



CROSSROADS 2014
BIOMANUFACTURING, ROBOTS, AND 4-D PRINTING:
THE NEXT DECADE OF DISRUPTIVE INNOVATION

MIT TANG CENTER BLDG, 3RD FL (BLDG. E51-345), CAMBRIDGE, MA

MARCH 25, 2014

8:00 *Conference Check-in*

8:20 *Welcome and Introduction*

8:30 ***The Future of Manufacturing and Innovation***

Prof. Suzanne Berger – Raphael Dorman-Helen Starbuck Professor of Political Science and Director of MIT-France Program in the MIT International Science and Technology Initiatives

In 2013 MIT completed a major research project on the future of manufacturing in the United States. This session will explore the findings from that study.

9:30 ***Big Data Challenges and Opportunities***

Prof. Sam Madden – Director, MIT Big Data Initiative

Big Data has attracted huge attention in the supply chain domain, and advances in hardware and software technology promise to extend our analytical capabilities even further. This session will explore the opportunities and risks that lie ahead in the Big Data space.

10:30 *Break*

11:00 ***Is Cyber Security the Next Risk Frontier?***

Dr. Abel Sanchez – Executive Director & Chief Technology Architect, MIT Geospatial Data Center

This session is an overview of both existing and future cyber threats and the vulnerability of global supply chains to data theft and other criminal activities. This session will also address possible solutions, including new approaches to computer security and risk management.

12:00 *Lunch*

1:15 ***The New Robot Age***

Prof. Julie Shah – Founder and Head of the Interactive Robotics Group, MIT CSAIL

Advances in robot technology mean that these machines can work alongside human operators in production lines. A new generation of robots that improves just in time operations through more precise sequencing and increases production flexibility will also be described in this session.

2:15 ***4-D Printing and the Self-Assembly Revolution***

Skylar Tibbits – Director, MIT Self-Assembly Lab

This session will describe how programmable materials promise to redefine outdated assembly operations as well as the potential for 4-D printing. Supply Chain implications, including the elimination of manual labor on production lines, and new ways to ship products will be covered.

3:15 *Break*

3:45 ***Transforming Education through Online Learning***

Dr. Sanjay Sarma – Director, Digital Learning, MIT

In 2014 MIT CTL will launch an online education program for supply chain professionals. This session will explain why the program represents a new chapter in professional education, and the implications for future practitioners and the talent pipeline.

4:45 *Adjourn*
