Curriculum Vitae

ANANYA SHETH

Post-doctoral Research Fellow
Stevens Business School
Stevens Institute of Technology, NJ

asheth5@stevens.edu; Github; GoogleScholar; ResearchGate; Website

LATEST DEGREE EARNED

2016 – 2021 Doctor of Philosophy
Dissertation Title: Pathways to Enterprise Resilience

Concentration: Innovation and Transformational Design
The Institute for Innovation Science
The Lyles School of Civil Engineering
Purdue University, IN. USA

INDUSTRY-ACADEMIA PARTNERSHIP RESEARCH

2018-2022 Served on research projects linked to **Innovation Strategy** with the Proctor & Gamble Co. (Corporate R&D Organization, Feminine Care Business Division, and Oral Care Business Division) via The Consortium for Corporate Entrepreneurship, Stevens Institute of Technology, and The Institute for Innovation Science, Purdue University

AWARDS

2021 **NSF dissertation grant (co-PI)** Awarded by the Decision, Risk, and Management Science, Division of Social and Economic Sciences, **National Science Foundation**.

Grant Title: Doctoral Dissertation Research in DRMS: Building a comprehensive understanding of enterprise risks and their interdependencies for improved risk-intelligence.

https://www.nsf.gov/awardsearch/showAward?AWD_ID=2049782&HistoricalAwards=false

2021 Business model competition Burton D. Morgan Business Model Competition, Purdue University
Awarded the best social innovation business plan

2019 Grant Purdue University Graduate School

2015 Scholarship Construction Management Association of America – Chicago

2012 Finalist Go Green in the City 2012 – A top-tier global annual innovation challenge by Schneider Electric – Paris

PEER-REVIEWED PAPERS (PUBLISHED)

2022 Sheth, A. Sinfield, JV. An analytical framework to compare innovation strategies and identify simple rules. **Technovation**, 115, 102534. https://doi.org/10.1016/j.technovation.2022.102534

2022 Sheth, A. Kusiak, A. Resiliency of Smart Manufacturing Enterprises via Information Integration. **Journal of Industrial Information Integration**, 100370. https://doi.org/10.1016/j.jii.2022.100370

2021 Sheth, A. Sinfield, JV. Systematic Problem-specification in Innovation Science using Language. **The International Journal of Innovation Science** https://doi.org/10.1108/IJIS-03-2020-0019

2020 Sinfield, JV. Sheth, A. Kotian, RR. Framing the Intractable: Comprehensive Success Factors for Grand Challenges. **Sustainable Futures** 2020, 2. https://doi.org/10.1016/j.sftr.2020.100037

2014 Sheth, A. Goel, A. Pai, BV. Properties of Concrete on Replacement of Coarse Aggregate and Cementitious Materials with Styrofoam and Rice Husk Ash American Journal of Engineering Research 2014, 3(1), 268-271.

PEER-REVIEWED PAPERS (R&R)

2022 Sheth, A. Sinfield, JV. Building Resilient Enterprises **MIT Sloan Management Review**

2022 Morkan, B. Bertels, H. Sheth, A. Holahan, P. Managing with Stakeholders: Citizenship Behavior Action Strategies for Mega Project Resilience **International Journal of Project Management**: SI on Resilience in Project Studies

PEER-REVIEWED PAPERS (IN-REVIEW)

2022 Sheth, A. Sinfield, JV. Collective leadership in Top Management Teams (TMTs): Individual behaviors and TMT performance **Organization Science**

2022 Bishop, S. DiPaola, M. Hill, L. Koen, P. Sheth, A. Leadership Behaviors Needed to Implement Ambidextrous Organizations within Large Incumbent Firms **Harvard Business Review**

2022 Sheth, A. Sinfield, JV. A Taxonomy of Enterprise Risk Events **Journal of Business Research**

INVITED TALKS

2021 CASN-RA ASU A Comprehensive Typology of Complex Supply Chain Risk Networks
Venue: Complex Adaptive Supply Networks – Research Accelerator, Arizona State University
Co-presented with Prof. Rachna Shah (Carlson School - UMN)

WORKING PAPERS

2022 Sheth A. Koen P. "Where to play?" An Expanded Three-Part Exploration Typology for Large Incumbent Firms
Academy of Management Review

2022 Sheth, A. Shah, R. Sinfield, JV. Variations in firm riskiness and their causes: An industry-firm multi-level analysis
Management Science

2021 Sheth, A. Rayz, J. Sinfield, JV. A Comprehensive View of Corporate Risks: A data-driven approach
Venue Undecided

COMPETITIVE GRANT WRITING

2021 Co-PI on a **fulfilled NSF grant** Doctoral Dissertation Research Improvement Grant – Decision, Risk, Management Science, Division of Social and Economic Sciences, **National Science Foundation**.

Grant Title: Doctoral Dissertation Research in DRMS: Building a comprehensive understanding of enterprise risks and their interdependencies for improved risk-intelligence.

https://www.nsf.gov/awardsearch/showAward?AWD_ID=2049782&HistoricalAwards=false

2016 Fellowship **Kauffmann Foundation** graduate research grant
Grant Title: Embracing change: the art of transformation for the intrapreneur. *(not awarded)*

REFEREED CONFERENCE PAPERS

2022 Morkan, B. Bertels, H. Sheth, A. Holahan, P. Managing with Stakeholders: Citizenship Behavior Action Strategies for Mega Project Resilience
Eastern Academy of Management, 2022

2019 Sheth, A., Sinfield, JV. Simulating Self-Organization during Strategic Change: Implications for Organizational Design.
Collective Intelligence 2019, Carnegie Mellon University – Pittsburgh. arXiv:2007.08521v1

2018 Sheth, A., Sinfield, JV. Applying 'simple-rules' to simulate managerial adaptation to strategic change
European Group for Organizational Studies (EGOS) 2018, Tallinn, Estonia

2017 Sheth, A., Sinfield, JV. Swarm Intelligence and Organizations.
Society for Industrial and Applied Mathematics (SIAM)

PAPER DEVELOPMENT WORKSHOPS

2018	Sheth, A., Sinfield, JV.	Towards proactive organizational change. Paper Development Workshop - **Academy of Management (AOM)** 2019 Chicago
2018	Sheth, A., Sinfield, JV.	The theory of proactive organizational resilience. **Academy of Management Review (AMR)** 2018**,** Haas School of Business, University of California Berkeley

REFREED POSTERS

2020	Sheth, A., Sinfield, JV.	Towards Resilient Organizations- Beginning with a Typology of Risks. Purdue's intramural annual Sigma Xi poster competition
2019	Lin, YC., Lumpkin, D. Sheth, A., Sinfield, JV.	Enabling Innovation in Action The Civil Engineering Graduate Research Symposium – Purdue University

OTHER PUBLICATIONS

2019	Sheth, A., Sinfield, JV.	Enabling Innovation Insights Report for the **Proctor & Gamble Co.**
2019	Sheth, A., Sinfield, JV.	Enabling Innovation Implementer's Guide for the **Proctor & Gamble Co.**
2018	Sheth, A., Sinfield, JV.	Synthesis Study: Overview of Readily Available Culvert Inspection Technologies – Joint Transportation Research Program **Indiana State Department of Transport (INDOT)**

TEACHING AND MENTORING EXPERIENCE

Present	**Lecturer**	**MGT-103: Introduction to Entrepreneurial Thinking at The Stevens Business School, Stevens Institute of Technology. Mandatory course for all first-year engineering students (550+ students). Taught in collaboration with 11 other faculty members.**
Present	**Mentor**	**Two Ph.D. candidates at the Institute for Innovation Science (Innovation Science Lab), Purdue University.**
Spring 2020	Proxy Lecturer	Purdue University class ENGR 490 on Breakthrough Thinking for Complex Challenges. I introduced undergraduate seniors and juniors to Systems Thinking, covering the variety of system, complexity and associated concepts, and their application to the class project. *https://www.youtube.com/watch?v=IDO0272iydM*
2018-2020	Lab coach	Transferred research skills and new methods to the Innovation Science Lab group on a monthly basis as part of our lab's research effectiveness and skill transfer agenda. This often involved teaching methods to students working in parallel areas.

2019-2020	Mentor	Played the role of mentor to one incoming graduate student under the Purdue Civil Engineering peer-mentoring program 2019-2020
2015-2017	Facilitator	A component of my job as program manager for URGlobal was facilitating discussions and hosting training sessions for undergraduate club officers. These trainings encompassed methods to design learning programs, techniques to deliver them and improve student engagement, as well as personality introspection.

SERVICE

2020-2021	Team lead	Purdue Engineering Initiative on Innovation & Making – Aggregation of innovation resources at Purdue University and website design
2017-2021	Reviewer	The Academy of Management (AOM) annual meeting
2018-2022	Reviewer	The International Journal of Systematic Innovation
2021-2022	Reviewer	The International Journal of Innovation Science
2016-2018	Co-chair	Professional development committee for the Civil Engineering Graduate Students Advisory Council (CEGSAC) – Purdue University
2018-2019	Organizer	Research Bytes seminar series, Graduate research symposium series, and Successful Alumni series of the CEGSAC

INDUSTRY WORK EXPERIENCE

2018-2021	Researcher	Proctor & Gamble Co.
		• Served on industry-academia partnership research projects
		  • with the Corporate R&D Organization
		  • with the Feminine Care Business Division
		  • with the Oral Care Business Division

2020	Research Fellow	DigitalDx Ventures • Participated in organization strategy for the venture fund
2019	Research fellow	Purdue Ventures • Lead researcher for the due diligence effort on an early-stage Purdue-licensed technology for a $500,000 funding round
2014-2016	Assistant Program Manager	Purdue University Residences • Built the UR Global program and Student Club. • Led trainings and conducted leadership workshops for 30+ student volunteers • Organized 30+ events for international undergraduate students' development

2012-2014	Assistant Project Manager	V-Create Architects, India • Delivered two construction projects and played key roles in all phases of the construction life cycle. • Led the operations team to deliver 67,000 sft. of space on time and within budget, maintaining an optimum construction cycle

EDUCATION AND TRAINING

2021 – 2022	Post-doctoral Research Fellow The Consortium for Corporate Entrepreneurship Stevens Business School Stevens Institute of Technology, Hoboken, NJ. USA
2016 – 2021	Doctor of Philosophy Concentration: Innovation and Transformational Design Dissertation: Pathways to Enterprise Resilience The Institute for Innovation Science The Lyles School of Civil Engineering Purdue University, IN. USA
2014 – 2016	Master of Science The Lyles School of Civil Engineering Purdue University, USA GPA: 3.83
2008 – 2012	Bachelor of Engineering Department of Civil Engineering Manipal Institute of Technology, India GPA: 3.50

RELEVANT COURSEWORK

Concept building coursework:

Strategic management I	Gained a foundational understanding of both Business and Corporate Strategy
Competitive strategy	Gained a foundational understanding of competitive dynamics and competitive strategy
Entrepreneurship and business strategy in engineering	Gained a foundational understanding of approaches for business opportunity evaluation, testing, and development
Breakthrough thinking for complex challenges	Gained a systematic converge-structure-diverge method to frame and address complex challenges
Deep learning	Gained a foundational understanding of deep learning methodologies and an opportunity to apply them for text data

Perspectives on systems engineering	Gained a conceptual view of the various flavors of systems and the various approaches to analyze them qualitatively
Systems-of-systems modelling and analysis	Gained a conceptual understanding of multiple-interacting systems, their modeling, and their analysis

Methodology-focused coursework:

Analytical method in design and construction	Learned simulation methods such as agent-based modeling and applied them to the domain of organizations
Statistical and econometric methods	Gained a foundational understanding of econometrics and the experience of applying it to the domain of organizations
Business Analytics	Gained a methodological foundation in formulating and analyzing the business case in corporate companies
Optimization modelling with spreadsheets	Gained a methodological foundation in applying data-driven techniques for problems related to business operations
Nature-inspired computation	Got introduced to computational methods inspired by natural systems that are useful in system optimization and beyond
Natural language technologies	Gained a foundational understanding of computational linguistics and their application to business systems

Professional development-focused coursework:

Succeeding as an engineering professor	Gained a holistic view of the opportunities, challenges, and professional milestones in the career of a tenure-track Engineering faculty at a R1 university in the USA, and strategies to succeed therein. Additionally, gained detailed understanding of writing a successful NSF Career grant.
Student managed venture fund	Experiential Learning Initiative: Provided an opportunity to lead the due diligence process for a real-life investment opportunity on behalf of the Purdue Venture Fund
ELI: Corporate consulting	An Experiential Learning Initiative- Gained real-world corporate consulting experience with leading consulting companies

SKILL DEVELOPMENT WORKSHOPS

- Writing Effective Teaching Cases workshop offered by the casecenter.org
- Writing Publishable Papers series offered at the Purdue College of Engineering
- eXtreme Science and Engineering Discovery Environment (XSEDE) workshops on using High Performance Computing resources provided by the XSEDE project

PROFESSIONAL MEMBERSHIPS

- Academy of Management (AOM)
- European Group on Organizational Studies (EGOS)
- Industry Studies Association (ISA)
- The Society for Decision Making Under Deep Uncertainty (DMDU)
- International Society for Professional Innovation Management (ISPIM)
- Association of Computing Machinery (ACM)
- Institute for Operations Research and the Management Sciences (INFORMS)
- Purdue System Thinkers – Student Chapter of Purdue (INCOSE)
- The Evolution Institute
- The Prosocial Institute

EXTRA-CURRICULAR ACTIVITIES

- Karate – Goju Ryu (7th Kyu)
- Art of Living – Purdue Chapter
- Founding member – TATVAM – Global fusion music band at Purdue
    - Performed 50+ music shows in Indiana and Illinois