



RMIT AI Industry Day




27 April 2023



Centre for Industrial AI Research and Innovation



Program




Time	Program	Demos
14:00 – 14:10	Welcome / AoC – Prof Juerg von Kaenel	<ul style="list-style-type: none"> - How to engage with CIAIRI (poster) - Women in STEM - HoloLens based lockwiring training - Detecting Fuel Leaks in Service Stations - Mixed reality for predictive aircraft maintenance - Metal fatigue visualisation using Augmented Reality - Expanded Diagnostic Capabilities of PET Imaging - Human Machine Teaming via MultiAgent Programming - Forecasting the property market in real-time. - Rosie: A versatile industrial manufacturing robot - robocup: programming AI software for robotics vision, locomotion, localisation, and soccer behaviours. - Chat GPT on Pepper
14:10 – 14:35	AI State of Play in the Industry – Dheeren Vélú, Head of Innovation, Capgemini	
14:35 – 15:10	RMIT AI Industry Projects – Showcase 1	
	1: AI in Automotive – Julian Fogarty, IDOM Innovations	
	2: AI-based video technology for reshaping the future of Australian healthcare – Pubudu Sanjeevani (PhD, MIEAust), Smart AI Connect	
	3: Enabling Human-Machine Teaming (project with DSTG) - Dr. Sebastian Rodriguez, RMIT	
15:10 – 15:40	Afternoon Tea – Sponsored by Bentley Education 	
15:40 – 16:00	Data for AI in IT? – Dr. Chris Butler, AUCloud	
16:00 – 16:20	RMIT AI Industry Projects – Showcase 2	
	1: AI & Real Estate – Where will the future take us?, Theodore Stone, YepHome	
	2: Traditional AI in the Age of Deep Learning... But why? Agent Oriented Software – Dr Jessica Rivera	
16:20 – 17:00	Generative AI Panel <ul style="list-style-type: none"> - Dheeren Vélú, Head of Innovation Capgemini – Panel Moderator - Erica Dodd, AI Institute Lead Deloitte - Hari Janakiraman, Head of Industry and Innovation, Transaction Banking at ANZ Bank - Michal Chorev, PhD, Trustworthy AI Lead, IBM Consulting ANZ 	
17:00 – 18:00	Networking / Demos Sponsored by Cremorne Digital Hub 	

Program and Speaker Details:

14:10 – 14:35	Opening Keynote  <p>Title: AI State of Play in the Industry Company: Capgemini Abstract: Join us for an insightful keynote on the latest developments and implications of artificial intelligence in the business world. We'll cover cutting-edge AI models, practical implications for businesses and enterprises, and the impact on workforce, talent, and skills. Additionally, we'll explore the ethical and environmental implications of AI technologies and the policy and government considerations needed for responsible and sustainable AI adoption. This keynote will broaden your understanding of AI's current state of play and the potential it holds for your industry. Don't miss out! Presenter: Dheeren Vélú, Head of Innovation (linkedin) Short Bio: Dheeren Velu is an award-winning leader in emerging technology, innovation, and digital transformation and is committed to helping organisations thrive in today's era of fast-paced disruptive technological change. He is the Head of Innovation at Capgemini AUS/NZ and also the Web3 Leader @ Capgemini's Global Metaverse Lab. Dheeren specializes in emerging & frontier technology and has extensive experience in implementing large scale AI and Cognitive solutions across multiple industry domains like Retail, Health, Telco, Banking and Financial Services. Dheeren also chairs the RMIT CAIRI's Industry Advisory Board</p>
14:35 – 15:10	RMIT AI Industry Projects – Showcase 1  <p>Title: AI in Automotive Company: IDOM Innovations Abstract: The car industry is undergoing significant disruption and in more recent times there has been a significant shift to selling and buying cars online. However, Buying and Selling vehicles has often lacked transparency, fairness and simplicity. IDOM Innovations (through AutoFlip) aims to solve this challenge using AI. We currently use AI in areas such as estimating vehicle valuations and virtual car condition assessment using AI based image analysis. We are now working with RMIT to develop an AI based technology to assess the engine condition based the engine sound data recorded via a mobile device. Presenter: Julian Fogarty, Chief Product Officer (linkedin) Short Bio: Julian joined IDOM Innovations in 2021 as Chief Product Officer. Julian has a broad range of experience in business growth, digital enabled, transformation, technology and innovation and has held strategic executives roles for companies such as Downer and Spotless Group. Prior to this Julian was Head of Innovation at KPMG and prior to that CTO. He also has significant management consulting experience driving new business growth and leading business transformation programs with KPMG, Axon Consulting and Accenture across Asia, Europe and the United States.</p>
	 <p>Title: AI-based video technology for reshaping the future of Australian healthcare Company: Smart AI Connect and Datarwe Abstract: The digitalization of healthcare is a key focus in developed countries, with AI-based image and video analysis being increasingly used for patient monitoring, diagnoses, and therapy. SmartAIConnect, in collaboration with KJR and Datarwe, offers end-to-end solutions for implementing AI models in security and healthcare, with Datarwe building a healthcare database and SmartAIConnect providing AI-based solutions for video security networks. They help with risk mitigation, governance, accountability, and interoperability. RMIT University and</p>

	<p>SmartAIConnect are partnering to enhance AI-based video analysis for healthcare digitalization.</p> <p>Presenter: Pubudu Sanjeewani (PhD, MIEAust), Smart AI Connect (linkedin)</p> <p>Short Bio: Pubudu Sanjeewani is a machine learning researcher with a PhD in Artificial Intelligence from CQUni, Australia, and a BSc in Engineering from the University of Ruhuna, Sri Lanka. She has participated in interdisciplinary projects, including a smart streetlamp pole project in Sri Lanka, hooning detection, and slip, trip and fall detection. Sanjeewani has worked at CQUni's Centre for Intelligent Systems and with industry partners, DTMR and ARRB. She is currently a Machine Learning Engineer at Smart AI Connect, working on a project to rediscover world-heritage Aboriginal rock art sites in far North Queensland.</p>
	<p>Title: Enabling Human-Machine Teaming</p> <p>Company: DSTG</p> <p>Abstract: The rise of autonomous software has led to a growing need for human-machine teams (HMT), where humans and intelligent systems work together dynamically to achieve individual and shared goals. As AI becomes more prevalent, HMTs will become increasingly relevant. However, most existing systems treat humans as external or another type of agent. To create effective HMTs, we need theories and models that acknowledge the strengths and weaknesses of each constituent. This project is developing a Human-Machine Team Experimentation Platform to evaluate technologies and create new ones for implementing HMTs consistently and reproducibly.</p> <p>Presenter: Dr. Sebastian Rodriguez (linkedin)</p> <p>Short Bio: Sebastian is a Senior Lecturer at RMIT University (Melbourne, Australia). Previously, he was a Professor at Universidad Tecnológica Nacional (Tucuman, Argentina). At UTN, he founded the Advanced Information Technology Research Group. Sebastian is interested in applying Artificial Intelligence and Software Engineering solutions to industry applications. His research interests include Agent Oriented Software Engineering, Complex Systems Modelling and Simulation, Holonic Multiagent Systems and Agent Development Platforms and Languages. He is a core member of SARL agent-oriented programming language.</p>
15:40 – 16:00	Industry Challenges
	<p>Title: Data for AI in IT?</p> <p>Company: AU Cloud</p> <p>Abstract: Data is always a challenge in AI. More often than not, three quarters of a project are spent in curating and cleansing the data. (Supervised) training and testing data for AI systems is a challenging activity to collect and prepare for 'line of business' problems. But what happens when your line of business is IT? AUCloud provides infrastructure, security and platform services to Government and Critical National Industry. Our clients come to us to ensure their security and decrease the complexity of their IT systems. How do we get to the data we need for AI in this environment?</p> <p>Data sovereignty; regulatory requirements; vendor proprietary APIs and lack of interoperability present some of the challenges. Hope emerges from the strong open-source communities, such as the CNCF, where open source is not just free but also standardized.</p> <p>Presenter: Dr. Chris Butler, National Manager - IT Strategy & Productisation (linkedin)</p> <p>Short Bio: Dr. Chris Butler is National Manager – IT Strategy & Productisation at AUCloud. AUCloud is a Sovereign Cloud provider, based in Canberra, Australia which provides services to Government Agencies; Government contractors and</p>

	<p>the Critical National Infrastructure sector.</p> <p>At AUCloud Chris leads a team who manage AUCloud's productisation strategy and technical architecture. Chris is responsible for the design of AUClouds IaaS & PaaS platforms across all security classifications and prioritisation of investment with internal and external stakeholders.</p> <p>Prior to joining AUCloud in January 2022 Chris spent 10 years within IBM in management and technical leadership roles finishing as a Senior Technical Staff Member at the Centre for Applied Research in IBM Consulting.</p> <p>Chris is an experienced technical leader, having held positions responsible for: HR management of technical teams; functional strategy within the IBM Research division (Financial Services); developing the IBM Global Technology Outlook; and as development manager of IBM Cloud services.</p> <p>Chris's technical experience spans from build and deployment of IaaS platforms to industry specific AI applications. He has consistent experience in the productisation of innovative technologies across multiple industry sectors.</p> <p>Chris has been consistently recognised with corporate and academic awards. Chris has a PhD from Monash University modelling blood flow of thrombotic geometries using high performance computing.</p>
16:00 – 16:20	RMIT AI Industry Projects – Showcase 2
	<p>Title: AI & Real Estate – Where will the future take us?</p> <p>Company: YepHome</p> <p>Abstract: AI is becoming smarter & smarter each day, and so are property purchasers. The property industry has always been traditional & resistant to change. So how will AI infiltrate a market that is driven largely by emotion & circumstance? How will Property Developers & Agents utilise AI, Virtual Systems & advanced Web 2 / Web 3 technology to empower them & purchasers in this new digital ecosystem? We will discuss these points at our talk today and tell you some of the things we are working on to answer these questions.</p> <p>Presenter: Theodore Stone (linkedin)</p> <p>Short Bio: Theodore Stone is the Director of YepHome, a PropTech business focused on revolutionising the real estate market with big tech. An Engineer by trade & Property Developer by profession, Theo has well over a decade of experience in the real estate space across several states Australia wide.</p>
	<p>Title: Traditional AI in the Age of Deep Learning... But why?</p> <p>Company: Agent Oriented Software</p> <p>Abstract: While machine learning has gained widespread adoption in various industries, traditional AI techniques like planning and constraint solving via search offer unique benefits. These techniques provide explanations for their decisions, making them more transparent and interpretable. They also offer greater control over the decision-making process and can be used to create solutions that adhere to specific constraints, such as safety regulations or ethical considerations. In this talk, we explore the application of planning and constraint solving techniques in an agriculture scenario, drawing on previous experience in other domains.</p> <p>Presenter: Dr. Jessica Rivera (linkedin)</p> <p>Short Bio: Jessica is a Research Fellow with extensive experience in translational AI across various sectors including education, aged care and health. With a strong background in software development, Jessica worked for a major telecommunications provider in Mexico before pursuing her PhD in Australia. Her research interests lie at the intersection of Artificial Intelligence and Human-Computer Interaction, where she leverages her expertise to develop innovative solutions that enhance user experience.</p>
16:20 – 17:00	Generative AI Panel

	Moderator: Dheeren Vélú
	<p>Panellist: Erica Dodd, Deloitte AI Institute lead (linkedin)</p> <p>Short Bio: My current role sees me leading the Australian AI Institute. The AI Institute is one of a global network which is focused on promoting Deloitte's Data & AI capability and thought leadership into market at both a local and global level. We work with an ecosystem of clients, universities, start-ups, hyper-scalers and luminaries to progress the Australian AI narrative, ensuring that we as a nation are adopting these technologies to grow our economy and remain relevant in a digital world.</p>
	<p>Panellist: Hari Janakiraman, Head of Industry and Innovation, Transaction Banking at ANZ Bank (linkedin)</p> <p>Short Bio: Hari is a seasoned executive and internationally recognized expert in the field of transaction banking and trade finance. With over 20 years of experience in the industry, he has a deep understanding of the complexities, challenges, and opportunities that come with the territory.</p> <ul style="list-style-type: none"> • Hari has been at the forefront of the industry's digitization efforts, helping to transform traditional trade finance processes into more efficient, streamlined, and secure digital systems. He has successfully implemented a range of initiatives, including the first fully digitized trade transaction, using data and ML/AI to automate processing and prevent financial crime. • Hari is well-versed in emerging technologies such as blockchain and AI. Leveraging these cutting-edge tools, he has implemented a range of initiatives, including using tokenization of inventory and data to automate supply chain processes. • Hari is also the Founder and Non-Executive Director (board member) of Lygon, a company set up by three of Australia's largest banks to digitize bank guarantees. He is the Chairperson and Non-Executive Director (board member) of the Trade Information Network Ltd, a company formed by six large international banks to digitize open account trade and supply chain finance.
	<p>Panellist: Michal Chorev, PhD, Trustworthy AI Lead, IBM Consulting ANZ (linkedin)</p> <p>Short Bio: Michal is the Trustworthy AI lead for IBM Consulting ANZ. Prior to that, she has been IBM Research for many years. She has over 10 years of experience leading teams in the development of innovative AI from inception to delivery. Michal holds a PhD in computer science and conducts research on explainability, causal inference, and multi-modal prediction.</p>