ECE

1. Tagline:

“Building Futures with Sparks & Signals”

2. About the Program:

"Electronics and Communication Engineering is not just a program; it’s a journey of innovation and connectivity, where we design and develop cutting-edge technologies that drive the future of communication and electronic systems."

3. Key Aspects of What Electronics and Communication Engineers Do Include: use dept

1Design and Verification using Verilog & Xilinx Tools

2. Schematic and Layout Design of VLSI Circuits

3. Embedded Systems and IoT

4. RF and Microwave Devices

5. Electronics Circuit Design

6. Prototyping and Testing

4. Course Concept Map with Course Name in Center:

5. Industry Training:

“Bridging Knowledge to Industry Excellence, industry training paving the Way for Industry Prowess.”

Brief:

Industrial training is a cornerstone for honing the skills of engineering graduates. It exposes them to the

latest technologies, methodologies, and industry best practices, ensuring that they are well-prepared for

their future career challenges.

7. Industry Training:

1. Technical Workshop on Embedded & IoT (associated with UniConverge Technologies Pvt. Ltd. and The

IoT Academy)

2. ASIC Design Flow (associated with NXP Semiconductors, Noida)

3. Training on Embedded & IoT (associated with JKSD Infotech Pvt. Ltd.)

4. Metamaterial Antenna and MIMO cognitive radio systems for 5G Applications (associated with IIT Kanpur)

5. Machine Learning (associated with Apwars Technologies Pvt. Ltd.)

6. Equipping for the New Corporate (associated with Silicon Labs, Hyderabad)

8. Training Road Map:

3rd Sem

TEC301: Electronics Circuit Design

Skill Set: Simulation of Electronic Circuits

No. of Hours: 40

Outcome: Understanding of SPICE Circuit Simulation

TEC302: Microcontroller and Embedded Systems - I

Skill Set: Microcontroller hardware circuits

No. of Hours: 40

Outcome: Understanding and implementation of Microcontrollers

TEC303: Signal Processing using MATLAB

Skill Set: Knowledge of Signals and Logical Ability

No. of Hours: 40

Outcome: Application of MATLAB for various communication models

4th Sem

TEC401: VLSI Design using PSPICE

Skill Set: Simulation of Electronic Circuits

No. of Hours: 40

Outcome: Complete Understanding of SPICE Circuit Simulation

TEC402: Microcontroller and Embedded Systems - II

Skill Set: PCB Designing

No. of Hours: 40

Outcome: Routing, Tracing & Etching for PCBs

TEC403: Advanced Communication Models using MATLAB

Skill Set: Knowledge of Signals and Logical Ability

No. of Hours: 40

Outcome: Application of MATLAB for various communication models

5th Sem

TEC501: Design and Verification using Verilog & Xilinx Tools - I

Skill Set: Simulation & Implementation of Digital Hardware

No. of Hours: 40

Outcome: HDL-based Modelling and FPGA Implementation

TEC502: Schematic Design of VLSI Circuits

Skill Set: Layout Design of CMOS Circuits using Cadence Tools

No. of Hours: 40

Outcome: Design and Analysis of VLSI Circuits

TEC503: Embedded Systems and IOT - I

Skill Set: Interfacing of Sensors

No. of Hours: 40

Outcome: Hardware Implementation of IoT Systems

TEC504: Automation Advanced Course by National Instruments (Signal Processing)

Skill Set: Data Acquisition and Instrument Control

No. of Hours: 40

Outcome: Analysis of Signals using NI LabView

TEC505: RF & Microwave Devices - I

Skill Set: Application of HFSS

No. of Hours: 40

Outcome: Design of different tyes of Antenna

6th Sem

TEC601: Design and Verification using Verilog & Xilinx Tools - II

Skill Set: Simulation & Implementation of Digital Hardware

No. of Hours: 40

Outcome: HDL based Modelling and FPGA Implementation

TEC602: Layout Design of VLSI Circuits

Skill Set: Layout Design of CMOS Cricuits using Cadence Tools

No. of Hours: 40

Outcome: Design and Analysis of VLSI Circuits

TEC603: Embedded Systems and IOT - II

Skill Set: Hardware based on ESP8266 & ARM

No. of Hours: 40

Outcome: Hardware Implementation of IoT Systems

TEC604: Automation Advanced Course by National Instruments (Image Processing)

Skill Set: Data Acquisition and Instrument Control

No. of Hours: 40

Outcome: Analysis of Images using NI LabView

TEC605: RF & Microwave Devices - II

Skill Set: Application of HFSS

No. of Hours: 40

Outcome: Design of different types of Antenna

8. Top Achievers Quotation:

“All great achievements have one thing in common - people with a passion for success”.

1. Ms. Devanshi Chauhan 2019-2023

B.Tech (Electronics & Communication Engineering)

AKTU Rank-06

2. Mr. Vipul Mittal 2011-2015

B.Tech (Electronics & Communication Engineering)

AIR - 29 (UPSC ESE - 2023)

3. Ms. Sakshi Gusain 2018-2022

B.Tech (Electronics & Communication Engineering)

Msc in Data Science for Marketing., Audencia Business School, Paris, France

4. Ms. Darshika Srivastava 2016-2020

B.Tech (Electronics & Communication Engineering)

MSc in Northeastern University, Boston, Massachusetts (USA)

10. Placement Glimpses 2023:

1. Total number of placements – 168/183

2. Highest salary package offered – 1976982 PA

3. Total number of companies that visited for placements -134

4. Placement percentage of your department – 91.8%

5. Total number of placements offered by the college -272

6. Total number of dreams offers with remarkable CTC and the corresponding amount in LPA-04 (CTC >=7

LPA)

7. Total number of super-dreams offers with exceptionally high CTC and the corresponding amount in LPA.-

06 (CTC >=10 LPA)

8. Total number of super offers with excellent CTC and the corresponding amount in LPA.-18 (CTC >=5 LPA)

11. Top Internship Offers Companies List:

Softcon

SMS Group

Lutron

WeSkill Edutech

12. Top Placement Offers Companies List:

Centilytics

DataTrained

Hexaware

Hike Edu

Hiremi

Skolar

13. Industry Partnerships & MoUs:

1) OPTICA- National Engineers Week

2) Uniconverge Technologies- Inauguration of INIF Lab

3) Envirozone Instruments & Equipment's Pvt Limited- Project Exhibition

4) Automation Engineers. A.B.PVT.Ltd-

A. Guest Lecture on "Modern Trends in Industrial automation & its applications

B. Expert talk on A revolution on Manufacturing

5) Optimum Viking Satcom(India) Pvt Ltd- Training & Guest lecture on the "Applications of Satellite Technologies & its bright future"

14. Facilities and Lab List:

Curriculum Labs

- Digital Electronics & Microprocessor Lab
- Electronics Workshop PCB & Measurement Lab
- Electronics Device Lab
- CADEC Lab
- Integrated Circuits Lab
- Analog & Digital Electronics Lab
- Communication Lab
- Electronics Simulation Lab
- VLSI Design Lab

· Project Lab

Centre of Excellence Lab

· Optical, Microwave and Antenna design

· VLSI Design

· NI innovation Centre

Industrial Collaboration & Innovation Lab

· Wireless Sensor Network

· Embedded & IoT Lab

· Electronics Circuit Design Lab

· Electronics ICU

15. Events & News Section:

1. ICSEIST-23 Technically Sponsored by IEEE

The 1st International Conference on Sustainable Emerging Innovations in Engineering and Technology (ICSEIST-23), technically sponsored by IEEE and funded by MeitY & SERB, was successfully organized. The total number of papers presented and session chairs were 173 and 52, respectively. The Chief Guest at this conference was Prof. (Dr.) D.S. Chauhan, Pro-Chancellor, GLA Mathura, and the Guest of Honour was Prof. (Dr.) B.K. Kaushik, IIT Roorkee.

2. Expert Session on “Campus to Corporate in VLSI Design”

In this expert session, students gained deep insights into the semiconductor industry, including its current trends, challenges, and prospects. Students were equipped with practical skills and knowledge in VLSI design and implementation, aligning with industry standards and requirements.

3. Expert Lecture on "Significance of IPR and its Transition"

Speaker Ms. Reema Mediratta, Head of Innovation-Technology Transfer Office, FITT, IIT Delhi, emphasized different forms of intellectual property protection in terms of their key differences and similarities. Students learned about the statutory, procedural, and case law underlying these processes and their interplay with litigation, gaining clarity on common myths of patents.

4. “National Engineers’ Week” Celebration

The International Student Chapter “ABESEC OPTICA” (formerly ABESECOSA) organized National Engineers’ Week. The National Engineers' Week created a dynamic learning environment, bridging the gap between theoretical knowledge and practical applications. By incorporating a variety of events and engaging professionals, students were inspired to foster a sense of community within the department, contributing to the holistic development of future engineers in the field of Electronics and Communication Engineering.