



Citation for the Award of Doctor of Science (DSc) *honoris causa*

Dr Dale A Lambert PSM FTSE

BSc, BA(Hons), BA, PhD *Flin*, GradCertMgmt(ScLead) *UniSA*

Dr Dale A Lambert is the Chief of Cyber and Electronic Warfare Division in the Defence Science and Technology Group within the Australian Department of Defence. He was previously the acting Chief of National Security and Intelligence, Surveillance and Reconnaissance Division and served as the Director General of Science Strategy and Policy for Defence Science and Technology in Canberra. Prior to that Dale was the Research Leader of Intelligence Analytics.

Dr Lambert holds: a Bachelor of Science degree in Computer Science; a first-class Bachelor of Arts Honours degree in Philosophy; a Bachelor of Arts degree in Mathematics; and a Doctor of Philosophy degree in Artificial Intelligence - all from Flinders University, as well as a Graduate Certificate in Management.

During his 30-year career in Defence science, he has been a visionary leader in driving Artificial Intelligence and automated analysis capabilities. Dr Lambert is a world-leading scientist in High-Level Information Fusion, the process in which a machine combines multiple signal, image and text data sources to automatically comprehend current events and automatically predict future events. His in-depth contribution to Information Fusion has been extensive and innovative, with significant impact for Defence capability and national security. He was contracted from Australian Defence to Swedish industry for four years to design and implement an Artificial Intelligence system for Sweden's airborne defence. The final Swedish system was subsequently on-sold to several nations in Europe, Asia and South America. He has successfully led research programs and made innovative contributions with his conceptual framework for High-Level Fusion processes and is credited with the design of the Consensus Artificial Intelligence architecture, one of the world's most comprehensive Artificial Intelligence frameworks. Consensus allows a user to speak in English with animated characters, each of which is connected to an automated psychology that manages that character's thoughts, intent, beliefs, actions and emotional responses. Consensus has been foundational to a collaborative research program supporting a \$100M United States initiative.

Dr Lambert recently completed two years as Chair of the Executive Chairs of The Technical Cooperation Program, the largest cooperation on defence science and technology between Australia, Canada, New Zealand, the United Kingdom and the United States. In this role he had administrative oversight of science and technology programs across these five nations covering: aerospace systems; maritime systems; land systems; weapons systems; materials; electronic warfare; human performance; intelligence surveillance and reconnaissance; and command, control, communications, cyber and information. Prior to that, he was the Executive Chair of the Command, Control, Communications, Cyber and Information Group within the five-nation program, and prior to that was Chair of the five-nation Technical Panel on Information Fusion, during which he received an international TTCP Achievement Award for the panel's first book.

Dr Lambert performs several additional roles on behalf of Defence Science and Technology. He is currently: the Defence Science and Technology Domain Program Manager for Intelligence; a member of the senior Defence Intelligence Enterprise Committee; a member of the senior Defence Cyber Domain Steering Group; the Senior Responsible Officer for both the Information Warfare and Quantum Assured Position Navigation and Timing innovation programs; the relationship manager for Flinders University; a member of the Flinders University College of Science and Engineering Industry Advisory Board; the relationship manager for the University of Adelaide; a member of the University of Adelaide Defence, Cyber and Space Advisory Board; interim Chair of the University of Adelaide Faculty of Engineering, Computer and Mathematical Sciences Advisory Board; Chair of the University of Adelaide School of Computer Science Advisory Board; a member of the University of Adelaide School of Mathematical Sciences Advisory Board; a member of the University of Adelaide Institute for Photonics & Advanced Sensing Board; a member of the University of New South Wales Institute for Cyber Security Advisory Committee; the relationship Chief with BAE Systems Australia; and a member of the Defence Science and Technology Inclusion Steering Committee as the LGBTI champion. Dale previously served as: the relationship manager with a US agency; the relationship manager with the University of South Australia; and as Chair of the Research Advisory Committee for the Data to Decision Cooperative Research Centre.

Dr Lambert is an internationally sought-after journal reviewer, speaker, panelist, award committee member and has over 70 publications. His co-authored and co-edited Information Fusion book has been used in international conference tutorials in Singapore, Turkey, Spain, the USA and Germany, and was subsequently translated into Chinese and published in China by the Chinese National Defense Industry Press. He has been a postgraduate supervisor for: The University of Adelaide; The University of South Australia; The Centre for Sensor, Signal and Information Processing; Chalmers University in Göteborg, Sweden; and The University of Melbourne.

The Institute of Electrical and Electronics Engineers (IEEE), the world's largest technical professional organisation, presented Dr Lambert with the IEEE Harry Rowe Mimno Award at a ceremony in Washington DC in 2015 for "excellence in technical communication". He was awarded the Public Service Medal by the Governor General of Australia in the 2020 Australia Day Honours List for "outstanding public service in the use of artificial intelligence in surveillance and reconnaissance, command and control, intelligence and autonomous platforms". In 2021 he was elected as a Fellow of the prestigious Australian Academy of Technology and Engineering, a learned academy that helps Australians understand and use technology to solve complex problems.

Dr Lambert's work continues to shape new science and technology programs and influence important international partners which, along with a world-class reputation for higher-level data fusion research, make him a worthy recipient of the Honorary Award of a Doctor of Science from Flinders University.

12 May 2022