

## Faculty of Engineering

The Faculty of Engineering was established on December 13, 2004 by the Higher Council of the University, where they create a single authority, which houses the following academic programs:

- Electrical Engineering
- Electronic Engineering
- Physical Engineering
- Computer and Systems Engineering

Since then the College's academic interest has focused on the production, updating, transmission and application of knowledge in relation to the rational and efficient use of energy.

This decision was made to justify their high affinities: Basic, Basic Engineering and a few in depth lines, despite its basic purpose was different. It was also made with the idea of obtaining not only academic excellence but also an adequate rationalization of the resources of the University.

Following this decision, the agreement number seven (07) of the Higher Council of the University regulates and assigns a specific nomenclature to the faculty, in addition to defining its organizational structure, in accordance to the new operating model of the four programs listed above working under one roof: "The Faculty of Engineering."

### Mission

It is a faculty of the Universidad Tecnológica de Pereira that focuses on the creation, application and transfer of knowledge in the areas of competence, in order to contribute to the social and economic development of the region and the country plunged in the academic community and international scientific networks and research groups, providing training processes of high quality and academic excellence at the undergraduate, postgraduate and continuing education, and provides services to the productive sector.

### Vision

By 2012, it will be a faculty renowned for the excellence of its research groups, their links with the productive sector in projects of scientific and technological development, and mobility of researchers, teachers and students nationally and internationally; also characterized by offering undergraduate, postgraduate and continuing education that meet the needs of society, both locally and internationally, with flexible curricula in a multilingual environment, adapted to new scientific and technological trends, and with an accreditation of high quality.

### Objectives

### Of education:

- Evaluate, compare and select the technologies that the economic, technological, scientific and social development needs according to each particular area of application of engineering both domestic and foreign.
- Develop activities of creation, dissemination, innovation, negotiation, appropriation and application of technologies appropriate for the national development.
- Promote research, promotion and diffusion of knowledge and better use of natural resources contributing to the pursuit of greater affirmation of our nationality.

### Of research:

- Create the foundations, in terms of human and physical resources, of an independent research scientist in each of the areas in which it specializes, in order to contribute to solving national problems and for the advance of the Colombian Engineering.
- Contribute to the training of researchers.
- Strengthen the research infrastructure.

### Of extension:

- Link the Faculty of Engineering with the external world promoting exchanges and relations University-Industry and University-Community, that benefit the institutions and estates involved.
- Promote counseling, as the application of knowledge to solve a specific problems within the industry and the community, serving to stimulate and strengthen research and research centers existing in the Faculty.
- Create, develop and sustain academic outreach activities, such as updating programs, specialization and advanced training.

### Profile

- Solid knowledge and good use of mathematics and natural science (scientific basis).
- Understanding the environment in which the profession is developed and the influence of other environments (socio-humanistic Basis).
- Foundations on Statistics, project evaluation, management, communication and computing.
- Holistic vision of the environment in which it operates and the ability to differentiate all disciplines involved in systems that are under study.
- Good understanding of the methods and processes of design and manufacturing or construction.
- Continuing, permanent and flexible education to facilitate its adaptation to changing needs and environments.
- Be aware of the limited number of resources of our planet and the need to use them more economically and equitably.
- High ethical values, respect for the common good and sense of solidarity.

**Fuente:** <http://www2.utp.edu.co/english/faculties/67/faculty-of-engineering>



Universidad Tecnológica  
de Pereira