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ICARUS Project Newsletter

ICARUS

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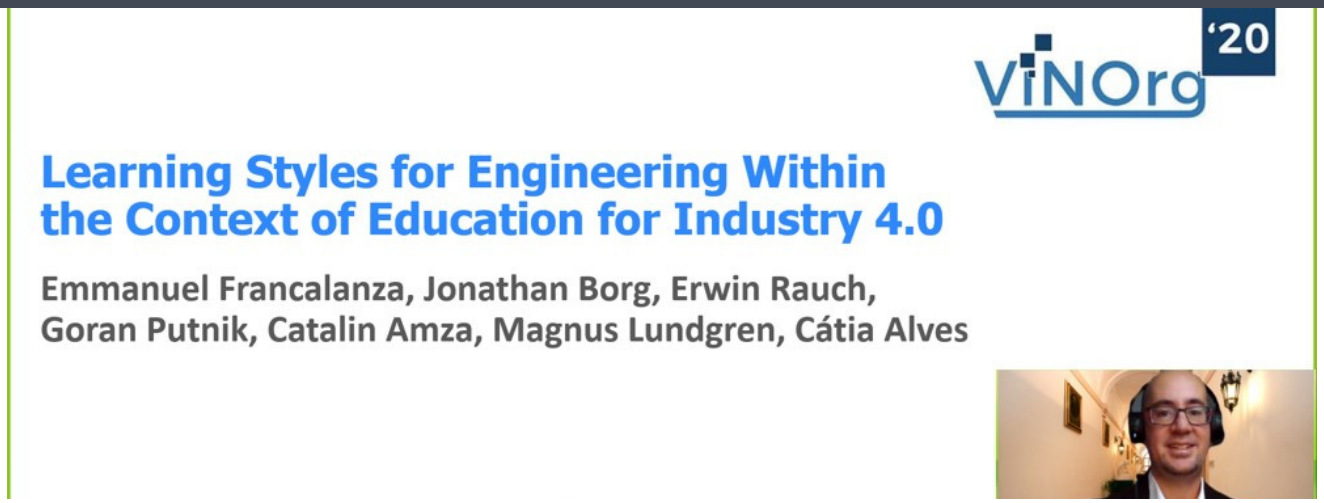
What are the ICARUS Project Aims?

It is a known fact that the world of work is increasingly becoming digitized, this is evident from what has been termed the fourth industrial revolution (Industry 4.0). As part of its Digital Single Market Strategy (2018), the European Commission wants to help all industrial sectors exploit new technologies and manage a transition to a smart, Industry 4.0 industrial system. This revolution is driving technology development within industry at such a fast pace that even HEI educators are finding difficulties to catch up and keep abreast of the latest developments. These skills mismatches imply that they also encountering difficulties in transferring knowledge effectively to a new generation of learners. Furthermore, previous generations of learners who are currently working in industry did not receive training in technologies such as AI, big data analytics and cloud technology which are the drivers of change.

The aim of the ICARUS KA2 Erasmus+ project is therefore to develop an open and digital training toolbox which can be utilised by trainers in Higher Education Institutions to educate both current and previous generations of learners in Industry 4.0 technologies.

ICARUS Special Session



On the 4th December 2020, Dr Ing. Emmanuel Francalanza presented a paper on "Learning Styles for Engineering within the Context of Education for Industry 4.0" at the 8th International Conference on Virtual and Networked Organisations Emergent Technologies and Tools - ViNOrg'20.

This paper was presented at a special session on education dedicated to the Erasmus+ project ICARUS which was chaired by Dr Francalanza.

Machine Learning and AI for Industry 4.0

From small scale to large scale industries can make use of a machine learning algorithm.s such software would consolidate data and evaluate data for making further predictions. Machine learning is useful in recognizing different characteristics and several connections between the data. Such algorithms are useful to generalize different use cases from them.

With the use of a large amount of data which is analyzed according to several factors like customers, sensor data, log, new solutions and many more can be used to make different work more efficient. Such data would need a huge IT infrastructure, which can be build using artificial intelligence and machine learning. Several different tasks fo machine learning are clearly defined.

As explained by BMW employees in standard production are being supported and relieved by artificial intelligence. Fast, efficient and reliable technology ensures employees do not have to check model inscriptions against order data during the final inspection, for instance. This is now taken care of by AI, which alerts the employee if an inscription is not correct. This and other AI applications provide significant value added for the BMW Group production system.

Meet the Partner:
Free University of Bozen-Bolzano

The Smart Mini Factory lab is a learning factory laboratory used for applied research and for teaching. It aims to study and simulate different modern and advanced concepts of production technologies and methods in the context of Industry 4.0. A focus is given to the requirements of SMEs regarding hybrid and human-centered production and assembly systems as well as robotics and mechatronics for industrial automation.

Partnership

The ICARUS project is a partnership between 5 European Universities in Malta, Sweden, Portugal, Romania and Italy and is co-funded by the Erasmus+ Programme of the European Union.