

Arch_Manu ITTC Press Release

February 14, 2024

ARC Centre for Next-Gen Architectural Manufacturing has commenced

Australia's foremost Architecture, Design, and Engineering (ADE) practices and professional bodies have come together to establish the ARC Centre for Next-Gen Architectural Manufacturing (Arch_Manu ITTC). Funded by the Australian Research Council, Arch_Manu ITTC will identify when and how digital strategies can deliver new solutions, services, or modes of operation that can fundamentally change the way buildings are designed and produced, while also seeking net-positive solutions. Our work is guided by six priorities: to reduce the (1) material consumption, (2) waste production, and (3) carbon emission of the Architecture, Engineering, and Construction (AEC) sector while enabling projects to be delivered (4) on time, (5) within budget, and (6) for the benefit of the community.

Research and training within Arch_Manu ITTC acknowledges that we must build emission free for a growing population, using less resources than we currently do.

Over the next 5 years, aim to transform the national ADE professions to meet Australia's immediate strategic needs in terms of productivity and climate goals. Conceived of as a partnership between academia and industry, we triangulate world-leading researchers, visionary practitioners, and talented graduates to integrate state-of-the-art research into practice. Our program of 25 industry-embedded PhDs, national and international placements, short courses, and postdoctoral projects is guided by a digital sustainability framework and will grow knowledge, skills, and capacity within the AEC sector, while delivering novel design tools and workflows.

Arch_Manu ITTC is hosted out of UNSW Sydney, with nodes located at Swinburne University of Technology in Melbourne and the University of Adelaide. We are fortunate to be partnered with:

- Local and international industry leaders (Architectus; Bollinger + Grohmann; Cox Architecture; Grimshaw Architects; Tzannes Associates);
- Key professional bodies (Australian Institute of Architects; Association of Consulting Architects Australia; Architects Accreditation Council of Australia; and NSW Architects Registration Board);
- International academics and research groups (UCL Bartlett, London; Centre for Information Technology and Architecture at the Royal Danish Academy of Fine Arts, Copenhagen; and Institute of Advanced Architecture Catalonia, Barcelona).

The integrated, post-disciplinary, and innovative training framework of the ARC Centre for Next-Gen Architectural Manufacturing is designed to bridge current gaps in knowledge and practice through three key connected research and training themes:

1. Synthesis of creative operational processes and practices in design.
2. Management of business processes and commercial models.
3. Analytics unlocking the potential of historic project data.

As of 14th February 2024, all contracts have been executed and Arch_Manu ITTC has officially commenced, to be funded until 13th February 2029.

For more information, please contact Arch_Manu ITTC director A/Prof M. Hank Haeusler on email: m.haeusler@unsw.edu.au or mobile +61 417 117 281.