

Student Outcomes

The students of undergraduate program in Electronics and Communication Engineering will have

- A. an ability to apply knowledge of mathematics, science, and engineering.
 - A1. Applying engineering mathematics to obtain analytical and numerical solutions.
 - A2. Demonstrate knowledge of fundamentals, scientific and/or engineering principles.
 - A3. Applying scientific and/or engineering principles towards solving engineering problems.
 - A4. Applying statistical methods in analyzing data.

- B. an ability to design and conduct experiments, as well as to analyze and interpret data.
 - B1. Identifying the constraints, assumptions and models for the experiments.
 - B2. Use appropriate equipment and techniques for data collection.
 - B3. Analyze experimental data using appropriate tools and/or statistical tools.
 - B4. Validate experimental results with respect to assumptions, constraints and theory.

- C. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
 - C1. Analyze needs to produce problem definition for electronics and communication systems.
 - C2. Carries out design process to satisfy project requirement for electronics and communication systems
 - C3. Can work within realistic constraints in realizing systems.
 - C4. Can build prototypes that meet design specifications.

- D. an ability to function on multidisciplinary teams.
 - D1. Shares responsibility and information schedule with others in team
 - D2. Participates in the development and selection of ideas.

- E. an ability to identify, formulate, and solve engineering problems.
 - E1. Classifies information to identify engineering problems.
 - E2. Develop appropriate models to formulate solutions.
 - E3. Uses analytical, computational and/or experimental methods to obtain solutions.

- F. an understanding of professional and ethical responsibility.
 - F1. Evaluates ethical issues that may occur in professional practice using professional codes of ethics.
 - F2. Interacts with industry, project sponsors, professional societies and/or communities in a professional manner.

- G. an ability to communicate effectively.
 - G1. Produce a variety of documents such as laboratory or project reports using appropriate formats and grammar with discipline specific conventions including citations.
 - G2. Deliver well organized, logical oral presentation, including good explanations when questioned.

- H. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
 - H1. Aware of societal and global changes that engineering innovations may cause.
 - H2. Examines economics tradeoffs in engineering systems.

- H3. Evaluates engineering solutions that consider environmental factors.
- I. a recognition of the need for, and an ability to engage in life-long learning.
 - I1. Able to use resources to learn new devices and systems, not taught in class.
 - I2. Ability to list sources for continuing education opportunities.
 - I3. Recognizes the need to accept personal responsibility for learning and of the importance of life long learning.
- J. a knowledge of contemporary issues.
 - J1. Describes the importance of contemporary issues.
 - J2. Describes the impact of engineering decisions on energy resources/environment.
- K. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
 - K1. Able to operate engineering equipment.
 - K2. Able to program engineering devices.
 - K3. Able to use electronic devices, circuits and systems modeling softwares for engineering applications.
 - K4. Able to analyze engineering problems using software tools.