THAI NGUYEN UNIVERSITY UNIVERSITY OF INFORMATION AND COMMUNICATION TECHNOLOGY

SOCIALIST REPUBLIC OF VIETNAM Independence - Freedom - Happiness

PROGRAMME LEARNING OUTCOMES (PLOs) OF ELECTRONICS AND TELECOMMUNICATIONS ENGINEERING TECHNOLOGY EDUCATION PROGRAMME

Decision No 69/QD-ĐHCNTT&TT dated on February 10th, 2020 by the Rector of TNU - University of Information and Communication Technology

Vietnamese name of the programme: Công nghệ kỹ thuật điện tử - viễn thông

English name of the programme: *Electronics and Telecommunications Engineering Technology*

Academic level:

- Bachelor's degree (141 credits)
- Engineer's degree (151 credits)

Academic Schedule: 4,5 years

I. TRAINING OBJECTIVES

1.1. General objectives

Training bachelors/engineers in Electronics and Telecommunications Engineering Technology with professional qualifications, solid political qualities, a sense of discipline, and professional ethics; graduates can independently solve technical problems, have solid professional knowledge in the design, construction, operation, and exploitation of telecommunications systems, electronic and telecommunications equipment; develop research in the field of Electronics and Telecommunications, meeting the needs of society.

1.2. Detail objectives

By the end of the course, graduates have the knowledge, skills, and qualities:

- Have basic and intensive knowledge of electronic circuits and components to design, simulate, and assemble electronic circuits; Proficiently apply primary programming languages and simulation tools in electronic and telecommunications systems; Understand the processes of operation, exploitation, troubleshooting, and administration of electronics and telecommunications systems.
- Have good health, ensure the ability to work with high intensity;
- Have full knowledge of politics, security, and defense, law as required by the Ministry of Education & Training;
- Have the ability to use foreign languages for work;
- Have the necessary soft skills for the job.

II. PROGRAM LEARNING OUTCOMES

Notation	PLOs of SE programme
L1	Apply knowledge of math and physics in order to solve scientific and technical problems in Electronics and Telecommunication Engineering Technology
L2	Understand general educational knowledge on Theory of Marxism-Leninism and Ho Chi Minh Thought, the revolutionary line of the Communist Party of Vietnam, the Party's policy and the State's laws, and national security.
L3	Approach foreign language ability (English), level 3/6 of Vietnam's Foreign Language Competency Framework; specialized English skills.
L4	Obtain one of the following certificates: IC3, MOS, ICDL, Certificate of Information Technology Application (according to Circular 03/2014/TT – BTTTT of the Ministry of Information and Communications), or equivalent certificate.
L5	Have independent work and teamwork skills; report writing and presentation skills on technical issues; autonomy and self-responsibility.
L6	Have knowledge of professional responsibilities and professional ethics
L7	Have the ability to lead professionally; be creative in the working process; have the ability to self-study, accumulate knowledge and experience to improve professional qualifications; and plan, coordinate, and promote collective intelligence.
L8	Master the basic knowledge of electronic circuits, electronic components; applied to survey, analyze, design, simulate and assemble electronic circuits.
L9	Mastering knowledge of signal processing, transmission, and measurement in electronic and telecommunications systems.
L10	Proficient in basic programming languages in electronic and telecommunications systems
L11	Explain the processes of operation, exploitation, troubleshooting, and administration of telecommunications systems.
L12	Design, simulation, construction, and installation of telecommunication systems in practice
L13	Developing and improving technology and techniques to enhance the operational efficiency of telecommunications networks.
L14	Planning to implement projects on electronics and telecommunications, developing value-added service systems in the field of electronics and telecommunications.
L15	Apply new technologies in the development of advanced electronic and telecommunications systems.

III. WORKING POSITION AFTER GRADUATION

Job positions:

- Managers, operators, and technicians at agencies and enterprises in the field of electronics and telecommunications;
- Engineers working at telecommunications service operators, domestic and foreign telecommunications service providers;

- Technicians at telecommunications centers, post offices, and broadcasting stations;
- Technical specialists in companies, factories, and industrial parks in the field of electronics and telecommunications;
- Consultant on equipment sales in electronic and telecommunications systems;
- Researchers and lecturers at research and training centers.

VICE RECTOR

HEAD OF ECT FACULTY

Ph.D Vu Duc Thai

Ph.D Vu Chien Thang