POLITECNICO DI MILANO

Fluid-o-Tech
POWER THE FLOW

Opportunity of MSc Dissertation with Internship
(Tesi di Laurea con Stage in Azienda)

Context of the research and internship activity	
Motivations and objectives of the research	Development of new components, with intelligence provided by sensors-equipped PCBA, is a main topic for the company, in order to attain strong improvements in maintenance optimization and failure analysis of parts returned from the field. The objective of this work is the development of a Machine Learning model to be installed inside the components, able to communicate alerts with adequate notice when replacement of the part is needed due to relevant wearing. This includes diverse activities such as a review of the existing documentation and technical-scientific literature to select proper data-driven maintenance models, the definition of a strategy to collect training data through accelerated life tests in the laboratory, data analysis with final implementation and validation of the model.
Internship	The student is going to be full-time present in Fluid-o-Tech srl (FoT), with a compensation of 5000€. The methodology will be developed together with the company Data Scientists and Electronic/Mechanical engineers, inside R&D Team. FoT is a pump producer company, operating in many industrial sectors ranging from Food & Beverage to Automotive, involved in many innovative projects in the development of sensors.
Required Skills	• Very good modeling skills • Very good knowledge of Python programming. • Interest in developing innovative algorithms to tackle real industrial applications.
Educational objectives	Professional skill in risk analysis
Names of the research director	Enrico Zio
E-mail address, phone number and web-page	Email: enrico.zio@polimi.it Ph: +39 02 2399 6340 FoT Referent: Andrea Gioletta Email: a.gioletta@f-lab.org Ph: +39 02 9995 0971
Duration of the dissertation	
Total thesis duration	Approximately 8 Months. No more than 2 pending exams.

Starting date: NOW