



MSc Embedded AI & Edge Intelligence

Empowering Real-Time Intelligence at the Edge

With billions of connected sensors and smart devices powering modern life, companies are increasingly seeking experts who can develop AI solutions that run directly on devices for lightning-fast responses and enhanced data privacy. In response to this demand, the MSc Embedded AI & Edge Intelligence program offers a highly specialized curriculum tailored to students eager to push AI beyond the cloud and onto edge devices.

The program's curriculum through hands-on projects, emphasizes designing and deploying lightweight AI models directly on the hardware at the edge. They also explore cutting-edge approaches to create AI solutions that protect sensitive data by training models collaboratively across devices. Additionally, the program covers hardware-level AI optimization to maximize on-device performance and efficiency.

In addition, the curriculum cultivates students' ability to translate complex topics into clear, actionable insights for product managers, executives, and regulatory bodies champion edge-AI initiatives.

The objectives of the program

Our graduates will be able to:

- > Develop on-device AI strategies that balance performance, privacy, and energy efficiency.
- > Design and deploy lightweight AI architectures tailored to edge and embedded.
- > Lead multidisciplinary teams and projects, communicating clearly with both technical and non-technical stakeholders.

Career Opportunities

- > Embedded AI Engineer
- > AIoT Developer
- > Edge AI Engineer
- > Software Engineer for IoT
- > Mobile AI Developer
- > MLOps for Edge Devices
- > Edge Computing Architect
- > Smart Device Designer

Bikram Pratim BHUYAN

Head of MSc

Dr. Bikram Pratim BHUYAN currently serves as the head of the MSc programs in Artificial Intelligence and Data Management at École centrale d'électronique (ECE) École d'Ingénieurs, Paris, France and a researcher at LISV Laboratory, Université Paris-Saclay, France. He earned his PhD in Computer Science from Université Paris-Saclay and has over a decade of teaching and research experience in India and France, contributing to the integration of symbolic reasoning and deep learning for Neuro-Symbolic AI systems. He has authored numerous research papers in the field with several best-paper awards and actively contributes to the advancement of next-generation AI systems. He serves on the editorial board of Nature Scientific Reports and reviews for leading conferences and journals such as NeurIPS and AAAI. Beyond publications, Dr Bhuyan mentors PhD, MSc and BSc students on topics ranging from knowledge representation to learning. A member of the AAAI, ACM and the European Trustworthy AI Association, he combines technical depth with pedagogical passion, preparing the next generation of engineers and scientists.