



# Intelligent Force Printing

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- Explore the forefront of architectural design with this book, which delves into the revolutionary world of 3D robotic concrete printing, showcasing the latest advancements in structural prototypes
- Gain a comprehensive understanding of additive manufacturing techniques, with a specific emphasis on enhancing large-scale concrete 3D printing technology, providing valuable knowledge for professionals and enthusiasts alike
- Uncover the secrets of digital design through the lens of three-dimensional graphic statics, bidirectional evolutionary structural optimization, and FURobot robotic manufacturing, empowering readers to master advanced fabrication techniques
- Witness the tangible results of the studio's efforts as they present an experimental large-scale pavilion, providing a real-world example of how these innovative technologies can be applied in architectural construction
- Inspiration for Future Projects: Tap into the book's insights to inspire your own architectural projects, leveraging the knowledge and techniques presented to stay at the forefront of the industry

This book delves into the forefront of architectural innovation by exploring the potential applications of 3D robotic concrete printing as structural prototypes. With a focus on intelligent computational design, RMIT studio aims to revolutionise additive manufacturing techniques, particularly within the realm of large-scale concrete 3D printing. Through the utilisation of digital design and cutting-edge fabrication methods, including three-dimensional graphic statics, bidirectional evolutionary structural optimisation, and FURobot robotic manufacturing, students undergo a transformative journey, refining their design thinking, methodologies, and construction skills.

As a tangible outcome, the studio presents an experimental large-scale pavilion, serving as a testament to the practical implications of their research. This volume, published to accompany the *Intelligent Force Printing* exhibition at Melbourne Design Week 2024, encapsulates the studio's findings, delving into both the aesthetic forms shaped by emerging design philosophies and the potential future applications of 3D articulate printing technology within the construction industry.

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