suryaparaksh Agrawal
3. Average package for UG students is 15 lacs.
4. 10 UG students got internship in companies like Amazon, Deshaw, Goldman, RCCM.
5. 17 PG students got placed in companies like Nokia, Micro, AMD.
7. 11 PG students got internship in companies like Qualcomm, Texas, Mentor graphics, Xilinx, Microchip.
Spintronics (or spin electronics) refers to the intrinsic spin of the electron and its associated magnetic moment in solid-state physics. It is far different than conventional electronics: along with charge state, electron spins are used in order to increase the degree of freedom.

Spintronic systems can be used for efficiently storing and transferring data. These devices are of particular interest in the field of neuromorphic computing and quantum computing.

The technology is also being used in the medical field (to identify cancer) and holds great promises for digital electronics.