MIT Industrial Liaison Program Faculty Knowledgebase Report

AI and Autonomy @MIT

February 25, 2021 1:00 pm - 3:00 pm

1:00pm – 1:45pm

Panel Discussion: Paths to The Future AI
Sophie Vandebroek
Board Director, Trustee, Scholar
2020 MIT School of Engineering Inaugural Visiting Scholar
Former COO of IBM Research

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Dr. Sophie Vandebroek is a seasoned executive with extensive C-level experience including Chief Operating Officer at IBM Research and Chief Technology Officer at Xerox Corporation and has served on public company boards since 2008. She is an expert in the creation and application of technologies that drive growth and in the governance of inclusive and innovative global organizations. Full profile here

Most recently, Sophie was MIT's School of Engineering Inaugural Visiting Scholar. Her last corporate position was as Chief Operating Officer of IBM Research where she was instrumental in creating the MIT-IBM Watson AI Lab. Previously Sophie was Xerox's Chief Technology Officer and led Xerox's global laboratories, including PARC, Inc., an innovation services company.

Sophie is a member of the Board of Directors of IDEXX Laboratories, the global leader in veterinary diagnostics, and on the Supervisory Board of Wolters Kluwer, a global provider of professional information, software solutions, and services. Sophie has been a member of the advisory council of the dean of engineering at Massachusetts Institute of Technology (MIT) for the past decade. She is also a trustee at the Boston Museum of Sciences and very much enjoys her time serving as a member of the international advisory board of the Flanders AI Research Program.

Sophie is a Fellow of the Institute of Electrical & Electronics Engineers (IEEE). She is a frequent public speaker with keynote presentations at, among others, the IEEE International Solid State Circuit Conference and the USA Department of Energy, ARPA-e Summit. Sophie was inducted into the Women in Technology International Hall of Fame and elected into the Royal Flemish Academy for Arts & Sciences. Sophie's passion for creating inclusive organizations where innovation thrives has earned her many awards among which is Xerox's Inaugural Lifetime Diversity Leadership Award of Distinction.

Sophie grew up in Belgium and earned a master's degree in Engineering Magna from KU Leuven, Belgium and a Ph.D. in Engineering from Cornell University, Ithaca, New York.

Aude Oliva

Director of Strategic Industry Engagement, MIT Schwarzman College of Computing
MIT Director, MIT-IBM Watson AI Lab
Co-lead, MIT AI Hardware Program
Senior Research Scientist, CSAIL

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Aude Oliva, PhD is the MIT director in the MIT-IBM Watson AI Lab and director of strategic industry engagement in the MIT Schwarzman College of Computing, leading collaborations with industry to translate natural and artificial intelligence research into tools for the wider world. She is also a senior research scientist at the MIT Computer Science and Artificial Intelligence Laboratory (CSAIL), where she heads the Computational Perception and

1:45pm – 2:30pm

Panel Discussion: The Promises and Perils of Autonomous Systems - Video time stamp starts at: 46.06
David Mindell
Professor of Aeronautics and Astronautics
Dibner Professor of the History of Technology
Co-Founder and Partner, Unless

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David Mindell is an engineer and historian. An expert in human relationships with robotics and autonomous systems, he has led or participated in more than 25 oceanographic expeditions. From 2005 to 2011 he was Director of MIT's Program in Science, Technology, and Society. He is the author of five books and co-founder of Humatics Corporation, which develops technologies to transform how robots and autonomous systems work in human environments.

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Nicholas Roy
Bisplinghoff Professor, Aeronautics & Astronautics
Director of Quest Systems Engineering, MIT Quest for Intelligence

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Nicholas Roy is the Bisplinghoff Professor of Aeronautics & Astronautics and a member of the Computer Science and Artificial Intelligence Laboratory (CSAIL) at the Massachusetts Institute of Technology. He has a B.Sc. in Physics and Cognitive Science an M.Sc. in Computer Science, both from McGill University. He received his Ph. D. in Robotics from Carnegie Mellon University in 2003. He has made research contributions to planning under uncertainty, machine learning, human-computer interaction and aerial robotics. He founded and led Project Wing at Google [X] from 2012-2014. He is currently the Director of Quest Systems Engineering in MIT's Quest for Intelligence.

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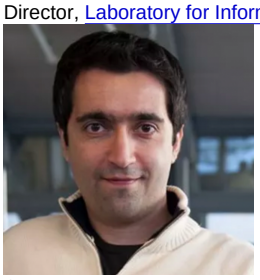
Sertac Karaman
Associate Professor of Aeronautics and Astronautics at the Massachusetts Institute of Technology
Director, Laboratory for Information and Decision Systems (LIDS)



Sertac Karaman
Associate Professor of Aeronautics and Astronautics at the Massachusetts Institute of Technology
Director
Laboratory for Information and Decision Systems (LIDS)

Sertac Karaman is the director of the Laboratory for Information and Decision Systems, and an associate professor of Aeronautics and Astronautics at MIT. His research areas are robotics and control theory, particularly the applications of probability theory, stochastic processes, stochastic geometry, formal methods, and optimization for the design and analysis of high-performance cyber-physical systems. The applications of this research

2:30pm – 3:00pm

Strategic Recruiting at the Department of Electrical Engineering and Computer Science at MIT - Video time stamp starts at: 1.29.05
Tomás Palacios

Director, MIT Microsystems Technology Laboratories (MTL)
Professor, MIT Department of Electrical Engineering and Computer Science (EECS)

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Professor, MIT Department of Electrical Engineering and Computer Science (EECS)

Tomás Palacios is the Director of Microsystems Technology Laboratories (MTL) and is a Professor in the Department of Electrical Engineering and Computer Science at the Massachusetts Institute of Technology. He received his Ph.D. from the University of California - Santa Barbara in 2006 and his undergraduate degree in Telecommunication Engineering from the Universidad Politécnica de Madrid (Spain). Being a fellow of IEEE his current research focuses on demonstrating new electronic devices and applications for novel semiconductor materials such as graphene and gallium nitride. Tomás is passionate about making an impact on modern society in Energy, Engineering, Nanoscale, Physics, Semiconductors, Nanotechnology, and Climate Change. His work has been recognized with multiple awards, including the Presidential Early Career Award for Scientists and Engineers, the 2012 and 2019 IEEE George Smith Awards, and the NSF, ONR, and DARPA Young Faculty Awards, among many others. Prof. Palacios is the founder and director of the MIT MTL Center for Graphene Devices and 2D Systems, as well as the Chief Advisor and co-founder of Finwave Semiconductor, Inc. From 2023, Tomas serves as Associate Director of the SUPeRior Energy-efficient Materials and Devices (SUPREME) center, one of the seven 2023 JUMP 2.0 programs sponsored by Semiconductor Research Corporation.

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