

## *ENP Conferences-Debates*

From Robotics to Powered Lower Limb Exoskeletons to Assist Gait

By **Doctor Mohamed Bouri**

**Amphi OUABDESSELAM (Ex-Amphi C)**

**Monday, 8th May 2023, 2.30 pm**

### **Abstract**

The presentation of Mohamed Bouri will showcase the development of lower limb exoskeletons (LLE) and their associated control strategies (CS) designed to assist gait for various populations, for rehabilitation and daily activities. Examples of exoskeletons developed at the Ecole Polytechnique Fédérale de Lausanne will be highlighted, along with the key drivers behind their development. These drivers include prioritizing simplicity to facilitate implementation and increase accessibility for individuals with lower limb impairments, adhering to well-defined needs and specifications to improve the technology evaluation, and developing effective CS to assist gait and balance.

### **Biography**



Dr. Mohamed Bouri graduated from Ecole Nationale Polytechnique of Algiers and obtained his PhD thesis in 1997 from INSA-Lyon (Fr). He currently heads the research group of Rehabilitation and Assistive Robotics (**REHAssist**) at the Ecole Polytechnique Fédérale de Lausanne (**EPFL**). Mohamed Bouri is a roboticist specializing in developing and controlling complex robotics structures. His expertise in advanced industrial and medical robotics is established and recognized in the industrial ecosystem. He focuses on “Medical robotics” for rehabilitation, lower limb exoskeletons, and surgical applications. He is a board member of

the International Consortium of Rehabilitation Robotics (ICORR) and of director board of the directors of Swiss Robotics Center (S3C).