



**GALGOTIAS**  
EDUCATIONAL INSTITUTIONS

**16**  
YEARS

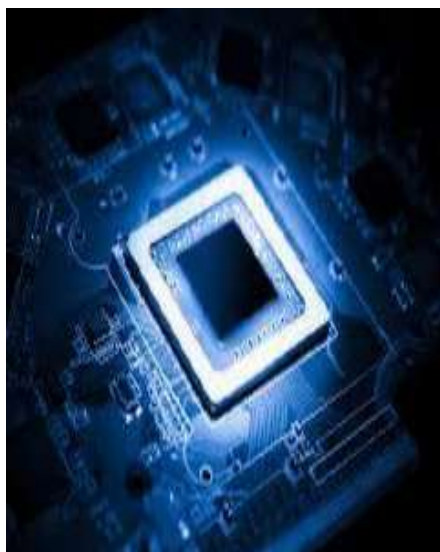
*Celebrating over a decade  
of leadership in education*

# NEWSLETTER

**2015-16**

*Vol-2/April, 2016*

## **DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING (ECE)**



**Message from Dr. Pradyot Kala, Prof.  
and Head, ECE Dept.**

The ECE Dept. newsletter is a platform for sharing educational information, activities and events related to the department. Introducing the very first issue, I hope that this newsletter will provide the useful and relevant information. This is a platform to share information and you can participate by sharing your thoughts on the departmental activities or by contributing information on the events that you have organized.

Chief Editor: Dr. Pradyot Kala (HOD, ECE)

Editor: Mr. Saurabh Katiyar (Asst. Professor, ECE)

Mr. Amanpreet Singh (Asst. Professor, ECE)

Students Editor: Abhishek Dwivedi

Kushagra Agarwal

## **ABOUT THE DEPARTMENT**

The Department of ECE offers B.Tech and M.Tech course in Electronics and Communication Engineering from Dr. A.P.J. Abdul Kalam Technical University, (formerly Uttar Pradesh Technical University / Gautam Buddh Technical University) Lucknow. The primary objective of the department has been to impart quality education, training and research at the undergraduate, postgraduate levels in various areas of Electronics and Communication Engineering. The major areas of faculty expertise of the department include Communication Systems, Control Systems, Digital Signal Processing, Image Processing, Multimedia Security, RF and Microwaves, Antennas, Speech Signal Processing, VLSI design and Wireless communication under the aegis of the department's R&D cell known as Bose Research Cell (BRC). The Department is headed by Prof. (Dr.) Pradyot Kala who has a huge experience in the area of Communication Engineering. The Department has well qualified and motivated faculty. The faculty is working with great enthusiasm for teaching and research. In the last one year, faculty and students together wrote more than 50 research papers in various journals and conferences of national and international repute. Out of that 24 papers are from the students only under the guidance of faculty members. The department is equipped with state of the art labs with R & D facilities and uninterrupted power supply. A two days National level conference on "Recent Advances in Metamaterial Antennas for Biomedical, Optical and Sensing Applications" sponsored by DST was also held on 13-14th February 2015. The students are motivated to undertake real-time projects and actively participate in the technical seminars, conferences and workshops and present their work in them. The department has state of the art fully equipped lab focused towards nurturing the students in practical aspects besides theoretical back ground like Electronics Lab, PCB & Electronics Workshop Lab, Digital Electronics Lab, Microwave Lab, Communication Lab, Digital Logic Design Lab, Computer Aided Design (Cad) Lab.

### **Vision of Department:**

To be recognized as a center of excellence in Electronics and Communication Engineering for the quality and global education, interdisciplinary research and innovation, to produce committed graduates who can apply knowledge and skills for the benefit of society.

### **Mission of Department:**

**DM1:** To provide quality education by providing state of the art facility and solutions for global challenges.

**DM2:** To provide a framework for promoting the industry-institution collaboration and empower the students in interdisciplinary research.

**DM3:** To transform students into socially responsible, ethical and technically proficient engineers with innovative skills and usage of modern tools.

**DM4:** To make the students corporate ready with spirit and necessary interpersonal skills.

### **Program Education Objectives:**

PEOs of the B.Tech in Electronics and Communication Engineering are:

- **PEO1:** Graduates will excel in their career by acquiring knowledge in the field of Electronics and Communication Engineering with the usage of modern tools and emerging technologies.
- **PEO2:** Graduates will have the capability to analyze real life problems of the society and produce innovative solutions.
- **PEO3:** Graduates exhibit professionalism, ethical attitude, communication skills and team work in core engineering,

academia and research organizations through professional development and lifelong learning.

### **Program Specific Outcomes:**

By the completion of Electronics & Communication Engineering program the student will have following Program specific outcomes:

- **PSO1:** Design and develop models for analog & digital electronic circuits and systems.
- **PSO2:** Design, develop and test electronic and communication systems for applications with real time constraints.

### **List of Faculty**

<b>Faculty name</b>	<b>Designation</b>	<b>Qualification</b>
Dr. Praydot kala	Professor , HOD	Ph.D.
Dr. C. B. Tripathi	Professor	Ph.D.
Dr. R.L. Yadav	Professor	Ph.D.
Mr. Shahid Eqbal	Associate Professor	ME/M.Tech
Dr. Jaspreet Kaur	Associate Professor	Ph.D.
Mr Atul Kumar	Associate Professor	ME/M.Tech
Mr. Saurabh Katiyar	Assistant Professor	ME/M.Tech
Mr. S.P. Singh	Assistant Professor	ME/M.Tech
Mr. Amanpreet Singh	Assistant Professor	ME/M.Tech
Mr. P.C. Joshi	Assistant Professor	ME/M.Tech
Ms. Bhawna Ahuja	Assistant Professor	ME/M.Tech
Amit Kumar	Assistant Professor	ME/M.Tech
Mr. Madan Sharma	Assistant Professor	ME/M.Tech
Mr. Satya Prakash	Assistant Professor	ME/M.Tech
Mr. Deepak Gangwar	Assistant Professor	ME/M.Tech
Mr. Kuldeep Singh	Assistant Professor	ME/M.Tech
Ranjana Kumari	Assistant Professor	ME/M.Tech
Ms. Ruchi Agrawal	Assistant Professor	ME/M.Tech

Mr. Ankit Sharma	Assistant Professor	ME/M.Tech
Mr. Vinay Singh	Assistant Professor	ME/M.Tech
Mr. Gaurav Mehra	Assistant Professor	ME/M.Tech
Mr. Sachin kumar pal	Assistant Professor	ME/M.Tech
Mr. Sachin Kumar	Assistant Professor	ME/M.Tech
Mr. Deependra Sinha	Assistant Professor	ME/M.Tech
Mr. Vipin Sharma	Assistant Professor	ME/M.Tech
Mr. Gaurav Saxena	Assistant Professor	ME/M.Tech
Mr. Sarvesh Kumar	Assistant Professor	ME/M.Tech
Dr. Shilpa Choudhary	Assistant Professor	ME/M.Tech
Mr. Mohd. Shibly	Assistant Professor	ME/M.Tech

## **Faculty Publications:**

### **List of Publications in Journals**

<b>S No.</b>	<b>Name of Author</b>	<b>Title of Paper</b>	<b>Name of Journal</b>
1.	Deepak Gangwar, R. L. Yadava, et al	Circularly Polarized Inverted Stacked High Gain Antenna with Frequency Selective Surface	Microwave and Optical Technology Letters, Vol. 58, No. 6, pg. 732-740.
2.	S. Pratap Singh, et al	BER analysis over $\alpha$ - $\mu$ fading channel using proposed novel MGF	International Journal of Wireless and Mobile Computing, Vol. 10, No. 02
3.	Satya P Singh, et al.	An improved CAD system for breast cancer diagnosis based on generalized pseudo-Zernike moment and Ada- DEWNN classifier	Journal of Medical system
4.	Satya P Singh, et al.	Breast Cancer Detection using PCPCET and ADEWNN: A Geometric Invariant Approach to Medical X-rays Image Sensors	IEEE Sensors Journal
5.	Satya P Singh, et al.	Three types of moment invariants for color object recognition based	Arabian Journal of Science and Engineering

		on radon and polar harmonic transform in space	
6.	Madan Kumar Sharma, et al.	Performance Analysis of Vapour Compression and Vapour Absorption Refrigeration Units Working on PhotoVoltaic Power Supply	International Journal of Renewable Energy Research, Vol. 06, No. 2.
7.	Nishtha rani, et al.	A Powerline Filter Circuit Design for Biomedical Applications	Journal of Computational and Theoretical Nanoscience, Vol. 13, No. 5, pg. 3345-3351.
8.	Kuldeep Singh, et al.	Study on Development and Designing of All Optical Logic Devices for the High Speed Fully Optical Networks	International Journal of Communication System and Network, Vol. 6, No. 2, pg. 58-66.
9.	Bhawna Ahuja, et al	A Novel Design of Improved Hybrid Spectrum Sensing Technique for Cognitive Radio Network	International Journal of Computer Applications USA, Vol. 125, No. 13, pg. 7-10.
10.	Bhawna Ahuja, et al	Throughput Analysis of Cooperative Spectrum Sensing for Cognitive Radio Network	International Journal of Computer Networking, Wireless and Mobile Communications (IJCNWMC), Vol. 5, No. 6, pg. 1-7.

### List of Publications in Conferences

S No.	Name of Author	Title of Paper	Name of Conference
1.	S. P. Singh, et al	To Study the Various Weather Effect on FSO Link	2nd IEEE International Conference on Advances in Computing and Communication Engineering (ICACCE)
2.	S. P. Singh, et al	Review on New Paradigm of Wireless System: Relaying	2nd IEEE International Conference on Advances in Computing and



			Communication Engineering (ICACCE)
3.	S. P. Singh, et al	Closed form Expression of Ergodic Capacity for Multi Cell Cooperation using MHCP	IEEE International Conference, UPCON, 2015
4.	Bhawna Ahuja, et al	Throughput Maximization in Cooperative Spectrum Sensing	International Conference on Recent Advances in Computer Science, Vol. 3

### **Student Publications:**

<b>Name of the Students</b>	<b>Name of Project Guide</b>	<b>Title of the Paper</b>	<b>Event</b>
Sumit Mishra	Ms. Bhawna Ahuja	Network Security Protocol for Constrained Resource Devices in Internet of Things	12 <sup>th</sup> IEEE Indian International conference INDICON 2015, 17-20 December 2015
Sumit Mishra	Ms. Bhawna Ahuja	Optical Parameters Testing to Redefine Visibility for Low Cost Transmissometer using Channel Modeling	Optik journal, ELSEVIER, Vol. 127, 2016, pp. 11326 – 11335
Antra Kashyap Nikhil Bhati Mukesh Dwivedi Kamal Rajpal	Mr. Madan Kumar Sharma	UWB-MIMO Diversity Antenna for Next Generation Wireless Applications	3 <sup>rd</sup> International Conference on Computing for Sustainable Global Development (INDIACom), 16-18 March 2016
Nikhil Bhati Shashank Shukla	Mr. Madan Kumar Sharma	Design and Optimization of Ultra wide band Monopole Antenna with DGS for Microwave Imaging	3 <sup>rd</sup> International Conference on Computing for Sustainable Global Development (INDIACom), 16-18 March 2016

# Departmental Activities



## Seminar/ Workshop/ Expert lectures:

Topic	Date	Expert Name/ Organization	Description
Workshop on PCB Design tools using ORCAD	01/04/16	Mr. Rahul Kumar, 3ST Technologies Pvt. Ltd., Noida	PCB Designing
Seminar on Cyber Security	17/02/16	Mr. Lokender Bhatia, DuCAT, Noida	Threat warning and detection systems
Lecture on Challenges and Trends in Embedded System	03/10/15	Mr. Devendra Khari Director, DKOP Lab, Noida	Micro Controllers for Embedded System
Career Counseling, Technical workshop & Mock Test	16/09/15	Mr. Devendra Khari, Director, DKOP Lab Pvt Ltd, Noida	Career Counselling
Workshop on Semiconductor Industry Trends	26/08/15	Mr. Devendra Khari, Director, DKOP Lab Pvt Ltd, Noida	Semiconductor Devices



## **“Cyber Security” and “Ethical Hacking Workshop**



Recently, the most veracious workshop conducted on “Cyber Security” and “Ethical Hacking” which flushed in the need to know how to protect our gadgets from being trashed by some crooks on 17/2/16.

## **Workshop on Semiconductor Industry Trends:**

Today's trend is that of shifting from personal computers to personal communication and computing, where system knowledge and expertise is now being encapsulated into single-chip solutions incorporating both hardware and software.



This revolution is enabled and fuelled by deep submicron CMOS technologies, enabling gigascale integration. Program which is planned to conduct introduces all the key areas of knowledge and skills required to command the System-on-Chip technology, namely hardware design, embedded software design, analog circuit and ideas for project works was conducted by DKOP Labs Pvt. Ltd. on 26 August 2015.

### **Events & Contest Participated by Students:**

<b>Name of student</b>	<b>Event</b>	<b>Position</b>
Vatsala Shukla	Paper presentation on “Harnessing Energy for Space” at National Student’s Space Challenge organized under Kalpana Chawla Space Cell (I.S.R.O. ) at IIT Kharagpur	3rd Rank
Vatsala Shukla	Smart EVM (Electronic Voting Machine) Texas Innovation Design Challenge 201415	Quarter final
Vatsala Shukla	IEEE programming league Under IEEE women in engineering	Precision certificate
Sanchit Goel	Dance events: at DTU	Winner
Palak Singh	Kalakriti dramatics society	Participated
Shubham Bhambey	Solo dance competition at GQUASAR, GCET	Won 1st price
Ankur Raj Singh	GNIX	Head coordinator G CARE

## **GNIX (An official club of Department of ECE, GCET)**



**Galgotias College of Engineering &  
Technology**

**GNIX TEAM**



<b>S.NO.</b>	<b>ROLL NO.</b>	<b>STUDENT NAME</b>	<b>GNIX DEPARTMENT</b>
1	1309731016	ANKIT YADAV	GEN. SEC.
2	1309731057	POOJA AGRAWAL	JOINT SEC.
3	1309731005	ABHISHEK DWIVEDI	Technical
4	1309731045	MANAS SRIVASTAVA	Technical
5	1309731052	Neha Jain	Creative
6	1309731053	Nidhi Sharma	Creative
7	1309731071	Ram Prakash Yadav	Creative
8	1309731041	Km Divya Singh	Marketing
9	1309731072	Ranjeet Kumar Singh	Marketing
10	1309731073	Rishikesh Rai	Marketing
11	1309731074	Ritesh Sharma	Literary
12	1309731047	MAYANK SRIVASTAVA	Literary
13	1309731079	Sachin Goyal	Office
14	1309731080	Sachin Kumar	Office
15	1309731081	Sahil Chaudhary	G-Care
16	1309731085	SAUMYA SINGH	G-Care

### **ZEST - A Technical & Cultural Event:**

GNIX student forum organized a two days technical fest ZEST- 2016 was held between 10<sup>th</sup> -11<sup>th</sup> September 2015, which includes various fascinating events (like code cracker, Spot the bug, Circuit debugging, Poster presentation, Treasure Hunt, Wire loop, Debate, Rangoli, X-factor, General Quiz, Math Quiz, Digital Quiz etc). To the start the event, the members of the Music Club rendered a soulful Saraswati Vandana.



### **Activities under Gnix Society:**

SN	Topic	Date	Expert Name/ Organization
1	Introduction to Met materials and its applications in Antenna	21/11/2016	Dr Reena Pant, FET, MJP Rohilkhand University, Bareilly
2	Cyber Security and VLSI technology	17th Feb 2016	Mr Lokender Bhatia, DuCAT, Noida
3	NS2	30/04/2016	Dr. R Vishwakarma, Assistant Professor, GCET, Gr. Noida
4	Internet- 2030	27/02/2016	Mr Arvind Kumar Mishra, Director DoT, Lucknow
5	Verilog and Xilinx FPGA	22/04/2016	Mr Ajay Sharma, DKOP Labs Pvt. Ltd., Noida
6	PCB Design tools using ORCAD	1/4/2016	Mr Rahul Kumar, 3ST Technologies Pvt. Ltd., Noida



## Excursion/ Industrial Visit:



Students of 3rd year Electronics and Communication Engineering during Industrial visit at HMT Limited, Pinjore on 30<sup>th</sup> September 2015 and Air force station, Chandigarh on 18.09.2015. On 1st October 2015 B.E. 2<sup>nd</sup> year students visited Hydal Power Project, Manali.

## Placements:

Company Name	No. of Students placed
Broadcom	1
Cognizant	40
Ericsson	22
FACE	1
Globussoft Technologies Pvt. Ltd.	1
HCL Tech	2
IBM	1
Infosys	29

Lava International	1
NTT Data	1
Spreadtrum Communications India (P) Ltd.	1
Tech Mahindra	4
Wipro Technologies	23

## Eminent Recruiters:





