

## Systems and IT Engineering

### Introduction:

Support ideas that generate social impact by promoting participation in different telecommunications and technological spaces in the companies.

### Professional Profile

- Participate in research projects in different technological areas.
- Using IT tools to solve engineering problems
- Participate in the creation, design and development of IT solutions.
- Identify and resolve computer and administrative problems.
- Participate in the definition of audit and internal control procedures.
- Have knowledge of a foreign language.
- Develop research to generate solutions in telecommunications, IT and hardware.

### Occupational Profile

- Systems and IT Engineer of the UTP will be able to participate and create new alternatives in the planning, analysis, design and development of IT projects in an organization.
- Address challenges of technology research in various fields of engineering.
- Apply scientific and humanistic knowledge to understand and solve the various situations involved in the destiny of society.
- Analyze the organization according to its social, political, economic and cultural situation, identifying informational needs for the smooth running of the business.
- Identify, as a good citizen, the laws and citizenship.
- Serve as an efficient and responsible professional that creates progress and wealth in both the corporate and national levels.

### Mission

The education of professionals with solid knowledge and research skills in the area of systems and computer science, with administrative capacity for technology management through optimal use of physical, technical and human resources.

### Vision

Locate the program in a leading position nationally and internationally for its professionals to be leaders of scientific and technological development in areas of systems and computer science.

### Objectives

- Train professionals with an overall education in the scientific, technical, technological and humanistic field with an emphasis on the area of Systems and Computer Science.
- Develop projects aimed at solving regional and national issues by promoting the spirit of teamwork.
- To train researchers from computer science to generate new technological developments at the regional, national and international levels.
- Promote the creation and operation of research lines that support the development plan of the program.
- To train engineers with social and humanistic sensitivity that respect the laws and the social values.
- Promote the pedagogical training of teachers.
- To be engaged in the preservation and improvement of the environment.
- Accredite the program.
- Promote the strengthening of the organizational structure of the program.

## Laboratories

### Network and telecommunications Nyquist Laboratory

The network and telecommunications laboratory is an area of research and study of data transport technologies, which allows students and researchers to know in detail the operation of these technologies and the testing of variants thereof. It offers the possibility to analyze and design prototypes or applications that use them efficiently. In addition, as specialized computer room it has also been used to provide regular instruction on common technologies for transporting data, operating under special conditions and training on traffic data simulators.

**Fuente:** <http://www2.utp.edu.co/english/academic-programs/173/systems-and-it-engineering>