TUESDAY, 11 FEBRUARY 2025

ROSO INDUSTRY INTRODUCTION

NEWSLETTER

SUMMARY

On 11 February 2025, students of Graphic and Multimedia Software (Section 07) attended a talk about the introduction to the ROSO industry by Prof. Yuan and accompanied by Dr. Pang Yee Yong. The talk provided an insightful introduction to the ROSO industry, focusing on the integration of AI robotics in architecture and related fields. This included the use of advanced technologies such as 3D printing and robotic arms, which are helpful in design, construction, manufacturing processes and creating custom-shaped glasses. These AI robots can perform complex tasks with more precision and accuracy compared to humans and create custom-shaped glasses. Prof. Yuan also shared their real-world projects, demonstrating how they implement AI robotics to design and create innovative architectural solutions. To sum up, the talk emphasized how these technologies benefits humans in the architecture field that create more creative and precise works.

GROUP MEMBERS:

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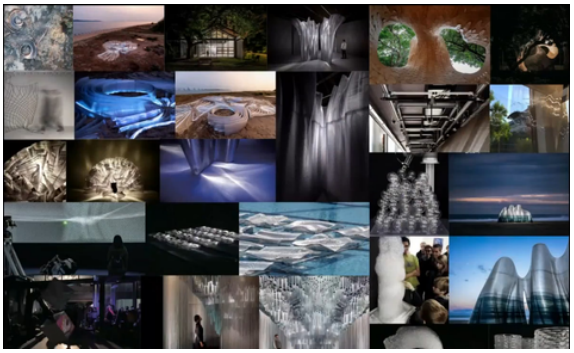
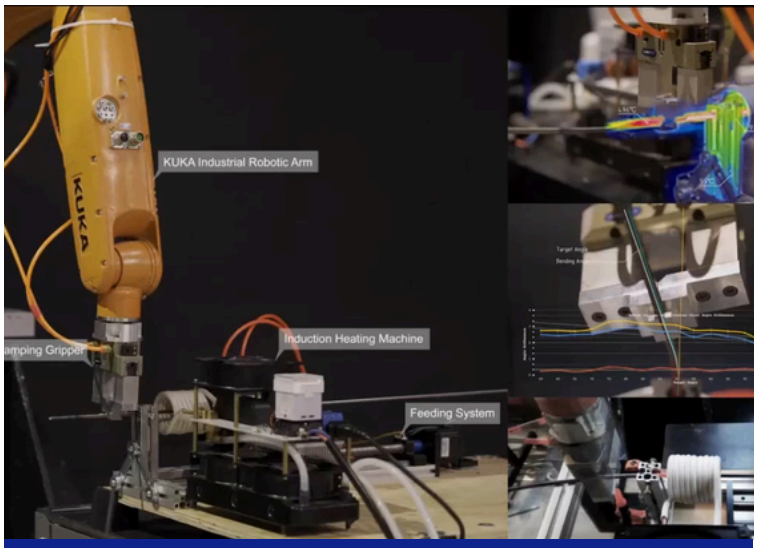
ISSUES

1. **How robots will explore new possibilities for architectural materialization?**
- New ways of materializing architecture
- Crafting & stretching architecture
- 3D printing for complex geometries
- Customization & precision
- Robotic bending of metal sheets
- Integration with digital tools

2. **How robotics will transform the global construction industry?**
- Addressing labor shortages
- Prefabrication & modular construction
- Multi-robot collaboration
- Robotic arms for simulation & real-world execution
- Web-based control & VR integration
- Enhanced material performance analysis
- Scaling up construction





TECHNOLOGIES

• REFLECTION

Overall, the industrial visit to ROSO was a transformative experience that broadened our perspective on how robotics and automation can revolutionize the construction industry. The painting robot and advanced robotic arm in action not only underscored the significant improvements in safety and efficiency but also illuminated the creative potential of integrating digital design with physical construction. These innovations are paving the way for safer work environments by reducing human exposure to hazardous tasks while enhancing precision and overall productivity on the job site.

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