

ALEX ANGELUS

Mays Business School Wehner Building, Texas A&M University

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RESEARCH INTERESTS

Supply Chain Management; Renewable Energy Operations; Healthcare Operations

EDUCATION

1997 Ph.D. in Operations, Information and Technology, Graduate School of Business, Stanford University, CA.

1992 B.Sc. in Mathematics, Massachusetts Institute of Technology, Cambridge, MA

SOCIETAL IMPACT STATEMENT

The primary goal of my current research is to develop mathematical frameworks for new business models of renewable energy that make it easier and more profitable for consumers and power generation companies to invest in renewable energy generation, such as solar panels, wind turbines, and geothermal. The societal impact of my research is a roadmap towards more rapid and effective transition away from fossil fuels and towards increased renewable energy use by residential and commercial electricity consumers. The expected result is a faster and higher reduction in carbon emissions, with the view towards mitigating the effect of global climate change on the society.

PROFESSIONAL EXPERIENCE

- 2017 – present Assistant Professor of Operations Management, The Mays Business School, Texas A&M University, College Station, TX
- 2014 – 2017 Visiting Assistant Professor of Operations Management, Jindal School of Management, University of Texas at Dallas
- 2008 – 2013 Associate Professor of Operations Management, Lee Kong Chian School of Business, Singapore Management University
- 2005 – 2007 Lecturer, Operations Management Department, Haas School of Business, University of California at Berkeley
- 2003 – 2004 Adjunct Professor, Graduate Business School, St. Mary's University
- 1997 – 2004 Consultant, Senior Consultant, Engagement Manager; Strategic Decisions Group, Palo Alto, California

REFEREED ARTICLES PUBLISHED

10. On the Large-Scale Production of a New Vaccine (with Ö. Özer), *Production and Operations Management*, Vol. 31, pp. 3043-3060, 2022.
9. Distributed Renewable Power Generation and Implications for Capacity Investment and Electricity Prices, *Production and Operations Management*, Vol. 30, pp. 4614-4634, 2021.
8. When Variability Trumps Volatility: Optimal Control and Value of Reverse Logistics in Supply Chains with Multiple Flows of Product (with Ö. Özer), *Manufacturing & Service Operations Management*, Vol. 23, pp. 1005-1331, 2021.
7. Looking Upstream: Optimal Policies for a Class of Capacitated Multi-Stage Inventory Systems (with W. Zhu), *Production and Operations Management*, Vol. 26, pp. 2071–2088, 2017.
6. Knowledge You Can Act On: Optimal Policies for Assembly Systems with Expediting and Advance Demand Information (with Ö. Özer), *Operations Research*, Vol. 64, pp. 1338–1371, 2016.
5. On the Structure of Capacitated Assembly Systems (with W. Zhu), *Operations Research Letters*, Vol. 41, pp. 19-26, 2013.
4. A Multiechelon Inventory Problem with Secondary Market Sales, *Management Science*, Vol. 57, pp. 2145-2162, 2011.
3. An Asset Assembly Problem (with E. Porteus), *Operations Research*, Vol. 56, pp. 665-680, 2008.
2. Simultaneous Capacity and Production Management of Short-Life-Cycle, Produce-to-Stock Goods under Stochastic Demand (with E. Porteus), *Management Science*, Vol. 48, pp. 399-413, 2002.
1. Opportunities for Improved Statistical Process Control (with E. Porteus), *Management Science*, Vol. 43, pp. 1214-1228. 1997.

NON-REFEREED ARTICLES PUBLISHED

2. Electricity Price Forecasting in Deregulated Markets, *The Electricity Journal*, April 2001.
1. On the Valuation of Electricity Generation Assets with Spark Spread Options. *White Paper*, Strategic Decision Group, March 2000.

HONORS AND RECOGNITIONS

2020 Voted “Best Professor in the MS of Business Program”, Mays Business School, TAMU
2012 “Best Professor in Operations Management” 3rd Asia’s Best B-School Awards
2012 Dean’s Teaching Honor List, Lee Kong Chian School of Business
2011 Dean’s Teaching Honor List, Lee Kong Chian School of Business
2009 Dean’s Teaching Honor List, Lee Kong Chian School of Business
2009 *Operations Research*, Meritorious Service Award

FUNDED RESEARCH

- National Science Foundation, EAGER Grant. Title: “An Exploratory Approach for Managing Multiple Flows in Serial Supply Systems” August 1, 2016 (\$200,503) (Co-PI: Ö. Özer, Co-PI: Alex Angelus), Awd # 1644935
- Mays School of Business, Texas A&M, Grand Challenge Research Area Grant. “A Model to Jointly Optimize the Quantity and Quality of the Influenza Vaccine”, \$15,000.00. (August 1, 2018).

INVITED TALKS AT SEMINAR

Chinese University of Hong Kong, Hong Kong (February 2014)
University of Minnesota, Minneapolis, MN (October 2010)
Eindhoven Technological University, Eindhoven, Netherlands, (September 2010)
City University, Hong Kong (February 2010)
Fuqua School of Business, Duke University, Durham, NC (November 2009)
University of Texas at Dallas Business School, Dallas, TX (November 2009)
Haas School of Business, University of California, Berkeley, CA (October 2009)
Universidad Pompeu Fabra, Barcelona, Spain (May 2009)
Hong Kong University of Science and Technology, Hong Kong (April 2008)
Chinese University of Hong Kong, Hong Kong (April 2008)

INVITED CONFERENCE TALKS

The Impact of Transmission Grid Development On Renewable Energy Investment And Generation, 2021 INFORMS Annual Conference, Anaheim, CA (October, 2021)

Virtual Microgrids: Implications of Blockchain Technologies for Peer-to-Peer Trading of Electricity, Renewable Energy Investments, and Resource-Sharing Network Coordination, 2021 MSOM Conference, Virtual at University of Indiana (June, 2021)

Optimal Control and Value of Reverse Logistics in Supply Chains with Multiple Flows of Product, 2020 INFORMS Annual Conference, Virtual. (November, 2020)

Distributed Renewable Power Generation and Implications for Capacity Investment and Electricity Prices, CEMA Conference, Pittsburgh, PA (June 2019)

Optimal Control and Value of Reverse Logistics in Supply Chains with Multiple Flows of Product, POMS Conference, Washington D.C. (May 2019)

Distributed Renewable Power Generation and Implications for Capacity Investment, Electricity Prices, and Sustainability, POMS Conference, Washington D.C. (May 2019)

Optimal Control of Reverse Logistics in Supply Chains with Multiple Flows of Product, MSOM Conference, 2018, Dallas, TX. (July, 2018).

Distributed Renewable Power Generation and Implications for Strategic Consumer Behavior, Capacity Investment, and Electricity Markets, International INFORMS Conference, Taipei, Taiwan. (June 2018).

Looking Upstream: Optimal Policies for a Class of Capacitated Multi-stage Inventory Systems, INFORMS Conference, Houston, TX. (November 2017)

Optimal Control and Value of Reverse Logistics in Supply Chains with Multiple Flows of Product, INFORMS Conference, Houston, TX. (November 2017)

Distributed Renewable-energy Generation and Implications for Strategic Consumer Behavior, Electricity Pricing and Installed Capacity, INFORMS Conference, Nashville, TN. (November 2016)

Uncovering the Hidden Value of Reverse Logistics with Complementary Product Flows in a Supply Chain, International INFORMS, Hawaii, (June 2016)

On Managing the Supply-Demand Mismatch with Complementary Product Flow Options, INFORMS Conference, Philadelphia, PA. (November 2015)

On Managing the Supply-Demand Mismatch with Complementary Product Flow Options, MSOM Conference, Toronto, Canada. (June 2015)

Knowledge You Can Act On: Optimal Policies for Assembly Systems with Expediting and Advance Demand Information, POMS Conference, Washington, D.C. (May 2015)

Knowledge You Can Act On: Optimal Policies for Assembly Systems with Expediting and Advance Demand Information, MSOM Conference, Seattle, WA (June 2014)

Optimal and Heuristic Policies for an Assembly System with Secondary Market Sales, INFORMS Conference, Charlotte, NC (October 2011)

Optimal and Heuristic Policies for an Assembly System with Secondary Market Sales, MSOM Conference, Ann Arbor, MI (June 2011)

A Capacitated Assembly Problem, INFORMS Conference, Austin, TX (Nov. 2010)

A Multiechelon Inventory Problem with Secondary Market Sales, MSOM Conference, Haifa, Israel (June 2010)

Managing Capacitated Multiechelon systems with Domain-Optimal Policies, INFORMS Conference, San Diego, CA (October 2009)

Managing Capacitated Multiechelon systems with Domain-Optimal Policies, EURO Conference, Bonn, Germany (July 2009)

Managing Capacitated Multiechelon systems with Domain-Optimal Policies, MSOM Conference, Cambridge, MA (June 2009)

PROFESSIONAL ACTIVITIES

Editorial Review Board for POM Journal:

2018 – present

Referee for Journals:

Management Science, Operations Research, Manufacturing & Service Operations Management, Production and Operations Management Journal.

University Service and Activities:

2020 – present PhD co-advisor for Seulchan Lee, Mays Business school, Texas A&M university (expected graduation, May 2022)

2019 – present PhD advisory committee member: Seulchan Lee, Mays Business school, Texas A&M university (expected graduation, May 2022)

2008 – 2012 MBA Admissions Committee, Singapore Management University.

2008 – 2010 Faculty Hiring Committee, Singapore Management University.

2008 – 2009 Course Coordinator for the undergraduate Management Science course, Singapore Management University.

Professional Memberships: *INFORMS, MSOM, POM*

TEACHING EXPERIENCE

Texas A&M University

Global Operations

Business Process Design

Supply Chain Management

The University of Texas at Dallas

Prescriptive Analytics

Quant. Intro. to Risk and Uncertainty in Business

Singapore Management University

Business Analytics

Operations Management

Supply Chain Management

Management Science