

Co-production cell performing human-robot collaborative assembly

PRESS RELEASE

A Horizon 2020 research project on the collaboration between humans and robots in production lines

12 July 2019

Collaborate (Co-production Cell performing Human-Robot Collaborative AssEmbly) is a Research & Innovation project (Horizon 2020) that is funded by the European Commission. It is led the Aristotle University of Thessaloniki in Greece and aims to develop innovative methods concerning human-robot collaboration in an effective and safe manner.

Robots are extensively used in large industries (e.g. car industries) for the execution of heavy and repetitive tasks in designated spaces which are non-accessible by humans for safety reasons. These robots lack the skills and flexibility required to meet contemporary industrial needs for small production cycles in a satisfactory way. Collaborate aims to revert this situation and enable genuine human-robot collaboration, by combining the properties of the robots with the skills of the humans.

Professor Zoe Doulgeri, director of the Automation & Robotics Lab and coordinator of the CoLLaboratE project states:

"Collaborate is a challenging project that aims to equip robots with new collaboration skills. This way robots will become valuable human assistants, able to understand humans' intentions, learn from them and work with humans using their abilities of precision and heavy loads manipulation, while leaving the decision-making and movement initiative to humans."

The CoLLaboratE is a three-year project that started in October 2018 and consists of 14 partners from research, industry and services across 10 European countries. The consortium members include the Automation & Robotics Lab, Aristotle University of Thessaloniki (Greece), the University of Genova (Italy), the Katholieke Universiteit Leuven (Belgium), the Laboratory for Manufacturing Systems & Automation, University of Patras (Greece), the Information Technologies Institute (ITI), of the Centre for Research and Technology Hellas (CERTH) (Greece), the Association pour la Recherche et le Developpement des Methodes et Processus Industriels (ARMINES) (France), the Jožef Stefan Institute (Slovenia), the IDIAP Research Institute (Switzerland), and the companies Blue Ocean Robotics (Denmark), Kolektor Orodjarna (Slovenia), Centro Ricerche FIAT SCPA (Italy), ASTI Mobile Robotics (Spain), Romaero SA (Romania) and Arçelik A.Ş (Turkey).

The project objectives will be implemented and evaluated in 4 use cases related to the industrial project partners in Italy, Slovenia, Turkey and Romania.



Co-production cell performing human-robot collaborative assembly

More information can be found in the project website: https://collaborate-project.eu
Follow us on Twitter @collaborate eu, Youtube and LinkedIn

Contact:

Professor Zoe Doulgeri
Director of the Automation & Robotics Lab
Department of Electrical and Computer Engineering
Aristotle University of Thessaloniki, Greece
Coordinator of the CoLLaboratE project,
+30 2310 996364
info@collaborate-project.eu



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 820767