

Department of Electrical and Electronics Engineering

BSc Degree in Electronics and Telecommunication Engineering

PROGRAMME LEARNING OUTCOMES

A. Knowledge and Understanding

At the end of the programme students should be able to demonstrate knowledge and understanding of:

- A1. Appropriate mathematical techniques to help model and analyse systems, and use mathematics as a tool for communicating results and concepts
- A2. Science Underlying Electronic Engineering Systems
- A3. Information Technology
- A4. Principles of design of electronic engineering systems
- A5. Management and business practices, including finance, law, marketing and quality control
- A6. Electronic Engineering practice

B. Cognitive/Intellectual skills/Application of Knowledge

At the end of the programme students should be able to:

- B1. Select and apply appropriate scientific principles, mathematical and computer based methods for analysing general Electronics and Telecommunications engineering systems
- B2. Analyse and solve Electronics and Telecommunications engineering problems
- B3. Apply and appreciate the state of knowledge in a rapidly developing area
- B4. Transfer appropriate knowledge and methods from one topic in cybernetics to another
- B5. Apply engineering principles to create new products and systems
- B6. Apply technical knowledge to produce a technical risk assessment
- B7. Apply professional knowledge to produce a commercial risk assessment
- B8. Apply technical and professional knowledge to assess environmental and social impact of electronics and telecommunication engineering activities

C. Communication/ICT/Numeracy/Analytic Techniques/Practical Skills

At the end of the programme students should be able to:

- C1. Organise Electronic and Telecommunications engineering tasks into a structured form
- C2. Plan, conduct and write a report on a technical project or assignment
- C3. Use appropriate mathematical methods or IT tools
- C4. Program a computer to solve engineering problems
- C5. Use relevant laboratory equipment and analyse the results critically
- C6. Design, build and test an Electronics and Telecommunications system
- C7. Conduct Research into Electronic and Telecommunications engineering problems
- C8. Present technical work both in written and oral form, using appropriate technology

D. General transferable skills

At the end of the programme students should be able to:

- D1. Use IT tools competently
- D2. Acquire, manipulate and process data
- D3. Be creative and innovative
- D4. Communicate scientific ideas
- D5. Write reports and give oral presentations
- D6. Work in team both as a member and as a leader
- D7. Use time and resources efficiently
- D8. Have the capacity for self-learning in familiar and unfamiliar situations
- D9. Undertake lifelong learning