ARTIFICIAL INTELLIGENCE

DM 630/Mista S.p.A. - Digital twin of industrial production based on AI algorithms

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**Context of the research activity**

The company is interested in studying the process flow in order to create a digital model capable of controlling the production line. The model will be based on AI algorithms and the database containing quality, throughput and logistics parameters will be updated in real time. The predictive algorithms will act as a watchdog for quality compliance and will support production management in the corrections that will need to be applied to restore process compliance. The platform, in fact, will constitute the basis for the logistics of the multi-process and multi-component production line.

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**Objectives**

The industrial research is focalized on the application of AI approach based on a production line. The student will be committed in studying the methodology that are in use for Systems Applications and Products. The use case will be the production line of a company and the main focus are:

- MM - Materials Management
- PP - Production Planning
- PS - Project System
- QM - Quality Management
- LE - Logistic Execution

The ideal candidate should be an engineer, mathematical, physical engineer,
Skills and competencies for the development of the activity

or a physicist. Expertise in industrial processes, informatics as well as problem solving ability and practical experience in the laboratory would be an additional value. Candidates should have a strong motivation to learn through advanced research.