

Importance of 3D and VR technologies in vocational education

Assoc.Prof. Sven Maričić

What is the future of the education? Future of the industry?



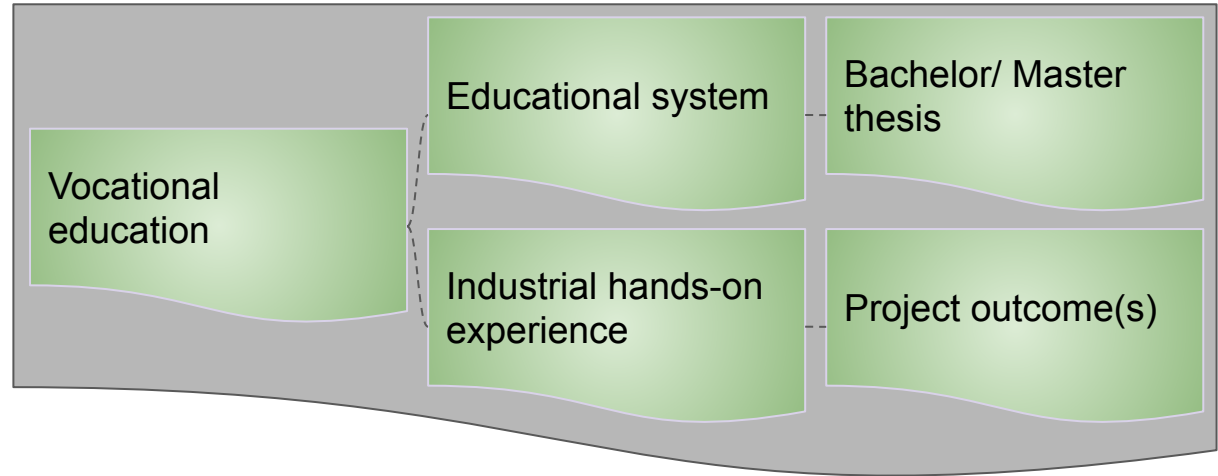
Source: <https://www.politicususa.com/2014/07/15/>

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3D and VR technologies in Industry 4.0



3D and VR technologies can serve as a base for other implementation areas such as:

Industry - smart factories (automotive, space, predictive maintenance, maritime, food and beverage etc.)

Biotech (laboratory, clinical applications, surgery etc.)

Military (different applications)

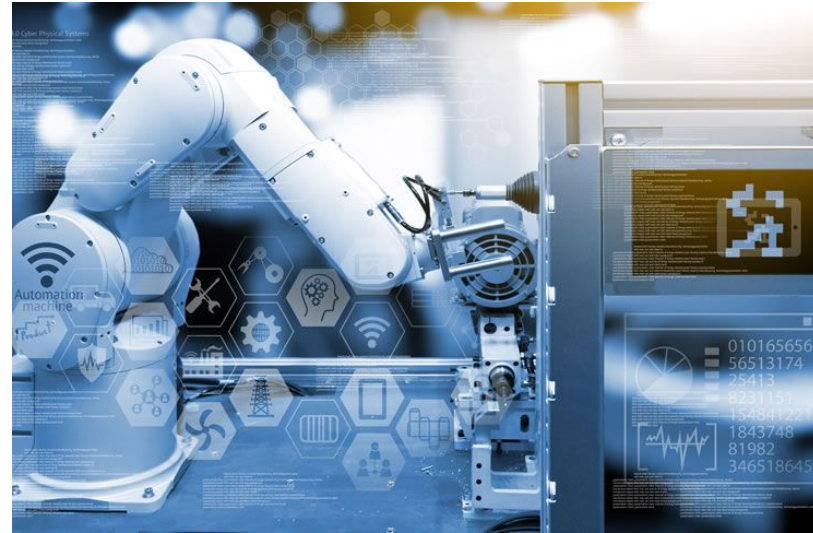


Image source: <https://www.i-scoop.eu/industry-4-0/>



Results of applying vocational education approach
within Dynamic project in Croatia, Juraj Dobrila
University of Pula - Scientific-Technology Institute
VISIO

VISIO

Image source: <https://immersivervrtechnologies.com/>

HOLCIM industrial partner





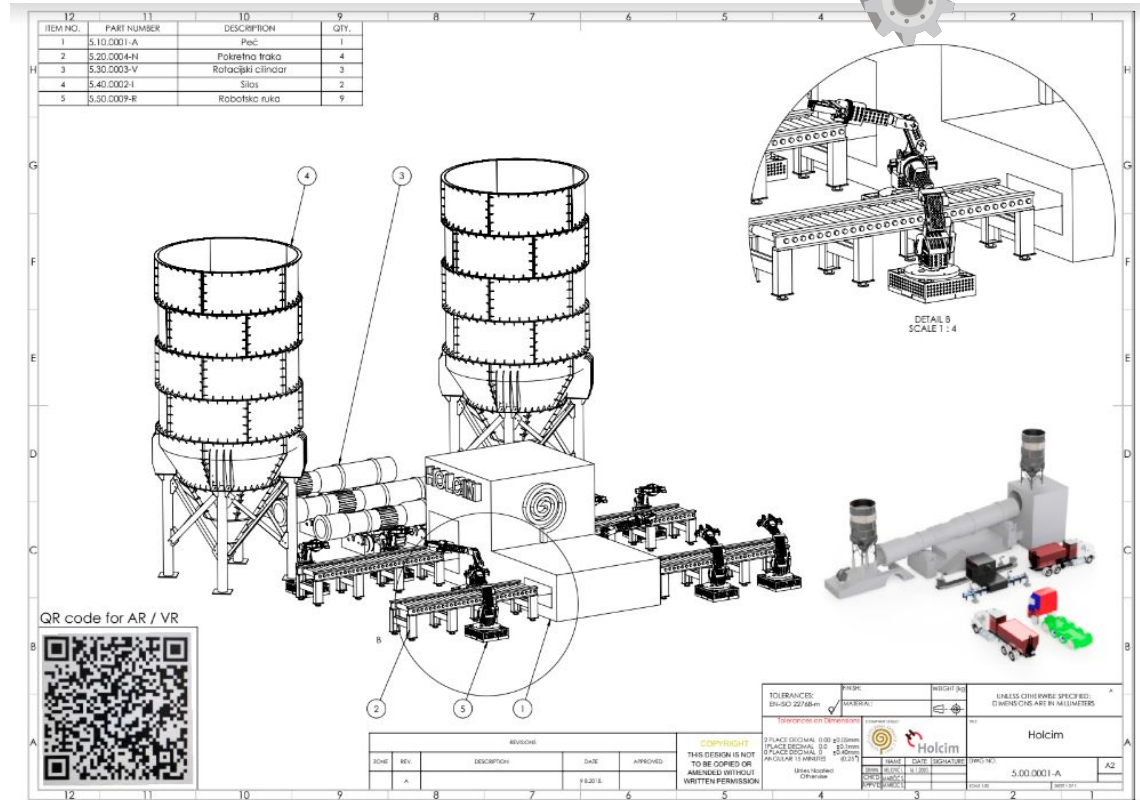
Under the industrial mentorship of Holcim Hrvatska d.o.o., professors and assistants involved in the project, the students were working on development of the technical solution. The 3D modeling was done using the CAD program FUSION 360. The components that were designed include robotic arms, conveyors, silos and cylindrical rotary kilns. In the continuation of the project, it is planned to additionally make a model of the industrial grade mill, couplings and additional components in order to better present the manufacturing process. It is also planned to prepare technical documentation of all process components.





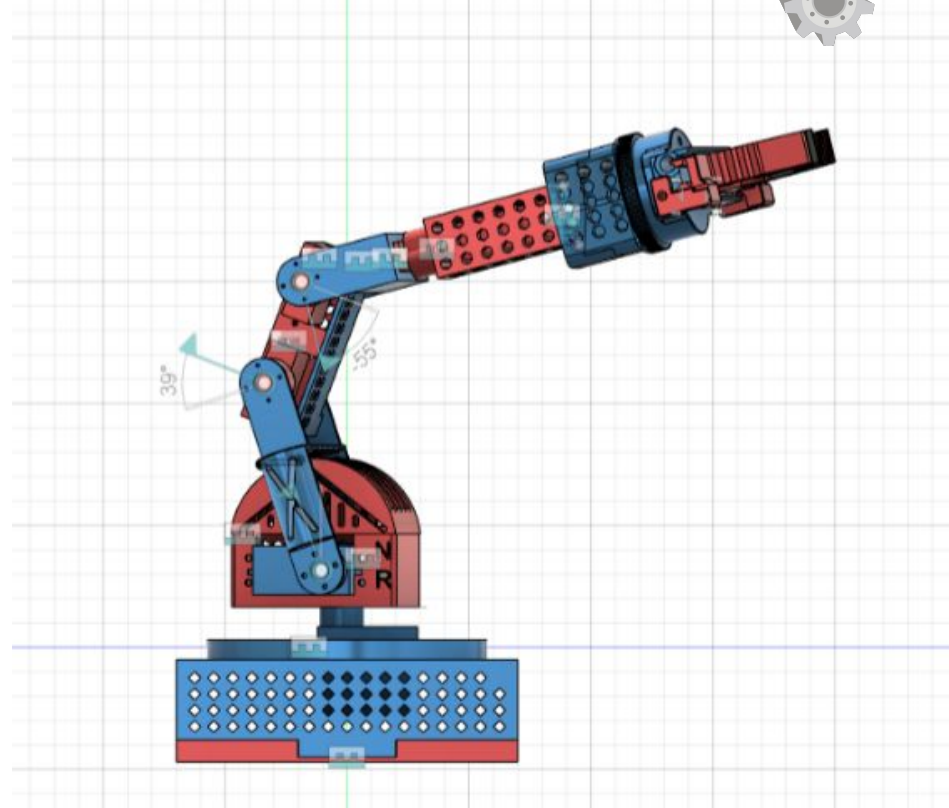
The outcomes

Picture: Model virtualization,
process engineering process



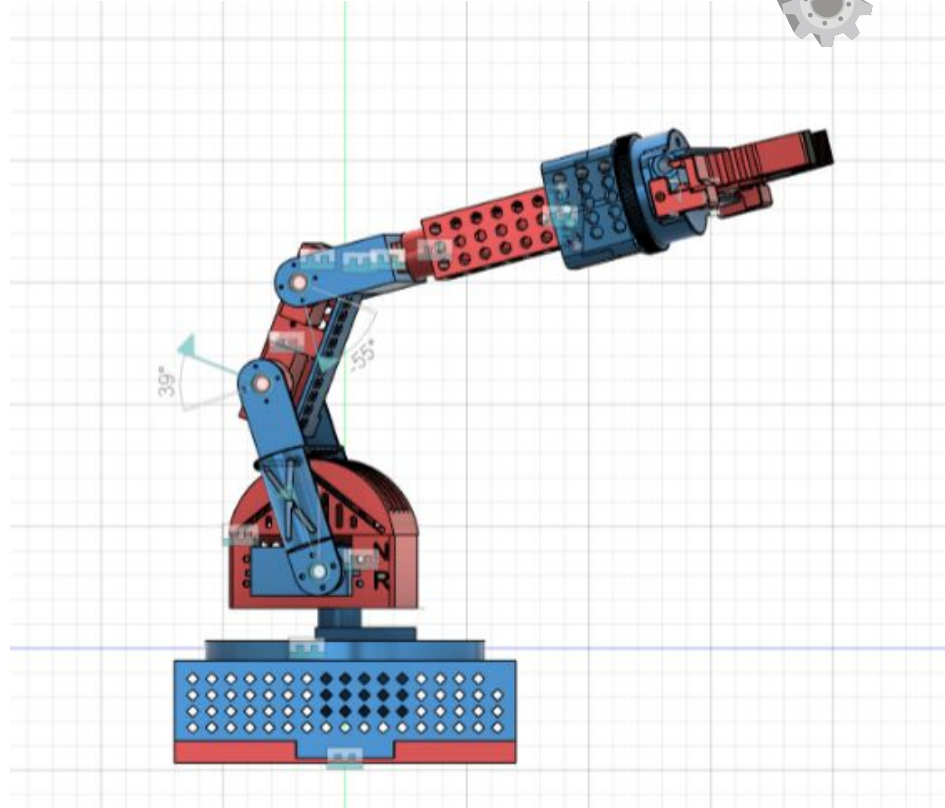
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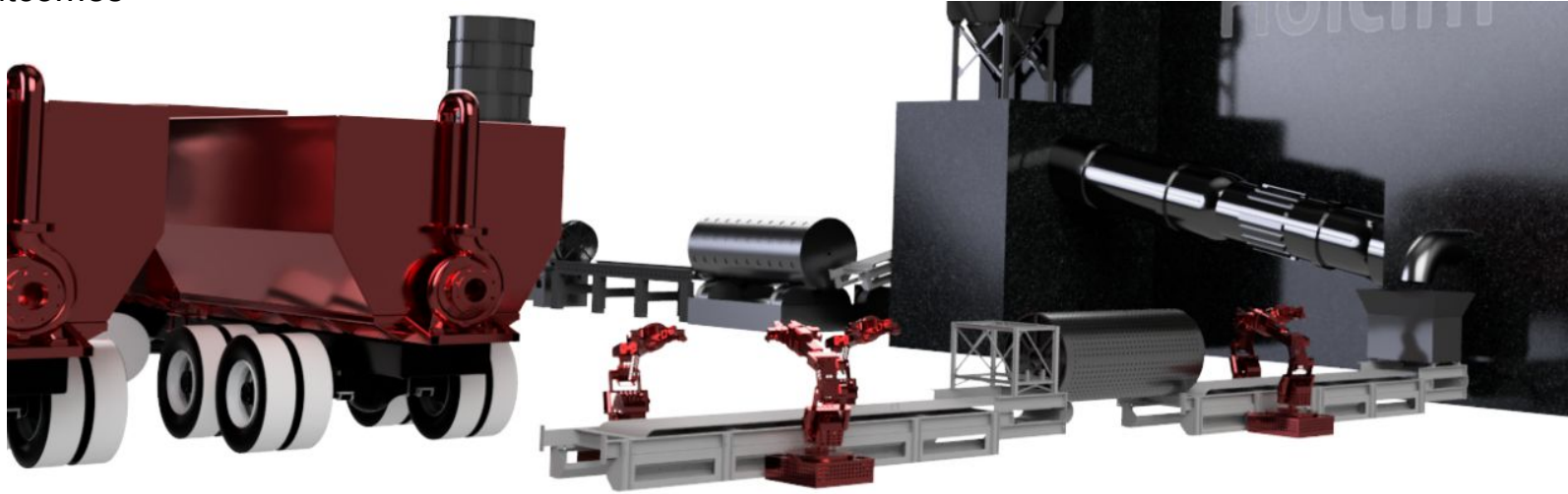


The outcomes

- 5 students took active role in this project
- 2 published scientific papers
- 1 paper in progress
- 4 defended bachelor or master thesis
- 2 presentations of the current project outcomes in Croatia
- 2 new companies in UNIPU network



The outcomes



Picture: Model virtualization, 3D
model of production process

Thank you!

