

## ***Press release***

Marie Skłodowska-Curie Actions

### **Research and Innovation Staff Exchange (AMBEATion)**

#### **Call: H2020-MSCA-AMBEATion-2020**

The partners who have joined in a new EU-funded research project within the call H2020 Marie Skłodowska-Curie Actions announce the beginning of the international and multidisciplinary program: Analog/Mixed Signal Back End Design Automation based on Machine Learning and Artificial Intelligence Techniques (**AMBEATion**).

The duration of the action is 48 months, with starting date September 1, 2021.

The project aims to use machine learning and modelling techniques to enhance the automation of Analog Mixed-Signal (AMS) electronic design. There are some promising results in literature that encourage to undertake such a path and the consortium plans to train a focused team of researchers on development of algorithms and applications to industrial state of the art back-end design flows.

The scientific and technical result expected by the conclusion of the project will be a new design methodology implemented in the framework of flow scripting, whose core is constituted by artificial intelligence and machine learning algorithms. The framework will be fully integrated in the Industrial design flow by accessing the design databases of the enterprises with data mining techniques.

The main outcomes of the AMBEATion project will be: i) an increase in designers' productivity in the area of mixed signal designs (primarily AMS Backend) addressing the needs of industrial users, ii) a possible reduction of the silicon product costs and, as a consequence, an increase of the European industry competitiveness, iii) to provide the academies with new advanced training topics aligned with high tech employer's needs, iv) to set the basis of a long-lasting technical partnership between European research and design centers.

The consortium comprises three academic institutions

- Politecnico di Torino, Italy (coordinator)
- Czech Technical University of Prague, Czech Republic
- Università degli Studi di Catania, Italy

and two non-academic partners

- Synopsys, a global leader in electronic design automation (EDA) and semiconductor IP, offering the broadest portfolio of application security testing tools and services, is participating with three legal entities:
  - o Synopsys Netherlands BV
  - o Synopsys Armenia CJSC
  - o Synopsys Portugal UNIPESSOAL LDA

- STMicroelectronics, one of the world's largest semiconductor companies with net revenues of US\$ 9.56 billion in 2019. Offering one of the industry's broadest product portfolios, is participating with two legal entities:
  - o STMicroelectronics Design and Application SRO, Czech Republic
  - o STMicroelectronics SRL, Italy