Bachelor of Science in Artificial Intelligence and Robotization

Program Overview

The Bachelor of Science in Artificial Intelligence and Robotization (BSAIR) program will give students the necessary knowledge needed to transform data such as images, videos, language and other unstructured data into actionable decisions. The BSAIR curriculum program will allow students to combine skills in computer science, mathematics, computational modeling, machine learning, symbolic computation and software development to build robotized solutions for industry and commerce.

Approach

The program emphasizes learning by doing through course projects and use of state-of-the-art software tools and development platforms for practical learning and final projects.

Motivation

It is expected that within the next three to five years, there will be an exponential increase in the number of commercial AI-based applications. Opportunities will vary from product applications that embed AI in a product or service to provide end-customer benefits to insight applications that harness advanced analytical capabilities. Such capabilities include machine learning to uncover insights that can inform operational and strategic decisions across an organization, as well as passing by process applications that incorporate AI into an organization’s workflow to either automate processes or improve them by augmenting worker effectiveness.

Acquired Skills

The BSAIR is designed for graduate engineers who can apply Artificial Intelligence (AI) techniques such as Machine Learning, Planning, Sensor integration, Natural Language Processing etc. and Analytics in applications.

Graduates of the BSAIR program will be able to:

- Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
- Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program’s discipline.

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1 This program is in line for ABET accreditation
• Communicate effectively in a variety of professional contexts.
• Apply computer science theory and software development fundamentals to produce computing-based solutions.
• Use Artificial Intelligence and Robotization theory and fundamentals to produce AI-based solutions.

Career Opportunities
Graduates of the BSAIR program will be able to work as:

• Computer and Software Engineers
• Digital Transformation Engineers
• Artificial Intelligence Engineers
• Data Scientists
• Digital transformation engineer

Key Courses
In addition to Core Computer Science Courses, the program consists in specialization courses including the capstone project:

• Artificial Intelligence
• Machine Learning and Data Mining
• Natural Language Processing and Text Mining
• Artificial Intelligence for Robotics
• Artificial Neural Networks
• Software Agents and Robotization
• Statistical Analysis

Who can Apply?
The program is open for graduates of Moroccan or International high schools interested in earning a degree in Artificial Intelligence and Robotization.

Usual criteria for admission to the School of Science and Engineering:

• Baccalaureate in “Sciences Physiques et Chimiques”, “Sciences Maths A”, or “Sciences Maths B”, or equivalent secondary education with focus on Mathematics, and (though not common) Baccalaureate in “Sciences et Technologies Electriques or Sciences Economiques.”
• GAT or SAT.