

Arunachalam (Chalam) Narayanan

Associate Professor of Analytics
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Google Scholar Page : <https://scholar.google.com/citations?user=h2sdom8AAAAJ&hl=en>

EDUCATION:

PhD Information and Operations Management, August 2006
Mays Business School, Texas A&M University, College Station, TX
Dissertation :received the first place at CSCMP and honorable mention at DSI and One of the main algorithms was implemented in a distribution management system of Direct Tech (bought by SPI in 2015, which is now owned by Softvision)

Masters of Science in Industrial Engineering, May 2002 (4.0/4.0)
Texas A&M University, College Station, TX

Bachelors of Engineering, Mechanical Engineering, May 2000
College of Engineering, Guindy, Anna University, India
(Gold Medalist for overall academic achievement)

Professional diploma in network centered computing, May 1999
National Institute of Information Technology (NIIT), India.

Microsoft Certified Professional (MCP), June 1998

PAST WORK EXPERIENCE:

Assistant Professor, Department of Decision and Information Sciences
C.T. Bauer College of Business, University of Houston, TX, September 2012 – Summer 2019

Assistant Professor, Department of Engineering Technology and Industrial Distribution
Texas A&M University, College Station, TX, August 2006 – September 2012
(*Tenured and promoted to Associate Professor from September 2012*)

Research Assistant, Department of Information and Operations Management
Mays Business School, Texas A&M University, College Station, TX, September 2002 - May 2006

Assistant Systems Analyst, Industrial Engineering Department,
Texas A&M University, College Station, TX, August 2000–May 2002

RESEARCH AND TEACHING INTERESTS

- Decision Analysis with focus on Supply chain inventory planning and forecasting
 - Behavioral Operations Management
 - Supply chain network design
 - Inventory, Forecasting and Warehouse management
 - Health care supply chain systems
 - Supply chain risk and disaster recovery
 - Humanitarian operations
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RESEARCH AND SCHOLARLY ACTIVITY WITH COMPANIES:

- Energy Sector : Schlumberger, Wilson (now NOV), BP, Shell and Lufkin Automation
 - Automotive Sector: Gulf States Toyota
 - Retailers: HEB.
 - Non-profit Sector: Texas Department of Agriculture, Capital Area Food Bank, Salvation Army (Dallas)
 - Chemical Sector: Brenntag – LA, Lyondell Basel
 - Transportation : Fleet pride (Dallas)
 - Healthcare Distributors: McKesson and Owens & Minor
 - Hospitals: Texas Children, MD Anderson
 - Industry association: AHRMM
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SIGNIFICANT ACTIVITIES, HONORS AND AWARDS:

Research

- Twenty one research publications, fourteen conference proceedings, four case studies
- Funded research contribution of approximately \$630,000 (Total: \$1.4 million), includes work with profit and non-profit organizations at Texas A&M University
- UNT's Professional Development Institute (PDI) Fellow, 2020-2021.
- Two seed fund recipient at UNT (Total: \$18,000)
- Corrie & Jim Furber '64 Faculty Fellowship, Department of Engineering Technology and Industrial Distribution, 2010-2011
- Council of Supply Chain Management Professionals (CSCMP), *2007 Doctoral dissertation award* (International Award/Recognition)
- Decision Sciences Institute *doctoral dissertation award* – Honorable mention, 2007
- IJPDLM paper on Supply Chain Crisis Management is among the top 20 most downloaded articles in 2010.
- Chan Hahn Best paper award in Academy of Management Conference, 2019 (Boston)
- Faculty Research Excellence Award, Department of Engineering Technology and Industrial Distribution, 2008
- Best paper award in Supply Chain Management Track at the 2012 ACME Conference
- Departmental Nominee for "Texas Engineering Experiment Station (TEES) Select Young Faculty" Award, 2010-2011

Teaching

- LeRoy and Lucille Melcher Faculty Excellence Award, University of Houston, 2016
- Tenneco Meritorious Award, College of Engineering, Texas A&M University for 2010-2011
- Two time Texas A&M University's Student Led Award for Teaching Excellence (SLATE) award recipient (*Top 15%* in the Texas A&M University System)
- Developed two new PhD Seminars at University of Houston and new courses on Healthcare distribution at Texas A&M University with support and materials from industry partners
- Developed teaching tools and aids such as online version of beer distribution game (<http://scgames.bauer.uh.edu>), excel based analytical exercises in forecasting and logistics, along with cases studies in supply chain management
- Established new partnerships with software vendors (SimFlex and Aidmatrix) to use their packages in the curriculum
- *Distinguished faculty award*, PAID, Industrial Distribution, Texas A&M University, 2008
- *Sigma Delta Distinguished faculty award*, Industrial Distribution, Texas A&M University, 2007
- *Dean's award for outstanding teaching by a doctoral student*, Mays business school, Texas A&M University, 2005
- Member , Center for Teaching Excellence, Faculty and Student Advisory Board, Texas A&M University, 2009-2011 representing College of Engineering and Department of Engineering Technology and Industrial Distribution

Professional Society

- 2013 Program Chair: Annual Educators Conference, Council of Supply Chain Management Professionals (CSCMP).
 - Chair, Doctoral Dissertation Award Committee, Decision Sciences Institute, 2013
 - Chair, Doctoral Dissertation Award Committee, CSCMP, 2011
 - Committee Member, POMS College of Behavioral Operations Management, 2017-2018.
 - Member, Education Strategies Committee, CSCMP, 2011-2013.
 - Reviewer for more than 35 articles in journals such as JOM, EJOR, Omega, IJPR, DSJ, POMS and others
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RESEARCH ACTIVITIES:

Publications: Refereed Journal Articles (CHRONOLOGICAL ORDER)

1. Narayanan A., Robinson E.P. "More on 'Models and algorithms for the dynamic-demand joint replenishment problem' " *International Journal of Production Research*, 2006, 44, 2, 383-397. (ABDC Ranking : A)
2. Narayanan A., Lawrence F.B., Krishnadevarajan P. "China: Market entry strategy for industrial distributors", *Review of the Electronic and Industrial Distribution Industries*, 2007, 6, 26-51.
3. Robinson E.P., Narayanan A., Gao L. "Effective heuristics for the dynamic demand joint replenishment problem", *Journal of Operational Research Society*, 2007, 58, 808-815 (ABDC Ranking : A)
4. Narayanan A., Gunasekaran S., Kuttava P., Lawrence F.B. "Choosing the next location: A practical approach for an industrial distributor", *Review of the Electronic and Industrial Distribution Industries*, 2008, 7, 41-61.
5. Robinson E.P., Narayanan A., Sahin F. "Coordinated deterministic dynamic demand lot sizing problem: A review of models and algorithms", *Omega*, 2009, 37, 3-15. (ABDC Ranking : A/A*)
6. Natarajathinam M., Capar I., Narayanan A. "Managing Supply Chains in Times of Crisis: A review of literature and insights", *International Journal of Physical Distribution and Logistics Management*, 2009, 39, 535-573. (Top 20 Most Downloaded Articles for IJPDLM) (ABDC Ranking : A)
7. Narayanan A., Robinson E.P. "Efficient and Effective Heuristics for the Coordinated Capacitated Lot-size Problem", *European Journal of Operational Research*, 2010, 3, 583-592 (ABDC Ranking : A/A*)
8. Narayanan A., Robinson E.P. "Evaluation of coordinated lot sizing rules under rolling horizon", *International Journal of Production Economics*, 2010, 127, 85-94. (ABDC Ranking : A/A*)
9. Johnson M., Narayanan A. and Sawaya W. "Exploring the effects of course and instructor characteristics on student evaluation of teaching across a College of Engineering", *Journal of Engineering Education*, 2013, 102, 289-318. (Impact Factor : 3.244, flagship education journal in engineering)
10. Sahin F., Narayanan A., Robinson E.P. "Rolling horizon planning in supply chains: A literature review", *International Journal of Production Research*, 2013, 51, 5413-5436 (ABDC Ranking : A)
11. Narayanan A., Sawaya W., Johnson M. "Analysis of Differences in Non-teaching Factors Influencing Student Evaluation of Teaching between Engineering and Business Classrooms", *Decision Sciences Journal of Innovation Education*, 2014, 12 (3), 233–265.
12. Narayanan A., Moritz B. "Decision Making and Cognition in Multi-Echelon Supply Chains: An Experimental Study", *Production and Operations Management*, 2015, 24(8), 1216–1234. (ABDC Ranking : A/A*, FT 50)
13. Venkatachalam S., Narayanan A., "Efficient formulation and heuristics for multi-item single source ordering problem with transportation cost", *International Journal of Production Research*, 2016, 54 (14), 4087-4103 (ABDC Ranking : A)
14. Jennings D.F., Narayanan A., Nepal B., Clark N. "On value activities and competitive advantage: an empirical study", *International Journal of Business Excellence*, 2017, 11(3), 320–343.

15. Ishfaq R., Narayanan A. "Incorporating Order-fulfillment Flexibility in Automotive Supply Chain through Vehicle Trades", *Decision Sciences Journal*, 2019, 50 (1), 84-117. (ABDC Ranking : A*)
16. Narayanan A., Sahin F., Robinson E.P. "Demand and Order Fulfillment Planning: The Value of Point-of-sale, Sell Through and Order Data in Forecast Accuracy", *Journal of Operations Management*, 65, 2019, 468-486 (ABDC Ranking : A*)
17. Freeman N., Narayanan A., Burns G. "A Decision Support System for Empty Hopper Car Management", *Interfaces* (now known as *Informs Journal on Applied Analytics*), 49(3), 173-188. (Can be published only with the letter of support from a company that the research worked for them or improved their performance)
18. Venkatachalam S., Narayanan A. "Two-stage absolute semi-deviation mean-risk stochastic programming : An application to supply chain replenishment problem", *Computers and Operations Research*, 2019, 106, 62-75. (ABDC Ranking : A)
19. Johnson M., Narayanan A., Sawaya W. "Rewarding Teaching Excellence in Higher Education: An Analysis of an incentive program at a Tier I research institute and a Prescription for Future Teaching Incentive Programs", *International Journal of Public Sector Performance Management*, forthcoming
20. Altay N, Narayanan A, "Forecasting in Humanitarian Operations: Literature Review and Research Needs", *International Journal of Forecasting*, forthcoming (ABDC Ranking : A)
21. Freeman N., Narayanan A., Keskin B. "Optimal Use of Downward Substitution in a Manufacturing Operation Subject to Uncertainty", *Omega*, forthcoming (ABDC Ranking A/A*)

Publications: Under Review

- Moritz B., Narayanan A., Parker C. "Separating Rational and Irrational Behavioral Ordering and Costs of the Bullwhip effect: An experimental Study" *Manufacturing and Service Operations Management* (minor revision after 2nd round) (ABDC Ranking A*: FT 50) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3195282
- Narayanan A., Mackelprang A., Malhotra M. "Effect of capacity and flexibility constraints on bullwhip effect in multi-echelon supply chains", *Decision Sciences* (ABDC Ranking A*), minor revision after Second round. (a version of this paper was recognized with the Chan Hahn best paper award at AoM)
- Freeman N and Narayanan A. "The Impact of Multiple Products and Limited Capacity of Dual-sourcing Decisions Under Demand and Supply Uncertainty", *International Journal of Production Research*(ABDC Ranking A), minor revision after Second round.
- Peng D., Flynn B., Narayanan A., Fan R.* "Impact of Internal and External Collaboration on Hospital Performance: The Role of Focus", *Decision Sciences* (ABDC Ranking A*), submitted for Second round
- Narayanan A., Ishfaq R. "Impact of Metric-Alignment on Supply Chain Performance: A Behavioral Study", *International Journal of Logistics Management*, submitted (ABDC Ranking A)
- Ye Y.*, Peng D., Narayanan A. "An Empirical Investigation of Governance Choices in Service Outsourcing", *International Journal of Operations and Production Management* , submitted(ABDC Ranking A)
- Ye Y.*, Lu T.Y., Robinson P., Narayanan A. "A Bayesian Approach to Incorporating Demand Intermittency and Irregularity into Inventory Control", *European Journal of Operational Research*, submitted (ABDC Ranking A)

Publications: Refereed Case Studies

1. Narayanan A., Smith G., "Where are my cookies? The tale of Thin Mints Shortage" and Teaching Note, Council of Supply Chain Management Professionals (CSCMP)
 - One of the accepted cases in year 2017.
 - Topic Area: Risk management, specifically sourcing under disruption
 - <https://www.emeraldinsight.com/doi/abs/10.1108/case.cscmp.2018.000024>

2. Narayanan A., Seshadri S., "Dockomo Heavy Machinery Equipment Ltd.: Spare parts Supply Chain Management" and Teaching Note, CSCMP, 2012
 - Lead case in book "The Definitive Guide to Supply Chain Best Practices", Financial Times Press
 - Topic Area : Forecasting and inventory planning for intermittent demand pattern
 - <https://www.emeraldinsight.com/doi/abs/10.1108/case.cscmp.2018.000008>
3. Narayanan A., " The Salvation Army in Dallas: The Supply Chain Challenges of a Non-Profit Organization", *The SCM Case Book*: (eds. Munson C), Financial Times Press, 2013
 - Finalist 2012 Annual Decision Sciences Conference
 - Topic Area: Operations challenges in Non-Profit supply chains
4. Narayanan A., Natarajathinam M., Winn B. "BP's Procurement and Supply Chain Management" and Teaching Note, Council of Supply Chain Management Professionals
 - One of the two academic cases accepted in year 2009
 - Topic Area: Purchasing and Business Analytics
 - <https://www.emeraldinsight.com/doi/abs/10.1108/case.cscmp.2018.000004>

Papers nearing completion/submission

- Narayanan A., Ye Y.*, Robinson E.P. "Demand classification and forecasting in service parts supply chain", *target journal : International Journal of Production Economics (ABDC Ranking A)*
- Verghese A., Narayanan A. and Peng X., "Examining the Antecedents and Consequences of "The Speed to Recall" on Recall Completion", *target journal : Decision Sciences or IJOPM (ABDC Ranking A)*
- Narayanan A., Moritz B., Freeman N. "Effect of capacity and sunk cost on sourcing under uncertainty: An Experimental Investigation" *target journal : Production Operations Management (ABDC Ranking A*, FT 50)*
- Pournader M.*, Narayanan A., Kebelis M. "Decision bias in multi-echelon supply chains: Risk preference models", *target journal : European Journal of Operational Research (ABDC Ranking A)*
- Forero S*., Narayanan A. "Evaluating the Reasons behind the Judgmental Adjustments of Quantitative Forecasts", *target journal : Journal of Behavioral Decision Making (ABDC Ranking A)*

*Indicates current and former PhD student

Working papers

- Capar I., Narayanan A. "Nontraditional warehouse designs for multi-pick operations", *Transportation Science (reject and invite to resubmit) (ABDC ranking A)*
- Patil H*, Niranjan S, Narayanan A., Narayanamurthy G. "Role of Additive Manufacturing on Supply Chain Agility, Complexity, and Resiliency: Moderating role of Industry Type and AM Technology", *target journal : International Journal of Logistics Management (ABDC ranking A)*
- Narayanan A., Freeman N., Balasundaram B. "Scheduling a Temporally relaxed Cricket tournament", *target journal : Journal of Operational Research Society (ABDC ranking A)*

Cases ready for submission

- Oji A, Narayanan A, Smith G, "Supply Chain Challenges in the Oil and Gas Industry in Nigeria" (authors in Alphabetical order), to be submitted to ECCH

Funded Research:

University of North Texas

Seed grant funded (funded \$10,000)

Understanding if the Forklift Operators are Following Best Practices

PI : Suman Niranjan,

Co-PI: Narayanan A, Sauser B, Vaidyanathan V, Warren S.J.

Funding Agency : Jim McNatt Institute for Logistics Research

Predicting Driver Distractions using Psychological and Physiological Characteristics (funded \$8,000)

PI : Suman Niranjana,
Co-PI: Narayanan A, Sauser B, Vaidyanathan V, Warren S.J.
Funding Agency : Office of Research and Innovation, UNT

Understanding if the Forklift Operators are Following Best Practices (Budget : \$267,350) - (Not funded)

PI: Niranjana S
Co-PI: Sauser B, Narayanan A
Sponsoring Agent : Toyota

UNT Center for AI-Driven Research (Not Funded)

PI: Sidorva A
Co-PI : Torress R, Narayanan A, Albert M (along with 20 researchers across campus)
Sponsoring Agent: UNT and State of Texas.

University of Houston: \$3000

- Small Grants Program (FY 2016) – Study of Healthcare Supply Chain

Texas A&M University: PI Contribution - \$634,000 (2006-20012 - Total : \$1.4 million)

*Only funded research proposals are included in this list

Energy Sector:

1. Schlumberger (March 2011-Dec 2012)
Network Inventory Analysis (Role: PI Contribution: 100%)
2. Lufkin Automation (May 2011-Sep 2011)
Inventory Management in a MTO environment (Role: PI Contribution: 50%)
3. Wilson Supply (July 2006-Nov 2006; April 2007- Oct 2007; Feb 2009- Jan 2010)
Outbound/Inbound Transportation Analysis (Role: Co-PI Contribution: 50%)
Lean Warehouse Management (Role: Co-PI Contribution: 33%)
Business operations feasibility study in China (Role: Co-PI Contribution: 50%)

Automotive Sector:

4. Gulf States Toyota (Sep. 2006- Feb 2007; April- Nov 2007)
Distribution network analysis for facility location (Role: Co-PI Contribution: 90%)
and logistics management
Distribution network optimization and (Role: Co-PI Contribution: 90%)
warehouse management

Non-profit Sector:

5. Capital Area Food Bank (Sept 2010 – Aug 2011)
Distribution of USDA Food to Schools (Role: Co-PI Contribution: 50%)
6. Texas Department of Agriculture (Nov 2009 – Aug 2010)
Evaluation and Revision of Commercial (Role: PI Contribution: 50%)
Delivery's Rate schedule

International Commerce and Trade:

7. National Center for Intermodal Transportation (July 2008-Dec 2009)
Intermodal Transportation Systems for Asian Goods to U.S. via Mexico: An Analysis (Role: Co-PI Contribution: 33%)
8. U.S. EDA and consortium of 10 distribution companies México Trade Corridor Consortium (July 2008 – Dec 2009) (Role: Co-PI Contribution: 10%)
9. Texas A&M University Global Research Center (May 2007- May 2008)
Projects at Monterrey, Mexico (Role: Co-PI Contribution: 20%)

Non-funded Business Outreach and Research

- Chemical Sector: Brenntag – LA (Forecasting), Lyondell Basel (Empty Hopper Car Mgmt.)
- Electrical distributor of 2020, *National Association of Electrical Distributors – Eastern Region*
 - A study conducted with graduate student Kyle Nye, executive summary published by NAED and the specific results published as four articles in the TED magazine.
- Staffing issues in San Diego Hospice
 - A planning tool developed with an undergraduate student Trevor Bennett

Funded Teaching Development:

- BP procurement and supply chain case study development:
Sponsor: British Petroleum
- Virtual Supply Chain Systems Lab (received software and hardware worth \$200,000)
Sponsor: Texas A&M and private software partners

Trade Publications (Work with Graduate student Kyle Nye)

- “2020 vision”, Narayanan A and Nye K, *The Electrical Distributor (TED)*, July 2010
- “What the future holds – HR challenges”, Narayanan A and Nye K, *TED*, Sep 2010
- “Utilization of technology”, Narayanan A and Nye K, *TED, November 2010*
- “The future is green”, Narayanan A and Nye K, *TED*, January 2011

Conference Proceedings: Peer Reviewed

1. Patil H, Niranjana S, Narayanan A. “Influence of Additive Manufacturing on Supply Chain Characteristics”, Annual CSCMP conference, 2020 (virtual)
2. Verghese A., Peng X., Narayanan A. “Examining the Antecedents and Consequences of “The Speed to Recall” on Recall Completion”, Decision Sciences Institute annual conference, 2019, New Orleans LA.
3. Narayanan A., Mackelprang A., Malhotra M. “Effect of capacity and flexibility constraints on bullwhip effect in multi-echelon supply chains”, Academy of Management conference, 2019, Boston, MA. (Best paper)
4. Sun C, Ponsignon T, Rose T, and Narayanan A. “Complexity Analysis through the Modeling of Human Behavior in a Complex Supply Chain Planning Environment”, Proceedings of the 2015 Winter Simulation Conference, Huntington Beach, CA.
5. Johnson M, Narayanan A, and Sawaya W “An Empirical Investigation of a Teaching Awards Program Based on Student Evaluation of Instruction”, Decision Sciences Institute annual conference, 2013, Baltimore, WA
6. Narayanan A., Jennings D., Capar I. and Natarajarathinam M. “Crisis management among Industrial Distributors: Scale development, analysis and insights”, *2012 ACME Conference*, New Orleans (Best paper award in Logistics and Supply Chain Management Track)
7. Narayanan A. and Capar I. “Efficient Layouts for Multi-Pick Operations in a Warehouse”, *2011 Industrial Distributor Educators Association Conference (conducted by ACME – Association of Collegiate Marketing Educators)*, Houston, TX
8. Narayanan A. and Thaniksalam P. “Teaching Global Strategic supply chain management using Simflex”, *Teaching Innovations Track, Educator’s Conference proceedings, Council of Supply Chain Management Professionals*, September 2010, San Diego, CA

9. Brown C** and Narayanan A "After retail excess inventory channel and supply chain economics in US", 2010 *Industrial Distributor Educators Association Conference*, Dallas, TX
 10. Surendakumar P*, Capar I, Narayanan A and Vanajakumari M, "A simulation study of waiting time at the land ports along Texas-Mexico border", 2010 *Industrial Distributor Educators Association Conference (conducted by ACME)*, Dallas, TX
 11. Narayanan A "Healthcare supply chains – is it unique ?", 2009 *Industrial Distributor Educators Association Conference (conducted by ACME)*, Stillwater, OK
 12. Narayanan A and Ramaswamy M.* " A mathematical approach to email management policies of a knowledge worker", 2008 *Southwest Decision Sciences Institute*, Houston, TX. Lawrence F.B., Narayanan A, Rao B. and Krishnadevarajan P. "Customer stratification: Understanding customer profitability", 18th *Annual POMS Conference*, May 2007, Dallas, TX
 13. Narayanan A. " Beer game: A new classroom friendly online version", *Teaching Innovations Track, Educator's Conference proceedings, Council of Supply Chain Management Professionals*, October 2006, San Antonio
 14. Robinson E.P. and Narayanan A. "A simulated annealing metaheuristic for the dynamic-demand capacitated coordinated lot-sizing problem", *Educator's Conference proceedings, Council of Supply Chain Management Professionals (CSCMP)*, October 2005, San Diego.
- * Indicates graduate student supported research, **represents undergraduate student research support

Academic Conference Presentations and Posters Not Refereed

- Yuan C, Bansal R, Nelson P, Akula K, Sidorova A, Narayanan A, Albert MV. "Multi-agent hierarchical reinforcement learning of strategy and tactics in competitive play." ACM Tapia Conference, September 16-19, 2020
- Narayanan A⁺, Freeman N and Moritz B "Impact of capacity and fixed costs on routine sourcing decisions under demand and supply uncertainty: an experimental investigation", INFORMS conference, October 2017, Houston, TX.
- Forero S, Narayanan A⁺ "Judgmental adjustments of quantitative forecasts", POMS Conference, May 2017, Seattle, TX
- Narayanan A⁺, Moritz B, Parker C "Bullwhip effect and Cognitive Heterogeneity", DSI Conference, Nov 2016, Austin, TX
- Freeman N⁺, Narayanan A "The Impact of Multiple Products and Limited Capacity on Routine Sourcing Decisions Under Demand and Supply Uncertainty", DSI Conference, Nov 2016, Austin, TX
- Pournader M⁺, Narayanan A, Keblis M, "Prospect theory and ordering behavior in multi-echelon supply chains", MSOM Conference, June 2016, Auckland, NZ
- Narayanan A⁺, Peng D, "Factors affecting supply chain performance in hospitals", POMS Meeting, May 2016, Orlando, FL.
- Narayanan A⁺, Mackelprang A, Malhotra M, "Effect of capacity and flexibility constraints on bullwhip effect in supply chains", POMS Meeting, May 2016, Orlando, FL
- Peng D⁺ and Narayanan A. "Strategic Healthcare Supply Chain: A Large Scale Survey", DSI Meeting, November 2015, Seattle WA.
- Freeman N⁺, Narayanan A and Keskin B. "Downward Substitution as a Mitigation Strategy for Supply and Demand Risk", DSI Meeting, November 2015, Seattle WA.
- Narayanan A and Moritz B. "Information, Cognition and Bullwhip effect", POMS Meeting, May 2015, Washington DC.
- Narayanan A, Sahin F and Robinson P. "Value of Order and Sell through Information in a Multi-echelon Retail Supply Chain", POMS Meeting, May 2015, Washington DC.
- Ye Y⁺, Narayanan A, Robinson EP "A novel method for forecasting items in service parts supply chain", DSI Annual Meeting, November 2014, Tampa FL.
- Narayanan A. "Performance metrics as a tool to coordinate decisions in supply chain: A laboratory investigation", DSI Annual Meeting, November 2014, Tampa, FL
- Moritz B⁺, Narayanan A, "Decision Making and Cognition in Multi echelon supply chains", INFORMS, October 2014, San Francisco, CA

- Moritz B[†], Narayanan A, "Decision Making and Cognition in Multi echelon supply chains: An Experimental Investigation", 9th annual Behavioral Operations Conference, University of Cologne, Germany, 2014 (Best Presentation Award)
- Narayanan A. "Incentive alignment and information sharing in supply chain", POMS, May 2014, Atlanta GA
- Venkatachalam S[†], Narayanan A., "Effective Heuristics for Multi item single source ordering problem with transportation costs", POMS, May 2014, Atlanta GA
- Moritz B[†], Narayanan A, "Cognition and Heterogeneity in Multi-Echelon Supply Chains", INFORMS, October 2013, Minneapolis
- Narayanan A, "Salvation Army - Dallas ARC", POMS, May 2013, Denver, CO
- Venkatachalam S[†], Narayanan A, Nepal B "Heuristic for Auto-Carrier Loading Problem", POMS, May 2013, Denver, CO
- Moritz B[†], Narayanan A "Decision Making and Cognition in Multi-Echelon Supply Chains: An Experimental Study" INFORMS, October 2012, Phoenix, AZ.
- Venkatachalam S, Nepal B, Narayanan A "Efficient Heuristics for Auto-Carrier Loading Problem", INFORMS, October 2012, Phoenix, AZ.
- Narayanan A. and Thankisalam P. "Using Simflex in supply chain management curriculum", Technology in the classroom mini conference, *DSI Annual Meeting*, November 2010, San Diego, CA
- Natarajathinam M., Capar I. [†], Jennings D., and Narayanan A. "Supply Chain Crisis management among Industrial Distributors", *INFORMS*, October 2010, Austin, TX
- Natarajathinam M. [†], Capar I. and Narayanan A. "Managing Supply Chains in Times of Crisis: A Review of Literature and Insights", *21st Annual POMS Conference*, 2010, Vancouver, Canada
- Narayanan A. and Robinson E.P. "Joint Replenishment Lot-sizing Heuristics in Static and Rolling Horizon Planning Systems", *21st Annual POMS Conference*, 2010, Vancouver, Canada
- Narayanan A. "How to effectively conduct beergame in classrooms", *INFORMS Southwest conference*, April 2010, Huntsville, AL
- Narayanan A., Jennings D., Capar I. and Natarajathinam M. "Supply Chain Crisis management among Industrial Distributors", *DSI Annual Meeting*, November 2009, New Orleans
- Natarajathinam M. [†], Capar I. and Narayanan A. "Managing Supply Chains in Times of Crisis: A Review of Literature and Insights", *INFORMS*, October 2009, San Diego
- Narayanan A. and Robinson E.P. "A Lagrangian heuristic for a capacitated joint replenishment problem with dynamic demand", *DSI Annual Meeting*, November 2008, Baltimore
- Narayanan A "Evaluation of joint replenishment heuristics under rolling horizon", *INFORMS 2008 Southwest Regional Conference*, College Station, TX (Invited abstract)
- Narayanan A., Lawrence F.B., Gunasekaran S. and Kuttuva P. "A facility location model for an automobile distributor", *DSI Annual Meeting*, November 2007, Phoenix.
- Narayanan A. and Robinson E.P. "Evaluation of coordinated lot-sizing rules in a rolling horizon environment", *DSI Annual Meeting*, November 2006, San Antonio
- Narayanan A. "An online version of the beer distribution game", *Teaching with Technology Conference*, Texas A&M University, February 2006, College Station
- Narayanan A. and Robinson E.P. "Efficient heuristics for capacitated dynamic demand joint replenishment problem", *DSI Annual Meeting*, November 2005, San Francisco
- Narayanan A. and Robinson E.P. "Comparison of heuristics for uncapacitated coordinated dynamic lot sizing problem", *16th Annual conference of POMS*, April 2005, Chicago
- Narayanan A. and Robinson E.P. "Coordinated dynamic lot-sizing with limited capacity", *DSI Annual Meeting*, November 2003, Washington D.C.

[†]Lead presenters

Invited Research Talk and Seminars

- "Bullwhip and Cognitive Reflection", University of South Carolina, Fall 2015
- "Research Trends in Behavioral Operations Management", Industrial Engineering, University of Houston, Spring 2018

Research Consortium and Industry Presentations

- Narayanan A, "Mexico Texas Trade competitiveness", Growing your business through improved cross border strategies conference, Schneider Logistics, Mexico City, May 25, 2010
 - Narayanan A, Capar I, Vanajakuamari M, "Logistics Infrastructure", Texas Mexico Trade Competitiveness Consortium, Monterrey, Mexico, Oct 22, 2009
 - Narayanan A, Capar I, Vanajakuamari M, "Regional Manufacturing : Logistics Infrastructure", Texas Mexico Trade Competitiveness Consortium, San Antonio, TX, Feb 18, 2009
 - Narayanan A, Norm C, "Pricing Strategies", 2008 Executive Healthcare Industry Distributor Association (HIDA) Conference, Miami, FL, March 3rd, 2008
 - Narayanan A, "Coordinated replenishment planning", Direct Tech Inc., Omaha, NE, Dec 2006.
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TEACHING ACTIVITIES:

Course revamp and curriculum coordinator (University of North Texas)

- DSCI 2710 – Data Analysis with Spreadsheets (Since Fall 2019)
 - Ensure new assignments and tutor trainings through HLS
- DSCI 5180 – Introduction to Business Decision Process (Since Spring 2020)
 - Developed a CLEAR approved online curriculum with 30 lecture videos
 - Included experiential assignments and revamped the curriculum with HLS based modules
- BUSI 6220 – Applied Regression Methods (Since Fall 2019)
 - Revamped curriculum to include topics advanced transformation methods and how to check endogeneity in a research project.
- DSCI 4510 – Modeling for Business Intelligence (Since Spring 2020)
 - Revamped curriculum to include topics on intermittent demand classification, forecasting, supply chain simulation, and experiential team exercises.
- MSCI 6900 – Doctoral Seminar for Management Science (Since Fall 2020)
 - Team taught with two author faculty members
 - Responsible for topics such as heuristics and inventory planning & control

New course/curriculum development (University of Houston):

- PhD Seminar: Research Methods and Applications in SCM (Fall 2013)
 - Methods covered include behavioral operations management & mathematical modeling.
 - Applications include healthcare and energy supply chain.
- PhD Seminar: Demand Planning and Inventory Control (Fall 2015)
 - Focus primarily on forecasting (demand planning) and fulfillment (inventory control) areas in the demand & supply integration domain.
 - Research Methodologies covered including mathematical modeling, simulation and behavioral operations management

New course/curriculum development (Texas A&M University):

- Healthcare distribution networks
 - The course will examine the healthcare value chain in terms of logistics, competitive strategy, market power, distinctive capabilities and strategic alliances.
 - Established industry relationships with Owens and Minor, McKesson, Scott and White, MD Anderson, HIDA and NDC, Inc.
- Virtual Supply Chain Teaching Lab
 - Since Fall 2008, the SC lab exercises and lecture and delivered through terminal server setups, wherein students login remotely to access the lab and complete the exercises
 - The software library in the lab include Activant Eclipse, Prophet 21, Aidmatrix, SimFlex, Tour de Force, Selltis, Microsoft Dynamics, Mappoint, Xpress MP and other indigenously developed software and exercises

Teaching aids:

- **Academic Games:**

Beer game: An classroom friendly online version of the beer distribution game

- The instructors have more flexibility to control the flow of the game, summarize and present the results of the game.
- It is currently being used at least 160 universities like University of Houston, Texas A&M University, Michigan State University, Columbia University, Brigham Young University, Airforce Institute of Technology and several schools in Canada, China, Dubai, Mexico, France, Singapore and India.
- Website: <http://scgames.bauer.uh.edu/beergame>
 - User statistics: (since migrating to UH servers : Sep 2012 to July 2018,)
 - Number of new visits : 101,631
 - Number of page impressions (players): 400,878
 - Number of countries: 134
 - Top 10 countries (in order): US, Canada, Mexico, China, France, Germany, Colombia, UK, Hong Kong and Singapore.

- **Teaching Case Studies (apart from list including in Research):**

- "Box to Bronx" – a primer for discussing logistics operations of Dabbawallah in India
- Global supply chain procurement cases to be used in conjunction with SimFlex tool (<http://www.simflexgroup.com>), the cases are also used by other universities in Europe.
- Woot! , one product a day website, with Cameron Brown and Sudarshan Seshadri

Continuing/Executive Education

- Certificate in Distribution Management (at Texas A&M University)
 - Fundamentals of supply chain management (March 2007 and September 2007)
 - Principles of forecasting (March 2007)
 - Industrial sales leadership – Quality in sales process (January 2007)
 - Pricing Optimization and Asset Management (October 2008 and 2009)
- Customized Workshop
 - Supply Chain Challenges and Opportunities – Brenntag-LA (April 2008)
 - Inventory Stratification - Brenntag-LA (April 2008)
 - BSC Building materials – (Feb 2009, 2010 and 2011)
 - Distribution Management Workshop - Armstrong (July 2009)
 - Schlumberger – inventory best practices (May 2011)
- Insperity – CBPA Program (offered by University of Houston)
 - Capstone Simulation (Jan 2018 and Jan 2019)
- Baker Hughes – Leadership event on distribution
 - Bullwhip effect (August 2019)

Courses Taught and Student Evaluation Summaries

At University of North Texas

_Semester	Course [†]	No. of lecture sections	No. of students	Student Rating
Fall 2019	DSCI 2710	1	180	4.6/5.0
	DSCI 3710	1	7	5.0/5.0
	BUSI 6220 (PhD)	1	23	4.1/5.0
Spring 2020	DSCI 5180	2	23 and 94	4.8 and 4.6
	DSCI 4510	1	31	4.8/5.0
	DSCI 3710	1	59	4.7/5.0

Summer 2020	DSCI 5180	2	51 and 67	4.5 and 4.6
	DSCI 3710	1	27	3.2/5.0
Fall 2020	DSCI 5180	1	176	4.6/5.0
	DSCI 4510	1	24	4.7/5.0
	BUSI 6220	1	13	4.2/5.0

At University of Houston

Semester	Course [‡]	No. of lecture sections	No. of students	Student Rating
Spring 2013	SCM 4301	3	173	4.78/5.0
Fall 2013	SCM 4301	2	124	4.82/5.0
	SCM 8397 (PhD)	1	2	4.63/5.0
Fall 2014	SCM 4301	3	187	4.73/5.0
Fall 2015	SCM 8397 (PhD)	1	4	5.0/5.0
Spring 2016	SCM 4301	2	90	4.53/5.0
Spring 2017	SCM 4301	2	76	4.52/5.0
	SCM 3301	1	80	4.66/5.0
Spring 2018	SCM3301	3	435	4.59/5.0
Spring 2019	SCM 3301	2	540	4.60/5.0
	SCM 4301	1	70	4.55/5.0
Summer 2019 (Online)	SCM 4362	1	40	4.05/5.0

At Texas A&M University

Semester	Course [‡]	No. of lecture sections	No. of lab sessions	No. of students	Student Rating (out of 5)
Fall 2006	IDIS 344	2	6	93	4.66
Spring 2007	IDIS 344	2	6	83	4.69
	IDIS 644	1	-	13	4.8*
Fall 2007	IDIS 344	2	6	85	4.75
	IDIS 614	1	-	14	4.65*
Spring 2008	IDIS 344	2	6	78	4.83
	IDIS 644	1	-	12	4.75*
Fall 2008	IDIS 344	2	2	71	4.82
	IDIS 614	1	-	8	4.75*
Spring 2009	IDIS 344	2	2	86	4.75
	IDIS 644	1	-	9	4.70*
Fall 2009	IDIS 344	2	2	110	4.65
	IDIS 489	1	-	40	4.85
Spring 2010	IDIS 344	2	4	98	4.83
	IDIS 644	1	-	11	
Fall 2010	IDIS 344	2	4	96	4.82
	IDIS 489	1	-	16	4.88
Spring 2011	IDIS 344	2	4	94	4.75
	IDIS 644	1	-	17	4.6*
Fall 2011	IDIS 344	2	4	87	4.84
	IDIS 421	1	-	52	4.98
Spring 2012	IDIS 344	2	4	117	4.77
	IDIS 644	1	-	11	4.95*

*Evaluation normalized based on scale of 5.0

‡Course Names:

- IDIS 344 : IT in Distribution/Supply Chain (UG)
- IDIS 489/421: Healthcare Distribution Networks (UG)
- SCM 4301: Global Logistics Management (UG)
- SCM 8397 : PhD seminars
- IDIS 614: Introduction to Logistics (G)
- IDIS 644: Distribution and Technology Management (G)
- SCM3301: Service and Operations Management (UG)

Mays Business School (undergraduate class taught as PhD student)

Semester	Course	No. of students	Student Rating
Summer 2003	Introduction to Operations Management	63	4.1/5.0
Summer 2004	Introduction to Operations Management	65	4.3/5.0
Summer 2005	Introduction to Operations Management	53	4.4/5.0
Summer 2006	Introduction to Operations Management	57	4.3/5.0

OTHER HONORS AND AWARDS (Apart from listed at the start of the resume):

Research Honors/Awards

- Winner, Best Research Presentation*, 9th Annual Behavioral Operations Conferenc, Cologne, Germany, 2014
- Departmental Nominee for “Texas Engineering Experiment Station (TEES) Select Young Faculty” Award, 2010-2011
- *Dean's award for outstanding research by a doctoral student*, 2006
- *Regent graduate fellowship* for PhD program, 2002-06
- Mays business school PhD scholarship for spring 2004.
- Summer research funding from Mays business school (2003, 2004 and 2005)

* co-author Brent Moritz was the presenter

Teaching Honors/Awards

- Departmental Nominee for College of Engineering Faculty Fellow Award, Spring 2010
- Departmental Nominee for Association of Former Student's Distinguished Achievement Award in Teaching, 2010
- Departmental Nominee for Montague-Center for Teaching Excellence Scholars, 2009-2010
- *Fellow of graduate teaching academy*, Centre for Teaching Excellence, TAMU, 2004

SERVICE ACTIVITIES:

Significant Professional Society Activities

- Program Chair, 2013 Educators Annual Meeting of the Council of Supply Chain Management Professionals (CSCMP).
- Chair, Doctoral Dissertation Award Committee, Decision Sciences Institute, 2013
- Chair, Doctoral Dissertation Award Committee, Council of Supply Chain Management Professionals (CSCMP), 2011
- Committee Member, POMS College of Behavioral Operations Management, 2017-2018.
- Member, Undergraduate Subcommittee, INFORMS Education Outreach Committee, 2019-2020
- Member, Education Strategies Committee, Council of Supply Chain Management Professionals, 2011-2013.
- Chair, “Working Together: Collaborative Supply Chain Research in Action”, Annual CSCMP supply chain conference, San Antonio, TX, October 2014 (Session is part of the two day main conference, attracted 24 submissions for 6 slots)
- Research track co-chair, 2010 CSCMP's supply chain educator's conference, San Diego, CA, October 2010

Journal, Conference Proceedings and Book Reviewer

- *Production and Operations Management*
- *Journal of Operations Management*

- *Decision Sciences Journal*
- *Journal of Business Logistics*
- *European Journal of Operations Research*
- *Omega, International Journal of Management Science*
- *International Journal of Production Research*
- *International Journal of Physical Distribution and Logistics Management*
- *International Journal of Production Economics*
- *Computers and Operations Research*
- *Computers and Industrial Engineering*
- *Journal of Humanitarian Logistics and Supply Chain Management*
- *International Journal of Services Sciences*
- *European Journal of Industrial Engineering*
- *CSCMP annual conference* (since 2006)
- *DSI annual conference* (since 2003)
- *The Handbook of Technology Management, John Wiley & Sons.*

Editorial Board Member

- *International Journal of Advanced Operations Management, 2009*

Professional Society Committees/ Panels

- Member, Publications Committee, Decision Sciences Institute, 2012-2014
- Member, Doctoral Dissertation Award Committee, Council of Supply Chain Management Professionals (CSCMP), 2009

Student Advising

- Advisor of Professional Association of Industrial Distributors (PAID), an industrial distribution undergraduate student organization with 400 students, (Fall 2007 – Spring 2010)
 - Lead the establishment PAID Industry Advisory board

- Doctoral student committee – member

University of North Texas

- Xiaoyan Liu, G Brint Ryan College of Business (3rd year student)
- Himali Patil, G Brint Ryan College of Business (2nd year student)

University of Houston

- Yuan Ye, C.T. Bauer College of Business, graduated in Spring 2017
Current Position: Assistant Professor, California State University, Sacramento

Texas A&M University

- Jeremy Brann, Mays Business School, graduated in December 2007
Current Position: Head of Economics Excellence, Shell
- Masters of Science student committee member
 - Adhitya Mouli, Industrial Engineering (INEN) Department, graduated December 2007
 - Ajit Narayan, INEN Department, graduated December 2008
 - Karthik Narayanan, INEN Department, graduated December 2008
 - Bedanta Talukdar, INEN Department, graduated August 2010
- Direct Studies
 - Manikandan Ramaswamy, INEN Department, Fall 2007 (led to conference publication)
 - Ajit Narayanan, INEN Department, Fall 2008
 - Cameron Brown, ETID Department, Fall 2009 (led to conference and UG journal publication)
 - Trevor Bennett, ETID Department, Spring 2010 (Staffing issues in Hospice)
 - Sam Oliver and Christopher Lillis, ETID Department, Spring 2010 (Warehouse efficiency)

Departmental and University Service (University of North Texas)

- Senator, representing College of Business in Faculty Senate, 2019 in Core Curriculum committee
- Course Coordinator, DSCI 2710 (Intro course for all business majors)
- Course Coordinator, DSCI 5180 (Intro course for all graduate business majors)
- Member, ITDS Curriculum committee, 2019-2020
- Member, PAC committee, 2020-2021
- Member, PhD Exam Pool Committee, 2020-2021
- Member, Search Committee for three faculty positions in Analytics, 2019-2020
- Member, CoB Research Committee, 2019-2020

Departmental and University Service (University of Houston)

- Senator, representing College of Business in Faculty Senate, 2018
- Member, Undergraduate Curriculum committee, 2018
- Space Committee (Improve classroom usage), University of Houston, 2018
- Co-Instructor and Coordinator, Explore Summer Energy and Sustainability camp for high school students, 2015-2018
 - Camp activity includes interactions with industry, hands-on experiments and classroom lectures on how oil is extracted, transported and used by the humans in general.
- Judge, Summer Energy and Sustainability camp, 2014
- Faculty participant in Bauer supply chain student trips, 2014

Departmental and University Service (Texas A&M University)

- Member, Faculty and Student Advisory Board, Center for Teaching Excellence, Texas A&M University, 2009-2011
- Chair, Curriculum revision committee, Industrial Distribution program, Texas A&M, 2010
- Chair of faculty recruiting committee, Industrial Distribution program, Texas A&M University, 2007-2008 (*recruited three faculty members*)
- Member of Performance Guidelines Committee, Engineering Technology and Industrial Distribution, Texas A&M University, 2006-2007
- Member, Masters in Industrial Distribution Graduate Degree Selection Committee, 2007-2012
- Member, Faculty/Staff Social Committee, 2009-2010
- Judge, Student Research Week, March, 2009

Invited Panelist (Teaching)

- CTE – International Teaching Assistant Workshop, Fall 2010, Texas A&M University
- CTE –Teaching Assistant Workshop on Grading, Fall 2010, Texas A&M University
- INFORMS southwest conference, Teaching effectiveness : best practices, April 2010
- CSCMP Educators' Conference, Teaching in the Internet Age and the Generation Y (The Millennials), October 2008
- CSCMP doctoral student symposium, Teaching best practices, October 2007

Invited Panelist (Research)

- Doctoral Student Consortium, Decision Sciences Institute, November 2011, Boston, MA
- 13th Annual Conference Western Hemispheric Trade: Facing New Global Challenges, International Logistics Scenario, April 2008

Conference Session Chair

- Sessions in DSI annual conferences, 2006-2009, 2012, 2016
- Session in Logistics and Supply Chain Management, IDEA conference, 2009, 2010

OTHER AWARDS, HONORS AND ACHIEVEMENTS:

- First place in 2004 Ideas challenge, Center for New Ventures and Entrepreneurship, Texas A&M University (Co-author : Arun Surendran)
 - Undergraduate gold medalist for securing overall proficiency in academic skills.
 - First Indian principal of college of engineering for securing the highest cumulative grade point average (CGPA) in seven semesters.
 - Guindy engineers'62 trust endowment prize for overall proficiency and good conduct.
 - High school gold medalist for overall proficiency and good conduct.
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PROFESSIONAL DEVELOPMENT ACTIVITIES:

Professional Development

- Participant, New faculty consortium, DSI annual meeting, Phoenix, November 2007
- Participant, *POMS doctoral colloquium*, 16th Annual conference of POMS, Chicago, April 2005
- Participant, *DSI doctoral colloquium*, DSI annual meeting, Washington D.C, November 2003.
- Participant, *Graduate teaching academy* (GTA) program conducted by *Centre for Teaching Excellence* (CTA), Texas A&M University, Fall 2003 – Spring 2004.

Professional Society Membership

- INFORMS, member since 2002
- Decision Sciences Institute (DSI), member since 2003
- Council of Supply Chain Management Professionals (CSCMP), member since 2004
- Production and Operations Management society (POMS), member since 2005
- The American Society for Engineering Education (ASEE), member 2007-2009
- APICS, The Association for Operations Management, member since 2007

Computer Skills

- Programming languages: C++, Visual Basic, HTML, ASP, PHP, Vbscript, Python.
 - Software packages: Xpress-MP, CPLEX, R, STATA, MINITAB, SPSS, MATLAB, AMPL, ARENA 5.0, MS Project.
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