

Zeitschrift: Bulletin / Vereinigung der Schweizerischen Hochschuldozierenden =
Association Suisse des Enseignant-e-s d'Université

Herausgeber: Vereinigung der Schweizerischen Hochschuldozierenden

Band: 45 (2019)

Heft: 1

Artikel: Master in Robotics at EPFL

Autor: Mondada, Francesco

DOI: <https://doi.org/10.5169/seals-893932>

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. [Siehe Rechtliche Hinweise.](#)

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. [Voir Informations légales.](#)

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. [See Legal notice.](#)

Download PDF: 10.01.2025

ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>

Master in Robotics at EPFL

Francesco Mondada*

Since the academic year 2018–2019, students at the Ecole Polytechnique Fédérale de Lausanne (EPFL) can follow a new Master degree in robotics, which is the result of a renewed effort by the EPFL research and education community active in this field, coordinated around the “Robotics” National Research Competence Centre (NCCR). This new degree offers training in the theory, technology and practice of robotics, covering for example mobile robotics, portable robots, robotic manipulators, autonomous robots, biomedical robotics, and the interface between robots and the human nervous system.

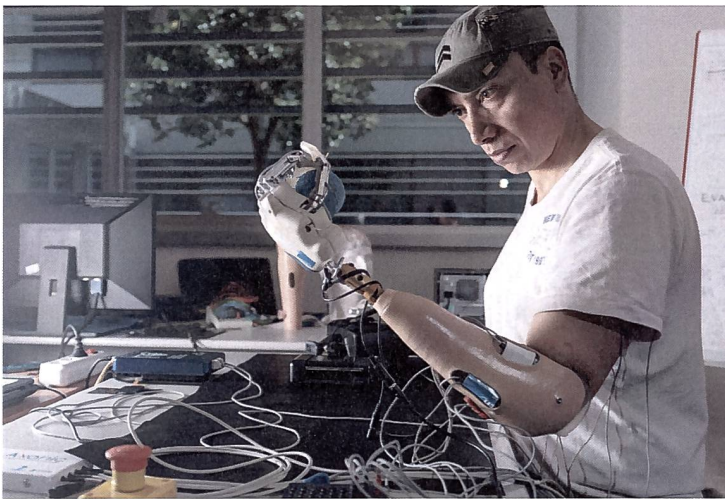


Figure. During their master's final project, students were asked to develop and clinically evaluate a neuro-controlled upper limb prosthesis intuitively controlled and felt by the amputee as the natural one (courtesy of Silvestro Micera's lab, EPFL).

*EPFL - STI - IMT – LSRO, bureau MEB3426, Station 9, 1015 Lausanne

E-mail: francesco.mondada@epfl.ch

EPFL: www.epfl.ch

Robotics master: <http://master.epfl.ch/robotics/>



Francesco Mondada, Ph.D., is a Professor in mobile robot design at the Ecole Polytechnique Fédérale de Lausanne (EPFL) and coordinator of the Robotics Master. He received his M.Sc. in micro-engineering and his Doctoral degree in computer science from EPFL. He co-founded several companies, being CEO

of K-Team SA for about 5 years. He has been participating, then leading the design of well know robots, such as Khepera, s-bot, marXbot, e-puck and Thymio, together reaching more than 10 thousands mentions/citations in scientific papers. His interests include the development of innovative mechatronic solutions for mobile robotics and making robot platforms more accessible for education, research, and industry.

A strong emphasis of this new Master is on practice: mandatory and elective courses include practical exercises to apply theoretical aspects to real systems. Moreover, the semester and interdisciplinary projects, as well as the final year project, allow students to work with researchers on complex problems in the robotics laboratories of EPFL. It is important to note that this Master degree is one of the few EPFL Masters that offer the possibility of carrying out three projects (10 ECTS) in laboratories at master level, in addition to the final year project. Students can also choose to spend part of their studies in industry, with a 6-month internship.

This comprehensive course provides EPFL students with access to research and industrial careers in a wide range of fields where robotics technologies are increasingly applied, such as biomedical technologies, logistics and transport, aviation and drones, autonomous cars, industry 4.0, smart homes, environmental technologies, to name a few. In addition, students can take advantage of EPFL's strong innovation ecosystem to invent new robotic systems and applications and create their own business.

Concerning admissions: Students with a Bachelor degree in Microengineering from EPFL are automatically admitted. National, international, and EPFL students with a Bachelor in Computer Science, Electrical Engineering, Electronics, Mechanical Engineering or a related field may also apply and will be selected on the basis of their academic record. All students must have an interdisciplinary background and have taken courses in at least two of these fields: Computer Science, Electronics, and Mechanical Engineering. ■

More information: <http://master.epfl.ch/robotics>