

**Internship in Control and Automation/
Electronic Engineering**

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| Supervisor | Prof. Dr. Rodrigo Marques Figueiredo |
| Project | Artificial Intelligence applied to industry: predictive maintenance, production planning and automatic calibration of devices |
| Description | The objective of this area is to research the topics related to modeling and identification of continuous and discrete processes, traditional and advanced control systems, industrial instrumentation, industrial networks, real-time systems, process evaluation and diagnosis, process supervision and management systems of industrial assets. With the development of these research themes along with practices carried out in academic activities, the line seeks the qualification of professionals in the area of engineering to act in the field of industrial automation and control. In addition, the course offers special subject disciplines focused on the area of power electrical systems, covering aspects of supervision and automation of distribution and smart grids. |
| Tasks | The student will be able to model, identify and analyze the dynamic behavior of industrial equipment and processes, as a step before adopting a control strategy, select the instrumentation required for automation and control of industrial equipment and processes, analyze, evaluate and specify the resources, equipment, processes and functions of automation and control for electricity distribution networks, design and implement control strategies, evaluate their performance and diagnose the root cause of problems. In short, mastering the fundamentals of technologies and methods used in the field of instrumentation, automation and control, to promote the integration of technologies for the purpose of operating processes or controlling systems for better performance, high productivity, adequate operating conditions and safety conditions. |
| Requirements | Basic knowledge on electronic, programming and control automation. |
| Language Skills | English (Portuguese would be nice, but is not necessary). |
| Duration | 4-6 months |
| Possible Beginning | February/March or July/August. |
| Credits | According to agreement |
| Payment | None |