

Saligrama Agnihothri

Professor, Supply Chain and Business Analytics

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Faculty profile page: <https://www.binghamton.edu/som/research/profile.html?id=agni>

Google Scholar page: <https://scholar.google.com/citations?hl=en&user=2SFosXQAAAAJ>

Research Interests

- Mobile health use in chronic disease management
- Chronic disease management
- Healthcare operations
- Quality management
- Service operations management
- After-sales support in service operations
- Workforce planning and scheduling in services
- Flexibility in services

Education

Ph.D.	Operations Management, University of Rochester.
M.S.	Operations Research, University of Rochester.
M.Sc.	Statistics, Karnatak University, Dharwad, India.
B.Sc.	Mathematics and Statistics, Karnatak University.

Academic Experience

2005 -	Professor, School of Management, Binghamton University.
Summer 2015	Visiting Professor, School in Industrial Engineering, University of Florence, Florence, Italy.
1991 - 2005	Associate Professor, School of Management, Binghamton University.
1985 - 91	Assistant Professor, School of Management, Binghamton University.
1983 - 85	Lecturer, School of Management, Binghamton University.
Fall 1981, 82, & Summer 79, 82	Assistant Lecturer, Graduate School of Management, University of Rochester
1974 - 77	UGC Research Fellow, Department of Statistics, Karnataka University, Dharwad, India.
Summer 1974	Lecturer, Sri Bhuvanendra College, Karkal, India.

Industrial Experience

- Conducted improvement projects for Mazda North American Corporation, Wilson Memorial Hospital, Lourdes Hospital, Robert Packer Hospital, IBM, Lockheed Martin, Endicott Interconnect Technologies, Universal Instruments, Maines Paper and Food Service, Inc., Crowley Foods, Time Warner Cable, and NYSEG.
- Taught Total Quality Management and Statistical Process Control to the local industries including Raymond Corporation, Ebonex, Medicoach, and Salsbury Fire Equipment Corporation.
- Actively participated in teaching and implementing Continuous Quality Improvement at the Binghamton University, 1993-95.
- Eastman Kodak Company, Rochester, NY; Analyst, Management Service Division, summer 1981. Developed analytical models to evaluate the performance of field service territories with server redeployments between territories. One of the models was tested using the actual data and found to perform quite well.

Honors and Awards

- SOM Teaching honor roll (recent) – Fall 2021, Fall 2016, Fall 2015.
- GMA Award for Excellence in Teaching for the year 2007-2008, Graduate Management Association, April 2008.
- GMA Award for Excellence in Teaching for the year 1988-1989, Graduate Management Association, April 1989.
- Corning Glass Innovation and Research Award for best researcher in the School of Management, SUNY Binghamton, October 1989.
- Included in the Marquis Who's Who in America, 2004-2005.
- Included in "International Directory of Business and Management Scholars and Research", Edited by Deanna Lavalley, Harvard Business School Press, 1995 - 1996.
- Summer Research Fellowship, Piaker Endowment Fund, SOM, Summer 1989, 1990, 1994.
- University Curriculum Development Grant to develop a course on "Interdisciplinary approach to Quality management", SUNY Binghamton, Summer 1989.
- University Curriculum Development Grant to develop a course on "Total Quality Management", SUNY Binghamton, Summer 1988.
- University Summer Research Grant to work on "Performance Evaluation of Material Handling Systems", SUNY Research Foundation, Summer 1987.
- "Experienced Faculty Travel Award" awarded by the NYS-UUP Professional Development and Quality of Working Life Committee, Summer 1987, 1990, 1993.
- Fellowship (1977 - 78) and assistantship (1978 - 83) from the Graduate School of Management, University of Rochester.
- Dean's list, Spring 1978 and Spring 1979, Graduate School of Management, University of Rochester.

- Scholarship from University Grants Commission, India, for doing Research in Statistics, between 9/74 and 8/77.
- National Merit Scholarship from Government of India for Graduate studies in Statistics, between 7/72 and 5/74.
- First Rank in M.Sc. Statistics examination held by Karnatak University, Dharwar.
- Sixth Rank (out of approximately 25,000 students) in B.Sc. examination held by Karnatak University, Dharwar.
- Golden Jubilee Commemoration Prize awarded by the KDCC Bank, Sirsi for standing first in Arts and Science College, Sirsi, in B.Sc. examination.

Refereed Journal Publications

1. Agnihotri, S., Cappanera, P., Nonato, M., and Visintin, V., “*Appointment scheduling in surgery Pre-Admission Testing clinics*,” **OMEGA**, The International Journal of Management Science; Vol. 123, February 2024; DOI: 10.1016/j.omega.2023.102994
2. Rajan, B., Sainathan, A., Agnihotri, S., and Cui, L., “*The promise of mHealth for chronic disease management under different payment systems*”, **Manufacturing and Service Operations Management**, Vol. 24, No. 6, November–December 2022, pp. 3158–3176. DOI: 10.1287/msom.2022.1143
3. S. Agnihotri, L. Cui, B. Rajan, A. Banerjee, and R. Ramanujan, “*Mobile Health Application Usage and Quality of Care at a Hypertension Clinic: An Observational Cohort Study*”, **Journal of Hypertension**, November 2021; Vol. 39, Issue 11, pp. 2265-2271. DOI:10.1097/HJH.0000000000002909
4. S. Agnihotri, L. Cui, M. Delasay, and B. Rajan, “*The Value of mHealth for Managing Chronic Conditions*,” **Health Care Management Science**, 2020; Vol. 23, pp. 185-202. DOI: 10.1007/s10729-018-9458-2
5. S. Agnihotri and R. Agnihotri, “*Application of Evidence-Based Management to Chronic Disease Healthcare: A Framework*,” **Management Decision**, 2018; Vol. 56 Issue: 10, pp.2125-2147. DOI: 10.1108/MD-10-2017-1010
6. S. Chakravarthy and S. Agnihotri, (2008) “*A Server Backup Model with Markovian Arrivals and Phase Type Services*”, **European Journal of Operational Research**, Vol 184, Issue 2, pp. 584-609, 2008. DOI: 10.1016/j.ejor.2006.12.016
7. S. Chakravarthy and S. Agnihotri, “*Optimal Workforce Mix in Service Systems with Two Types of Customers*,” **Production and Operations Management**, Vol. 14, No. 2, pp. 218-231 (2005). DOI: 10.1111/j.1937-5956.2005.tb00020.x
8. S. Agnihotri and A. Mishra, “*Cross-Training Decisions in Field Services with Three Job Types and Server-Job Mismatch*,” **Decision Sciences**, Vol. 35, No. 2, pp. 239-257, (2004). DOI: 10.1111/j.00117315.2004.02642.x
9. S. Agnihotri, A. Mishra, and D. Simmons, “*Workforce Cross-Training Decisions in Field Service Systems with Two Job Types*,” **Journal of the Operational Research Society**, Vol. 54, No. 4, pp. 410-418, (2003). DOI: 10.1057/palgrave.jors.2601535
10. S. Agnihotri, N. Sivasubramaniam, and D. Simmons “*Leveraging Technology to Improve Field Service*,” **International Journal of Service Industry**

- Management**, Vol. 13, No. 1, pp. 47-68, (2002). DOI: 10.1108/09564230210421155
11. S. Agnihothri, J. S. Lee and J. Kim, "*Lot sizing with Random Yield and Due Date*," **Computers and Operations Research**, Vol. 27, No. 5, pp. 437-459, (2000). DOI: 10.1016/S0305-0548(99)00062-3
 12. S. Agnihothri, and R. Kenett, "*The Impact of Defects on a Process with Rework*", **European Journal of Operational Research**, Vol. 80, No. 2, (1995). DOI: 10.1016/0377-2217(94)00173-A
 13. S. Agnihothri and U. Karmarkar, "*Performance Evaluation of Service Territories*", **Operations Research**, Vol. 40, No. 2, (1992). DOI: 10.1287/opre.40.2.355
 14. S. Agnihothri and P. Taylor, "*Staffing a Centralized Appointment Scheduling Department in Lourdes Hospital*", **Interfaces**, Vol. 21, No. 5, (1991). DOI: 10.1287/inte.21.5.1
 15. S. Agnihothri, "*On the Complementarity between the Finite Capacity and Finite Source Queueing Systems*", **Computers and Operations Research**, Vol. 18, No. 2, (1991). DOI: 10.1016/0305-0548(91)90088-9
 16. S. Agnihothri, S. Narasimhan and H. Pirkul, "*An Assignment Problem With Queueing Time Cost*", **Naval Research Logistics**, Vol. 37, No. 2, (1990). DOI: 10.1002/1520-6750(199004)37:2<231::AID-NAV3220370204>3.0.CO;2-N
 17. S. Agnihothri, "*Interrelationships Between Performance Measures for The Machine Repairman Problem*", **Naval Research Logistics**, Vol. 36, No. 3, (1989). DOI: 10.1002/1520-6750(198906)36:3<265::AID-NAV3220360304>3.0.CO;2-F
 18. S. Agnihothri, "*A Mean Value Analysis of The Travelling Repairman Problem*", **IIE Transactions**, Vol. 20, No. 2, (1988). DOI: 10.1080/07408178808966173
 19. S. Agnihothri, U. Karmarkar, and P. Kubat, "*Stochastic Allocation Rules*", **Operations Research**, Vol. 30, No. 3, (1982). DOI: 10.1287/opre.30.3.545

Book Chapters

20. Agnihothri, S., F. Visintin, and A. Banerjee, "*Simulating a Hospital Preadmission Testing Center to Improve Patient Service*," In Merrill Warkentin (Ed.). **The Best Thinking in Business Analytics from the Decision Science Institute** (FT Press Analytics), 2015 (pp. 247-258).
21. M. Huynh and S. Agnihothri, "*Healthcare process Redesign: A case Study*," In "**Health Care Information Systems: Challenges of the Next Millennium**," Prof. Adi Armoni, Ed., Idea Group Publishing, Hershey, PA, 2000.
22. S. Agnihothri, "*Classification and Formulations of Service Facility Location Problems*", in **Hazardous Materials Disposal: Siting and Management**, M. Chatterji, Ed., Gower Publishing Company, London, (1987).

Published Cases

23. *We Deliver!: Managing a Food-Delivery Business - Case*; The Case Center Ref # 621-0023-1; July 2021.
24. *We Deliver!: Managing a Food-Delivery Business - Teaching Note*; The Case Center Ref # 621-0023-8; July 2021.

25. *We Deliver! (B): Managing a Food-Delivery Business – Case*; The Case Center Ref # 621-0023-1B; July 2021.

Refereed Conference Proceedings

26. S. Agnihothri, Rajan, B, and Cui, L., “*Redesigning Chronic Care delivery using Mobile Health Technology*,” 56th Annual Hawaii International Conference on System Sciences (HICSS), January 2023; Maui, HI.
27. B. Rajan and S. Agnihothri, “*Operational Impact of mHealth Adoption in Clinical Practice*,” 52nd Annual Hawaii International Conference on System Sciences (HICSS), January 2019; Maui, HI.
28. A. Banerjee, Ramanujan, R. A. and S. Agnihothri, “*Mobile Health Monitoring: Analysis of an app in a Diabetes and Hypertension Clinic*,” 49th Annual Hawaii International Conference on System Sciences (HICSS), January 2016; Kauai, HI.
29. P. Cappanera, M. Nonato, S. Agnihothri, and F. Visintin, “*Patient Scheduling Policies for Pre-Admission Testing with Cross-Trained Resource Constraints*,” Extended abstract, Proceedings of the 5th Annual Conference of the Italian Operations Research Society (AIRO), Pisa, Italy; September 2015.
30. S. Agnihothri, F. Visintin, and A. Banerjee, “*A Queueing System with Heterogeneous Servers and Limited Resources*,” Proceedings of European Decision Science Institute 2015 Conference, Taormina, Italy; May/June 2015.
31. S. Agnihothri, and S. Niranjana, “*Optimal Server Backup Decisions with Travel time*,” 2015 Annual Meeting of the Southeast Decision Science Institute, Savannah, GA; February 2015.
32. S. Agnihothri, and A. Banerjee, “*Analytics to Improve Service in a Pre-Admission Testing Clinic*,” Proceedings of the 48th Annual Hawaii International Conference on System Sciences (HICSS), January 5-8, 2015; Grand Hyatt, Kauai, HI.
33. S. Agnihothri, C. Sica, and A. Banerjee, “*Reducing Patient Wait in a Pre-Admission Testing Center*,” Proceedings of the 45th Decision Science Institute Annual Meeting, Tampa, FL; November 2014.
34. S. Agnihothri, and S. Niranjana, “*Optimal Time-Based Server Sharing Decisions in Field Services*” Proceedings of the 45th Decision Science Institute Annual Meeting, Tampa, FL; November 2014.
35. S. Agnihothri, and S. Niranjana, “*Optimal Server Sharing Decisions in Field Services*,” Proceedings of the 2014 Winter Simulation Conference, Savannah, GA, December 2014.
36. D. Simmons and S. Agnihothri, “*Managerial Concerns in Field Service*,” Proceedings of the 32nd Annual Meetings of the Decision Sciences Institute, San Francisco, CA, November 2001.
37. D. Simmons and S. Agnihothri, “*The Importance of Integrating Resources in Field Service*,” Proceedings of the first International Conference of the **Service Operations Management Association** held at Boston, MA; August 22-25, 1999.
38. M. Huynh and S. Agnihothri, “*Case Study on a Healthcare Reengineering Project: How it can Fail*,” Proceedings of the 10th International Conference of the **Information Resources Management Association**, held at Hershey, PA; May 16-19, 1999.

39. S. Agnihothri, A. Assar, and I Ravi, “*Managing Design for Quality: Developing and Implementing a Cross-Functional Course*,” Proceedings of the Sixth International Forum on Design Management Research & Education on “**Management and Design: Theories and Strategies for Success**,” Held at the Paris School of Management, Paris, June 1-3, 1994.

Articles published in the news media:

Radio

40. “*Harnessing the Power of Healthcare Apps Through Provider Integration*,” **The Academic Minute**, Podcast from WAMC Northeast Public Radio, January 10, 2022. <https://academicminute.org/2022/01/sal-agnihotri-binghamton-university-harnessing-the-power-of-healthcare-apps-through-provider-integration/>

News Paper

41. “*Health apps track vital health stats for millions of people, but doctors aren’t using the data – here’s how it could reduce costs and patient outcomes*,” **The Conversation**, July 28, 2021. <https://theconversation.com/health-apps-track-vital-health-stats-for-millions-of-people-but-doctors-arent-using-the-data-heres-how-it-could-reduce-costs-and-patient-outcomes-162575>
Note: This article is republished in more than 30 major newspapers around the world including, *The Boston Sunday Globe*, *Newsweek Japan* (in Japanese), *Philly Voice* (Philadelphia), *Haretz* (Israel), *The Print* (India), *Yahoo News*, and *AP news*.

Paper(s) submitted for publication.

1. Agnihothri, S., Sainathan, A., and Rajan, B., “*Should the Payer Incentivize the Provider to Send Reminders or Offer Patient Rewards to Increase mHealth Usage?*” **Manufacturing & Service Operations Management**.
2. Al-Syouf, M., Bansal, A., and Agnihothri, S., “*A Branch and Price Algorithm for Scheduling in Surgery Pre-admission Testing Clinics*,” **European Journal Operational Research**.

Related news stories

1. “*Research: Mobile apps can help those suffering from hypertension, improve communication between patients and providers*,” Binghamton University School of Management researchers tracked over 1,600 patients in multi-year study” Allen Wengert, **BingU News**, July 26, 2021; <https://www.binghamton.edu/news/story/3172/research-mobile-apps-can-help-those-suffering-from-hypertension-improve-communication-between-patients-and-providers>
2. “*Could more joint decision-making between patient and physician improve chronic care in the U.S.? School of Management professor explores potential ways to fix chronic healthcare in the United States*,” Allen Wengert, **BingU News**, October 22, 2018; <https://www.binghamton.edu/news/story/1392/could-more-joint-decision-making-between-patient-and-physician-improve-chro>
3. “*School of Management, Mazda explore how to make after-sales service more efficient*,” Faculty and students from Binghamton University team up with Mazda to tackle real-

- world problems*” Allen Wengert, **BingU News**, March 19, 2018;
<https://www.binghamton.edu/news/storv/1016/school-of-management-mazda-explore-how-to-make-after-sales-service-more-eff>
4. “*Binghamton University alumnus brings creative eye and data muscle to NBCUniversal, School of Management alumnus looks at business side of the entertainment industry through unique lens,*” Steve Seepersaud, **BingU News**, November 07, 2018;
<https://www.binghamton.edu/news/storv/1389/binghamton-university-alumnus-brings-creative-eye-and-data-muscle-to-nbcuni>
 5. “*Who is Calling? CQI project eases phone burden,*” Susan Barker, **INSIDE BU**, November 21, 1996.

Unpublished Papers and Reports

1. S. Agnihothri, “*Facility Location Problems in Service Industries*”, Working Paper Series No. 86-108, SUNY Binghamton, June 1986.
2. S. Agnihothri, “*Performance Evaluation of Field Service Territories*”, Ph.D. Thesis, Graduate School of Management, the University of Rochester, August 1985.
3. S. Agnihothri, “*An M/G/1 Queueing System with Limited Server Availability*”, Working Paper Series No. QM 8202, Graduate School of Management, The University of Rochester, (January 1982).
4. S. Agnihothri, “*Optimal Control of an M/M/1/N Queueing System with Variable Service Rates and Arrival Rates Depending on Service Rates*”, Working Paper, Karnatak University, Dharwar, (March 1977).
5. S. Agnihothri, “*m-th Order Markovian Decision Processes*”, Working Paper, Karnatak University, Dharwar, (December 1976).

Research in Progress

1. Heavy Traffic Approximation Models to reduce patient wait in a hospital pre-admission center.
2. Simulating a Hospital Preadmission Testing Center to Improve Patient Service.
3. Reducing Nursing Overtime in a Cardiac Catheterization Laboratory: A Case Study.
4. Reducing ‘Decision to Incision’ time to Perform Emergency C-section Procedures.
5. Determining Optimal After-sales Service Support for Auto Dealerships: A Case Study.
6. Inter-territory Server Sharing Decisions in Field Services.

Citation

- According to **Google Scholar Citations**, more than 957 research papers cited my work.

- In the *Management Science* textbook by Winston and Albright, the chapter on Queueing Theory begins by detailing my ***Interfaces*** paper (in half a page) to point out how queueing theory is successfully applied to solve real life problems.
- In the *Management Science* textbook by Camm and Evans, the authors devote three pages to demonstrate how to choose optimal number of servers to satisfy a given service level constraint using a table in my ***Interfaces*** paper.
- In *Management Science* textbook by Clauss, my ***Interfaces*** paper is used as a case study. They devote three pages to demonstrate how to derive optimal staffing level in a call center.

Editorial Service

- Editorial Review Board of ***Production and Operations Management***, (2003-present)
- Associate Editor, ***Management Science***, Department of *Interdisciplinary Management Research and Applications*; 1993-2001.
- Associate Editor of ***POMS Chronicle*** for the area “Scheduling, After Sales Services, and Product Support”; 2002-2008.
- Member, Scientific Committee, 5th world conference on Production and Operation Management, Havana, Cuba, September 2016 (Joint conference of European Operations management association, production and Operations Management society, and Japanese Operations management and Strategy Association).
- Refereed papers for the following journals:
 - *Management Science*
 - *Operations Research*
 - *Manufacturing & Service Operations Management*
 - *Interfaces*
 - *Journal of Operations Management*
 - *European Journal of Operational Research*
 - *Health Care Management Science*
 - *Stochastic Models*
 - *Naval Research Logistics*
 - *Sloan Management Review*
 - *Telecommunication Systems*
 - *Computers and Operations Research*
 - *The Journal of Operational Research Society*
 - *International Journal of Service Industry Management*
 - *Flexible Services and Manufacturing Journal*
 - *Simulation Modeling: Practice and Theory*
 - *American Journal of Mathematical and Management Sciences*
 - *Decision Science Institute*
 - *Hawaii International Conference on System Sciences (HICSS)*
 - *PLOS Digital Health*
 - *Connected Health*
 - *Applied Clinical Informatics*

Professional Affiliations

- Institute for Operations Research and the Management Sciences (INFORMS)
- Production and Operations Management Society (POMS)
- Decision Sciences Institute (DSI)

Conference Session Chair

- 11/2014** Decision Science Institute Annual Conference, session titled “Challenges in Managing Capacity in Healthcare”.
- 01/2008** International Conference on Outsourcing/Offshoring: Trends & Managerial Issues; Manipal University, Manipal, India; session titled “Entrepreneurship and Small and Medium Enterprises.”
- 10/2004** INFORMS National Conference, session titled “Service Industry Applications.”
- 05/2003** POMS Conference, session titled “Training and Scheduling of Personnel in Services.”
- 05/2002** POMS National Conference, session titled “Waiting Lines in Services.”
- 05/1999** INFORMS National Conference, session titled “Operations Management II.”
- 05/1999** INFORMS National Conference, session titled, “Service Industry Applications I.”
- 06/1998** INFORMS International Conference, Organized “Service Management” cluster
- 06/1998** INFORMS National Conference, session titled “Service Operations.”
- 10/1995** INFORMS National Conference, session titled “Current Issues in Production Systems.”
- 10/1993** ORSA/TIMS National Conference, session titled “Single Server Queueing Models I.”
- 05/1992** ORSA/TIMS National Conference, session titled “Service Industries Applications.”
- 05/1989** CORS/ORSA/TIMS International Conference, session titled “Business Application of Statistics.”
- 10/1988** ORSA/TIMS National Conference, session titled “Production processes.”

Conference Presentations

- 05/2025** Sainathan, A., Agnihothri, S., and Rajan, B. “*Incentives for Better Patient Health in the Context of mHealth.*” POMS 35th Annual Conference, May 2025; Atlanta, GA.
- 05/2025** Delasay, M., Agnihothri, S., and Sainathan, A. “*Enhancing Patient Care Through Telemedicine: Linking Primary Care with Specialists,*” POMS 35th Annual Conference, May 2025; Atlanta, GA.
- 10/2024** Delasay, M., Agnihothri, S., and Sainathan, A. “*Enhancing Patient Care Through Telemedicine: Linking Primary Care with Specialists,*” INFORMS National Conference, Seattle, WA.

- 10/2024** Al-Syouf, M., Bansal, A., and Agnihothri, S. “*A Branch-and-Price Approach for Resource Allocation in a Pre-admissions Testing Clinic*,” INFORMS National Conference, Seattle, WA.
- 07/2024** Cappanera, P., Nonato, M., Agnihothri, S., and Visintin, P. “*Patient-oriented scheduling policies in surgery pre-admission testing clinics*.” 50th Annual Meeting of the EURO working group on Operational Research Applied to Health Services (ORAHS), July 2024; Turin, Italy.
- 04/2024** Niranjan, S., Agnihothri, S., and Garg, V. “*A Framework for Chronic Care Supply Chain: Role of Technology in Enhancing Care Delivery*.” POMS 34th Annual Conference, April 2024; Minneapolis, MN.
- 05/2023** Rajan, B., Sainathan, A., Agnihothri, S., and Cui, L. “*Chronic disease management under different payment systems and the promise of mHealth*”. POMS 33rd Annual Conference, May 2023; Orlando, FL.
- 01/2023** S. Agnihothri, Rajan, B., and Cui, L., “*Redesigning Chronic Care delivery using Mobile Health Technology*,” 56th Annual Hawaii International Conference on System Sciences (HICSS), January 2023; Maui, HI.
- 05/2021** Agnihothri, S., Rajan, B., Sainathan, A., and Cui, L., “*Viability of mHealth for chronic disease management under various payment systems*,” POMS 31st Annual Conference, Virtual.
- 11/2020** Rajan, B., Sainathan, A., Agnihothri, S., and Cui, L., “Chronic disease management under different payment systems and the promise of mHealth,” INFORMS Annual conference, Virtual.
- 10/2019** Sainathan, A., Agnihothri, S., and Rajan, B., “*Operational Impact of mHealth Adoption in Clinical Practice*,” INFORMS National Conference, Seattle, WA.
- 07/2019** Rajan, B., Agnihothri, S., and Sainathan, A., “*Operational Impact of mHealth Adoption in Clinical Practice*,” INFORMS Healthcare 2019 conference on Transforming Health with Data, Mind and Hand, MIT Sloan School of Management.
- 05/2019** Agnihothri, S., Cui, L., Rajan, B., and Delasay, M., “*The value of mHealth for managing chronic conditions*,” POMS 30th Annual Conference, Washington, DC.
- 02/2019** Rajan, B., and Agnihothri, S., “*The Impact of mHealth on clinic operations: The case of chronic condition management*,” 31st Annual CSUPOM (Consortium of Supply Chain and Operations Management) conference, Turlock, CA.
- 01/2019** Rajan, B., and S. Agnihothri. “*Operational impact of mHealth adoption in clinical practice*,” 52nd Annual Hawaii International Conference on System Sciences (HICSS); Maui, HI.
- 11/2018** Agnihothri, S., Cui, L., Rajan, B., and Delasay, M., “*Impact of mobile technologies on health outcomes for patients with chronic disease*,” INFORMS National Conference, Phoenix, AZ; November 2018.
- 07/2018** Agnihothri, S., “*Improving quality of care at a hypertension clinic using a mobile health technology*,” BIT conference on *The Services Revolution: Industrialization, Experience and Technology*, University of California Los Angeles; Invited Plenary Speaker.

- 05/2018** Agnihothri, S., Cui, L., Banerjee, A., and Ramanujan, R., *"Impact of using a mobile health application in a clinical practice,"* POMS 29th Annual Conference, Houston, TX.
- 10/2017** Agnihothri, S., Cui, L., Banerjee, A., and Ramanujan, R., *"Improving quality of care at a hypertension clinic using a mobile health application,"* INFORMS National Conference, Houston, TX.
- 05/2017** Agnihothri, S., *"Models to reduce patient wait in a hospital pre-admission center,"* POMS 28th Annual Conference, Seattle, WA.
- 05/2016** Agnihothri, S., and L. Cui, *"Reducing patient wait in a hospital pre-admission testing center,"* POMS 27th Annual Conference, Orlando, FL.
- 05/2016** Agnihothri, S., and S. Niranjana, *"Optimal Server Sharing Decisions in Field Services,"* POMS 27th Annual Conference, Orlando, FL.
- 04/2016** Devapatla, S., Vidavalur, R., Verma, R., and Agnihothri, S. *"Reducing 'Decision to Incision' time to Perform Emergency C-section Procedures,"* Pediatric Academic Society Annual Meeting, Baltimore, MD.
- 03/2016** Devapatla, S., Vidavalur, R., Verma, R., and Agnihothri, S. *"Reducing 'Decision to Incision' time to Perform Emergency C-section Procedures,"* Eastern Society for pediatric Research Annual Meeting, Philadelphia, PA.
- 01/2016** Banerjee, A., Ramanujan, R. A. and S. Agnihothri. *"Mobile Health Monitoring: Analysis of an app in a Diabetes and Hypertension Clinic,"* 49th Annual Hawaii International Conference on System Sciences (HICSS); Kauai, HI.
- 11/2015** Agnihothri, S. and A. Banerjee, *"Improving Patient Care using Integrated Health Monitoring Systems for Diabetes and Hypertension,"* INFORMS National Conference, Philadelphia, PA.
- 09/2015** Agnihothri, S., and L. Cui, *"Heavy Traffic Approximation Models to reduce patient wait in a hospital pre-admission center,"* 5th Biennial Workshop on Information Intensive Services at the Whitman School of Management, Syracuse University.
- 09/2015** Cappanera, P., Nonato, M., Agnihothri, S., and Visintin, F., *"Patient Scheduling Policies for Pre-Admission Testing with Cross-Trained Resource Constraints,"* 5th Annual Conference of the Italian Operations Research Society (AIRO), Pisa, Italy.
- 06/2015** Agnihothri, S., F. Visintin, and A. Banerjee, *"A Queueing System with Heterogeneous Servers and Limited Resources,"* Proceedings of European Decision Science Institute 2015 Conference, Taormina, Italy.
- 05/2015** Agnihothri, S., and Banerjee, A. *"Increasing Nursing Staff Efficiency in a Cardiac Catheterization Laboratory,"* POMS 26th Annual Conference, Washington, DC.
- 05/2015** Banerjee, A., S. Agnihothri, and S. Spain, *"Impact of Mobile Health Monitoring for Diabetes and Hypertension on Patient Care,"* POMS 26th Annual Conference, Washington.
- 02/2015** Banerjee, A., and S. Agnihothri, *"EHR and Healthcare Quality,"* Healthcare Systems Process Improvement Conference 2015, Orlando, FL.

- 02/2015** Agnihothri, S., and S. Niranjan, "*Optimal Server Backup Decisions with Travel time*," 45th Annual Meeting of the Southeast Decision Science Institute, Savannah, GA.
- 01/2015** S. Agnihothri, and A. Banerjee, "*Analytics to Improve Service in a Pre-Admission Testing Clinic*," 48th Annual Hawaii International Conference on System Sciences (HICSS), Kauai, HI.
- 12/2014** S. Agnihothri, and S. Niranjan, "*Optimal Server Sharing Decisions in Field Services*," 2014 Winter Simulation Conference, Savannah, GA.
- 11/2014** S. Agnihothri, C. Sica, and A. Banerjee, "*Reducing Patient Wait in a Pre-Admission Testing Center*," 45th Decision Science Institute Annual Meeting, Tampa, FL.
- 11/2014** S. Agnihothri, and S. Niranjan, "*Optimal Time-Based Server Sharing Decisions in Field Services*" 45th Decision Science Institute Annual Meeting, Tampa, FL.
- 11/2014** S. Agnihothri, and Banerjee, A. "*Capacity Management in a Pre-Admission Testing Center*," INFORMS National Conference, San Francisco, CA.
- 11/2014** S. Agnihothri and Banerjee, A. "*EHR and Its Impact on Healthcare*," INFORMS National Conference, San Francisco, CA.
- 11/2014** S. Agnihothri and S. Niranjan, "*Optimal Queue Length-Based Server Sharing Decisions in Field Services*," INFORMS National Conference, San Francisco, CA.
- 10/2013** S. Agnihothri, "*A Survey of Research in Product Support*," INFORMS National Conference, Minneapolis, MN.
- 10/2009** S. Agnihothri and S. Niranjan, "*Server Sharing Decisions in Field Services with Multiple Territories*," INFORMS National Conference, San Diego, CA.
- 04/2005** S. Agnihothri, "*Optimal Inter-territory Server Sharing Decisions in Field Services*," POMS National Conference, Chicago, IL.
- 10/2004** S. Agnihothri, "*Inter-territory Server Sharing Decisions in Field Services*," INFORMS National Conference, Denver, CO.
- 10/2003** S. Agnihothri, "*Optimal Server Mix Decisions in Service Systems with Two Types of Customers*," INFORMS National Conference, Atlanta, GA.
- 08/2003** S. Agnihothri, N. Sivasubramaniam, and T. Chandy, "*Competing in industrial markets: Rethinking the service advantage*," National Meetings of the Academy of Management, Seattle, WA.
- 04/2003** S. Agnihothri, "*Analysis of Worker-Cross-training Decisions for a System with Two Customer Types*," POMS National Conference, Savannah, GA.
- 11/2002** S. Agnihothri, "*Worker Cross-Training Decisions in Field Service Systems*," INFORMS National Conference, San Jose, CA.
- 04/2002** S. Agnihothri, "*A Simulation Study of Cross-Training in Field Service Systems*," POMS National Conference, San Francisco, CA.
- 11/2001** S. Agnihothri, "*Managerial Concerns in Field Service*," DSI National Conference, San Francisco, CA.
- 11/2001** S. Agnihothri, N. Sivasubramaniam, and T. Chandy, "*e-Service in Industrial Markets: A Strategic Approach to Relationship Management*," DSI National Conference, San Francisco, CA.

- 11/2000** S. Agnihothri, *"When Does Cross-Training Servers Pay Off?"* INFORMS National Conference, San Antonio, TX.
- 05/2000** S. Agnihothri, *"Process Flexibility in Two-Server Queuing System."* INFORMS National Conference, Salt Lake City, UT.
- 11/1999** S. Agnihothri, *"Flexibility in Field Service Operations,"* INFORMS National Conference, Philadelphia, PA.
- 05/1999** S. Agnihothri, *"Classifying Field Services to Gain Operational Insights,"* INFORMS National Conference, Cincinnati, OH.
- 05/1999** S. Agnihothri and Donald Simmons, *"Flexibility in Field-Based Service Operations,"* INFORMS National Conference, Cincinnati, OH.
- 06/1998** S. Agnihothri, *"Improving Quality of Service in a Call Center,"* INFORMS International Conference, Tel Aviv, Israel.
- 04/1998** S. Agnihothri, *"A Survey of Research in Field Service,"* CORS/INFORMS International Conference, Montreal, Canada.
- 07/1997** S. Agnihothri, *"Optimal Tree Maintenance Policies for Electric Power Lines,"* INFORMS EURO International Conference, Barcelona, Spain.
- 07/1997** S. Agnihothri, *"Quality Improvement in Services,"* ASQC Quality Conference, Binghamton, NY.
- 05/1997** S. Agnihothri, *"A Labor Scheduling Problem in a Service Industry,"* INFORMS National Conference, San Diego, CA.
- 06/1996** S. Agnihothri, *"Managing a Call Answering System by Reducing the Incoming Calls,"* ASQC Quality Conference, Binghamton, NY.
- 10/1995** S. Agnihothri, *"Lot Sizing with Random Yield and Due Date,"* INFORMS National Conference, New Orleans, LA.
- 06/1994** S. Agnihothri, *"Managing Design for Quality: Developing and Implementing a Cross-functional Course,"* International Conference on Design, Paris, France.
- 10/1993** S. Agnihothri, *"Queueing Delays in Systems with Sequence Dependent Setups,"* ORSA/TIMS National Conference, Phoenix, AZ.
- 04/1992** S. Agnihothri, *"Scheduling Elective Inpatient Admissions in a Hospital,"* ORSA/TIMS National Conference, Orlando, FL.
- 05/1990** S. Agnihothri, *"Performance Evaluation of Batch Transportation Systems,"* ORSA/TIMS National Conference, Las Vegas, NV.
- 05/1989** S. Agnihothri, *"Staffing a Centralized Appointment Scheduling Department in a Hospital,"* CORS/ORSA/TIMS International Conference, Vancouver, Canada.
- 10/1988** S. Agnihothri, *"The Impact of Defects on a Process with Rework,"* ORSA/TIMS National Conference, Denver, CO.
- 10/1987** S. Agnihothri, *"A Queueing System with an Imperfect Server,"* ORSA/TIMS National Conference, St. Louis, MO.
- 10/1987** S. Agnihothri, S. Narasimhan and H. Pirkul, *"Assignment Problem with Queueing Time Cost,"* ORSA/TIMS National Conference, St. Louis, MO.
- 04/1986** S. Agnihothri, Karmarkar, U. *"Performance Evaluation of Field Service Territories,"* ORSA/TIMS National Conference, Los Angeles, CA.

- 10/1985** S. Agnihothri, *“Facility Location Problems in Service Industries,”* Conference on Location & Management of Special Facilities, Binghamton, NY.
- 04/1983** S. Agnihothri, *“Customer Service with Limited Server Availability,”* ORSA/TIMS National Conference, Chicago, IL.
- 10/1981** S. Agnihothri, and Karmarkar, U., *“Service Territory Performance Models,”* ORSA/TIMS National Conference, Houston, TX.

Invited Talks

- 04/2022** Karnatak University, Dharwad, India; *“Operations Research Models to Improve Service in a Hospital Pre-Admission Testing.”*
- 03/2022** SOM Analytics brown bag, *“Analytics to improve service in a hospital pre-admission testing center.”*
- 10/2021** BU course-Towards a better world through research (Prof. D. Santos) – *“Harnessing the power of healthcare apps through provider integration: A Case Study.”*
- 09/2020** Vellore Institute of Technology, Business School, Vellore, India; *“Mobile Health Application to Improve Quality of Care at a Hypertension Clinic.”*
- 08/2020** Chetan Business School, Hubli, Institute of Management & Research, India; *“Mobile Health Application to Improve Quality of Care at a Hypertension Clinic.”*
- 10/2018** BU course-Towards a better world through research (Prof. D. Santos) – *“Mobile health technology to improve patient experience in a clinical practice.”*
- 07/2018** BIT International Conference on *The Services Revolution: Industrialization, Experience and Technology*, University of California Los Angeles; *“Improving quality of care at a hypertension clinic using a mobile health technology,” Plenary Speaker.*
- 01/2008** SDM College of Business Management, Mangaluru, India. *“Graduate Business Education in the USA”.*
- 01/2008** Kasturba Medical College, Manipal University, India; *“Improving Healthcare Quality”.*
- 03/2001** Cornell University, *“Modeling Scheduling Problems in Hospitals.”*
- 08/1997** Mangalore University, *“Lot Sizing with Random Yield and Due Date.”*
- 08/1997** Kasturba Medical College, Manipal, *“Quality in Health Care Industry.”*
- 08/1997** Welcome Group Graduate School of Hotel Administration, Manipal, *“Service Quality in Hospitality Industry.”*
- 08/1997** Poorna Prajna College, Udupi, *“Management Education in the United States.”*
- 01/1994** American Society for Quality Control, *“Quality Management in the Service Sector.”*
- 12/1992** T.A. Pai Institute of Management, Manipal, *“Research topics in Operations Management.”*
- 12/1992** Karnatak Regional Engineering College, Suratkal, *“The Impact of Defects on a Process with Rework.”*
- 12/1992** Mangalore University, *“Research topics in Operations Management.”*

- 12/1992** Kasturba Medical College, Manipal, *"Scheduling Elective Inpatient Admissions in a Hospital."*
- 01/1989** T.A. Pai Institute of Management, Manipal, *"Some Research issues in Operations Management."*

Funded Grant Proposals

1. *"Improving Pre-admission Test Process at Wilson Memorial Hospital,"* (Principal Investigator, for \$9,442 to support two SOM graduate students), United Health Services Hospitals, December 2013; Funded.
2. *"Patient Scheduling in Cardiac Catheterization Lab at Wilson Hospital,"* (Principal Investigator, for \$9,442 to support two SOM graduate students), United Health Services Hospitals, December 2013; Funded.
3. *"Data Analytics at Raymond Corporation's Field Service Division,"* (Principal Investigator, for \$5,543 to support two SOM graduate students), Raymond Corporation, Greene, NY, January 2014; Funded.
4. *"Development of a Graduate Interdisciplinary Course on Managing Product Design for Quality,"* (Project Director, with SOM faculty, for \$10,000), GE Aircraft Engine Continuous Improvement Education Fund 1992, December 1991, Funded.
5. *"Design and Implementation of a Quality Concentration in the MBA Program,"* (with SOM Operations Management Faculty, for \$10,000), GE Aircraft Engine Continuous Improvement Education Fund 1991, December 1990, Funded.
6. *"Managing Design Systems: Integrating Marketing and Engineering,"* (with SOM and School of Engineering faculty, for over a million dollars), National Science Foundation, December 1989, rejected.

Grant Proposals Submitted and Rejected

1. *Research collaborator* with Prof. Suman Niranjana of University of North Texas, Denton, TX, to a grant submitted to **2021 ACQUISITION INNOVATION RESEARCH PROGRAM - PHASE I** award on the *"Optimal Field Service Representatives (FSR) Sharing Policies: The Impact on Contracts and Procurement,"* for \$98,226; May 2021.
2. Faculty mentor; \$299,590 for three years; Research Initiation Award grant from NSF applied by Prof. Suman Niranjana of Savannah State University. Project title: *"Optimal Server re-dispatching policies in field services"*, October 2018.
3. Principle Investigator; \$289,454 over 2 years; NIH/AHRQ grant; *"Evaluating the effectiveness of using a mobile health application in improving quality of care for hypertension patients in a clinical practice,"* February 2017 - Reapply.
4. Principle Investigator; \$229,425 over 2 years; NIH/AHRQ grant; *"An m-Health application to integrate Patient Reported Outcome and Care Planning for Hypertension and Diabetes Patients,"* February 2017.
5. Principle Investigator; \$3,267,352 over 5 years; NIH/AHRQ grant; *"Improving Care for Chronic Patients in Underserved Population using a Mobile Health Application,"* October 2016.
6. Principle Investigator; \$289,454 over 2 years; NIH/AHRQ grant; *"Evaluating the effectiveness of a mobile health application in improving quality of care for*

- hypertension and diabetes patients,"* October 2016. Rejected for error in filling budget forms.
7. Principle Investigator; \$99,042 over 2 years; NIH/AHRQ grant; "*Study of Physician Incentives to encourage the use of mHealth Technology in Managing Hypertension and Diabetes,*" October 2016.
 8. "A Simulation Study to Improve Flow of Patients in the Emergency Department at Arnot Health," \$100,000; NIH/AHRQ grant, February 2016.

Professional Development

- The *SUNY Write Winning NIH Grant Proposals Virtual Workshop*, presented by Grant Writers' Seminars and Workshops, August 13-14, 2020.
- INFORMS Business Analytics Virtual Conference, May 2020.
- *mHealth technology showcase*, National Institute of Health, Bethesda, MD; June 2018.
- SAS Academic Workshop on *Advanced Business Analytics*, July 2014; Cary, NC.

Ph.D. Dissertation Chair

1. Anu Banerjee, "*Impact of using mHealth technology on chronic disease patient care,*" School of Management; defended in spring 2018.
2. Donald Simmons, "*Field service management: A classification Scheme and study of server flexibility,*" School of Management; defended in spring 2001.

Ph.D. Dissertation Committee

1. External Examiner, Ms. Farah Altarazi, SSIE, Watson School of Engineering, Binghamton University; "*Integrating Process Mining, Robotic Process Automation, and Data Mining: A Framework for Optimizing Inventory Management,*" April 2025.
2. External examiner, Ambika, K.C., Visvesvaraya Technological University, India; "*Impact of Demonetization on Digital Payments- A Study in Kalaburagi City,*" January 2023
3. External Examiner, Mr. Suhas Chivukula, SSIE, Watson School of Engineering, Binghamton University; "*Addressing Global Manufacturing Outsourcing Problems using a Hybrid AHP-TCO Model,*" April 2021.
4. External Examiner, Ms. Katia Mariel Rojas Garcia, SSIE, Watson School of Engineering, Binghamton University; "*An Industry-focused Maturity Assessment Tool – Project Management Practices and key Factors for Success in FDA Human Factor validations of Medical Devices and Combination Products,*" April 2020.
5. External examiner, Ms. M.S. Savitha, Mangalore University, India; "*Studies of Certain Generalized Vendor-Buyer Integrated Inventory Systems,*" April 2020.
6. Member, Mr. Aric Johnson, "*Designing Robust and Resilient Supply Chains,*" SSIE Department of Watson School of Engineering. He defended his thesis in November, 2012.
7. Member, Mr. Sreekanth Ramakrishnan, SSIE Department of Watson School of Engineering. He defended his thesis in June 2008.

8. External examiner, Thesis from Manipal University on "*Service Quality and Customer Satisfaction: A case Study in general Insurance Sector,*" October 2008.
9. Member, Vivek Venkatraman, Department of System Science and Industrial Engineering, Watson School of Industrial Engineering, 2003-2004.
10. Member, Sarang Kayande, Department of System Science and Industrial Engineering, Watson School of Industrial Engineering, 2003-Spring 2005.
11. External examiner, K.K.Geetha, Department of Statistics, Mangalore University, India; August 2002.
12. Member, Ivan Rova, Department of System Science and Industrial Engineering, Watson School of Industrial Engineering; defended spring 2000.
13. Member, Sezai Dogdu, Department of System Science and Industrial Engineering, Watson School of Industrial Engineering; defended spring 1999.
14. External Reviewer, M. Kumaran, Department of Statistics, Mangalore University, India; defended in August 1997.

M.B.A. Project and Master's Thesis Committee

1. Co-Chair, Mithun Alva, M.S. Thesis, Department of System Science and Industrial Engineering, Watson School of Industrial Engineering, Fall 2004.
2. Supervised MSEE project, Ankit Sharma, Watson School of Industrial Engineering, Fall 2004.
3. Chair, Don Simmons, MBA Project, School of Management, 1997.
4. Chair, Minh Huyn, MBA Project, School of Management, 1995.
5. Chair, Patricia Taylor, School of Management, 1988.

External Promotion committee

- Evaluated a faculty for promotion to full Professor from the Narendra Paul Loomba Department of Management, Baruch College, CUNY, January 2023.
- Evaluated a faculty for tenure & promotion to Associate Professor from the Narendra Paul Loomba Department of Management, Baruch College, CUNY, April 2021.
- Evaluated a faculty for promotion to Full Professor from the College of Business Administration, University of Bahrain, Kingdom of Bahrain, 2020.

INFORMS MENTOR MATCH PROGRAM

- Served as a mentor for Ph.D. students from the following universities:
 - Georgia Institute of Technology, Industrial Engineering; Fall 2024.
 - Cornell Engineering, Spring 2025.

Courses Taught

Binghamton University (School of Management)

- Advanced Modeling for Decision Making
- Decision Modeling and Risk Analysis
- Supply Chain Management
- Operations Management
- Business Analytics

- Spreadsheet Modeling and Decision Making
- Six-Sigma and Continuous Improvement
- Operations Consulting Project
- Simulation modeling to Manage Business Process Flows
- Operations Management for Healthcare Professionals
- Managing Resources for Customer Satisfaction (Team Taught with Marketing)
- Managing Product Design for Quality (Team Taught with Marketing and Accounting)
- Interdisciplinary Approach to Quality Management (Team Taught with Human Resource Management)
- Total Quality Management
- Management of Service Operations
- Models for Management Decisions
- Statistical Analysis for Management
- Statistical Methods
- Quantitative Methods in Management Science
- Basic Statistics and Variability (to industry)
- Introduction to Statistical Process Control (to industry)

University of Florence (Department of Industrial Engineering)

- Advanced Spreadsheet Modeling and Applications (A Ph.D. seminar course with 25 students)

The University of Rochester (Simon Graduate School of Business Administration)

- Principles of Management Science
- Linear Programming
- Introduction to Management Science Models I
- Introduction to Management Science Models II

Service at Binghamton University

School of Management Committees

- Dean's Advisory Council, 1992- 1994, 1997- 2000, 2001-Present.
- Junior Personnel Committee, 1991- Present
- Senior Personnel Committee, 2005 - Present.
- Ph.D. Steering Committee, 1991 - Present.
- Faculty Development Committee, 2010- 2014.
- Master's Program Committee, 1998-99, 2001-2014. Academic Standards Committee, 2000-2001.
- Business Analytics Concentration Development – Co-chair, 2012-13.
- Chair, Technology Committee, 1999-2000.
- Chair, Awards Committee, 1998-99.
- Chair, JPC; 1997-98.
- Chair, Research Committee, 1994-95.
- Chair, Library Committee, 1985-86.

- Chair, OM Search Committee, 2016, 2017, 2018, 2019.
- Member, MIS search committee, 2016, 2017, 2018, 2019.
- Member, Marketing search committee, 2019.
- Elected member, Corning Research Award Committee, 1990, 1991, and 1992.
- Elected Member, SOM Awards Committee, 1992-93, 95 -96, and 98-99.
- Computer and Technology Committee, 1996-97.
- Dean's Search Committee, 1992-93.
- Research Committee, 1984-85, 1986-93, 1994-96, and 1997-98.
- Library Committee, 1985-86, 1983-84.
- Graduate Curriculum Committee, 1984-85.
- Faculty Resource Planning Committee, 1983-84.

University Committees

- University Personnel Committee, 2019-2021; 2017-2018.
- Faculty Senate Executive Committee, 2006-2007.
- All University Personnel Committee, 2000-2001.
- Faculty Senate, 1997-99; 2000-2002.
- Development Committee for an International Studies Certificate Program, 1993-94.
- Committee on Committees, 1992-93.
- Summer Research Awards Committee, 1988.
- Curriculum Development Grants Committee, 1987.