

2025

ROSO INDUSRTY

11 FEBRUARY

Newsletter



<u>In this</u> newsletter:

summary, projects,
Discussed issues, and
reflection. Keep Reading!

<u>summary.</u>

Students from Graphic and Multimedia Software, Section 09 attended a talk on the introduction to ROSO industry on the 11th of February, 2025. Delivered by Prof. Yuan and assisted by Dr. Pang Yee Yong, the talk gave fundamental information about ROSO industry, including AI robotics application in architecture and engineering.

The talk included mention of advanced technologies such as the 3D printing and the robotic arm. These tools are fundamentally important during the processes of designing, construction, and even the manufacturing. These robots, which are AI powered, tackle complex tasks with precise and accurate precision such as glass sculpting. Prof. Yuan also gave real life examples through projects, showing how AI robotics aid in designing and solving emerging architectural problems.

In conclusion, the talk demonstrated some of the main advantages that even these few technologies offer to the architectural industry, including creative, efficient, and precise work.

all photos from ROSO website. https://rosocoop.com

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Projects.

they did many projects such as 3d printed furniture, white feather bank, computational bamboo and more amazing projects.

image above shown the computational bamboo.





Issues.

1. How Robots Will Unlock New Opportunities for Architectural Realization:

- Facilitate the crafting and stretching of architectural forms.
- Utilize 3D printing for creating complex geometries.
- Achieve high levels of customization and precision.
- Perform robotic bending of metal sheets for innovative designs.
- Integrate seamlessly with digital tools for enhanced design and execution.

2. How Robotics Will Revolutionize the Worldwide Construction Sector:

- Increase the scale and speed of construction projects globally.
- Promote prefabrication and modular construction for efficiency.
- Use robotic arms to simulate and execute realworld construction tasks.
- Use robotic arms for both planning and physical construction.

Reflection.

HAVING GONE FOR THE INDUSTRIAL VISIT AT ROSO, I CAN CONFIDENTLY SAY THAT IT HAS TRANSFORMED MY PERCEPTION ON HOW ROBOTICS AND AUTOMATION ARE CHANGING THE CONSTRUCTION INDUSTRY. SEEING THE PAINTING ROBOT, AND THE MORE ADVANCED ROBOTIC ARM WORKING, WAS INDICATIVE OF THE ENORMOUS PROGRESS IN SAFETY AND EFFICIENCY, AS WELL AS THE NOVEL PROSPECTS FOR THE COMBINATION OF DIGITAL CONSTRUCTION AND ACTUAL BUILDING. THESE DEVELOPMENTS DRASTICALLY REDUCE THE RISK OF EXPOSING PEOPLE TO DANGEROUS TASKS AND GREATLY IMPROVE THE PRODUCTIVITY AND ACCURACY OF WORK DONE AT CONSTRUCTION SITES.

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