



OTH REGENSBURG

BAUINDUSTRIE  
Bayern

BUILDING LAB



Interreg



solutions for the  
future of construction:

# ROBOTICS



**Teilnahme auf Deutsch möglich!**  
Übersetzungshilfe durch studentische Hilfskräfte.

**20 – 21 OCT**

## BUILDING LAB & PILOT HALL



Rudolf-Vogt-Straße 16,  
93053 Regensburg,  
Germany



Ferdinand Tausendpfund GmbH,  
Bukarester Straße 1,  
93055 Regensburg, Germany

Number of participants  
limited, registration  
mandatory:



Join us at this year's *Construction Robotics Solutions Lab*: a two-day event with symposium, demo and a workshop exploring the future of robotics in construction.

(A small contribution towards expenses of €50 will be charged for all non-speakers, and €25 for students.)



## CONSTRUCTION ROBOTICS SOLUTIONS LAB SYMPOSIUM AND WORKSHOP

CoRoSL2025

### LOCATION

Building Lab & Pilot Hall

### TIME

20. & 21. October 2025

### Organizing Committee

Thomas Linner, Florian Weininger, Reza Maalek, Soungcho Chae, Rongbo Hu

### PROGRAMM

#### 01 **Symposium** | Lead topic: Essential Components and Case Studies in Successful Construction Robotics Development

| Time: 20 October 2025, 09:30-16:30 CET

| Location: Building Lab, OTH Regensburg, Rudolf-Vogt-Str. 16, 93053 Regensburg, Germany

| Organizing Lead: Thomas Linner & Soungcho Chae

#### Welcome & Introduction (9:30-9:45 CET)

##### 1) Welcome Note

Martin Schneider, CEO Branch Bavaria North, Bavarian Contractors Association & Prof. Dr.-Ing. Andreas Appelt, Dean of the Faculty of Civil Engineering, OTH Regensburg

##### 2) Synergizing Robotics and AI: Toward Intelligent Construction Workflows

Prof. Dr.-Ing. Thomas Linner & Prof. Dr.-Ing. Mathias Obergriesser, Building Lab, OTH Regensburg, Germany

#### SESSION 1 | Foundations & Ecosystem (09:45 - 10:45 CET)

Focus: Legal frameworks, market landscape, investments, and system-level perspectives

##### 3) Laws, Norms, and Grey Zones in Construction vs. Industrial Robotics

Prof. Dr. Martin Weiss, Laboratory for Numerical Mathematics and Robotics, OTH Regensburg, Germany

##### 4) The Construction Robotics Market: Insights from a Major Robotics Company

Ralph Christnach & Gerald Mies, CEOs Germany & Europe, Estun Robotics, Germany

##### 5) Robots in Infrastructure Construction

Prof. Dr.-Ing. Thomas Bock, retired Professor, former director of the Chair of Building Realisation and Robotics, Technical University of Munich, Germany

#### Coffee Break (10:45 - 11:15 CET)

#### SESSION 2 | Human-Centered Design & Collaboration (11:00 - 12:15 CET)

Focus: User experience, design methodologies, and human-robot interaction

##### 6) User-Centered Design in Human-Robot Cooperation: Putting People First

Dr. Christian Colceriu, Design Lab Lead, Krones AG, Germany

##### 7) Applying Human-Centered Design to Construction Robotics: A Practical Example

Dr. Wen Pan, CEO. Nova Spraytec, Germany



## CONSTRUCTION ROBOTICS SOLUTIONS LAB SYMPOSIUM AND WORKSHOP

- 8) **Robotics for SMEs & Crafts: Adoption Challenges and Pathways to Bridge the Productivity Gap**  
Prof. Dr.-Ing. Michael Bühler, Professor of Construction Management, Konstanz Institute of Technology, Germany & Prof. Dipl.-Ing. Florian Weininger, Design-to-Fabrication Laboratory, OTH Regensburg, Germany
- 9) **Causes for slow Progress in commercial Construction Robot Development and Path Forwards**  
Jakub Suchánek, Co-founder and CEO of Fabrica AI, Czech Republic / Singapore

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Lunch Lounge (12:15 – 13:15 CET)

**SESSION 3 | Technology & Application** (13:15 – 14:30 CET)

Focus: Specific technologies, systems integration, and construction-site applications

- 10) **BIM2Robot: Leveraging BIM, Digital Infrastructure, and Sensing for Construction Robotics**  
Prof. Dr. Reza Maalek, GOLDBECK endowed Professor and Chair of Digital Engineering in Construction, Karlsruhe Institute of Technology, Germany
- 11) **Construction Applications and Technologies: Insights from a Major Robotics Company**  
Alois Buchstab, Vice President Business Development & Acceleration, Kuka Deutschland GmbH
- 12) **Tor Alva and the Future of Building: Innovations in Digital Fabrication and Computational Design**  
Prof. Dr. Benjamin Dillenburger, ETH Zürich, Switzerland & Prof. Dr. Ming Shan (Charmain) Ng, Kyoto Institute of Technology, Japan
- 13) **Practice Report Robotics – Integrative Construction Site Processes and Lessons Learned from On-Site Deployment**  
Karina Breitwieser, Institute of Construction Management and Construction Economics, TU Wien & Jörg Reinold, SVP New Business & Ventures, Wienerberger AG

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Coffee Break (14:30 – 14:45 CET)

**SESSION 4 | Implementation & Innovation Pathways** (14:45 – 16:00 CET)

Focus: Real-world deployment, technology transfer, and autonomous solutions.

- 14) **From Research to Industry: PERI Genio – Robotic Scaffolding Assembly**  
Peter Rübel, Business Unit Scaffolding, PERI SE & Prof. Dr. Christian Schlette, Head of Center for Large Structure Production, SDU, Denmark
- 15) **Automating the Building Block: Additive Prefabrication for Robotic Construction – From material efficiency to robotic compatibility**  
Bruno Knychalla, Founder Additive Tectonics GmbH, Germany
- 16) **Practical Case Study: Highly Autonomous Construction Robots and the Success Story of Weibuild**  
Dr. Frank Mao Jiazhen, Construction Robotics, CTO and Co-Founder, Weibuild, China



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### 17) Lessons from Other Industries: What Construction Robotics Can Learn from Aerospace and Beyond

Dr. Scott Howe, Robotics Engineer, NASA Jet Propulsion Laboratory (retired), California/US

**Summary & Closing** (16:00 – 16:30 CET)

### 18) Summary of Learnings and Future Use Cases for Scaling up Construction Robotics

Dr. Soungbo Chae & Dr. Rongbo Hu, Kajima Technical Research Institute Singapore. Kajima Corporation, Japan & Singapore

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**Optional Tour Through Building Lab & Takeaway Snacks** (16:30 – 17:00 CET)

## 02 Demo Day | Lead Topic: Demonstrating and Validating the Performance of Construction Robots

| **Time:** 21 October 2025, 09:30–12:00 CET

| **Location:** Pilot Hall, Ferdinand Tausendpfund GmbH, Bukarester Straße 1, 93055 Regensburg

| **Organizing Lead:** Florian Weininger, Rongbo Hu

**Key Note: Testing of robotic Prototypes on the Construction Site: how to make it chaotic and complicated; and how to do better**

Sascha Alexander Caran, Strabag Innovation & Digitalisation, Ed. Züblin AG

**Live demonstrations of construction robots** (for painting, plastering, concrete work, bricklaying, logistics, inspection, formwork automation, etc.) **in TRL-5-equivalent relevant environments** (e.g., walls, ceilings, construction-like terrain), **set up in the Pilot Hall.**

## 03 Workshop | Lead Topic: Demonstrating and Validating the Performance of Construction Robots

| **Time:** 21 October 2025, 13:30–15:45 CET

| **Location:** Building Lab, OTH Regensburg, Rudolf-Vogt-Str. 16, 93053 Regensburg, Germany

| **Organizing Lead:** Reza Maalek

### Pre-Workshop

- a) **Feedback Collection:** Gathering participant input via a web-based app throughout the symposium
- b) **Summary Analysis:** New LLM-based identification of key research questions from feedback

### Workshop

- c) **Live Polling** (13:30–13:45 CET): Determining priority research questions through live participant voting
- d) **Grouping** (13:45–14:00 CET): Dividing participants into breakout groups
- e) **Ideation and Brainstorming** (14:00 – 15:00 CET): Systematic generation of solutions by participants addressing selected priority research questions

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**Coffee Break** (15:00 – 15:30 CET): Participant coffee-break, while analysis of findings by LLM tool concludes

- f) **Group Presentation** (15:30 – 16:00 CET): Presentation of group findings with support from LLM
- g) **Wrap-up Session** (16:00 – 16:30 CET): Final remarks, definition of scope, additional insights, and next steps for possible proposal development