

# Engineering and Research Teaching within a Knowledge Society

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In 2000, the Pontificia Universidad Católica del Perú (PUCP) in an effort to continue to provide an education commensurate with the current context, developed the “Institutional Strategic Plan 2000 - 2010: Formation in Times of Change”, which was a prospective view of the institution in the medium and long term with the intent to promote and ensure the quality of the training.

The university, one of the oldest institutions of humanity still in effect, is now under heavy pressure from a changing environment and the process of developing the knowledge required to initiate the effort to adapt. This situation, common to universities in the world, is particularly acute in Latin America, where new social settings and expectations of an explosion that occurred in recent decades are going away or becoming inadequate institutional reforms undertaken in the last century.

We found an increasingly strong demand for professional training, leading in many cases to a marked neglect of the impetus for the production of new knowledge to help our students to enter successfully in society today. We are in an accreditation process that responds to the desires of improving and helping our students and faculty insert themselves into a knowledge society, fulfilling the diverse requests placed by society on the present university and towards the future engineers. That is, we are in search of the certification of our superior quality as an institution, we seek the fulfillment of the program results in the most efficient and effective for the logo of the educational objectives. We want to “surrender” to society human beings with certain characteristics and conceptual achievements, abilities, skills and attitudes that help develop the knowledge society.

This accreditation process responds to our mission and vision:

## PUCP's Mission

*“The Pontificia Universidad Católica del Peru is an academic community inspired in Catholic ethics and values. It is a creator and promoter of culture and knowledge. It is a promoter of change, dedicated to the integral formation of professionals, in order of using their academic work as an instrument for their own development and be trained to address and resolve problems that are fundamentally inherent to human beings and society.”*

## Mission of the FCI

*“Integrally educate students in the areas of science, technology and management, becoming promoters of development and application of knowledge and research that will generate value to the company and to the society, inspired on: ethical principals, professional excellence and quality in our services.”*

## Mission of the Civil Engineering School

*“The Faculty of Science and Engineering of the Pontificia Universidad Católica del Perú, loyal to the principles and values of the University, is fully committed to Peru's development.*

*Taking on a commitment to the development of the country translates into forming scientists and engineers with a high academic quality, competent professionals with personal qualities that will allow them to contribute to the progress of the organizations and companies that they work in or create.*

*Our Faculty provides an environment that facilitates self improvement, stimulates personal and group effort and prepares its students to face and overcome adversities.*

*We want the graduates from our Faculty to be valued for their knowledge as well as their conduct, committed to the welfare of the entire community.”*

This accreditation process responds to the need for future engineers to mobilize and incorporate themselves in the education and labor field in different countries. This has motivated the PUCP, as Tünermann states (1999), to respond to the new policies and strategies to adapt to the changes, among which are (we will mention only some relating them to knowledge society):

**- Intensification of the links of the labor world and the productive, public and private sector:**

Thorough the accreditation process we are conducting meetings with a consultant committee made up by executives and professionals of broad ranging companies who provide their opinion about the concordance with the present needs of the industry and the market in the national and international context. These needs are within the era of world knowledge, where knowledge is gained throughout our entire lives.

**- Introduction of an evaluation culture...:**

What is accreditation?, lets see:

“... Considered as an evaluation process through which public faith is given of the quality of service provided... it can be developed as a “mechanism of external control, in the countries that form part of the educational governmental policies” (Pabón, 1997:23)...”

This process responds directly to the needs to look after the quality of higher education responding to the present demands.

**- Drive to research...:**

When self evaluating the Civil Engineer career for the accreditation process, we made the decision to propose improvement plans, analyzing the causes and carrying out an action plan in order to improve. This leads us to carry out research on the present, national and international situation, bringing us to define objectives that allow for the execution of an improvement plan. With the planned objectives and the previously carried out analysis we give way to the proposal and execution of improvement alternatives. Finally we proceed to the new measurement of the aspect, in order to monitor its progress and effectiveness of the improvement plan in place.

Then we need to plan for improvement (outcome of the process of self-accreditation) to conduct a series of activities carried out by academics of the institution to generate new knowledge and artistic creation in the framework of institutional policy, in close relationship with the reality of their social, cultural, political, economic and ecological, this must be the first step to successfully insert them into the knowledge society.