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PROFESSIONAL



**The  
Research Hub**  
By ELECTROLUX PROFESSIONAL



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA

CALL FOR ADMISSION

# PhD in Computer Science and Engineering

PhD course in Computer Science and Engineering, University of Bologna, Italy

Theme: *“Artificial Intelligence Object Detection from Real Time Images in Embedded Environments for Professional Food Service Appliances”*

The Research Hub by Electrolux Professional offers a **3-year scholarship** for a doctoral student placement in **Electrolux Professional’s Global R&D**. At our facilities in Pordenone in northern Italy we have created an attractive research environment for PhD students who want to be part of an international company and be directly involved in the product development process, in particular the innovation generation phase, both incremental and disruptive.

The specific objective of this PhD project is to study and develop an **object detection system from real time images in embedded environments**. This work will involve studying the available technology, mainly based on AI and machine learning algorithms, to identify the best solution for all proposed cases.

The PhD will focus on the dishwashing systems, but with possible extension also to the areas of food preparation and laundry. Typically, all these appliances have limited computational power, thus one important step of the project will be the **identification of possible scaled solution**, able to balance the accuracy of the system with the available hardware resources.

The initial part of the project will involve the use of python languages and open source platforms such as TensorFlow, Keras and PyTorch. The algorithms developed in this phase will be targeted on real embedded system using the Matlab automatic code generation toolchain.

## POSITION REQUIREMENTS:

- M.Sc. (Laurea Magistrale) with a strong background on computer science and some knowledge of embedded system
- Open-minded
- Creative & Proactive
- A performance driven approach
- Enthusiasm

## Required Languages

- English

## Location:

Electrolux Professional, Pordenone, Italy and the Department of Computer Science and Engineering, University of Bologna, Bologna, Italy

## About the company:

Electrolux Professional is a global leader in the production and distribution of professional food, beverage and laundry solutions. We are looking for innovative, open-minded, optimistic people with a “can-do” attitude who can translate a thoughtful vision into action. If you believe these qualities apply to you, we encourage you to find out more on our website:

**[theresearchhub.electroluxprofessional.com/phd](https://theresearchhub.electroluxprofessional.com/phd)**