

March 11, 2021 11:00 am - 1:00 pm

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11:00am

Welcome and Introduction  
Corey Cheng  
Program Director, [MIT Industrial Liaison Program](#)



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Dr. Corey Cheng joined the Office of Corporate Relations (OCR) as an Senior Industrial Liaison Officer in December 2011. He has broad interests in science and technology, and uses his technical research experience to better serve ILP members in Asia and the United States.

Cheng spent six years in industrial research at Dolby Laboratories, San Francisco, where he contributed to sound compression (Dolby Digital, AAC, MP3), wireless networking, fingerprinting, and spatial/"3-D audio" technologies. Later, he was Associate Professor and Director of the undergraduate and graduate programs in music engineering technology at the University of Miami, Florida, where he also held a dual appointment in Electrical and Computer Engineering. Cheng holds various U.S. and international patents, has published technical papers, and has presented at various conferences. His technical work includes collaborations and consulting work with the U.S. Naval Submarine Medical Research Laboratory, Fujitsu-Ten USA, Starkey Laboratories, America Online, and the Chicago Board of Trade (CBOT). Cheng was an IEEE Distinguished Lecturer for the Circuits and Systems Society from 2009-2010, and was a Westinghouse (Intel) Science Talent Search national finalist many years ago.

Cheng holds degrees in Electrical Engineering (Ph.D., M.S.E. University of Michigan), Electro-Acoustic Music (M.A. Dartmouth College), and physics (B.A. Harvard University).

Personally, Dr. Cheng is an American Born Chinese (ABC), serves as his family's genealogist, and traces his roots back to Toi San, Guang Dong Province and Xing Hua, Jiang Su Province, China. He also has a background in music, and his electro-acoustic compositions have been presented at various U.S. and international venues.

Irina Sigalovsky  
Program Director, MIT Corporate Relations



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Irina Sigalovsky works in the Office of Corporate Relations at MIT where she builds mutually beneficial partnerships between corporations and MIT. Dr. Sigalovsky comes to MIT with 10 years of international experience in innovation strategy, technology forecasting and external innovation. Prior to MIT, Irina worked at GEN3 Partners, Inc. as a senior principal collaborating with Fortune 1000 companies to focus their innovation investments, execute strategic innovation agendas, and develop business globally. Throughout her career, Irina has taught at Tufts University, MIT Sloan, X-Prize Lab@MIT, MIT HST, Boston and Harvard Universities.

Eduardo Garrido  
Program Director, [MIT Industrial Liaison Program](#)



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Panel 1: A Vision of Sustainability for the Future

What elements of policy and regulation are crucial to the success of a sustainable future? Which is better equipped to implement these policies: government or industry? What is the business of sustainability - when does it make sense to implement these policies, when does it not, and how can you / should you make money from sustainability programs?

Yossi Sheffi  
Elisha Gray II Professor of Engineering Systems  
Director, [MIT Center for Transportation and Logistics](#)



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Yossi Sheffi is an expert in systems optimization, risk analysis and supply chain management. He is author of a text book and seven award-winning management books. His latest books are: "The New Abnormal: Reshaping Business and Supply Chain Strategy Beyond Covid-19," (October 1, 2020) and "A Shot in the Arm: How Science, Technology and Supply Chains Converged to Vaccinate the World (October 2021).

Under his leadership, MIT CTL has launched many educational, research, and industry/government outreach programs, including the MIT SCALE network involving six academic centers round the world. In 2015, CTL has launched the on-line Micromaster's program, enrolling over 480,000 students in 196 countries.

Outside the institute, Dr. Sheffi has consulted with numerous organizations. He has also founded or co-founded five successful companies, all acquired later by large enterprises.

Dr. Sheffi has been [recognized](#) in numerous ways in academic and industry forums and won dozens of awards.

He obtained his B.Sc from the Technion in Israel in 1975, and SM and Ph.D. from MIT in 1978.

For more information visit: <http://sheffi.mit.edu/>

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Jason Jay

Senior Lecturer, [MIT Sloan School of Management](#)  
Director, [Sustainability Initiative at MIT Sloan](#)



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Jason Jay is a Senior Lecturer and Director of the MIT Sloan Sustainability Initiative. He teaches executive and masters-level courses on strategy, innovation, and leadership for sustainable business. He has helped secure MIT Sloan's position as a leader in the field of sustainability through teaching, research, and industry engagement. Dr. Jay's publications have appeared in the Academy of Management Journal, California Management Review, MIT Sloan Management Review, Stanford Social Innovation Review, Greenbiz, and World Economic Forum. With Gabriel Grant, he is the author of the international bestseller Breaking Through Gridlock: The Power of Conversation in a Polarized World. Dr. Jay also works as a facilitator for companies, organizations, and business families, supporting high quality conversation and shared commitment to ambitious sustainability goals. His clients have included EFG Asset Management, Novartis, Bose, Environmental Defense Fund, BP and the World Bank.

C. Adam Schlosser  
Senior Research Scientist, Center for Global Change Science

Which technological innovations are the most important for the materials, energy, and environmental sectors? Which technologies are frontrunners for the sustainability of the future, and which technologies have not fared so well? Which technologies still need to be further incubated in basic research laboratories, which are ready for commercialization? Who should commercialize these technologies – large corporates, small startups, or public-private partnerships – and why?

Karthish Manthiram

Theodore Miller Career Development Chair and Assistant Professor, Chemical Engineering



Karthish Manthiram

Theodore Miller Career Development Chair and Assistant Professor, Chemical Engineering

Karthish Manthiram is the Theodore T. Miller Career Development Chair and Assistant Professor in Chemical Engineering at MIT. The Manthiram Lab at MIT is focused on the molecular engineering of electrocatalysts for the synthesis of organic molecules, including pharmaceuticals, fuels, and commodity chemicals, using renewable feedstocks. Karthish received his bachelor's degree in Chemical Engineering from Stanford University and his Ph.D. in Chemical Engineering from UC Berkeley, where his dissertation research was focused on the development of nanoscale materials for storing solar energy in chemical bonds. Most recently, he was a postdoctoral researcher at the California Institute of Technology, where he worked on developing new ionically-conductive polymers using olefin metathesis. Karthish's research has been recognized with several awards, including the NSF CAREER Award, DOE Early Career Award, 3M Nontenured Faculty Award, American Chemical Society PRF New Investigator Award, Dan Cubicciotti Award of the Electrochemical Society, and Forbes 30 Under 30 in Science. Karthish's teaching has been recognized with the C. Michael Mohr Outstanding Undergraduate Teaching Award, the MIT ChemE Outstanding Graduate Teaching Award, and the MIT Teaching with Digital Technology Award. He serves on the Early Career Advisory Board for *ACS Catalysis* and on the Advisory Board for both *Trends in Chemistry* and the *MIT Science Policy Review*.

Desirée Plata

Associate Professor, [MIT Department of Civil and Environmental Engineering](#)



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Associate Professor

[MIT Department of Civil and Environmental Engineering](#)

Desirée Plata's research seeks to maximize technology's benefit to society while minimizing environmental impacts in industrially important practices through the use of geochemical tools and chemical mechanistic insights. Plata earned her doctoral degree in Chemical Oceanography and Environmental Chemistry from the Massachusetts Institute of Technology and the Woods Hole Oceanographic Institution's Joint Program in Oceanography (2009) and her bachelor's degree in Chemistry from Union College in Schenectady, NY (2003). Plata is an NSF CAREER Awardee (2016), an Odebrecht-Braskem Sustainable Innovation Awardee (2015), a two-time National Academy of Engineers Frontiers of Engineering Fellow (2012, 2020), a two-time National Academy of Sciences Kavli Frontiers of Science Fellow (2011, 2013), a Caltech Resnick Sustainability Fellow (2017), and winner of MIT's Junior Bose Teaching Award (2019), Edgerton Faculty Achievement Award (2021), and Perkins Graduate Advising Award (2021). Having previously served as John J. Lee Assistant Professor of Chemical and Environmental Engineering at Yale University and Associate Director for Research at the Center for Green Chemistry and Green Engineering at Yale, Plata is now Associate Professor of Civil and Environmental Engineering at MIT, co-director of the MIT Climate and Sustainability Consortium, and Faculty Lead of Belonging, Achievement, and Composition in the MIT School of Engineering. Plata directs MIT's Methane Network, serves on the Scientific Advisory Board of Spark Climate, and served on the National Academy of Science Engineering and Medicine's Atmospheric Methane Removal study (recused). Plata is co-founder of N<sup>th</sup> Cycle ([nthcycle.com](#)), co-founder and President of Sustainable Chemical Resource Advisors LLC, and co-founder and President of Moxair Inc.

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12:35pm

Closing Remarks