

The background image shows a robotic arm with a grey and yellow end effector working on a construction site. It is assembling light-colored wooden panels, possibly oriented strand board (OSB), into a wall structure. The robot's arm is grey, and its gripper is yellow and grey. The scene is outdoors with a gravel ground and some other construction elements in the background.

# Proceedings of the 42<sup>nd</sup> International Symposium on Automation and Robotics in Construction

Montreal, Canada, July 28-31, 2025

# Proceedings of the 42<sup>th</sup> International Symposium on Automation and Robotics in Construction

ISSN (for the proceedings series): 2413-5844

ISBN (for this issue of the proceeding series): 978-0-6458322-2-8.

The proceeding series is Scopus indexed.

**Scopus®**

All papers are available in the IAARC Website and presentations in the IAARC YouTube Channel



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Building Construction Operations Developed by the Automation and Intelligent  
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# Foreword

The International Association for Automation and Robotics in Construction (IAARC) and the Local Organizing Committee are pleased to present the Proceedings of the 42nd International Symposium on Automation and Robotics in Construction (ISARC 2025). This year's symposium draws inspiration from the vibrant spirit and cultural diversity of its host city—Montreal, an international hub of innovation and creativity. ISARC 2025 was held from July 28–31, 2025, proudly hosted by Concordia University.

The 42<sup>nd</sup> edition of ISARC demonstrated continued growth, with remarkable participation: a total of 272 papers were submitted, marking a 24% increase from the previous year. After a rigorous multi-step peer-review process, including a rebuttal phase, 211 papers (78% acceptance rate) were ultimately selected and included in the proceedings. In total, 1038 authors and co-authors representing 123 universities, research labs, departments, and companies from 27 countries/regions across Asia, Eurasia, the Middle East, North America, Oceania, South America, and Western Europe submitted their work.

The review process was strongly supported by an expanded and diverse group of 32 Area Chairs, representing institutions across various continents, including previously underrepresented regions such as South America and Oceania. Area Chairs actively coordinated the review efforts, providing critical insights across the eight technical areas of interest within IAARC, including "Decarbonizing the Construction Industry," a theme proposed by the Local Organizers. A total of 258 reviewers participated, providing 590 comprehensive reviews. Each submission received at least two reviews, with 77% of papers receiving two reviews, 22% receiving three reviews, and 1% undergoing four reviews.

Building upon the successful innovations introduced by the Technical Committees of previous years, this year's Technical Committee solidified and integrated these advancements into ISARC's curation process. The review procedure included pre-screening, two rounds of formal reviews, and a rebuttal phase, which have become fundamental elements within the ISARC review framework. This rigorous process was further structured and rubricated this year by enhanced guidance provided to Area Chairs and reviewers, including streamlined guideline documents, step-by-step cue cards, short instructional videos, systemized regular communication among editorial board members, and a tailored submission system.

The ISARC 2025 symposium featured three keynote presentations, eight plenary sessions, and 200 parallel and poster sessions. We hope you find this year's proceedings engaging and the included papers insightful and inspiring. Enjoy your reading!

Jiansong Zhang  
Qian Chen  
Gaang Lee  
Vicente A. Gonzalez  
Vineet R. Kamat

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