

## Sescodi

The research startup SESCODI supports the overall education of the students of Industrial Engineering and invites the academic community to participate actively in the research interests offered in order to obtain answers and projects that lead to the application of theory in practical cases.

### Justification

Since statistics and operational research are crucial in decision making, this research startup seeks to strengthen the foundations of these two areas in the students of the faculty, so that they implement them in the different subjects that require them, as in their professional lives. Also worth mentioning that it is intended to add value to members of the startup research, working with advanced statistical topics and thus creating prospective students of the Masters in Operations Research and Statistics; among others.

On the other hand, it seeks to work in parallel the simulation of discrete and continuous systems, which makes it even more robust in areas of research and therefore in intellectual production. In this sense the startup research group looks forward to becoming a support tool for the Masters in Operations Research and Statistics research, as for other groups in the faculty who needs them. This will greatly tighten the bonds between undergraduates and postgraduate academic processes.

### Goal

Implement in the Faculty of Industrial Engineering a startup research group framed in the areas of statistics, operations research and simulation of discrete and continuous systems, which will raise the students' interest in research and simultaneously enrich the knowledge in these areas by strengthening the skills that are part of these topics; while generating institutional networks for growth and development of the faculty.

Research Interests:

- Descriptive Statistics.
- Inductive Statistics.
- Multivariate Statistics.
- Discrete Simulation.
- Continuous Simulation.
- Optimization Models.

Expected Results / Products

- FAQ on the subject of interest of each student.
- Reviews on Published Articles on the topics.
- Introduce articles in refereed journals on the subject of interest of each working

- group.
- Proposals or implementation projects in the selected area.
  - Participation in research projects in entities such as "COLCIENCIAS"
  - Participation in related congresses with presentations and workshops.

**Fuente:** <http://www2.utp.edu.co/english/laboratories/161/sescodi>

