

# MIT Industrial Liaison Program Faculty Knowledgebase Report

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## 2025 MIT Chile Symposium

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July 8, 2025 - July 10, 2025

### Antofagasta | July 8, 2025

**Enjoy Hotel,**  
Av. Angamos N° 01455, 1272037, Antofagasta, Región de Antofagasta, Chile  
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|          |  |
|----------|--|
| 8:30 AM  | Registration   |
| 8:40 AM  | Welcome and Opening Remarks<br><br>René Aguilar<br><br>Eduardo Garrido   |
| 9:10 AM  | Data Analytics in the Smart Factory - Digital Twins to Real Time Control<br><br>José J. Pacheco<br>CoDirector<br><a href="#">MIT Advanced Manufacturing and Design Program (MIT AMDP)</a><br><br><p>The manufacturing industry is undergoing a major transformation, shifting from automated to autonomous operations. This change promises to speed up the process of turning ideas into real, market-ready products. The key to making this happen is the integration of digital technologies, including sensors, data, computing power, and information systems.</p> <p>At the heart of this shift are digital twins—virtual models that represent not just the products but also the materials, manufacturing processes, supply chains, and production lines. These digital replicas allow manufacturers to simulate, monitor, and improve operations in real-time using sensor data. By combining physical and digital worlds, digital twins help bridge the gap between designing a product and bringing it to life. When digital twins are combined with real-time control systems and machine learning, factories become smarter and more adaptive. Real-time data flows from sensors to digital models and ML algorithms, enabling predictive maintenance, reducing waste, and optimizing production. This connected ecosystem creates a highly efficient, data-driven manufacturing environment. We'll explore real-world examples of these technologies in action and how they are shaping the future of manufacturing today.</p> |
| 10:00 AM | Startup Lightning Talks  |
| 10:45 AM | Coffee Break   |

11:15 AM

Automation from the Worker's Perspective: How Can New Technologies Make Jobs Better?  
Ben Armstrong  
Executive Director, [MIT Industrial Performance Center](#)



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Executive Director  
[MIT Industrial Performance Center](#)

Ben Armstrong is the executive director of MIT's Industrial Performance Center, where he co-leads the Work of the Future initiative. His research examines how workers, firms, and regions adapt to technological change. His current projects include a working group on generative AI, as well as a book on American manufacturing competitiveness. His work has been published or featured in academic and popular outlets including the New York Times, Harvard Business Review, Forbes, Sloan Management Review, Times Higher Education, the Boston Review, Daedalus, and Economic Development Quarterly. He received his PhD from MIT and formerly worked at Google Inc.

Despite concerns that new technologies will displace workers, the more common outcome is that they transform the jobs we do—and how we do them. The question is: how can we use these technologies to make work more enjoyable and more productive? Drawing on historical examples and recent data, MIT's Ben Armstrong will outline strategies and opportunities for “positive-sum automation” that benefit both firms and workers.

12:00 PM

Startup Lightning Talks

12:45 PM

Startup Exhibit

## Santiago | July 10, 2024



**W Hotel,**  
Isidora Goyenechea 3000, 7550653 Las Condes, Región Metropolitana, Chile  
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8:30 AM

Registration

8:40 AM

Welcome and Opening Remarks  
Iván Arriagada  
Eduardo Garrido

9:10 AM

## Data Analytics in the Smart Factory - Digital Twins to Real Time Control

José J. Pacheco  
CoDirector

[MIT Advanced Manufacturing and Design Program \(MIT AMDP\)](#)

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