International Defence Excellence and Security Symposium (IDEaS) Swinburne University of Technology, Melbourne, Australia 21 November 2023 (Australian Eastern Daylight Time (AEDT)) https://ieeeideas.org

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07:30 Registration Guest arrival 08:00 Guests to be seated 08:05 Professor Saeid Nahavandi MC to start the session 08:10 Professor Karen Hapgood VC / DVCR to welcome guests Welcome to Country 08:15 Major General Andrew Bottrell Opening address 08:30 Group Captain Patrick Joseph Del Defence and the Space Domain Guidice, Royal Australian Air Force 08:40 Dr. Ming Hou, Defence Research and Human-AI Teaming **Development Canada** Dr. Jessie Y.C. Chen, U.S. Army DEVCOM 08:50 Agent Transparency and Human-Agent Teaming 09:00 Lieutenant Colonel Edgar Reuber, **Requirement Specification for NATO RPAS Sense and** EUROCONTROL and seconded German Avoid Systems Air Force 09:10 Dr Jurriaan van Diggelen, TNO, Levels of Meaningful Human Control in Responsible Netherlands Military Artificial Intelligence 09:20 Dr Dale Richards, Thales, UK Measuring Success – Human-Autonomy Teaming 09:30 - 10:15 Discussion panel: Moderator – Prof. Gary Improving test and evaluation efficiency and Hogan AM, effectiveness in managing risk for capability equipment Panellist: Major General Kathryn Toohey, for defence and security operations Australian Army, Air Marshal Mel Hupfeld, RAAF, Vice Admiral Michael Noonan, RAN 10:15 - 10:30 Coffee break 10:30 Kevin Di Filippo, Lockheed Martin, North star: an Alternative Position, Navigation, and Timing (A-PNT) Solution Canada 10:40 Professor M. Saif, Innovations in Naval Cyber Protection University of Windsor, Canada 10:50 Toward Operationally Responsive On-Orbit Robotic Dr. Edward Tunstel, Motiv Space Systems, Inc., USA Capability 11:00 Professor A. Homaifar Opportunities and Challenges for Operationalizing A&T State University, USA Urban Air Mobility 11:10 Lieutenant-Colonel David Dunwoody, Addressing Biases in Artificial Intelligence **Royal Canadian Air Force** 11:20 Professor H. Garmestani, Georgia Advanced Manufacturing in Metal 3D Printing -Institute of Technology, USA Microstructure and Materials Computational Modeling 11:30 Dr. Simon Reay Atkinson, Scientific Discovery Level: A Tool for Assessing Captain, Royal Australian Navy, Australia Technology Readiness Levels 11:40 Jawahar Bhalla A Conceptual Systems Engineering Framework for AI-Intensive Systems with a Focus on Data through the Life-Cycle 11:50 Phil Crothers, Boeing Australia **MQ28** Development 12.00 Michael Hardy, KBR, Australia Capability stewardship underpins Defence+Industry+Academia innovation "Bottom-up" or "Top-down", which AI is best for 12:10 Dr. Andrew Lucas, AOS defence? 12:20 Dr. Braden McGrath, MITRE Australia Does AUKUS need a FFRDC? Lunch and networking 12:30 - 14:00 Poster presentations 14:00 - 14:30 Wrap up and concluding remarks