

Lakshminarayana Nittala, Ph.D.

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EDUCATION

Ph.D. (Management)

2017

Specialization: Innovation, Technology and Operations

Rady School of Management, University of California San Diego

Dissertation: Designing Innovation Contests

(3rd Prize for the Best Dissertation Award in Technology, Innovation Management and Entrepreneurship Section at the INFORMS Annual Conference, 2018)

Doctoral Committee: Prof. Vish Krishnan (Chair), Prof. Sanjiv Erat, Prof. Hyoduk Shin, Prof. Jim Andreoni and Prof. Yuval Rottenstreich

Ph.D. (Materials Science and Engineering)

2006

University of Illinois at Urbana-Champaign

Dissertation: Fluctuation Electron Microscopy Investigations of Medium Range Order in amorphous silicon and hydrogenated amorphous silicon thin films

B. Tech. (Materials and Metallurgical Engineering)

1999

Indian Institute of Technology Kanpur, India

WORK EXPERIENCE

ACADEMIC

Assistant Professor

(August 2017 - Current)

Department of MIS, Operations & Supply Chain Management and Business Analytics

University of Dayton, Ohio

INDUSTRY

Technologist

(May 2006 to July 2011)

New Product Development

Gapfill Business Unit

Novellus Systems, San Jose – California

Industry: Semiconductor capital equipment

R & D and technology lead for Low-k Flowable Dielectric films, led onsite technical support teams at major Asian semiconductor device manufacturers, worked on technology strategy with executive management.

- Contributed to several new product development projects at various stages of development
- Generated intellectual property on process schemes for integrated circuit manufacturing
- Planned and executed product demonstration runs to successfully secure business with major asian customer
- Led troubleshooting efforts to minimize tool downtimes at customer production sites
- Trained engineers and technicians in tool operation and data analysis
- Provided onsite support for product installations at customer sites in asia
- Drafted product startup manuals and documented best practices
- Led continuous improvement projects based on customer feedback

- Presented product development reviews to executive management

Process Development Intern (July 2005 – December 2005)

*UV cure group, PECVD Business Unit
Novellus Systems, San Jose – California*

- Developed understanding and measurement technique for crack propagation in materials used for integrated circuit manufacturing
- Presented results at Novellus Internal Technology Conference, 2006

CURRENT RESEARCH INTERESTS

Themes : Innovation and Product Development, Supply Chain Management, Sustainability, Predictive Analytics, Healthcare Analytics

Methodologies : Game Theory, Econometrics, Machine Learning

PUBLICATIONS (Operations Management and Information Systems, 2017-2023)

Screening in Multi-Stage Contests

Sina Khorasani, Lakshminarayana Nittala, Vish Krishnan
Manufacturing and Service Operations Management, 25(6): 2249-2267 (2023).

How intellectual capital builds supply chain resilience? Exploring mediation and interaction effects from an intellectual capital based view

Wantao Yu, Chee Yew Wong, Roberto Chavez, Mark Jacobs, Lakshminarayana Nittala
Supply Chain Management: an International Journal, 28(6): 1060-1074 (2023).

Designing Internal Innovation Contests

Lakshminarayana Nittala, Sanjiv Erat, Vish Krishnan
Production and Operations Management, 31(5):1963-1976 (2022).

Impact of Psychological Safety on Supply Chain Operational Performance

Brandon Lee, Lakshminarayana Nittala, Mark Jacobs, Wantao Yu
International Journal of Production Research, 61(3):754-773 (2021).

How the Thread Was Lost: Misalignment of Expectations Between Students and Professors

Nicholas Sullivan, Roopa Raman, Hamed Zolbanin, Lakshmi Nittala, Merete Hvalshagen
Communications of the Association for Information Systems, 48(1):20 (2021).

When Worlds Collide: Framing Students' Challenges With Stay-at-Home Learning During COVID-19 Through The Lens of Conflicting Role Identities

Merete Hvalshagen, Lakshmi Nittala, Roopa Raman, Nicholas Sullivan, Hamed Zolbanin
Communications of the Association for Information Systems, 48(1):29 (2021).

Practical Tips for HyFlex Undergraduate Teaching During a Pandemic

Roopa Raman, Nicholas Sullivan, Hamed Zolbanin, Lakshmi Nittala, Merete Hvalshagen
Communications of the Association for Information Systems, 48(1):28 (2021).

Anatomy of the Edelman: How to Measure Among the World's Best Analytics Projects

Michael Gorman, Lakshminarayana Nittala, Jeffrey Alden
INFORMS Journal on Applied Analytics, 50(6):373-386 (2020).

WORKING PAPERS

The Impact of Public “Word-of-Mouth” on Disaster Response: Prescription Practice during the COVID-19 Pandemic

Lakshminarayana Nittala, Sezgin Ayabakan, Subodha Kumar, Dileep Unnikrishnan, Dileep Raman
Rejected after third round review at *Information Systems Research* Special Issue on Unleashing the Power of Information Technology for Strategic Management of Disasters.

Designing Knowledge-driven Innovation Contests

Lakshminarayana Nittala and Sanjiv Erat
Under second round review, *Management Science*

Ensuring Financial Inclusion Through Self-Help Groups in Developing Economies

Aditya Vedantam, Lakshminarayana Nittala, M. P. Vasimalai and Aarna Tekriwal
Under review at *Production and Operations Management* special issue on “Diversity, Equity, and Inclusion in Operations and Supply Chain Management”

PUBLICATIONS (Materials Science & Engineering, 2005-2010)

Hydrogen induced modification of the medium range structural order in amorphous silicon films

L N Nittala, S Jayaraman, B A Sperling, J R Abelson,
Applied Physics Letters 84, 241915 (2005)

Hydrogen-Induced Reduction in Medium Range Order of a-Si Thin Films Observed using Fluctuation Electron Microscopy

L N Nittala, S Jayaraman, B A Sperling, John R Abelson,
Microscopy and Microanalysis 10 (Suppl. 2), 802 (2004)

Size analysis of nanoscale order in amorphous materials by variable-resolution fluctuation electron microscopy

S N Bogle, L N Nittala, R D Twisten, P M Voyles, J R Abelson,
Ultramicroscopy 110 (2010) 1273–1278

Nanometer-scale order in amorphous Ge₂Sb₂Te₅ analyzed by fluctuation electron microscopy

M H Kwon, B S Lee, S N Bogle, L N Nittala, S G Bishop, J R Abelson,
Applied Physics Letters 90, 021923 (2007)

Fluctuation microscopy evidence for enhanced nanoscale structural order in polymorphous silicon thin films

T Nguyen-Tran, V Suendo, and P Roca i Cabarrocas, L N Nittala, S N Bogle, and J R Abelson,
Journal of Applied Physics 100, 094319 (2006)

A detailed model for defect concentration and dopant activation in GaAs

Deepak and N. Lakshminarayana,
Bulletin of Materials Science. 24, 225 (2001)

TEACHING EXPERIENCE

University of Dayton

OPS301: Survey of Operations & Supply Management	: Fall 2017, Spring 2018, Fall 2018, Spring 2019, Fall 2019, Spring 2020, Fall 2020, Spring 2021, Summer 2021, Fall 2021, Spring 2022, Summer 2022, Fall 2022, Spring 2023, Summer 2023, Fall 2023
BAN614: Introduction to Machine Learning	: Winter 2020, Summer 2020, Winter 2021, Winter 2022, Summer 2023
MBA793: Operational Effectiveness	: Fall 2017

University of California San Diego

Co-taught “Topics in Operations and Technology: Service Innovation” in the Executive Working MBA program, Summer 2016.

- Conducted case discussions on data driven decision making.
- Taught sessions on product design using tools for Prototyping On Paper (POP).

Course Preparation

Authored mini cases as part of the course content development for the undergraduate course “Innovation in Service Enterprises”.

Teaching Assistant

Taught review sessions as the teaching assistant for the following courses:

- Operations, Information Systems and Data Analysis (Fall 2013: Executive Working MBA program)
- Innovation in Service Enterprises (Spring 2015, Spring 2016: Undergraduate)
- Service Operations and Innovation (Summer 2014, Summer 2015: Executive Working MBA program)
- Quantitative Analysis (Fall 2014: Executive Working MBA program)
- Project Management (Spring 2014: Executive Working MBA program)
- Supply Chain Management (Summer 2014: Executive Working MBA program)

INVITED PRESENTATIONS AT CONFERENCES

Lakshmi Nittala, Sanjiv Erat and Vish Krishnan, “Managing Exploration and Execution” Production & Operations Management Society annual conference 2015, Washington DC.

Lakshmi Nittala, Sanjiv Erat and Vish Krishnan, “Managing Exploration and Execution”, INFORMS Annual Conference 2015, Philadelphia.

Lakshmi Nittala, Sanjiv Erat and Vish Krishnan, “Designing Internal Innovation Contests”, INFORMS Annual Conference 2016, Nashville.

Lakshmi Nittala, Sanjiv Erat and Vish Krishnan, “Creativity and Competition: A Process View”, INFORMS Annual Conference 2016, Nashville.

Lakshmi Nittala, Sanjiv Erat and Vish Krishnan, “Designing Internal Innovation Contests”, Production & Operations Management Society annual conference 2017, Seattle.

Lakshmi Nittala, Sanjiv Erat and Vish Krishnan, “Designing Internal Innovation Contests”, 2017 INFORMS Annual Conference, Houston.

Lakshmi Nittala, Sanjiv Erat and Vish Krishnan, “Decoding the role of Competition in Creative Task Completion: An Experimental Approach to study the Innovation Process”, 2017 INFORMS Annual Conference, Houston.

Lakshmi Nittala, Sanjiv Erat and Vish Krishnan, “Designing Internal Innovation Contests”, Production & Operations Management Society annual conference 2018, Houston.

Lakshmi Nittala and Sanjiv Erat, “Learning and Doing in Innovation Contests”, 2018 INFORMS Annual Conference, Phoenix

Lakshmi Nittala, Sanjiv Erat and Vish Krishnan, “Designing Internal Innovation Contests”, 2018 INFORMS Annual Conference, Phoenix

Lakshmi Nittala, Sanjiv Erat and Vish Krishnan, “Designing Internal Innovation Contests”, Production & Operations Management Society Annual Conference 2019, Washington D.C.

Lakshmi Nittala and Sanjiv Erat, “Learning and Doing in Innovation Contests”, Production & Operations Management Society Annual Conference 2019, Washington D.C.

Sina Moghadas, Lakshmi Nittala and Vish Krishnan, “Making Contests Work: Signaling Credibility”, 2019 INFORMS Annual Conference, Seattle.

Lakshmi Nittala and Sanjiv Erat, “Learning and Doing in Innovation Contests”, 2019 INFORMS Annual Conference, Seattle.

Lakshmi Nittala and Sanjiv Erat, “Learning and Doing in Innovation Contests”, 2020 INFORMS Virtual Annual Conference.

Lakshmi Nittala and Sanjiv Erat, “Learning and Doing in Innovation Contests”, 2021 INFORMS Annual Conference, Los Angeles.

Lakshmi Nittala and Sanjiv Erat, “Designing Knowledge-driven Innovation Contests”, 2022 INFORMS Annual Conference, Indianapolis.

Lakshmi Nittala and Sanjiv Erat, “Designing Knowledge-driven Innovation Contests”, 18th Product and Service Innovation Conference (2023), Park City, Utah.

Lakshmi Nittala, Sezgin Ayabakan, Subodha Kumar, Dileep Unnikrishnan and Dileep Raman, “The Impact of Public “Word of Mouth” on Disaster Response: Prescription Practice during the COVID-19 Pandemic”, 33rd Annual POMS-Conference (2023), Orlando, Florida.

Lakshmi Nittala and Sanjiv Erat, “Designing Knowledge-driven Innovation Contests”, 33rd Annual POMS-Conference, May 21-25 (2023), Orlando, Florida.

PATENTS GRANTED IN SEMICONDUCTOR MANUFACTURING

- US8058179B1: Atomic Layer Removal Process with Higher Etch Amount
- US8685867B1: Pre-metal Dielectric Integration Process
- US8728958B2: Gap-fill Integration
- US9064684B1: Flowable Oxide Deposition using Rapid Delivery of Process Gases
- US9257302B1: CVD flowable gap fill

UNIVERSITY SERVICE

- Member of the SBA Graduate Curriculum and Assurance of Learning Committee (2022-current)
- Member of the departmental committee for the Business Analytics major curriculum development (2022)
- Member of the hiring committee for recruiting tenure track professors for the academic year starting 2021 and 2022
- Member of the Grand Challenges Scholars Program (GCSP) Steering Committee for the University of Dayton (2019)

PROFESSIONAL AFFILIATIONS

- INFORMS
- Production and Operations Management Society (POMS)

PROFESSIONAL SERVICE

- Member of Editorial Review Board, Production and Operations Management (2023 – current)
- Session Chair for POMS Annual Meeting in 2023
- Session Chair for INFORMS Annual Meeting in 2021, 2020, 2017
- Judge, 2023 Best Working Paper Competition for the Technology, Innovation Management, and Entrepreneurship Section (TIMES) of INFORMS
- Reviewer for the 2023 MSOM conference's new Technology, Innovation, and Entrepreneurship (TIE) SIG track
- Reviewer for paper submissions made to the 57th Hawaii International Conference on System Sciences (HICSS-57), Jan 3-6, 2024
- Judge for the 2023 Student Paper Competition for the Product Innovation and Technology Management (PITM) College of Production and Operations Management Society
- Ad-hoc Reviewer:
 - Decision Sciences
 - Management Science
 - Manufacturing and Service Operations Management
 - Production and Operations Management
 - OMEGA, The International Journal of Management Science
 - Research Policy