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Undergraduate Research Program	
<b>Project Name</b>	Smart Industry - Forecasting Algorithms for Industrial Maintenance
<b>Campus &amp; Location in Mexico</b>	Monterrey
<b>Faculty</b>	Engineering
<b>Research Area</b>	Optimization and Data Science
<b>Research Responsible</b>	Jonathan Montalvo Urquizo
<b>Description of the Project</b>	<p>Many industrial applications of modern algorithms are usually limited to analyze data and learn from historical registries. Less explored is the area of connecting the tree main areas of (a) measuring and collecting real-time measurements, (b) classifying the current and previous status of production lines, and (c) forecasting the future evolution of the main components of a production line. In this project, we aim towards a systematic evaluation of techniques and algorithms for each of these three steps of the process.</p> <p>Interested collaborators will develop ideas, mathematical models, and computational implementations.</p>
<b>Training Provided</b>	Scientific-based problem solving; Statistical data analysis; Writing and reading of essays / articles
<b>Modality</b>	In Person
<b>Offered During</b>	Semester

Student	
<b>Tasks/Responsibilities</b>	Academic research based on literature reviews, algorithm design and testing. Computational experiments using existent codes or implementations made for the project.
<b>Required Language Proficiency</b>	English (Medium); English (Advanced)
<b>Required Skills and Abilities</b>	Some knowledge of programming is encouraged (Python, R, Matlab, or others)
	1) Being at least in your 2nd year of bachelor 2) Accumulative grade point average (GPA) 2.5

**Other Documents Required to APPLY for an Internship**

- 3) Official Transcript
- 4) 2 letters of recommendation of faculty members
- 5) Resume
- 6) Letter of intention explaining the reason why you would like to participate in the research program