



Data Papers in Civil Engineering: Requirements, Preparation, and Best Practices

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Bio



Dr. Yong Kwon Cho is a Professor in the School of Civil and Environmental Engineering at Georgia Institute of Technology, where he directs the Robotics and Intelligent Construction Automation Lab (RICAL) and holds a core faculty position at the Institute for Robotics and Intelligent Machines. He earned his Ph.D. from the University of Texas at Austin (2000) and previously held faculty positions at the University of Nebraska–Lincoln and University of Wisconsin–Platteville. His research spans construction automation, robotics, and computing for sustainable environments, emphasizing SLAM-based robot navigation, human–robot interaction, IoT-based worker safety and productivity monitoring, and edge computing for work-zone safety. With over 25 years of experience, he is a recipient of the NSF CAREER Award (2011), the 2024 ASCE Computing in Civil Engineering Award, and the IAARC Tucker–Hasegawa Award. He serves as Co-Editor-in-Chief of the ASCE Journal of Computing in Civil Engineering and Vice President of the International Association for Automation and Robotics in Construction (IAARC).

Abstract

As data-driven research becomes increasingly important in civil engineering, many researchers recognize the value of sharing datasets but remain uncertain about what qualifies as a publishable Data Paper. Misunderstandings often arise regarding the purpose, scope, and requirements of Data Papers, particularly in distinguishing them from traditional research articles or supplementary dataset uploads. This presentation clarifies the fundamental requirements of Data Papers and addresses common misconceptions surrounding their preparation and submission.

The talk will explain what constitutes a valid Data Paper contribution, emphasizing that the focus is not on presenting new analytical findings, but on providing well-documented, validated, and reusable datasets that support future research. The presentation will also guide authors through the full preparation process, highlighting essential components such as dataset description, acquisition methodology, annotation procedures, quality control, and data accessibility. Examples of frequent submission mistakes will be examined to help researchers avoid common pitfalls and better align manuscripts with editorial and peer-review expectations. By improving understanding of Data Paper standards, this presentation aims to help researchers prepare stronger submissions and contribute to a more transparent, reproducible, and collaborative civil engineering data ecosystem.