December 20, 2025

# Curriculum Vitae


## Steven D. Eppinger

General Motors Leaders for Global Operations Professor
Professor of Management Science and Innovation
Sloan School of Management
Massachusetts Institute of Technology
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*Citations*: http://scholar.google.com/citations?user=ewwakRYAAAAJ


## Education

| *Degree* | *School* | *Date* |
|---|---|---|
| Sc.D. (Mechanical Engineering) | MIT | 9/88 |
| S.M. (Mechanical Engineering) | MIT | 6/84 |
| S.B. (Mechanical Engineering) | MIT | 2/83 |

## Principal Fields of Interest

Product Development, Engineering Design, Technology Management, Project Management

## History of MIT Appointments

| *Rank* | *Start* | *End* |
|---|---|---|
| Professor of Innovation (by joint appointment) | 7/09 | —— |
| Professor of Management Science | 7/01 | —— |
| Professor of Engineering Systems (by joint appointment) | 7/99 | 6/16 |
| Associate Professor of Management Science (with tenure) | 7/96 | 6/01 |
| Associate Professor of Management Science (without tenure) | 7/93 | 6/96 |
| Assistant Professor of Management Science | 7/88 | 6/93 |

## Consulting Activities

### *Advisory Boards*

| *Firm* | *Location* | *Date(s)* |
|---|---|---|
| Naya Studio, Inc. | Boston, MA | 12/24 —— |
| SurgiBox, Inc. | Cambridge, MA | 10/24 —— |
| Ambit Health Ventures | Boston, MA | 4/24 —— |
| Lattix, Inc. | Andover, MA | 7/04 – 4/22 |

### *Completed Engagements*

| *Client* | *Location* | *Date(s)* |
|---|---|---|
| Mahidol University | Bangkok | 1/25 |
| PTC | Boston, MA | 6/12 – 5/23 |
| Omega Therapeutics | Cambridge, MA | 11/22 |
| Fusion for Energy | Barcelona | 12/20 – 10/21 |
| Lutron Electronics Co. | Coopersburg, PA | 10/18 – 5/19 |
| Ipsen Bioscience, Inc. | Cambridge, MA | 10/17 – 1/19 |
| Avatech | Park City, UT | 9/13 – 6/18 |

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|---|---|---|
| Biogen | Cambridge, MA | 12/14 – 4/16 |
| Allen, Allen, Allen & Allen | Richmond, VA | 6/14 – 2/16 |
| BP Exploration and Production Co. | Houston, TX | 11/12 – 8/14 |
| Waters Corp. | Milford, MA | 6/14 |
| Nurun Inc. | Montreal, Canada | 1/13 –7/13 |
| Apple, Inc. | Cupertino, CA | 8/11 – 4/12 |
| BP BioFuels | Houston, TX | 5/12 |
| Cabot Corp. | Billerica, MA | 4/12 |
| ANSYS, Inc. | Canonsburg, PA | 12/11 |
| VF Corp. | New York, NY | 9/11 |
| SolidWorks | Concord, MA | 6/11 |
| Plantronics, Inc. | Santa Cruz, CA | 5/10 – 1/11 |
| Becton Dickinson Medical-Surgical | Franklin Lakes, NJ | 2/10 – 6/10 |
| Ambient Devices, Inc. | Cambridge, MA | 1/02 – 4/10 |
| KLA-Tencor | Milpitas, CA | 8/07 |
| PTC | Needham, MA | 1/04 – 7/07 |
| iRobot, Inc. | Burlington, MA | 9/06 |
| ProChain Solutions, Inc. | San Diego, CA | 2/06 |
| Propulsor Technology, Inc. | Arlington, VA | 9/05 |
| Mitsubishi Electric Co. | Nagoya, Japan | 7/05 |
| Integral, Inc./Analysis Group | Cambridge, MA | 10/91 – 6/05 |
| Volvo Powertrain Inc. | Hagerstown, MD | 5/05 |
| NASA | Pasadena, CA | 1/05 |
| BP | Houston, TX | 3/04 |
| Medtronic, Inc. | Minneapolis, MN | 1/04 – 3/04 |
| Nokia Oy | Helsinki, Finland | 10/03 – 10/06 |
| ISI-Dentsu Inc. | Tokyo, Japan | 11/03 |
| Exostar, Inc. | Herndon, VA | 11/03 |
| Axiomatic Design Solutions, Inc. | Boston, MA | 10/03 |
| 3dMaxMedia Inc. | Windermere, FL | 11/99 – 6/02 |
| Schlumberger Corp. | Cambridge, UK | 12/01 |
| Global One | Reston, VA | 11/99 – 1/00 |
| TEKES, Finland Technology Centre | Helsinki, Finland | 6/99 – 1/00 |
| Finnish Inst. of Tech Industries (FIMET) | Helsinki, Finland | 8/93 – 1/00 |
| Celsius Corp. | Stockholm, Sweden | 6/99 |
| Fiat Central Research | Torino, Italy | 11/98 – 1/99 |
| Andersen Consulting | St. Charles, IL | 10/98 |
| The Timken Co. | Canton, OH | 11/97 – 2/98 |
| Scania Trucks AB | Södertälje, Sweden | 12/97 |
| Kulicke & Soffa Industries, Inc. | Willow Grove, PA | 5/97 |
| Ford Motor Company | Dearborn, MI | 7/93 – 4/97 |
| IBASC | Princess Anne, MD | 4/96 – 3/97 |
| Product Genesis, Inc. | Cambridge, MA | 10/96 – 12/96 |
| International Business Machines Corp. | Palisades, NY | 4/96 |
| ABB Corporate Research | Vaasa, Finland | 10/94 – 8/95 |
| Benefon Oy | Salo, Finland | 8/95 |
| Saab Military Aircraft | Linköping, Sweden | 8/95 |
| Helkama Cable | Hanko, Finland | 8/95 |
| Xerox Corporation | Washington, DC | 6/95 |
| Nokia Mobile Phones | Salo, Finland | 1/95 |
| Ahlstrom Pyropower | Varkaus, Finland | 10/94 – 1/95 |
| Spectragraphics Corporation | San Diego, CA | 7/94 – 1/95 |
| Valmet Paper Machinery Corp. | Jyväskylä, Finland | 8/93 – 10/94 |
| ABB Industrial Systems Ltd. | Stevenage, England | 6/94 |
| ABB Asea Brown Boveri Ltd. | Zürich, Switzerland | 9/93 – 11/93 |

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|---|---|---|
| Center for Concept Development | Princeton, NJ | 6/92 – 1/93 |
| Charles River Associates, Inc. | Boston, MA | 5/92 |
| Xerox Corporation | Webster, NY | 5/91, 5/92 |
| Eastman Kodak Co. | Rochester, NY | 11/90, 7/91 |
| Edward C. Levy Co. | Dearborn, MI | 12/90 – 2/91 |
| Top Sound, Inc. | Colorado Springs, CO | 9/89 |
| Premise, Inc. | Cambridge, MA | 2/88 – 10/88 |
| Federal Products Corp. | Providence, RI | 6/84 – 4/85 |

## MIT Executive Teaching

| *Program or Client* | *Location* | *Date(s)* |
|---|---|---|
| Artificial Intelligence Executive Academy | MIT | 4/25 —— |
| Merck KGaA | MIT | 9/24 —— |
| Schneider Electric | MIT | 11/23 —— |
| Bank of America | MIT | 8/23 —— |
| Endress+Hauser | MIT | 1/23 —— |
| MITxPRO Technical Project Management | online | 4/22 —— |
| UL Solutions | MIT | 9/22 —— |
| Managing Complex Technical Projects | online | 6/20 —— |
| Mastering Design Thinking | online | 3/18 —— |
| IPADE | MIT | 4/17 —— |
| Advanced Management Program | MIT | 06/14 —— |
| Systematic Innovation | MIT | 11/13 —— |
| Mahidol SIBA | MIT | 3/12 —— |
| TELUS | MIT | 2/25, 3/25 |
| Thomson Reuters | MIT | 11/23 – 5/25 |
| Mondelez International | Hanover, NJ | 3/24 |
| Saudi Electricity | MIT | 12/22 – 5/23 |
| Banco Popular | MIT | 11/22 |
| AXA | MIT | 4/22 |
| Porsche | MIT | 11/15, 2/22 |
| Travelers | MIT | 3/21 |
| Fannie Mae | MIT | 11/17 – 12/21 |
| Danske Bank | MIT | 11/20 |
| Accenture | India | 3/15 – 1/20 |
| Managing Complex Technical Projects | MIT | 9/99 – 11/19 |
| NACS | MIT | 11/19, 11/22 |
| Alfa Group | MIT and Mexico | 10/15 – 6/19 |
| CEMEX | MIT | 11/17 |
| Turk Telekom | MIT | 4/17 |
| Flex | MIT | 5/16 |
| Alstom Tech. Leaders | MIT and Switzerland | 5/14 – 7/15 |
| BP Operations Academy | MIT | 6/12 – 7/14 |
| SDM Certificate Program | MIT | 8/01 – 8/13 |
| Product Development | MIT | 6/97 – 10/12 |
| BP Projects Academy | MIT | 6/03 – 3/12 |
| China Mobile | MIT | 10/11, 9/12 |
| ACMA | MIT and India | 10/08 – 2/11 |
| Boeing China | MIT | 12/10 |
| Air Liquide | MIT | 10/10 |
| Rusnano | MIT | 4/10 |
| Russian Oil and Gas Industry | Moscow | 11/09, 10/10 |
| International Management | MIT | 6/08, 6/09 |
| International Advanced Management | MIT | 6/06, 6/07 |

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|---|---|---|
| Mars University | MIT | 4/06 |
| Leading Innovation and Entrepreneurship | MIT | 2/05, 3/06 |
| Project Management for Engineers | MIT | 6/96 – 1/00 |
| India Executive Program | MIT | 5/97, 5/98 |
| LFM Industry Leaders | MIT | 11/95, 2/98 |
| Management of R&D Executive Program | MIT | 6/95 |
| MIT Summer Session Course | MIT | 8/94 |
| US Army Missile Command (MICOM) | MIT | 5/94 |
| Central/Eastern European Teachers | MIT | 7/93 |
| MIP/MIT Executive Program | MIT | 6/91, 6/92 |

## Other Executive Teaching

| ***Program or Client*** | ***Location*** | ***Date(s)*** |
|---|---|---|
| Schneider Electric | online | 11/25 —– |
| Foundations of Innovation & Entrepreneurship | MIT | 6/17 —– |
| Fusion for Energy (ITER) | online | 1/21 – 9/21 |
| US Army R&D Center | Natick, MA | 12/16 |
| Pratt&Whitney Customer Training Ctr. | Farmington, CT | 10/13 |
| Qualcomm, Inc. | San Diego, CA | 12/08 |
| FARO Technologies | Cambridge, MA | 10/07 |
| Intl. Assn. of Product Development | San Diego, CA | 1/06 |
| Nordic Management of Technology Prog. | Boston, MA | 11/92 – 9/02 |
| Royal Complutense Spanish Scholars Pgm | Harvard Univ. | 7/99 – 7/02 |
| Exec. Masters in International Logistics | Georgia Tech, Atlanta | 11/01 |
| ENDREA | Göteborg, Sweden | 10/01 |
| Bose Corporation | Framingham, MA | 3/01 |
| Stockholm School of Econ, Exec MBA | Cambridge, MA | 3/01 |
| United Technologies Advanced Studies Pr. | East Hartford, CT | 10/00 |
| Euroforum | Madrid, Spain | 5/00 |
| Instituto Internacional San Telmo | Sevilla, Spain | 5/99 |
| Management Roundtable | Waltham, MA | 2/97 – 11/98 |
| CERTI Foundation | Florianópolis, Brazil | 9/98 |
| Sonera, Tele Business School | Finland | 12/96 – 5/98 |
| Chalmers Advanced Management Pgm. | Boston, MA | 3/98 |
| IIR Finland | Helsinki, Finland | 12/96, 12/97 |
| Design Management Institute | Amsterdam, Netherlands | 3/97 |
| University of Michigan | Ann Arbor, MI | 8/96, 3/97 |
| International Equipment Company | Needham Heights, MA | 4/96 |
| Unilever General Management Course | Kingston-upon-Thames, England | 3/96 |
| China Educational Tours | Boston, MA | 7/92 |
| Estonian Management Institute | Tallinn, Estonia | 1/91 |

## MIT Activities

| ***Administrative Positions*** | ***Start*** | ***End*** |
|---|---|---|
| Co-Director, SDM and IDM Programs | 4/10 | 6/22 |
| Deputy Dean, Sloan School of Management | 10/07 | 6/09 |
| Interim Dean, Sloan School of Management | 7/07 | 10/07 |
| Deputy Dean, Sloan School of Management | 7/04 | 6/07 |
| Co-Director, LFM and SDM Programs | 7/01 | 7/03 |
| Co-Director, Center for Innovation in Product Development | 6/00 | 1/02 |
| Research Director, Ford-MIT Collaboration | 5/98 | 9/01 |

| ***Committees*** | ***Start*** | ***End*** |
|---|---|---|
| Sloan Executive Education Committee | 9/18 | —— |
| MIT Endicott House Board of Governors | 7/07 | 6/28 |
| MIT Online and Professional Continuing Education Working Group | 11/23 | 10/25 |
| Martin Trust Center Advisory Committee | 9/19 | 6/25 |
| MIT Committee on Nominations | 7/19 | 6/22 |
| MIT Design Initiatives Committee | 11/20 | 1/22 |
| Sloan Task Force on Digital Education | 9/18 | 6/20 |
| Sloan Global Initiatives Committee | 9/15 | 6/19 |
| Committee on Outside Professional Activities | 9/12 | 6/19 |
| New Engineering Education Transformation Program Committee | 6/16 | 6/17 |
| Committee on MIT's Role in Reducing the Cost of Health Care | 8/14 | 6/15 |
| Corporation Joint Advisory Committee on Institute-Wide Affairs | 7/12 | 6/15 |
| Institute-wide Task Force on the Future of MIT Education | 3/13 | 8/14 |
| Entrepreneurship Minor Committee | 7/12 | 6/14 |
| Engineering Academic Programs Review Committee | 1/14 | 5/14 |
| Sloan Executive Personnel Committee | 9/13 | 5/14 |
| MIT-BP Research Program Committee | 9/11 | 12/13 |
| MIT Endicott House Review Committee (chair) | 3/13 | 10/13 |
| Sloan Fellows and EMBA Programs Committee | 8/12 | 7/13 |
| Sloan Undergraduate Education Task Force | 10/12 | 5/13 |
| MITx Steering Group | 5/12 | 1/13 |
| Ad Hoc Committee on Innovation and Entrepreneurship | 11/11 | 6/12 |
| ESD Organization Task Force | 9/11 | 5/12 |
| Sloan Executive Education Committee | 9/09 | 6/10 |
| Killian Award Selection Committee | 9/09 | 6/10 |
| MIT Task Force Working Group on Administrative Processes (co-chair) | 2/09 | 6/10 |
| MIT Committee on Conflicts of Interest in Research | 9/08 | 6/10 |
| Lemelson-MIT Sustainability Prize Screening Committee | 10/08 | 6/09 |
| MIT International Advisory Council | 6/07 | 6/09 |
| Sloan International Initiatives Committee (chair) | 9/04 | 6/09 |
| Sloan Executive Education Committee (chair) | 9/04 | 6/09 |
| Sloan Executive Personnel Committee | 9/04 | 6/09 |
| Sloan Space Committee | 9/04 | 6/09 |
| MIT Faculty Council | 7/04 | 6/09 |
| MIT Open CourseWare Director Search Committee (chair) | 11/07 | 7/08 |
| School of Engineering Strategic Planning Council | 10/07 | 5/08 |
| Sloan Undergraduate Program Committee | 9/04 | 7/07 |
| Sloan Doctoral Program Committee | 9/04 | 7/07 |
| School of Engineering Deans Search Committee | 11/06 | 6/07 |
| MIT Research Administration Council | 9/05 | 6/07 |
| MIT150 Sesquicentennial Planning Committee | 11/06 | 1/07 |
| Innovation and Entrepreneurship Program Design Committee | 11/05 | 6/06 |
| MIT Undergraduate Commons Task Force | 7/04 | 8/06 |
| MIT-BP Research Program Committee | 9/04 | 12/05 |
| MIT IT-SPARCC Council | 9/04 | 9/05 |
| Lemelson-MIT Prize Board | 9/00 | 2/03 |
| MIT Faculty Council | 8/00 | 6/03 |
| Sloan Undergraduate and Interdepartmental Program Committee | 9/99 | 6/03 |
| Sloan Masters Program Redesign Committee | 3/02 | 12/02 |
| Engineering Council (Extended) | 7/00 | 6/02 |
| Sloan Community Appreciation Awards Committee | 5/00 | 5/02 |
| Sloan Task Force on Educational Technology | 9/99 | 3/02 |
| MIT Committee on Undergraduate Policy (CUP) | 9/98 | 8/01 |
| Sloan Building Technology Sub-Committee | 8/00 | 6/01 |

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|---|---|---|
| Sloan Undergraduate Minor Committee (Chair) | 1/99 | 6/00 |
| Lemelson-MIT Prize Screening Committee | 10/97 | 4/00 |
| Sloan Executive Education Committee | 9/97 | 9/98 |
| LFM Knowledge Transfer Committee | 1/95 | 6/96 |
| MIT Committee on the Writing Requirement | 6/91 | 6/94 |
| Sloan Committee on Faculty Load | 9/90 | 12/90 |
| Brooks Thesis Prize Committee | 9/89 | 5/90 |
| Sloan Committee on Undergraduate Advisors | 8/89 | 6/96 |

| ***Research and Teaching Programs*** | ***Start*** | ***End*** |
|---|---|---|
| System Design and Management Program | 6/94 | —— |
| Leaders for Global Operations Program | 9/88 | —— |
| Integrated Design and Management Program | 9/15 | 6/23 |
| Singapore-MIT Alliance (Advanced Manufacturing Technology Program) | 7/99 | 7/02 |
| Ford-MIT Collaboration | 5/98 | 9/01 |
| Center for Innovation in Product Development | 6/96 | 6/02 |
| Lean Aerospace Initiative | 6/96 | 1/99 |
| International Center for Research on the Management of Technology | 9/90 | 6/98 |
| International Motor Vehicle Program | 8/91 | 6/93 |
| Laboratory for Manufacturing and Productivity | 9/88 | 5/93 |

## Honors

| ***Chairs*** | ***Start*** | ***End*** |
|---|---|---|
| General Motors Leaders for Global Operations Chair | 6/09 | —— |
| General Motors Leaders for Manufacturing Chair | 1/98 | 6/09 |
| Nanyang Technological University Career Development Chair | 11/93 | 6/95 |

| ***Awards*** | ***Date*** |
|---|---|
| INFORMS Omega Rho Distinguished Lecture | 10/24 |
| Design Society, Fellow | 4/23 |
| Technical University of Denmark H.C. Ørsted Distinguished Lecture | 10/19 |
| MIT Teaching with Digital Technology Award Nomination | 6/17 |
| INFORMS Technology, Innovation Management, and Entrepreneurship Distinguished Speaker Award | 11/15 |
| PICMET Medal of Excellence Award | 8/15 |
| Wickham Skinner Award for Best Paper Published in Production and Operations Management in 2013, 2nd place award | 5/14 |
| World Economic Forum, Global Agenda Council on the Skills Gap | 5/08 |
| POMS College of Product Innovation and Technology Management, Distinguished Fellow | 5/06 |
| University of Minnesota 5th Annual Allan D. Shocker Lecture | 3/03 |
| ASME Xerox DTM Best Paper Award | 9/01 |
| ASME Design Theory and Methodology Conference Best Paper Award | 9/95 |
| Academy of Management, TIM Division Best Books List | 1/95 |
| MIT Alumni/ae Award for Innovation and Excellence in Management Education | 5/93 |
| MIT Graduate Student Council Teaching Award | 5/93 |

| ***Grants*** | ***Start*** | ***End*** |
|---|---|---|
| Swisscom Research Grant | 2018 | 2021 |
| BP Research Grant | 2013 | 2017 |
| Siemens Research Grant | 2009 | 2014 |
| Nokia Oy Research Grant | 2007 | 2008 |
| Parametric Technology Corp. Research Grant | 2006 | 2007 |
| Singapore-MIT Alliance Research Grant | 2000 | 2003 |

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|---|---|---|
| Ford-MIT Collaboration Research Grant | 1999 | 2001 |
| Center for Innovation in Product Development (CIPD) Research Grant | 1999 | 2001 |
| National Science Foundation Engineering Research Center Grant (CIPD) | 1996 | 2001 |
| Lean Aircraft Initiative Research Grant | 1996 | 1999 |
| Hewlett Packard Research Grant | 1996 | 1999 |
| NASA New Millennium Program Research Grant | 1996 | 1998 |
| International Center for Research on the Management of Technology Grant | 1991 | 1998 |
| International Motor Vehicle Program Research Grant | 1991 | 1993 |
| Leaders for Manufacturing Curriculum Devel. Grant (Sloan Foundation) | 1990 | 1994 |
| Digital Equipment Corporation Research Grant | 1990 | 1992 |
| General Motors Research Grant | 1990 | 1991 |
| National Science Foundation Technology Management Program Grant | 1990 | 1992 |
| Leaders for Manufacturing Research Grant | 1989 | 1995 |
| Leaders for Manufacturing Junior Faculty Grant | 1988 | 1993 |

## Professional Activities

### *Professional Memberships*

American Society of Mechanical Engineers
Corporate Design Foundation
Design Management Institute
Design Society
Institute for Operations Research and Management Science
Institute of Electrical and Electronic Engineers
Production and Operations Management Society
Society of Concurrent Product Development
World Economic Forum, Councils on the Global Agenda

### *Recent Referee Activity*

ASME Journal of Mechanical Design
Artificial Intelligence for Engineering Design, Analysis, and Manufacturing (AIEDAM)
California Management Review
CoDesign
Design Science
Design Studies
IEEE Transactions on Engineering Management
INFORMS-TMS, Best Paper Award
International Conference on Engineering Design
International DESIGN Conference
International Design Structure Matrix Conference
International Journal of Design Creativity and Innovation
International Journal of Product Development
Journal of Engineering and Technology Management
Journal of Engineering Education
Journal of Engineering Design
Journal of Modern Project Management
Journal of Product Innovation Management
Journal of Systems Science and Systems Engineering
Management Science
Manufacturing and Service Operations Management
MIT Press
NordDesign Conference
Operations Research
Organization Science

Production and Operations Management
R&D Management
Research in Engineering Design
Sloan Management Review
Systems Engineering

### *Leadership Activities*

Harvard University MS/MBA 5-year Program Review Panel (2025)
University of Strathclyde Quinquennial Review Dept. of Design, Mfg. and Eng. Mgmt. (2022)
PICMET Fellows Judging Panel (2021)
Designs, Editorial Board (2018–)
IEEE Transactions on Engineering Management, Editorial Review Board (2017-2020)
INFORMS Technology Management, Innovation, and Entrepreneurship (TIME) Section, Best Paper Award Selection Committee (2016)
Portland International Center for Management of Engineering & Technology (PICMET) Advisory Council (2015-2021)
Journal of Modern Project Management, Editorial Board and Academic Editor (2013–2020)
Journal of Product Innovation Management, Editorial Board (2013–2014)
International Journal of Design Creativity and Innovation, Editorial Advisory Board (2012–)
University of Cambridge, Judge Business School, Board of Electors to the Margaret Thatcher Professorship of Enterprise Studies (2011-2012)
Tufts University, Gordon Institute, Industrial Advisory Board (2011-2017)
Electronic Colloquium on Design Thinking Research, Scientific Board (2009-2015)
Design Society Special Interest Group on Structural Complexity, Co-Chair (2008-2011)
International Journal of Engineering Management and Economics Advisory Board (2007 –)
Design Society Advisory Board (2007 – 2019)
CoDesign Editorial Board (2002 –)
International Journal of Product Development Editorial Board (2002 –)
Society of Concurrent Product Development Advisory Board of Directors (2001 –)
International Design Structure Matrix Conference, Founder and Advisory Board (1999 –)
Design Management Institute Research Advisory Council, Scientific Committee (1999 –)
Design Studies Editorial Board (1997-2016)
Manufacturing and Service Operations Management Editorial Board (1997-2004)
ASME Design Theory and Methodology Committee (1990-2010)
ASME Design Theory and Methodology Conf. Paper Review Coordinator (1992, 1996, 2002)
Management Science Special Issue on Design and Development Associate Editor (1998-99)
International Conference on Engineering Design Program Committee (1997, 1999, 2001, 2003)
TIMS/ORSA Boston Joint National Meeting (Product Development Cluster Chair, 4/94)

## Subjects Taught

### *Number, Title, Semester(s)*

15.783J, Product Design and Development (S91, S92, S93, S94, S95, S96, S98, S99, S00, S01, S02, S03, S09, S10, S12, S13, S14, S15, S16, S17, S19, S20, S21, S22, S23, S24)
15.782, Product Design Methods (S21, S22, S23, S24)
15.735, Product Design - EMBA Elective (W15, W16, W17, W18, W19, W20)
15.S72, Introduction to Product Management (S15)
ESD.36J, System and Project Management (F02)
SMA6306, Product Design and Development (F00, F01)
15.760, Introduction to Operations Management (S89, S90, S91, S92, S93, S94)
15.970, Special Module on Technology and Management (S90, F90, F91, F92)
15.785, Design for Manufacturing (F88, F89)

## Thesis Supervision

### *Doctoral Theses Supervised*

Alison Olechowski, June 2017.
“Essays on Decision-Making in Complex Engineering Systems Development”

Daniel Sturtevant, February 2013.
“System Design and the Cost of Architectural Complexity”

Anshuman Tripathy, February 2010.
“Work Distribution in Global Product Development Organizations”

Darian W. Unger, June 2003.
“Product Development Process Design: Improving Development Response to Market, Technical, and Regulatory Risks”

Jay Jootar, June 2002.
“A Risk Dynamics Model of Complex System Development”

Manuel E. Sosa R., June 2000.
"Analyzing the Effects of Product Architecture on Technical Communication in Product Development Organizations"

Maria Carrascosa, June 1999.
"Product Development Timing and Cost Analysis Using Information Flow Modeling"

Sharon Novak, June 1999.
"Sourcing By Design: Product Architecture and the Supply Chain"

Tyson Rodgers Browning, January 1999.
"Modeling and Analyzing Cost, Schedule, and Performance in Complex System Product Development"

Vikas Sharma, September 1996.
"A New Modeling Methodology Combining Engineering and Statistical Modeling Methods: A Semiconductor Manufacturing Application"

Viswanathan Krishnan, September 1993.
"Design Process Improvement:  Sequencing and Overlapping Activities in Product Development"

Robert P. Smith, September 1992.
"Development and Verification of Engineering Design Iteration Models"

### *Masters Theses Supervised*

Bonny Mahajan, May 2025
"Generative AI in Private Equity for Accumulative Advantage"

Brian Herrera, February 2024
"Cloud-Native Applications and Their Role in Supporting Agile Hardware Development"

Zoe Hinton, June 2023
"Enhanced Digital Capability through the use of Simulation in Footwear Product Creation"

Aidana Daulbayeva, June 2023 (reader)
"Behavioral Design for Emotional Intelligence: Leveraging Affective Computing in Medical Education for Improved Care for Substance Use Disorders"

Amit Galgali, May 2022
"Prototyping of Injection EVA Foam Footwear Midsoles"

Stephen Jeffrey Pickett, February 2022
"Applying the Design Structure Matrix to Streamline the Development Process: Lessons From Marine Renewable Development"

Daniel Reilly, June 2021
"Implementing Virtual Reality Based Digital Twins in Automotive Manufacturing"

Jonathan Marcus, June 2021
"Digital Strategy for Consumer Products"

Nithin Thekkupadam Narayanan, February 2021.
"Maximizing Value Creation in Agile Sprints"

Lisa Crofoot, May 2020.
"Management of Cross-Team Interfaces in Large-Scale Agile Development"

Ameneh Fadaie, May 2020.
"Exploration of Consumer Responses to Organic Food Pricing"

Javier Trevino Ruiz, May 2020.
"A Survey of Human-Centered Design Methodologies for a New Hybrid Approach in Product and Experience Innovation"

Siddharth Bajpai, February 2020.
"Planning Large-Scale Agile Development Using a Dependency Structure Mapping Model"

Andrea C. McClave, June 2019.
"User Experience Research for a Campus Food System"

Karen Cheng, June 2019.
"Sustainable Packaging Approaches Needed for Today's Emerging Waste Challenges"

Austin M. Page, February 2019. (reader)
"Technical Debt: The Cost of Doing Nothing"

Rajaram Srinivasan, February 2019.
"Analysis of DevOps in Complex Product-Service System Development"

Timothy Leonard Marquart, June 2018.
"Improving Design and Manufacturing Performance Through Advanced Visualization"

Amit Kumar Tomar, September 2017.
"Study of Scrum Framework Usage in Non-Software Systems"

Olawale A. Akinwale, February 2017.
"System Architecture Design of a Robust Heating System"

Tushar Garg, February 2017.
"Estimating Change Propagation Risk using TRLs and System Architecture"

Joseph Lessard, February 2017.
"Electronic Waste Recycling: Understanding the Ecosystem and Opportunities for Improvement"

Andrew J. Byron, June 2016.
"Qualification and Characterization of Metal Additive Manufacturing"

Nathan McMullin, June 2015.
"Value Creation through Intellectual Property Acquisition"

Rodolfo Reyes Luna, February 2015.
"Leveraging the Capacity of Human Capital in a Product Development Organization"

Jeremy M. Giese, June 2014
"Rugged Field Service Computing: A Product Development Case Study at Dell Inc."

Luis Armando López Avila, February 2014.
“Incorporating the Innovation Process in a Product Development Organization”

Anitha Balasubramaniam, February 2014.
“Financial Modeling of New Product Development Economics”

Andrew Oswald, June 2013.
“Understanding Technology Development Processes: Theory & Practice”

Toni J. Ferreira, June 2013.
“A Design Methodology for the User Interface of an Electromechanical Parts Database”

Joshua Przybylko, June 2013.
“The Applications of Autonomous Systems to Forestry Management”

Asif Iqbal, April 2013.
“A Study of Open Innovation and its Applications to product design”

Carlos Xavier Zamora Torres, February 2013.
“Engineering Work Breakdown and Assignment for Global Product Development”

Steven V. Bonelli and Adrian M. Gonzalez Guerra, September 2012.
“Application of the Design Structure Matrix (DSM) to the Real Estate Development Process using Modular Construction Methods”

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”Application of the Design Structure Matrix to Integrated Product Development Process”

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"An Integrated Method for Managing Complex Engineering Projects Using the Design Structure Matrix and Advanced Simulation"

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"Description of a Turbofan Engine Product Development Process"

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"Modeling Design Rework in a Product Development Process"

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"Modeling and Analysis of Performance of the Steering Angle Sensor Development Project"

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"Process Improvement Applied to Product Development: An Approach to Control of Development Lead Time"

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"Application of Critical Chain to Staged Software Development"

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"System Integration Analysis of a Large Commercial Aircraft Engine"

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"Product Development Process Capture and Display Using Web-Based Technologies"

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"A Generalized Framework for Complex System Design and Management"

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"Applying Critical Chain to Improve the Management of Uncertainty in Projects"

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"Integration Analysis of Product Architecture to Support Effective Team Co-Location"

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"A Methodology of Aligning Product Development Teams with Business Level Goals in a Changing Business Environment"

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"Product Development Process Modeling and Analysis of Digital Wireless Telephones"

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"Opportunities for Improving the Information Intensive Product Development Process"

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"Evolving Mature Product Platforms in Discontinuous markets: An Analysis of IBM's Mainframe Software Business"

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"Rail Car Equipment and Logistics Design Strategy for a Lean Auto Manufacturer"

Jason S. Dell, September 1996.
"A Methodology for Product Architecture Decisions Based on Market Segmentation"

Rosaline K. Gulati, June 1996.
"The Coupling of Product Architecture and Organizational Structure Decisions"

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"A Linear Systems Framework for Analyzing the Automotive Appearance Design Process"

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"The Development and Introduction of Emerging Environmental Design Tools to Provide a Differentiating Capability For An Automotive Supplier"

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"The Process of Design for Environment within Global Manufacturing Companies"

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"Economics of Automobile Recycling"

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"Generalized Models of Design Iteration Using Signal Flow Graphs"

Stephen V. Duca, June 1995. (reader)
"Power and Signal Distribution System Engineering Process for Automotive Electrical System Design"

Thomas E. Abell, June 1994.
"Evaluation and Improvement of the Prototyping Process in Electronic Product Development"

Eun Yung Cha and Celia M. Francis, June 1994. (reader)
"The Use of Industrial Design as a Source of Innovation in the Consumer Electronics Industry"

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"An Evaluation of the Relationship of Automobile Door Distortions to Variations in Material Properties and Production Operating Parameters"

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"A Structured Approach to Calibration Development for Automotive Diagnostic Systems"

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"Evaluating Information Transfer in Product Development"

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"Product Development Cycle Time Characterization Through Modeling of Process Iteration"

Beth Shaw, June 1993.
"Process Improvement Methodology – Defect Detection System Implementation"

Gregory J. Smith, June 1993.
"Managing Process Development Risk: Aluminum Ultrasonic Wire Bonding for Chip-on-Board Applications"

Gavin C. H. Zau, June 1993.
"Concept Generation for Product Design"

Stefan ter Haar, January 1993. (RWTH Aachen, Germany, Dipl.Ing. Thesis)
"Integration of Quality Function Deployment and the Design Structure Matrix"

Mano H. Chinnaswamy, June 1992.
"A Methodology for Manufacturing Process Improvement"

Eva M. H. Csizinszky, June 1992.
"Critical Success Factors That Drive Successful Problem Solving in an Automotive Manufacturing Environment"

David K. Lauzun, June 1992.
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Stephanie A. Maggs, June 1992.
"A Methodology for Process Improvement: Optimization of a Coating Process"

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"Modeling Design Time and Quality Tradeoffs in Automotive Component Design"

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"Product Requirements Definition"

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"Manufacturing Process Signature Analysis Using Feature Extraction and Classification"

Mary Ellen B. Gallahue, June 1991.
"A Methodology for Manufacturing Process Improvement: A Systems Approach"

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"Improving Design Activities through Model-Based Analysis"

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"Concept Selection for Product Design"

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"Dynamic Benchmarking: A Comparative Study of Automotive Suppliers"

Michele W. Sequeira, June 1991.
"Use of the Design Structure Matrix in the Improvement of an Automobile Development Process"

Catherine L. Strakhov, June 1991. (reader)
"A Mathematical Modeling Technique for Improving Fast-Food Labor Scheduling"

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"Diagnosis of Production Shortfall in a Transfer Line by Means of Analytic and Simulation Methods"

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"Capitalizing on Political Risk: Swedish Investments in Estonia"

David C. Allan, June 1990.
"Process-Sensitive Steady-State Part-Cost Computer Modeling of Job Shops"

Anthony S. Arrao, June 1990.
"Transfer of Product Manufacturing by Multinational Corporations: Two Case Studies"

Georgia F. Denktsis, June 1990.
"Part-Cost Computer Modeling of Job Shops as a Function of Manufacturing Parameters"

Wayne S. Firsty, June 1990.
"Implementing CIM for Improved Process Quality"

Harmon C. Fowler, June 1990.
"Bandwidth Performance of a Direct Drive Manipulator Under Joint Torque and Endpoint Force Control"

Brian R. Harris, June 1990.
"Using Innovative Computer Integrated Manufacturing Techniques to Streamline the Production Process"

Mark A. Lester, June 1990.
"Design Alternatives to Improve Consumer Appeal and Manufacturability of a Water-Filled Teether for Babies"

Carolyn A. Theodore, June 1990.
"Marketing Analysis of a Children's Product"

George Jaquette, June 1989.
"Production and Marketing Analysis of a Children's Product"

Dennis L. Marler, June 1989.
"The Post Japanese Model for Automotive Components Suppliers: Illustrated by Selected North American Case Studies"

Jeffrey B. Scroggin, June 1989.
"An Application of Quality Function Deployment to the Product Development Process"

### *Bachelors Theses Supervised*

Amarnath Gopal, February 1992.
"Using Design Structure Matrices to Suggest a Strategy for the Delta Design Exercise"

Sarath Krishnaswamy, June 1991.
"The Effect of Workpiece Damping Characteristics on the Performance of a Direct Drive Manipulator under Endpoint Force Control"

Deborah J. Bein, June 1990.
"Design Evaluation Spreadsheet for the Design of a Baby Teether"

J. Paul R. Grim, June 1990.
"Taguchi Parameter Design Study for the Optimization of the Injection Molding Process in the Manufacture of a 55-pin Electrical Connector"

Lori A. Hart, June 1990.
"Mechanical Design: Methodologies and Concept Generation"

Honor Jones, June 1990.
"A Redesign of TRW's Electrical Connector for Anti-Skid Braking Systems: Reducing the Cost of the Sealing System while Maintaining Features"

Mark D. Mitchke, June 1990.
"Quality Function Deployment: A Design Tool with a Competitive Advantage"

George A. Nunn, June 1990.
"Production Improvements in the Manufacture of a Teething Ring"

Stephanie C. Patterson, June 1990.
"Design Alternatives for a Cooling Teether for Babies"

Steven C. Betz, June 1989.
"Design and Manufacturing Alternatives for a Water-Filled Teething Ring for Babies"

David A. Costello, June 1989.
"Design for Automation of the Baby Teether"

Lisa C. Grossweiler, June 1989.
"Investigation of Ultrasonic Weld Quality in a Baby Teether"

Tanya Jegeris, June 1989.
"Product Redesign for Improved Manufacturability Through Alternative Fabrication Processes, Materials, and Fasteners"

Christine Le Viness, June 1989.
"Redesign of a Cart Holding Ultrasound Imaging Equipment"

### *Thesis Committees*

Tabea Ramírez Hernández, PhD, November 2020.
“Uncertainty Management in Engineering Service Development”
(at Technical University of Denmark)

Tim Wilschut, PhD, December 2018.
“System Specification and Design Structuring Methods for a Lock Product Platform”
(at Eindhoven University of Technology, Netherlands)

Ali Farahanchi, PhD, June 2017.
“The Impact of Strategic Investment on Success of Capital-Intensive Ventures”

Christopher Berardi, PhD, June 2017.
“Intellectual Property and Architecture: How Architecture Influences Intellectual Property Lock-in”

Christopher L. Benson, PhD, June 2014.
“Cross-Domain Comparison of Quantitative Technology Improvement Using Patent Derived Characteristics”

William J. Palm, IV, Ph.D., September 2011.
“Understanding Success and Failure in Outsourced Product Development”

Sidharth Rupani, Ph.D., December 2010.
“Standardization of Product Development Processes in Multi-Project Organizations”

Pedzisayi Onias Makumbe, Ph.D., September 2008.
“Globally Distributed Product Development: Role of Complexity in the What, Where, and How”

Mridula Pore, Ph.D., December 2007.
“Pharmaceutical Tablet Compaction: Product and Process Design”

Qi Dong, Ph.D., June 2002.
"Predicting and Managing System Interactions at Early Phase of the Product Development Process"

Derrick Tate, Ph.D., February 1999.
"A Roadmap for Decomposition: Activities, Theories, and Tools for System Design"

Sean Willems, Ph.D., February 1999.
"Two Papers in Supply Chain Design: Supply Chain Configuration and Part Selection in Multigeneration Products"

Kontong Francis Pahng, Ph.D., June 1998.
"Modeling and Evaluation of Design Problems in a Network-Centric Environment"

Timothy W. Cunningham, Ph.D., February 1998.
"Chains of Function Delivery: A Role for Product Architecture in Concept Design"

Nancy Staudenmayer, Ph.D., June 1997.
"Managing Multiple Interdependencies in Large Scale Software Development Projects"

Andrew D. Christian, Ph.D., August 1995.
"Simulation of Information Flow in Design"

David N. Ford, Ph.D., August 1995.
"The Dynamics of Project Management: An Investigation of the Impacts of Project Process and Coordination on Performance"

Stefan H. Thomke, Ph.D., February 1995.
"The Economics of Experimentation in the Design of New Products and Processes"

John Idicula, M.E., December 1994.
"Planning for Concurrent Engineering"
(at Nanyang Technological University, Singapore)

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### *Books*

*Product Design and Development*
McGraw-Hill/Irwin, New York, Eighth Edition, 2026. (Released Sept 2025)
Also in several foreign language translations and special international editions.
[with K.T. Ulrich and M.C. Yang]

*Product Design and Development*
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Also in several foreign language translations and special international editions.
[with K.T. Ulrich and M.C. Yang]

*Product Design and Development*
McGraw-Hill/Irwin, New York, Sixth Edition, 2016. ISBN 978-0-07-802906-6
Also in several foreign language translations and special international editions.
[with K.T. Ulrich]

*The Guide to the Product Management and Marketing Body of Knowledge*
Product Management Educational Institute (PMEI), Carson City, 2013.
[edited with G. Geracie]

*Design Structure Matrix Methods and Applications*
MIT Press, Cambridge, 2012. ISBN 978-0-26-201752-7 and 978-0-26-252888-7.
Also in Japanese language edition.
[with T.R. Browning]

*Product Design and Development*
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Also in several foreign language translations and special international editions.
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[with K.T. Ulrich]

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http://www.ulrich-eppinger.net
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*Product Design and Development*
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McGraw-Hill, New York, 1995. ISBN 0-07-065812-9.
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Foreword to *Handbook of Research on Trends in Product Design and Development*, A. Silva and R. Simões, IGI Global, 2010.

“Projektmanagement – Produktentwicklungsprojekte zielorientiert und effizient gestalten” (chapter on efficient management of product development projects),
In *Handbuch Produktentwicklung*, B. Schäppi, M.M. Andreasen, M. Kircheorg, and F-J. Radermacher (Eds.), Hanser-Verlag, Munich, 2005. (in German)

"Organizing the Tasks in Complex Design Projects,"
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MIT, Sc.D. Thesis, September 1988.

*Modeling and Dynamics of a High-Speed Pantograph*
MIT, S.M. Thesis, June 1984.

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MIT, S.B. Thesis, February 1983.

## *Refereed Journal Articles*

“Translating Agile Management Practices into a Traditional Industry Context”
*Journal of Product Innovation Management,* vol. 42, pp. 444-467, 2025.
[with M.E. Kreye and T. Ramírez Hernandez]

"Technology Readiness Levels: Shortcomings and Improvement Opportunities”
*Systems Engineering,* vol. 23, no. 4, pp. 395-408, July 2020.
[with A.L. Olechowski, N. Joglekar, K. Tomaschek]

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*Systems Engineering,* vol. 19, no. 2, pp. 158-173, 2016.
[with P. Parraguez and A.M. Maier]

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[with N.R. Joglekar, A. Olechowski, and T. Teo]

“Structuring Work Distribution for Global Product Development Organizations”
*Production and Operations Management,* vol. 22, no. 6, pp. 1557-1575, November/December 2013.
[with Anshuman Tripathy]

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*Journal of Engineering Design,* vol. 22, no. 10, pp. 689-699, October 2011.
[with Darian Unger]

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*IEEE Transactions on Engineering Management,* vol. 58, no. 3, pp. 510-529, August 2011.
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[with L.C. Kelley, E. Gilbertson, A. Sheikh, and S. Dubowsky]

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[with D.W. Unger]

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*Journal of Mechanical Design*, vol. 129, no. 11, pp. 1118-1129, November 2007.
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[with S.H. Cho]

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*Management Science*, vol. 50, no. 12, pp. 1674-1689, December 2004.
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"Information Hiding in Product Development: The Design Churn Effect"
*Research in Engineering Design*, vol. 14, no. 3, pp. 131-144, 2003.
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[with A. Yassine, N. Joglekar, D. Braha, and D.E. Whitney]

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[with T.R. Browning, J.J. Deyst, D.E. Whitney]

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[with M.E. Sosa, M. Pich, D.G. McKendrick, S.K. Stout]

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"Sourcing by Design: Product Complexity and the Supply Chain"
*Management Science*, vol. 47, no. 1, pp. 189-204, January 2001.
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[with S. Novak]

"Evaluation of Design Process Alternatives using Signal Flow Graphs"
*Journal of Engineering Design*, vol. 11, no. 3, pp. 211-224, September 2000.
[with O. Isaksson, S. Keski-Seppälä]

"Deciding between Sequential and Concurrent Tasks in Engineering Design"
*Concurrent Engineering Research and Applications*, vol. 6, no. 1, pp. 15-25, March 1998.
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[with R.P. Smith]

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*Management Science*, vol. 43, no. 4, pp. 437-451, April 1997.
Also MIT Sloan School of Management Working Paper 3635, rev. September 1996.
[with V. Krishnan, D.E. Whitney]

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*Management Science*, vol. 43, no. 3, pp. 276-293, March 1997.
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[with R.P. Smith]

"Active Control of a High-Speed Pantograph"
*Journal of Dynamic Systems, Measurement, and Control*, vol. 119, pp. 1-4, March 1997.
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"Accelerating Product Development by the Exchange of Preliminary Product Design Information"
*Journal of Mechanical Design*, vol. 117, pp. 491-498, December 1995.
[with V. Krishnan, D.E. Whitney]

"Predicting Technical Communication in Product Development Organizations"
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Also MIT Sloan School of Management Working Paper Number 3602, rev. May 1995.
[with M.D. Morelli, R.K. Gulati]

"A Methodology for Manufacturing Process Signature Analysis"
*Journal of Manufacturing Systems*, vol. 14, no. 1, January-February 1995, pp. 20-34.
Also MIT Sloan School of Management Working Paper 3631, revised June 1994.
[with C.D. Huber, V. Pham]

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*Research in Engineering Design*, vol. 6, no. 1, pp. 1-13, 1994.
Also MIT Sloan School of Management Working Paper no. 3569.
[with D.E. Whitney, R.P. Smith, D.A. Gebala]

"Three Dynamic Problems in Robot Force Control"
*IEEE Transactions on Robotics and Automation*. vol. 8, no. 6, December 1992, pp. 751-758.
Previously published in the proceedings of IEEE International Conference on Robotics and Automation, Scottsdale, AZ, May 1989, pp. 392-397.
[with W.P. Seering]

"Model-Based Approaches to Managing Concurrent Engineering"
*Journal of Engineering Design.* vol. 2, no. 4, 1991, pp. 283-290.
Previously published in the proceedings of International Conference on Engineering Design, Zürich, August 1991, pp. 171-177.

"Interdisciplinary Product Design Education"
*IEEE Transactions on Engineering Management.* vol. 37, no. 4, November 1990, pp. 301-305.
Also MIT Sloan School of Management Working Paper, no. 3013-89-MS, May 1989.
[with C.H. Fine, K.T. Ulrich]

"Modeling and Experimental Evaluation of Asymmetric Pantograph Dynamics"
*Journal of Dynamic Systems, Measurement, and Control.* ASME, vol. 110, June 1988, pp. 168-174.
[with D.N. O'Connor, W.P. Seering, D.N. Wormley]

"An Introduction to Dynamic Models for Robot Force Control"
*Control Systems Magazine.* IEEE, vol. 7, no. 2, April 1987, pp. 48-52.
[with W.P. Seering]

## *Articles in Refereed Conference Proceedings*

"Faster and Faster: Automating the Hardware Engineering Process"
*NordDesign 2024*, Reykjavik, August 2024.
[with M. Peters]

"Adjusting Scaled Agile for Systems Engineering"
*International Conference on Engineering Design*, July 2023
[with J. Drutchas]

“Guidance on Application of Agile in Combined Hardware and Software Development Projects”
International Design Conference - DESIGN 2022, May 2022.
[with J. Drutchas]

“Improving Scaled Agile with Multi-Domain Matrix”
*23rd International Dependency and Structure Modeling Conference, DSM 2021 Conference*, October 2021.
[with N. Narayanan and N. Joglekar]

“Enhancing Visibility in Agile Program Increment DSMs”
*22nd International Dependency and Structure Modeling Conference, DSM 2020 Conference*, October 2020.
[with S. Bajpai and N. Joglekar]

“Translating Agile Project Management into a Legacy Industry Context”
*IPDMC: Innovation and Product Development Management Conference*, Antwerp, June 2020.
[with T. Ramírez and M. Kreye]

“The Structure of Agile Development under Scaled Coordination”
*21st International Dependency and Structure Modeling Conference, DSM 2019*, September 2019.
[with S. Bajpai and N. Joglekar]

"The Structure of DevOps in Product-Service System Development"
*International Conference on Engineering Design, ICED 2019*, August 2019.
[with R. Srinivasan and N. Joglekar]

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