

## **ACHIEVEMENTS DURING 2017-18**

### **Expert Lectures Organised**

The Department of Electronics and Communication Engineering organized Expert Lecture on “Synchronous Digital Hierarchy (SDH)” on 28.02.2018 for the UG students of Electronics and Communication Engineering by Ms. Geeta Sharma, AGM, Premier G World.



### **Session Chaired by the Faculty members of ECE Department**

- Dr. Surinder Singh, chaired a session “5G/4G & WPAN III” on July 05, 2017 in The Ninth International Conference on Ubiquitous and Future Networks (ICUFN 2017) Milan, Italy 04 July to 07 July, 2017.
- Dr. Surinder Singh, chaired a session “RFID and QR Code” on July 04, 2017 in The Ninth International Conference on Ubiquitous and Future Networks (ICUFN 2017), Milan, Italy 04 July to 07 July, 2017.

## **Editors of Journals**

- Dr. Surinder Singh, Associate Editor, “ TELKOMINKA -Telecommunication, Computing, Electronics and Control” Indonesia.

## **Member of BOS of Other Organization**

- Dr. Surinder Singh, Member of BOS at Maharaja Ranjit Singh, Punjab TechnincalUniversity,Bathinda (Deptt: Electrical and Electronic Engineering) and Amritsar college of Engineering and Technology, Amritsar.
- Dr. Anupma Marwaha, Member of BOS at Shaheed Bhagat Singh College Of Engineering & Technology, Ferozepur and Beant College of Engineering and Technology, Gurdaspur.

## **STTP/STC/FDP/ Workshops/Seminars Organized by the department**

Department of Electronics and communication Engineering organized a webinar entitled “RTL Design and Functional Verification” on January 31,2018. It was organized in association with Maven Silicon Softech Pvt Ltd., Bangaluru.





## **Research Publications**

### **Web of Science indexed Journals**

- Baljit Singh Khehra,, and Amar Partap Singh Pharwaha. "Comparison of Genetic Algorithm, Particle Swarm Optimization and Biogeography-based Optimization for Feature Selection to Classify Clusters of Microcalcifications." Journal of The Institution of Engineers (India): Series B, Vol. 98, Issue.2, April, 2017, pp. 189-202.
- G. Bansal, A. Marwaha, A. Singh, R. Bala, S. Marwaha, "Graphene based Wideband Arc Truncated Terahertz Antenna for Wireless Communication", Current Nanoscience, Bentham Science Publisher, Vol. 14, Feb. 2018, pp.1-8.
- B. Kaur, A. Marwaha, S. Rani, "Characterization of 4 Element Compact Microstrip Patch Antenna Array for Efficient Null Steering", International Journal of Applied Electromagnetics and Mechanics, Vol. 32, Dec 2017, pp. 1105-1112.
- Rajni and Anupma Marwaha, "Electrically Small Microstrip Patch Antenna Loaded with Spiral Resonator for Wireless Applications", Journal of Wireless Personal Communications, Vol. 96, Sep. 2017, pp. 2621-2632.
- Rajni Bala, Anupma Marwaha, Sanjay Marwaha, "Mathematical Formulation of Surface Conductivity for Graphene Material", Journal of Engineering Science and Technology, Vol. 8, Nov. 2017, pp. 1677-1684.
- Surinder Singh and Yadwinder Kumar, Performance Analysis of Coaxial Probe Fed Modified Sierpinski–Meander Hybrid Fractal Heptaband Antenna for Future Wireless Communication Networks, Wireless Personal Communications, Vol. 94, June, 2017, pp.3251-3263.

- Surinder Singh, Lakhvinder Singh Solanki, and Dharmendra Singh, Modified Wideband Bowtie Antenna for WLAN and High Speed Data Communication Applications, *Wireless Personal Communications*, Vol.95, Aug., 2017, pp. 2649-2663
- Surinder Singh, Sukhbir Singh, Nada Badraoui, Tibor Berceci, and AkramAlomainy. Design and analysis of all-optical up-and down-wavelength converter based on FWM of SOA-MZI for 60 Gbps RZ data signal, *Photonic Network Communications*, Vol.34, Oct., 2017, pp.288-297.
- Surinder Singh and Sukhbir Singh, On compensation of four wave mixing effect in dispersion managed hybrid WDM-OTDM multicast overlay system with optical phase conjugation modules, *Optical Fiber Technology*, Vol.38, Nov., 2017, pp.160-166.
- Surinder Singh and Sukhbir Singh, Limitations on Hybrid WDM/OTDM Multicast Overlay System Imposed by Nonlinear Polarization Effect and its Mitigation, *IEEE Photonics Journal*, Vol. 9, Dec. 2017, pp. 1-11.
- Surinder Singh and Sukhbir Singh, Performance analysis of spectrally encoded hybrid WDM-OCDMA network employing optical orthogonal modulation format against eavesdropper, *AEU-International Journal of Electronics and Communications*, Vol. 82, Dec., 2017, pp.492-501.
- Surinder Singh and Sukhbir Singh, Performance analysis of spectrally encoded hybrid WDM-OCDMA network employing optical orthogonal modulation format against eavesdropper, *AEU-International Journal of Electronics and Communications*, Vol. 82, Dec., 2017, pp.492-501.
- Surinder Singh and Sukhbir Singh, Performance analysis of spectrally encoded hybrid WDM-OCDMA network employing optical orthogonal modulation format against eavesdropper, *AEU-International Journal of Electronics and Communications*, Vol. 82, Dec., 2017, pp.492-501.
- Surinder Singh and Veerpal Kaur, Performance analysis of multichannel surface plasmon resonance sensor with dual coating of conducting metal oxide, *Journal of Nanophotonics*, Vol.12, Feb.,2018,pp. 016012.
- Surinder Singh and Taranjeet Kaur, Performance analysis of electro-absorption modulator-based multi-wavelength converter, *Photonic Network Communications*, Vol.35, Feb., 2018, pp.1-12.
- *Dilip Kumar, Rajeev Kumar, and Dinesh Kumar, "EACO and FABC to multi- path data transmission in wireless sensor networks," IET Communications*, Vol. 11, April, 2017, pp.522-530.

### **Scopus indexed Journals**

- Surinder Singh and Veerpal Kaur, Extremely sensitive multiple sensing ring PCF sensor for lower indexed chemical detection, *Sensing and BioSensingResearch*, Vol.15, May, 2017, pp.12-16.

### **Other peer reviewed Journals**

Balraj Singh, Mukesh Kumar, J. S. Ubhi "Analysis of CMOS based NAND and NOR gates at 45 nm technology" *International Journal of Electronics, Electrical and Computational System*, Vol. 6, Issue 4, April 2017, pp. 224-227.

- Satveer Kour, Jagpal Singh Ubhi, "A Novel Approach to Predict Mobility Pattern of Mobile Nodes in Mobile Ad-hoc Networks" accepted for publication in *Journal of Scientific and Industrial Research*.

- Kishor Kumar, Lakhvinder Singh Solanki, "ANN Based False Alarm Detection of Mammogram for Breast Cancer Detection at Very Early Stage", International Journal of Electronics, Electrical and Computational System, Vol. 6, June 2017, pp. 224-231.
- Kishor Kumar Meshram, Lakhvinder Singh Solanki, "Pre-treatment and segmentation of Digital Mammogram", International Research Journal of Engineering and Technology, Vol.4, June 2017, pp. 1223-1227.
- Paithomba, Lakhvinder Singh Solanki, "A Brief Review on Implantable Patch Antenna for Biomedical Applications", International Journal of Advanced Research in Science and Engineering, Vol. 06, May 2017, pp. 207-222.
- Paithomba, Lakhvinder Singh Solanki, "Design and Analysis of an Implantable Patch Antenna for Biomedical Applications", International Journal of Engineering Technology Science and Research Vol. 4, May 2017, pp. 126-138.
- Ankit Trivedi, Vipin Mishra, Sarbjeet Singh, "Vedic Mathematics for High Speed Multiplier Designs: A Review," International Journal of Electronics, Electrical and Computational System, Vol. 6, pp. 276-283, June 2017..
- Alka Srivastava, Er. Vipul Singhal, Dr. Ashwani Kumar Aggarawal, "Comparative Analysis of Multimodal Medical Image Fusion using PCA and Wavelet Transforms", International Journal of Latest Technology in Engineering, Management & Applied Science, Vol. 6, pp. 115-118, April 2017.