

## Robot Days

24<sup>th</sup> May , 2023

Venue: Faculty of Technical and Human Sciences,  
Sapientia University, Târgu Mureș

**Dr. József KÁNTOR, Prof. Zoltán FORGÓ:**  
***Tools for virtual commissioning -***  
***RoNo Cooperation for Virtual Manufacturing***  
Room: 230 - 12:30-13:00



Virtual commissioning is the process of recreating a physical systems in a virtual environment with the purpose of testing and process optimization before the deployment of said physical system. In this presentation the current state of virtual commissioning will be discussed, followed by examples presented in a software used for this purpose, *Visual Components*. These case studies illustrate how we can get from a simple textbook problem to a more complex, real-life scenario, where every action performed by the real system is precisely modeled within the simulation software. Beside this 3D virtual representation, another tool, the *TIA Portal by Siemens* will be presented, which will be used to control the virtual model of the robotized cell. Implementing the real control algorithm, it is possible to evaluate the future production even in his early design phase.

**Dr. József KÁNTOR**  
***Workshop using VisualComponents -***  
***RoNo Cooperation for Virtual Manufacturing***  
Room: 217 - 14:00 - 15:30

Participants will experience the possibilities provided by the Visual Components software in the simulation of manufacturing equipment and processes. In the first part of the workshop, some basic system setup will be done, and afterward, the main task will be the implementation of a conveyor system, where the workpieces are transferred to machine tools automatically on conveyor, by human and by robot.