

Dr. Hou is an IEEE Fellow, a Senior Scientist, and the Principal Authority Human-Technology Interactions within the Department of National Defence (DND), Canada. He is also an Advisor to the Canadian \$1.6B Innovation for Defence Excellence and Security program and the Co-Chair of an international defence Human-Autonomy Teaming Specialist Committee. Dr. Hou is responsible for delivering cutting-edge technological solutions, science-based advice, and evidence-based policy recommendations on AI and Autonomy science, technology, and innovation strategies to

senior decision makers within DND, the Canadian Armed Forces, and their national and international partner organizations including the United Nations (UN). He is an internationally recognized leading authority by both scientific and defence communities in autonomous systems and human-machine intelligence interactions. His influential book: "Intelligent Adaptive Systems: An Interaction-centered Design Perspective" (two editions) is considered authoritative by experts in academia, industry, and military and outlines his systemic approach to Autonomy and Human-AI Symbiotic Collaborations. It has been instrumental in the generation of 1) novel technological solutions, 2) science and technology innovation programs and AI strategy, 3) improved industrial capabilities, 4) new international standards and UN White Papers, and 5) AI and autonomy policy and regulation frameworks for the society at large. Dr. Hou is the recipient of the most prestigious DND Science and Technology Excellence Award in 2020 and the President's Achievement Award of the Professional Institute of the Public Service of Canada in 2021. He is an Adjunct Professor at the University of Toronto and the University of Calgary, Canada. Dr. Hou is an internationally sought-after Principal Communicator with 100+ plenary keynote speeches, panel discussions, and invited lectures at various scientific and defence fora. He is a member of the IEEE Systems, Man, and Cybernetics Society (SMCS) Board of Governors, the SMCS Associate Vice President (Human-Machine Systems), and the SMCS Representative to IEEE AI Coalition with the responsibility of leading IEEE Future Directions in Human-AI Teaming. Dr. Hou is the General Chair of the 2024 IEEE International Conference on Human-Machine Systems and International Defence Excellence and Security Symposium.