ELCE / EN

1. Tagline:

"Connecting World with Electrifying Minds to Engineer the Digital Future"

2. About the Program:

"Electrical and Computer Engineering is not just a program; it's a journey of innovation and integration, where we combine electrical engineering principles with computer science to design and develop smart technologies that drive the future."

3. Key Aspects of What Electrical and Computer Engineers Do Include:

a.   Instrumentation & Control

b.   Power Electronics & Drives

c.   Power Systems

d.   Algorithm Design

e.   Web Development

f.   Research & Development

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:

The Department of Electrical and Computer Engineering provides a variety of industry training programs to help Students Bridge the gap between education and industry demand.

7. Industry Training:

A. Industrial Automation (PLC & Pneumatic Control)

B. Communication System and Networks (CISCO)

C. Embedded Systems and IoT (Texas Instruments)

D. MicroElectronics & VLSI Design (Cadence)

E. Digital Signal Processing & MATLAB (MathWorks)

F. Problem Solving (Geeks for Geeks)

8. Training Road Map:

1st semester

Problem Solving I:

Skill-Set: C-language

No. of hours: 30

Outcome: Competitive Coding in C-language

3rd semester:

Problem Solving II

Skill-Set: C,C++

No. of hours: 30

Outcome: Competitive Coding in C,C++-language

Web Development

Skill-Set: Front end Development(HTML,CSS,Java Script)

No. of hours: 30

Outcome: Project Development

TEN301: Sensor & Instrumentation for Industrial Automation

Skill-Set: Sensors Basics, Instrumentation

No. of hours: 30

Outcome: Sensors Knowledge

TEN302: Fundamentals of Electric Vehicles & Mechanical design of EV structure and Tyre Dynamics

Skill-Set: Fundamental and career prospectus of EV

No. of hours: 30

Outcome: Knowledge

4th semester:

TEN401: Industrial Automation using PLC

Skill-Set: Relays Circuit, PLC Programming, Sensor & Actuator Interfacing

No. of hours: 30

Outcome: Mini Project and Review Paper

TEN402: Electrochemical Energy Storage Systems: Batteries, Fuel Cells, and Super Capacitors

Skill-Set: BMS design, Battery testing

No. of hours: 30

Outcome: BMS Project and Paper/IPR

Full Stack Development (Basic)

Skill-Set: Back end Development(Java Script & PHP)

No. of hours: 30

Outcome: Project Development

5th semester

TEN501: Industrial Automation based on Pneumatic & Electro-Pneumatics

Skill-Set: Pneumatic Circuits& Electro-Pneumatic circuits

No. of hours: 30

Outcome: Mini Project and Review Paper

TEN502: Special Electric Machines and power electronic converters

Skill-Set: Testing of PMSM/BLDC/SRM motor and its controller

No. of hours: 30

Outcome: Mini Project

Problem Solving III

Skill-Set: SQL

No. of hours: 30

Outcome: Competitive Coding in DBMS

6th semester

Full Stack Development (Advanced)

Skill-Set: MERN

No. of hours: 30

Outcome: Project Development

9. Top Achievers Quotation:

"From Challenges to champions: Students success stories, inspiring the next chapter of triumph"

1. Ms. Ishita Agarwal (2023-27)

2.Pankaj Kumar Rathi,(2020-2024)

3.Mr. Rahul Kr. Tiwari, 2019-2023 (EN)

4.Mr. Raj Mishra,2019-2023 (EN)

5.Mr. Alok Pandey 2019-2023 (EN)

6.Mr. Ashish Singh2019-2023 (EN)

7.Mr. Ritik Kaushal 2018-2022 (EN)

8.Ms. Rashika Chaudhary 2018-22

10. Placement Glimpses 2023:

1. 64

2. 7.00 LPA

3. 82

4.95.71%

5.120

6. RECRUIT CRM (7.00 LPA)

11. Top Internship Offers Companies List:

12. Top Placement Offers Companies List:

13. Industry Partnerships & MoUs:

1. The Department of Electrical & Electronics Engineering in association with the ORBITS is pleased to announce that a MoU has signed between ABES Engineering College, Ghaziabad, and Mitzvah on 04th March 2024.

2. Collaboration for mutual benefits, to enhance the quality of the educational experience of students of the partner by offering online training and internships. To get consultancy projects over the real time problems faced by the industry.

The partner shall provide the requisite infrastructure, network, internet access, Local Accommodations/food/transport to the trainers and any other facility required for the On-campus training. Trainings will be planned as per schedule mutually agreed upon by both the parties.

The techno-commercial proposal for any project will be shared separately and will be granted on mutual consent of the parties.

14. Facilities and Lab List:

Electrical Machines Lab

Power Electronics Lab

Electrical Measuring and Measurements Lab

Basic Electrical Engineering Lab

15. Events & News Section:

1. Lecture cum industrial visit at Sofcon India Pvt. Ltd., Noida

The Department of EN and ELCE, ABES Engineering College, Ghaziabad has organized a lecture cum industrial visit at Sofcon India Pvt. Ltd., Noida for EN-3rd Year students on Tuesday, 16th April 2024.

Visit outcomes were as follows:

I). Practical Exposure: Students gained practical exposure to industrial automation technologies, including PLC, SCADA, and VFD, through hands-on sessions at Sofcon India Pvt. Ltd.

II). Industry Insights: Interaction with industry experts provided students with insights into industryinstitution relationships, internship opportunities, and criteria for placement. The visit has proved to be an enriching experience for the 3rd-year students.

2. Lecture cum industrial visit at Deki Electronics, Noida

The Department has organized a lecture cum industrial visit at Deki Electronics, Noida on 19th Jan 2024 as a part of the 'Industrial Automation' domain training, conducted by EN Department for the students of EN & ECE 2nd year (Only registered students under the mentioned training) to gain industrial exposure and develop the practical aspects and utilization of this training.

The visit is planned to help the students to achieve the following:

• Understand operation and maintenance of complete range of film capacitors and controlling with

programming logic controllers.

• Experience the importance of working safely.

• Understand how does the product of the plant interfaced to the world.

• Understand the Industry-Institution relationship and the criterion to get selected for internship &

placement.

3. Alumni interaction under the 'Placement Readiness Series'

The Department of EN and ELCE conducted an Alumni interaction on 20th April 2024 under the

'Placement Readiness Series' for the students of batch 2020-2024, who are eligible for the TCSNQT.

The following topics were covered :

a Develop a strategic approach for the company.

b. Familiarized with the Tata Consultancy Service interview process.

c. Way to present the project work & internship at the time of an interview.

d. Discussed the exam paper pattern of TCSNQT

4. Expert talk on 'IPR"

The Department of Electrical & Electronics, ABES Engineering College, Ghaziabad has successfully conducted the Expert talk on 'IPR" on 30-04-2024. The guest speaker of the event was Mrs. Somya Kaushik, Associate Vice President (ELPIS Analytix) delivered the session. The session successfully shed light on Intellectual Property Rights (IPR) where Mrs. Somya Kaushik discussed the importance of "Intellectual Property Rights (IPR)". The students of EN-3rd Year have attended the session that was very interactive and informative for all students. The objective was achieved to provide a comprehensive understanding of different types of intellectual property, such as patents, trademarks, copyrights, and trade secrets, and their significance in protecting innovation, fostering creativity, and encouraging economic growth.