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Research Papers



Future-Proofing Property Education: Integrating Emerging Technologies to Meet Industry Expectations



Building trust: Exploring AI and ethical practices in the property profession



Industry-ready property graduates - A critical skills pulse check for Australian Universities



Future Workforce for the Property Industry: Are We Ready for the Change?



Ethnic Diversity and Housing Market Resilience after Natural Disasters in Australia



Towards more inclusive equality and diversity for the Australian valuation industry



Valuation @ Risk



Urban densification through private land assembling in inner and middle suburbs for decentralised BTR development

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Big Visual Data Analysis using Artificial Intelligence for Mass Valuation of Residential Properties in Australia



Black Swan Events, Quantitative Easing, and the Australian Housing Market



Towards understanding the dynamics of the Regional Property markets of Australia

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Research Paper

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Final Report Prepared For

Australian Property Research and Education Fund (APREF)

By

Professor Chyi Lin Lee

Dr Sharon Yam

Associate Professor Connie Susilawati

Jason Zheng



UNSW SYDNEY

WESTERN SYDNEY UNIVERSITY

QUT Queensland University of Technology

28th August 2026

APREF

Australian Property Research and Education Fund

Key Highlights

- **The Starting Point:** In early 2025, only 37% of Australian and 35% of international property programmes explicitly included AI or PropTech. This shows AI integration in property education was still at an early stage worldwide.
- **What Is Being Taught:** Programmes mainly teach established tools such as GIS, BIM, automated valuation models and data analytics. AI, machine learning, blockchain and digital twins are usually covered in theory rather than in practice.
- **What Industry Expects:** Employers want AI literacy, not programming skills. Graduates need to interpret data, check AI outputs, understand their limits and apply professional judgement.
- **The Barriers:** Programme leaders report limited room in the curriculum, low staff confidence in teaching AI, fast-changing technology and differences in where property programmes sit within universities.
- **The Way Forward:** The report recommends building academic capability, embedding AI literacy across existing subjects, clarifying assessment rules, working more closely with professional bodies and continuing to prioritise soft skills.

Link to full research paper - Click Here

APREF

Australian Property Research and Education Fund

Author Profiles



Professor Chyi Lin Lee

Director of Construction Management and Property, UNSW

Professor Chyi Lin Lee is currently the Discipline Director of Construction Management and Property at the University of New South Wales. His expertise lies in property and housing research, with a focus on property investment.

Dr Sharon Yam



Academic Program Advisor, Property Undergraduate and Postgraduate, Economics, Finance & Property Senior Lecturer, Economics, Finance & Property, WSU

Sharon joined academia after completing her PhD in 2007. Her teaching interests include property valuation, property development and property management; and her primary research areas centre on higher education, corporate social responsibility and housing.



Associate Professor Connie Susilawati

School of Economics and Finance, QUT

Associate Professor Connie Susilawati is an expert in property economics at Queensland University of Technology (QUT). Her research focuses on sustainable property, human settlement, and infrastructure in both Australia and developing countries.

Jason Zheng



Doctoral Researcher, School of Built Environment, UNSW Sydney

Jason Zheng is a doctoral researcher at UNSW Sydney's School of Built Environment and a CFA charterholder. His research focuses on real estate finance, sustainability, and the role of market sentiment in shaping corporate ESG performance and investment outcomes.

APREF

Australian Property Research and Education Fund

Research Paper

Building trust: Exploring AI and ethical practices in the property profession

Final Report Prepared For

Australian Property Research and Education Fund (APREF)

By

Dr. Xiufang (Leah) Li

Dr Woon-Weng Wong

Jane Wyndham

Brendon Wood

RMIT UNIVERSITY



2026

APREF

Australian Property Research and Education Fund

Key Highlights

- **The Baseline Expectation:** Professional credibility in the property sector rests fundamentally on public trust, data integrity, and expert professional judgment, meaning the integration of AI must reinforce, rather than dilute, professional accountability and transparency.
- **Where the Industry Stands:** AI is transitioning rapidly from experimental tools to operational assets, showing strong uptake and productivity gains in routine property management workflows, while remaining heavily restricted to cautious, low-risk Automated Valuation Models (AVMs) in the valuation sector.
- **The Governance Gap:** A critical disconnect exists between rapid technology adoption and the availability of sector-specific guidance, forcing practitioners to rely on general-purpose third-party tools and individual judgment, which exposes the industry to critical risks regarding transparency, data privacy, and algorithmic bias.
- **The Institutional Remedy:** To transition to structured governance, the industry must implement the Four-Pillar Ethical AI Adoption Framework, which establishes operational rules for property-specific guidelines, safe AI governance requirements, professional education standards, and proactive workforce adaptation.
- **A Shared Responsibility:** Successfully navigating this workforce evolution while protecting consumer confidence is a collective obligation requiring continuous, cross-sector collaboration between property firms, regulators, universities, and professional bodies to balance technological innovation with ultimate human accountability.

Link to full research paper - Click Here

APREF

Australian Property Research and Education Fund

Author Profiles



Dr. Xiufang (Leah) Li

Senior Lecturer - Communication and Digital Media, RMIT University

Dr. Xiufang (Leah) Li's research focuses on public relations, digital communication and stakeholder engagement, with publications in leading international journals and recognition through major academic and industry awards. She has extensive international experience in research, teaching and PhD supervision, and actively contributes to professional and academic communities through editorial and advisory roles.

Dr Woon-Weng Wong

Senior Lecturer - School of Property, Construction and Project Management, RMIT University



Dr Woon-Weng Wong's expertise includes Australian property market performance, government policy and economic modelling, with over 20 peer-reviewed publications. He has supervised four PhD completions, serves as an academic referee across economics, finance and property journals, and is regularly featured in property media.



Jane Wyndham

Chief Growth & Client Experience Officer, M3 Property

With over 20 years' experience across the property, education, health and legal sectors, Jane Wyndham leads M3 Property's national marketing strategy, growth initiatives and client experience. A Certified Practising Marketer, Jane is recognised for her client-focused approach and her role in strengthening M3 Property's brand and strategic market position.

Brendon Wood

Property Research Analyst, M3 Property



Brendon Wood is a Property Research Analyst at M3 Property, where he provides research and data analysis across residential, commercial and industrial property sectors to support valuation and advisory teams. He has more than 20 years' experience in property research and analysis, with specialist expertise in commercial occupier markets, market reporting and data-driven insights.

APREF

Australian Property Research and Education Fund

Research Paper

Industry-ready property graduates - A critical skills pulse check for Australian Universities

Final Report Prepared For

Australian Property Research and Education Fund (APREF)

By

Associate Professor Amity James

Dr Adam Crowe

Professor Steven Rowley

Ms Andrea Constable

Dr Gesa Ruge

Dr Adrienne Traill

Curtin University



2026

APREF

Australian Property Research and Education Fund

Key Highlights

- Industry-ready property graduates in Australia should possess a broad understanding of the property industry and an appropriate level of discipline knowledge. They also require technical expertise, analytical competencies and interpersonal skills that will enable them to integrate effectively into the workplace.
- Recent property graduates of undergraduate tertiary courses are largely meeting the expectations of the property industry. They have technical expertise and analytical competencies which largely exceed expectations of industry and discipline specific knowledge which meets industry requirements.
- However, recent graduates are not demonstrating, at the expected level, interpersonal skills such as professionalism, networking, working as part of a team or written/oral communication skills.
- A key role of Australian tertiary institutions is to connect students with industry through guest lectures, mentorship programs, internships and networking events to provide opportunities to enhance interpersonal skills through practical experience.
- The development of industry-ready graduates is a shared responsibility between tertiary educators, industry and industry bodies.
- However, recent graduates are not demonstrating, at the expected level, interpersonal skills such as professionalism, networking, working as part of a team or written/oral communication skills.

Link to full research paper - Click Here

APREF

Australian Property Research and Education Fund

Author Profiles



Dr Amity James

Associate Professor, Curtin University

Amity is an experienced housing researcher with interests in housing and ageing, housing aspirations and housing affordability. She has expertise in qualitative research methods and a focus on including the voices of those with lived experience into her work.

Dr Adam Crowe



Senior Lecturer, Curtin University

Dr Adam Crowe is a Research Fellow at Curtin University's Centre of the Australian Housing and Urban Research Institute (AHURI). His research explores the evolving landscape of cities, driven by concerns about urban inequality, climate vulnerability and inadequate housing outcomes. His recent projects have explored housing options for people with disability, the housing affordability-quality-location nexus, and Housing First models for people experiencing homelessness.



Professor Steven Rowley

John Curtin Distinguished Professor, Curtin University

Steven Rowley has been director of the Australian Housing Urban Research Institute's (AHURI) Curtin research centre since 2011 and is a member (and past chair) of the WA Housing Industry Forecasting Group (HIFG). His primary research focus is housing affordability and housing supply and Steven has delivered numerous seminars for industry on these and related topics.

APREF

Australian Property Research and Education Fund

Author Profiles

Ms Andrea Constable



Senior Lecturer - School of Accounting, Economics and Finance, Curtin University

Since commencing at Curtin in 2010 Andrea has taught undergraduate and postgraduate units specific to the valuation program as well as construction units within the School of Economics and Finance.



Dr Gesa Ruge

Senior Lecturer, Curtin University

Dr Gesa Ruge is a practice focused researcher and educator with over 25 years of management expertise in industry across built environment sectors. Her research on sustainable development in construction management supports closer engagement between industry and government.

Dr Adrienne Traill



Teaching Assistant - School of Accounting, Economics and Finance, Curtin University

Area of interest and focus of current doctoral research is retirement planning by marginalised societal groups.

APREF

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Research Paper

Future Workforce for the Property Industry: Are We Ready for the Change?

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Dr Andrea Blake

UNSW SYDNEY

WESTERN SYDNEY UNIVERSITY

QUT Queensland University of Technology

Date: 9th May 2024

APREF

Australian Property Research and Education Fund

Key Highlights

- Property Industry 4.0 signifies a profound shift in the workforce driven by digitalisation, automation, the use of big data, and AI. Automation in property valuation and the integration of smart building technology applications are reshaping the industry, necessitating a new skill set for professionals to navigate this digital transformation. Universities should take the lead in equipping students with these, supported by professional bodies and the property industry. Additionally, Continuing Professional Development (CPD) programs offered by professional bodies can provide ongoing training for industry professionals, further promoting these skills in the property sector.

- Sustainability has become central in the property industry, aligning with global calls for ethical business practices. The increasing significance of ESG principles highlights the property industry's commitment to environmental consciousness and robust governance standards, for instance, the increasing influence of ESG on urban development. Collaboration is vital to integrate ESG principles into curricula, fostering a socially responsible workforce. However, universities and educational institutions are well-positioned to take the lead in this initiative.

- Property markets are extending beyond national borders, drawing foreign investments and prompting the need for a unified global regulatory framework. Establishing standardised regulations is essential to ensure transparent and trustworthy cross-border transactions. However, recognising and respecting local practices is crucial for global companies, emphasising the need to balance international standards and local values. Property bodies such as API and other global corporations should actively participate in these discussions, offering insights into market dynamics, best practices, and the real-world implications of regulatory changes.

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Australian Property Research and Education Fund

Key Highlights

- The COVID-19 pandemic, in part, has contributed to a perceived decline in graduates' soft skills, particularly communication. Universities and educational institutions play a central role in curriculum design and delivery, making them natural leaders in implementing initiatives such as group work, presentations, and internship programs to enhance students' soft skills, whilst collaborative support from industry professionals and professional organisations is also required. Furthermore, proactive adaptation and continuous learning are imperative for the property industry, as rising to challenges presents opportunities for growth, innovation, and collaboration. Embracing change, fostering a learning culture, and prioritising sustainability is essential for cultivating a resilient and future-ready property workforce. Professional bodies can play a greater role in providing continuous learning (e.g., CPD programs) targeted to property professionals.

- There is an urgent need to integrate AI content into university curricula to prepare future professionals. Graduates must be equipped with technical skills and the ability to apply AI in the property context, emphasising the practical application of artificial intelligence in the industry and advocating for industry certification, such as an API Certified Property Data Analyst. Industry standards and certification play a crucial role in ensuring the ethical use of AI in the property industry, emphasising the importance of API's certification in the property sector. Furthermore, professional bodies such as API may play a greater role in regulating the adoption of AI in the property industry.

Link to full research paper - Click Here

APREF

Australian Property Research and Education Fund

Author Profiles



Professor Chyi Lin Lee

Director of Construction Management and Property, UNSW

Professor Chyi Lin Lee is currently the Discipline Director of Construction Management and Property at the University of New South Wales. His expertise lies in property and housing research, with a focus on property investment.

Dr Sharon Yam



Academic Program Advisor, Property Undergraduate and Postgraduate, Economics, Finance & Property Senior Lecturer, Economics, Finance & Property, WSU

Sharon joined academia after completing her PhD in 2007. Her teaching interests include property valuation, property development and property management; and her primary research areas centre on higher education, corporate social responsibility and housing.



Associate Professor Connie Susilawati

School of Economics and Finance, QUT

Associate Professor Connie Susilawati is an expert in property economics at Queensland University of Technology (QUT). Her research focuses on sustainable property, human settlement, and infrastructure in both Australia and developing countries.

Dr Andrea Blake



Senior Lecturer, Faculty of Business and Law, QUT

Andrea Blake has over 15 years experience as an academic with the Queensland University of Technology and is currently a senior lecturer in property economics. During this period Andrea has published papers and spoken at international academic conferences on topics including property rights, valuation liability and practice, and property education. Andrea's PhD is in carbon sequestration and the impact on rural land and valuation practice.

APREF

Australian Property Research and Education Fund

Research Paper

Ethnic Diversity and Housing Market Resilience after Natural Disasters in Australia

Final Report Prepared For

Australian Property Research and Education Fund (APREF)

By

Associate Professor Qiang Li

Dr Ameeta Jain

DEAKIN UNIVERSITY



2023

APREF

Australian Property Research and Education Fund

Key Highlights

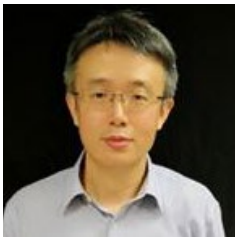
- Natural disasters such as floods, droughts, storms, cyclones, and bushfires which have plagued Australia repeatedly have widespread consequences on the livelihood and wellbeing of not just the people living in disaster-prone areas but also the entire country.
- The researchers collated a database linking events of natural disasters, housing market performance, and demographic characteristics of Australian local government areas (LGAs). They comprehensively analysed the impact of natural disasters on local (LGA) housing market performance from 2009 to 2021.
- The researchers proposed an empirical definition of housing market resilience as dampened initial response to natural disasters and economic shocks, and fast recovery after disasters to the pre-disaster levels. The degree of housing market resilience differs by disaster type and across regional and metropolitan areas.
- The study found that ethnically diverse LGAs initially experienced smaller negative changes in house price and liquidity in natural disasters.
- The researchers found that ethnically diverse LGAs in major metropolitan areas experience faster and stronger recovery in most cases. The findings vary by disaster type, metrics of ethnic diversity used, and housing market indicators.

Link to full research paper - Click Here

APREF

Australian Property Research and Education Fund

Author Profiles



Associate Professor Qiang Li

Department of Finance, Deakin University

Qiang Li is an Associate Professor in the Department of Finance at Deakin Business School. His research and teaching fields are real estate finance and economics, urban economics, and urban policy and planning.

He has published papers in Journal of Urban Economics, Regional Science and Urban Economics, Real Estate Economics, and Journal of Housing Economics, among others. His current research interests include ethnic diversity and urban housing markets, the economics of skyscrapers, and housing cycles.

Associate Professor Dr Ameeta Jain

Department of Finance, Deakin University



Dr Ameeta Jain is an Associate Professor in Property & Real Estate in the Department of Finance at the Deakin Business School. She has more than 15 years of teaching experience in Economics, Property and Finance units and has led unit teams in the development and enhancement of various units.

Ameeta has produced several reports focussing on Sustainable cities (Sustainable Development Goal 11) which have been highly regarded by industry and government stakeholders. She has published in highly ranked international peer-reviewed journals and is regularly invited by media on various occasions to discuss her research on current trends in property market.

APREF

Australian Property Research and Education Fund

Research Paper

Towards more inclusive equality and diversity for the Australian valuation industry

Final Report Prepared For

Australian Property Research and Education Fund (APREF)

By

Dr Dulani Halvitigala

Dr Judith Callanan

Associate Professor Rebecca Leshinsky



RMIT UNIVERSITY

2023

APREF

Australian Property Research and Education Fund

Key Highlights

- The Australian property industry is moving towards more gender diversity and inclusivity of minority group representation.
- At present, the valuation profession is not aligned with this trend, and continues to be male dominated, less diverse and is at high risk of losing valuers when, over the next ten years, many established valuers are set to retire.
- Longstanding socio-cultural perceptions (prejudicial views about women's abilities and their place in the industry), internal structural issues and family commitments are the three main obstacles to achieving gender diversity in the Australian valuation industry.
- Despite the increased awareness and the initiatives over the years, the valuation profession remains a relatively unknown career option for school leavers.
- A collaborative approach must be taken between professional bodies, industry, and educators to ensure that the valuation profession is marketed to high school leavers as a profession offering successful career pathways for a gender diverse and inclusive cohort of graduates.
- A collaborative approach must be taken between industry, professional bodies, and educators to ensure that the valuation profession offers mentoring into senior roles to ensure the future managers in the valuation industry understand cultural diversity and include cohorts from diverse backgrounds.
- There is scope for ongoing research and practical strategies to ensure the valuation profession has a robust stream of new recruits that are diverse, inclusive and gender balanced.

Link to full research paper - Click Here

APREF

Australian Property Research and Education Fund

Author Profiles



Dr Dulani Halvitigala

Property School of PCPM, RMIT

Dr. Dulani Halvitigala is a researcher affiliated with RMIT University, focusing on property and real estate. She is involved in projects related to bushfire adaptation, supported by Natural Hazards Research Australia. Her work includes developing integrated solutions for bushfire-resilient homes.

Dr Judith Callanan

Property School of PCPM, RMIT



Associate Professor Judith Callanan is the Associate Dean for the Property & Valuation programs within the School of Property, Construction & Project Management.

Judith joined RMIT after working for fifteen years within the Property industry in senior management roles incorporating property development and property asset management of large portfolios including airports.



Associate Professor Rebecca Leshinsky

Property School of PCPM, RMIT

Dr Rebecca Leshinsky is a property and urban planning barrister and Associate Professor in the School of Property, Planning and Project Management.

The research of Associate Professor Rebecca Leshinsky (PhD) is centered around property restitution and dispute resolution, condominium living and dispute resolution, as well as how advanced technologies intersect with property interests. This includes blockchain, fractionalization and tokenization of property interests and the impact such technologies have on property administration and registration.

APREF

Australian Property Research and Education Fund

Research Paper

Valuation @ Risk

Final Report Prepared For

Australian Property Research and Education Fund (APREF)

By

Associate Professor Georgia Warren-Myers

Associate Professor Lucy Cradduck

QUT Queensland University of Technology



2022

APREF

Australian Property Research and Education Fund

Key Highlights

- Valuers are considered in their approaches to undertaking valuations and the treatment of risk, and do so in a property-specific manner.
- Valuers are only able to engage with existing information and data about risks, including those specifically relevant to climate change.
- Valuers, and the property industry more broadly, understand the impacts of physical climate-related events, such as flooding and bushfires, but engage with these primarily in the context of past events and planning related information and mapping.
- Valuers and the property industry would benefit from better knowledge, and guidance, about the future impacts of climate change related risks and how this may affect extant climate-related risks.
- Valuers require more specific guidance as to how to incorporate a consideration of the future impacts of climate change into current valuation processes.

Link to full research paper - Click Here

APREF

Australian Property Research and Education Fund

Author Profiles



Associate Professor Georgia Warren-Myers

Head of ESG Risk, Asia Pacific - JLL

Georgia Warren-Myers is an Associate Professor at the University of Melbourne's Faculty of Architecture, Building and Planning. Her research focuses on sustainability and resilience within valuation, urban development, investment, and construction. She also serves as the Head of ESG Risk for JLL Asia Pacific, specializing in environmental, social, and governance aspects. With a background as a Certified Practising Valuer, she integrates expertise across these fields. Warren-Myers' contributions include publications exploring sustainability's impact on real estate valuation.

Associate Professor Lucy Cradduck

Faculty of Business & Law, School of Law, QUT



Lucy Cradduck is an Associate Professor at Queensland University of Technology (QUT). Her research focuses on property law and the development of broadband/internet access policies. She has been with QUT since 2012 and is actively involved in academic research and development. Lucy is also known for her engagement as a Moot Coach and her interests extend to law and technology policies.

APREF

Australian Property Research and Education Fund

Research Paper

Urban densification through private land assembling in inner and middle suburbs for decentralised BTR development

By

Dr Jyoti Shukla

Dr Piyush Tiwari

Dr Djordje Stojanovic

THE UNIVERSITY OF MELBOURNE



2022

APREF

Australian Property Research and Education Fund

Key Highlights

- The financial feasibility of a BTR project is highly sensitive to the size of units. Better design to improve building efficiency and density of development can improve viability.
- Land cost reduction and land (ground) lease can also be used as strategies for improving financial feasibility. Ways to reduce land cost could be through zoning land for BTR use or through mechanisms such as joint venture with landowners. There is a case to use land lease structure in BTR projects by involving public and private landowners.
- For a BTR project with affordable housing component, the biggest gain in the number of affordable units in the project is achieved with land leasing or land cost reduction strategies followed by treatment of GST liability like BTS developers.
- Among the options for land assembly for BTR projects, land lease models improve the feasibility without impacting the attractiveness of a BTR project to end-users (as users do not aim for ownership). Other methods that encourage land assembly such as land trust model, special zoning for BTR and the use of air rights should also be encouraged through market and planning mechanisms.
- For a BTR project to become viable, the following are necessary: buoyant housing market conditions, conducive user characteristics, conducive investors' characteristics, housing demand and supply conditions in the suburb, planning and zoning regulations applicable on the site, and facilitating tax environment.

Link to full research paper - Click Here

APREF

Australian Property Research and Education Fund

Author Profiles



Dr Jyoti Shukla

Lecturer in Property, The University of Melbourne

Jyoti is an international researcher and has worked on a wide range of issues spreading across Australia, India, Japan, and the United Kingdom. Previously Jyoti has worked at the RICS School of Built Environment (Noida, India) as Assistant Professor and have also been involved as Assistant Manager (Urban Planning department) with a large-scale urban development project, the GIFT city (Gujarat, India).

Professor Piyush Tiwari

Professor in Property, The University of Melbourne



Dr. Piyush Tiwari is a Professor of Property at the University of Melbourne, Australia. Previously, he served as Director of Policy at Infrastructure. He holds expertise in property and real estate, contributing significantly to academic research and policy .



Dr Djordje Stojanovic

Senior Lecturer in Architectural Design, The University of Melbourne

Dr. Djordje Stojanovic is a Senior Lecturer at the University of Melbourne, specializing in Architectural Design within the Faculty of Architecture, Building and Planning [1]. His expertise integrates practical knowledge with architectural design principles, emphasizing sustainability and economic factors [6]. He is recognized for his contributions to understanding Activity-Based Working environments [5].

APREF

Australian Property Research and Education Fund

Research Paper

Big Visual Data Analysis using Artificial Intelligence for Mass Valuation of Residential Properties in Australia

By

Associate Professor Viet-Ngu Hoang

Dr Kien Thanh Nguyen

Dr Andrea Blake

QUT Queensland University of Technology



2022

APREF

Australian Property Research and Education Fund

Key Highlights

- Convolutional Neural Network (CNN) models were developed to use aerial and/or street view image data from publicly available sources such as Google or Microsoft Bing to construct visual desirability indicators that capture intangible attributes of residential houses. The fusion model incorporating a semi-log hedonic pricing (HP) model and the CNN models were estimated onto three single-year datasets covering houses located across 128 suburbs in Brisbane in three executive years from 2018 to 2020.
- The inclusion of the visual desirability indicator constructed by the CNN model using street-view images would reduce the root mean square of errors (RMSE) errors of prediction by 11 – 21 per cent, varying from year to year.
- The inclusion of the visual desirability indicator constructed by the CNN model using aerial images would reduce the root mean square of errors (RMSE) errors of prediction by 20 – 29 per cent, varying from year to year. These empirical results imply that using visual data, either aerial or street-view images, significantly enhances the predictive accuracy of HP models which are the backbone of automatic valuation models currently deployed in the Australian real estate markets.
- These results are robust in comparison to the HP baseline model which considers house attributes (e.g. bed rooms, bathroom, car spaces and land area), distances from facilities (e.g. shops, education centers, medical/hospital, and public transport stations), distance from noise sources such highways, and other attributes of the community such as crime rates, population density, and school quality.
- The CNN and fusion models developed can be deployed in an Artificial Intelligence (AI)-enabled automatic manner to provide better AVMs while further improvement is also possible.

Link to full research paper - Click Here

APREF

Australian Property Research and Education Fund

Author Profiles



Associate Professor Viet Ngu Hoang

School of Economics & Finance, QUT

Associate Professor Viet-Ngu Hoang is a Senior Applied Economist at Queensland University of Technology (QUT). His research focuses on organizational performance and the behaviors of families and individuals across different contexts and sectors. He holds a PhD from the University of Queensland and is recognized for his contributions in these fields. His work includes over 80 publications and leadership in the Social Systems Domain at QUT.

Dr Kien Thanh Nguyen



Senior Research Fellow, School of Electrical Engineering & Robotics, QUT

Dr. Kien Thanh Nguyen is an expert in computer vision and machine learning, specializing in applications such as biometrics (face and iris identification) and surveillance. He has over 10 years of experience in these fields, focusing on the development and application of advanced computer vision technologies. Currently affiliated with Queensland University of Technology (QUT), Dr. Nguyen's research interests include deep learning and its applications in various domains.



Dr Andrea Blake

Senior Lecturer, Faculty of Business and Law, QUT

Andrea Blake has over 15 years experience as an academic with the Queensland University of Technology and is currently a senior lecturer in property economics. During this period Andrea has published papers and spoken at international academic conferences on topics including property rights, valuation liability and practice, and property education. Andrea's PhD is in carbon sequestration and the impact on rural land and valuation practice.

APREF

Australian Property Research and Education Fund

Research Paper

Black Swan Events, Quantitative Easing, and the Australian Housing Market

Final Report Prepared For

Australian Property Research and Education Fund (APREF)

By

Peng Yew Wong (PhD)

Kwabena Mintah (PhD)

Woon-weng Wong (PhD)

Kingsley Tetteh Baako (PhD)



RMIT UNIVERSITY

2022

APREF

Australian Property Research and Education Fund

Key Highlights

- The Australian housing market is experiencing one of the most turbulent periods since the GFC. Due to the government's fiscal and monetary policy interventions, Australian house prices have fluctuated and resulted in some transformational shifts in the housing market dynamics, including some key determinants of the housing market.
- Black Swan Events (BSEs) are significantly negatively impactful events that affect all aspects of human life, including economic, health, and social well-being. Due to the enormous economic impact of BSEs, governments respond with fiscal and monetary policy interventions to thwart economic catastrophes during these events.
- Through a quantitative analysis of secondary data and expert interviews, the research uncovers that "lending liquidity" is an essential driver of the Australian housing market. This is despite all well-established fundamental drivers of housing markets, including migration, population, GDP, and employment, performing negatively.
- QE in combination with other fiscal policies, were solutions adopted by the Australian government to aid an ailing economy during the pandemic. Those solutions have both direct and indirect implications for the Australian housing market. Amidst frequent BSEs because of climate change, government fiscal and monetary interventions are anticipated to occur more often in the future. These policy interventions will continue to exert significant impacts on the housing market.

Link to full research paper - Click Here

APREF

Australian Property Research and Education Fund

Author Profiles



Dr Peng Yew Wong

Senior Lecturer, RMIT

Peng Yew is a lecturer in the School of Property, Construction and Project Management of the RMIT University, Australia. Prior to his academia career Peng Yew held senior corporate positions in the USA and Asia, specialising in merger & acquisition exercise and property investment.

Dr Kwabena Mintah

Senior Lecturer, RMIT

Dr Kwabena Mintah is a Lecturer in Property & Valuation in the School of Property, Construction and Project Management of RMIT University, Australia.



Dr Woon-Weng Wong

Senior Lecturer, RMIT

He specialises in property market performance in Australia, Government policy and economic modelling. He currently serves as an academic referee for various academic journals in the fields of economics, finance and property. Dr Wong also has a track record of media engagement having been interviewed for publications such as Australian Property Investor and Smart Property Investment.

Kingsley Tetteh Baako

Lecturer, RMIT

Kingsley Tetteh Baako, PhD, is a lecturer at RMIT University, specializing in areas such as house prices and land administration. His research focuses on determining house prices in data-poor countries. He holds expertise in mortgage finance, as evidenced by his academic achievements.



APREF

Australian Property Research and Education Fund

Research Paper

Towards understanding the dynamics of the Regional Property markets of Australia

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By

Dr Balamurugan Soundararaj

Dr Chyi Lin Lee

Prof Chris Pettit

UniSA Dr Ali Soltani

UniSA Peter Rossini

UniSA Mohammed Heydari.

UNSW SYDNEY

University of South Australia



2022

APREF

Australian Property Research and Education Fund

Key Highlights

- Research is based on detailed, comprehensive data on property sales made available by the Valuer General offices to profile and understand the state and dynamics of the property markets across regional areas.
- The study examined the sales volume, median price, demography, and other characteristics of the regional property market in specific states over the last decade to identify the spatio-temporal patterns in their behaviour.
- The primary output of the project – a dynamic, interactive, multi-level, geo-spatial visualisation tool that shows the spatio-temporal patterns of property markets in regional areas together with results of the analysis in summary profiles (median price trend clusters, demographic profiles etc.) across various statistical areas.
- This study is important to the Australian property industry due to a considerable lack of usable publicly available data and resources regarding regional property markets compared to the capital cities.
- The study's datasets will be leveraged with broader available resources to develop a more comprehensive, national level data infrastructure and ecosystem of tools.

Link to full research paper - Click Here

APREF

Australian Property Research and Education Fund

Author Profiles



Dr Balamurugan Soundararaj

Research Fellow at City Futures Research Centre, UNSW

Dr Balamurugan Soundararaj is a Research Fellow at City Futures Research Centre. He was a part of the award winning Value Australia project which integrated cutting-edge research, significant data assets, state-of-the-art analytics, and machine learning/ artificial intelligence to deliver secure digital valuation models and tools covering a broad range of land and property types across Australia.

Professor Chyi Lin Lee

Director of Construction Management and Property, UNSW

Professor Chyi Lin Lee is currently the Discipline Director of Construction Management and Property at the University of New South Wales. His expertise lies in property and housing research, with a focus on property investment.





Professor Christopher Pettit

Director of the City Futures Research Centre, UNSW

Professor Chris Pettit is the Director of the City Futures Research Centre UNSW – an internationally renown institute which has been conducting scholarly applied public interest research on our cities since 2005. Prof Pettit is also the current Chair of the Board of Directors for CUPUM (Computational Urban Planning and Urban Management) the premier international academic forum (30 years old) at the intersection of digital technologies, data science, urban planning and city shaping.

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Peter's research focuses on housing markets and property implications, residential property indexing and market performance, automated valuation methods, mass appraisal, urban renewal evaluation, and water markets. Recent research has focused on inter-generational wealth flows and the impact on housing the aged and first home buyer affordability. Peter holds a Bachelor of Applied Science from the South Australian Institute of Technology (SAIT - now UniSA), and a Graduate Diploma in Economic Statistics from the University of New England.

Dr Ali Soltani

Casual Academic, University of South Australia



Dr. Ali Soltani is a researcher affiliated with the University of South Australia (UniSA), specializing in spatial science, planning, and data analytics. His work focuses on areas such as urban heat island effects and rural and remote health. He is recognized for his contributions to innovative property valuation techniques using machine learning and big data, aiming to enhance accuracy in predictions for real estate and infrastructure sectors.

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