



## **UPADI'S GROUP OF YOUNG ENGINEERS**

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### **1. Introduction**

The Pan American Union of Engineering Organizations (UPADI) is a civil international non profit association, and its objective is to: encourage, promote, extend, guide, and establish a uniform action and practice for engineers across America.

This association is formed by member countries, which are represented by national organizations, unions, federations, institutions, associations or professional association, which gather engineers in each country under one or more areas of expertise.

*UPADI is highly interested in the incorporation of young engineering students and professionals into their participation structure, in order to create a communication network among Pan American youth, working to seek opportunities and benefits, for those who are recently incorporated into the engineering guild, introducing and projecting them as future international leaders.*

This document intends to establish guidelines for the incorporation of **young engineers** into their institutional work, as well as their member organizations. For this purpose, the work is divided in the following sections:

- Conceptual and Institutional Basis for the Creation of the Young Engineers Commission.
- Structure and Creation Proposal for the UPADI's Group of Young Engineers.
- Proposal of Possible Activities for UPADI's Group of Young Engineers.
- Proposal for creation of UPADI's Group of Young Engineers.

### **2. Conceptual and Institutional Basis**

UPADI's Directorate has the authority to create work groups, with the following objectives: develop specific programs and tasks. These will be recognized with a prefix or suffix on their name regarding the discipline or the area of work involved. These will be Pan American groups. The creation of this group was presented during the meeting of the Directorate in Puerto Rico to promote work of interest to young engineers throughout the continent.

### **3. Proposal for the Structure and Creation of the UPADI's Group of Young Engineers**

The proposal is to create UPADI's group of young engineers, with the following characteristics:

#### **3.1 Organizational Philosophy of UPADI's Group of Young Engineers**

##### **Mission**

UPADI's Group of Young Engineers is an international entity, which gathers and coordinates activities for young engineering students and professionals among their member organizations, in order to help in the development of the young engineer and incorporate them within the institutional structures of engineering.

##### **Vision**

In 4 years the Permanent Group of Young Engineers will be consolidated as an organized group within UPADI and of important interaction among engineering universities, students and young professionals.

##### **Values**

- Young Leadership
- Inclusion
- Self Initiative
- Transparency

#### **3.2 Objectives and Action Lines**

##### **Group Objectives**

Contribute in the development of the young engineering professional, promoting their inclusion in institutional structures, leadership, work experience and their contribution for the development of their region, country and world within the frame of the engineering career.

For this purpose, the group may:

- Organize Forums, Seminars, Gatherings, Fairs, Courses and others, regarding topics of interest for the young professionals.
- Create a virtual interaction network among students and young professionals in engineering.
- Encourage engineering student exchanges among universities or training centers.
- Encourage local and international professional internships for young professionals

- Promote studies and research among students and young professionals about topics of interest to engineering and development.
- Issue suggestions, observations or comments about topics of interest to engineering regarding the structure of UPADI and its member organizations
- Interact with engineering training centers (universities, institutes and others) as well as public, private companies, non profit organizations, civil groups and others in order to attain its objectives.

### Lines of Action

The Group will develop its actions in the interaction of activities related to Professional Education, Research and Professional Promotion, which must concentrate in a network of international relations and activities.

The interaction among these points shall be carried out with UPADI, Universities, Professional and Technical Training Centers, Companies, and other organizations.



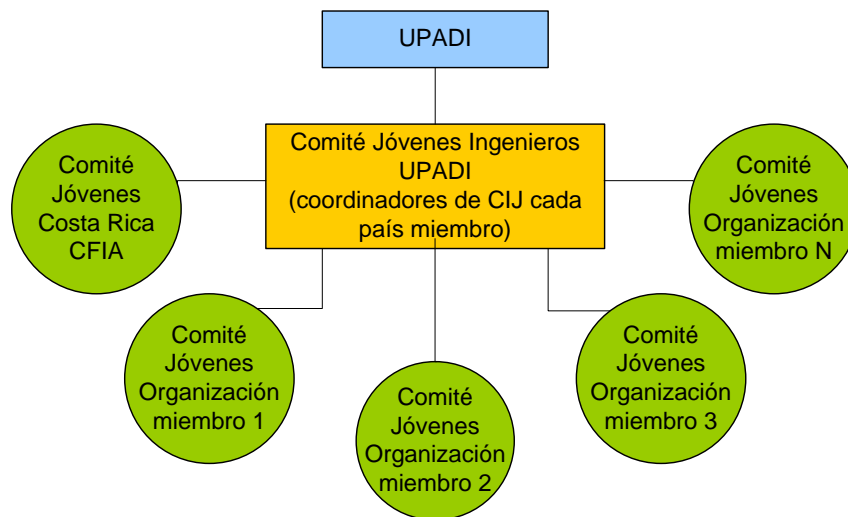
### 3.3 Group Structure

The Group of Young Engineers, shall attain interaction at all levels of the structure of UPADI.

We recommend each member organization to adopt the creation of the Group, to create a commission within their structure and designate a person responsible for their coordination.

There will be a person within the administrative structure of UPADI coordinating the activities of the Group, consisting basically of the recollection of activities, administration of the web page, contacts and others. The percentage of time per day used for this will be minimum, thus it may be done by a person who is currently working for UPADI. Therefore, this will not generate any extra expenses in general budget of the organization.

Organizational chart:



Each member organization shall have the liberty to find the best way to incorporate within their structure a Committee for Young Engineers, and choose a representative for the UPADI's Committee of Young Engineers.

### 3.4 Investment and Operational Budget of the Group

Assuming the organizational collaboration of UPADI's structure, the budget for the functioning of the Permanent Group of Young Engineers of UPADI may be optimized.

The travel expenses and representation allowance for the members of the group, shall be paid by their own organizations.

#### **4. Proposal for Possible Activities for UPADI's Group of Young Engineers.**

The activities that the Group of Young Engineers may carry out are unlimited and these will depend on the initiative and creativity of its members. The following are some basic examples of activities that may be carried out in the short term:

- **Web Portal for Young Pan American Engineers**
  - Web Portal where students and young engineers can register for free throughout America.
  - It shall contain updated information of activities and topics of interest such as:
    - Forums, Courses, Seminars and others.
    - Data Bases from Universities and Specialization Centers throughout the World.
    - Library and Video library with documents of interest for the engineering careers.
    - Interactive forums.
    - Information about internships in companies.
    - Information about international competitive biddings.
    - Possibility to interact with other members (forums, debates, messenger, pictures, etc)
    - Academic data bases for specific consultations.
    - Others.
  
- **Pan American Congress for Young Engineers**
  - Congresses for Students and Young Professionals in America where different topics of interest will be presented.
  - Congresses and Forums are interesting events for young students and professionals.
  
- **Local and International Professional Internships**
  - Agreements may be generated with local, national and transnational organizations to provide support for internships or for senior year engineering students.
  - This provides an important opportunity for young engineers for their specialization and professional experience. Companies are interested in the low cost motivated professionals and their recruiting processes.
  
- **Awards and Incentives for Technical Research**
  - With the Support of Universities, International Organizations and International Cooperation of Countries (awards and incentives may be encouraged for technical research in engineering areas).

- The award will be for professional authors or young technicians, either for their own projects, dissertation papers, advanced university projects or others

#### **4.1. Financing for proposed activities**

All activities proposed in the point above, may be financed by international or local organizations and they may even generate income for the group, attaining self sustainability.

For example, the Annual Congress will be organized in conjunction with UPADI (which has experience and a whole structure for this event) and could be sponsored by many institutions. Taking into consideration that the participants shall pay for registration costs, important income may be generated for the group.

### **5. Proposal of the Action Plan for the Creation of UPADI's Group of Young Engineers.**

For the creation of the Permanent Group of Young Engineers the following action plan is proposed:

- a. General communication requesting formation of the group of young engineers throughout the member countries of UPADI (including methodology as to how to conform it, mission, vision and objectives).
- b. Acceptance of Member Organizations to form part of a Committee of Young Engineers in their organization.
- c. UPADI's Headquarters will provide support to the member organizations in forming the group with help from the Youth Group of the CFIA in Costa Rica.
- d. Internal organizations of the member countries which accept to form part of the Group, to delegate or include within their structure a person as a delegate before UPADI's Technical Group.
- e. Align group objectives and generate exchanges of ideas and projects.
- f. First General Meeting (all participants) of UPADI's Group of Young Engineers to make its creation official and appoint a coordinator and present the action plan.

## 6. Sustainability of Group of Young Engineers

The group must be well founded in order for it to continue and the projects will be traced according to the established work program once the UPADI headquarters changes.

- Form a firm structure which may be sustainable through time
- Establish the means of communication (software for social network) in order to make virtual coordination more agile.
- Creation of data bases to maintain all the information generated by the group.
- Basis for the publication of projects, in order not to loose the links created and maintain group synergy at a distance.