

# RESEARCH PROGRAMS

## INNOVATION IN DESIGN AND MANUFACTURING



Enable designing and manufacturing of affordable mass-customised prefabricated housing using automated manufacturing platforms

## ADVANCED BUILDING SYSTEMS AND ASSEMBLY



Enable technological advancements in modular building system and assembly by developing new conceptual systems and assembly taking into account the multi-functional requirements

## NOVEL MATERIALS AND COMPOSITE/HYBRID SYSTEMS



Developing light-weight high strength multi-graded composite materials & elements and hybrid components

## SUPPLY CHAIN AND FINANCING INNOVATION



Mapping new supply chains and creating new financing models for prefabricated building sector with the engagement of financial institutions

## PEOPLE



Centre Director  
Prof. Priyan Mendis

✉ [pamendis@unimelb.edu.au](mailto:pamendis@unimelb.edu.au)

Research Director

Prof. Tuan Ngo

✉ [dtngo@unimelb.edu.au](mailto:dtngo@unimelb.edu.au)

Centre Manager

Dr. Shanaka Kristombu Baduge

✉ [kasun.kristombu@unimelb.edu.au](mailto:kasun.kristombu@unimelb.edu.au)



## CONTACT US



ARC Centre for Advanced Manufacturing of Prefabricated Housing CAMP.H  
The University of Melbourne  
333 Level 2, Exhibition Street  
Melbourne, VIC 3000 Australia



[camph-centre@unimelb.edu.au](mailto:camph-centre@unimelb.edu.au)



[camph.eng.unimelb.edu.au](http://camph.eng.unimelb.edu.au)



# ARC CENTRE FOR ADVANCED MANUFACTURING OF PREFABRICATED HOUSING

Unlocking the potential growth of  
Australia's prefabricated building industry



# ARC CAMP.H

## UNLOCKING THE POTENTIAL GROWTH OF AUSTRALIA'S PREFABRICATED BUILDING INDUSTRY

Driven by industry, the ARC Training Centre for Advanced Manufacturing of Prefabricated Housing (CAMP.H) is the centrepiece for collaborative, eco-friendly, prefabricated housing research in Australia, striving to deliver breakthrough product and process innovations that will enable the Australian housing industry to compete on a global stage. The centre aims to unlock the potential growth of Australia's prefabricated building industry by creating a co-operative training system between industry and universities leading to local employment growth; and increased exports of prefabricated products and services.

The Centre brings together a highly collaborative venture involving four universities and twelve industry partners. The four research programs being run in the Centre are:

1. Innovation in design and enhancement of end-user experience
2. Developing advanced building systems and assembly techniques
3. Creating novel materials and composite structures
4. Supply chain and financing models

This initiative is a testament to the critical importance of this industry in Australia and demonstrates the value that both industry and government place in collaborative, cross-disciplinary research. The Centre will, in partnership with industry, prepare the next generation of industry professionals and researchers, develop materials and systems, and design thinking that will transform the construction industry towards an advanced manufacturing future.



## VISION

To create a training pipeline that enables rapid growth of the emerging prefabricated manufacturing industry to deliver affordable and high-quality housing through innovation and streamlining of the supply chain

## MISSION

To inspire and lead the transformation of societies through the provision of affordable and high-quality housing



## CAPABILITIES



Structural Testing



Structural Modelling, Analysis and Optimization



Non-destructive Testing



Acoustic, Thermal and Indoor Environment Quality (IEQ)



Fire Performance of Prefabricated Structures



Life Cycle Assessment of Prefab Building



Energy Performance and Simulation

