Sandeep Rath

Indian School of Business
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Education

2011–2016 PhD, Management, UCLA Anderson School of Management

2001–2006 Dual Degree, Indian Institute of Technology, Kharagpur

- M.Tech. in Instrumentation Engineering
- B.Tech. in Electrical Engineering
- Minor in Electronics and Telecommunication Engineering

Professional Experience

Academic Positions

2025–present Assistant Professor, ISB, Hyderabad

2026–present Affiliate Researcher

- Gies College of Business, University of Illinois Urbana-Champaign
- Darla Moore School of Business, University of South Carolina

2016–2025 Assistant Professor, Kenan-Flagler Business School, UNC Chapel Hill

2010–2011 Research Associate, ISB, Hyderabad

Other Positions

2025–present Anchor, NABH Working Group

2007–2010 Manufacturing Engineer, Schlumberger Ltd., Pune, Houston, and Paris

2006–2007 Assistant Manager, ITC Ltd., Chennai

Publications

Peer-Reviewed Articles in Operations Research & Management Journals

7. **Rath, S.**, Swaminathan, J. M., & Coleman Jr, C. A. (2026). Optimal Staffing and Treatment for Collaborative Care of Diabetes and Depression. *Production and Operations Management*, 35(4), 1207–1230.

6. **Rath, S.**, Rajaram, K., Hudson, M. E., & Mahajan, A. (2026). Multilocation, Dynamic Staff Planning for a Healthcare System: Methodology and Application. *Operations Research*, 74(1), 199–223.

5. Celik, U., **Rath, S.**, Kesavan, S., & Staats, B. R. (2024). Frontiers in Operations: Does Physician's Choice of When to Perform EHR Tasks Influence Total EHR Workload? *Manufacturing & Service Operations Management*, 26(4), 1190–1210.

4. Deshpande, V., Mundru, N., **Rath, S.**, Knowles, M., Rowe, D., & Wood, B. C. (2024). Data-Driven Surgical Tray Optimization to Improve Operating Room Efficiency. *Operations Research*, 72(5), 1874–1892.

   – Finalist, INFORMS Innovative Applications in Analytics Award, 2022
   – Selected for POMS College of Healthcare Operations Management Research-in-Practice Showcase Presentation, 2022

3. **Rath, S.**, & Rajaram, K. (2022). Staff Planning for Hospitals with Implicit Cost Estimation and Stochastic Optimization. *Production and Operations Management*, 31(3), 1271–1289.

2. **Rath, S.**, Rajaram, K., & Mahajan, A. (2017). Integrated Anesthesiologist and Room Scheduling for Surgeries: Methodology and Application. *Operations Research*, 65(6), 1460–1478.

1. Deo, S., Rajaram, K., **Rath, S.**, Karmarkar, U. S., & Goetz, M. B. (2015). Planning for HIV Screening, Testing, and Care at the Veterans Health Administration. *Operations Research*, 63(2), 287–304.

Working Papers

Li, B., **Rath, S.**, & Xu, Y., Capponi, A., Right Basket, Right Coupon: Basket-Aware Promotion Optimization in Online Retail (*Submitted to MSOM*)

Celik, U., **Rath, S.**, & Staats, B. R. Reducing Appointment Delays: The Impact of Standardized EHR Usage on Physician Timeliness.

Work in Progress

Rath, S., & Lim, M. Data-Driven Surgical Block Auto-Release Planning (*data collection complete, analysis in progress*).

Sankaranarayanan, S., & **Rath, S.** Fair On-Call Staffing with Heterogeneous Capability (*analysis in progress*).

Peer-Reviewed Articles in Medical Journals

Wood, B. C., Konchan, S., Gay, S., **Rath, S.**, Deshpande, V., & Knowles, M. (2021). Data Analysis of Plastic Surgery Instrument Trays Yields Significant Cost Savings and Efficiency Gains. *Annals of Plastic Surgery*, 86(6S), S635–S639.

Knowles, M., Gay, S. S., Konchan, S. K., Mendes, R., **Rath, S.**, Deshpande, V., Farber, M. A., & Wood, B. C. (2021). Data Analysis of Vascular Surgery Instrument Trays Yielded Large Cost and Efficiency Savings. *Journal of Vascular Surgery*, 73(6), 2144–2153.

Other Publications

Barrett, J. J., Deshpande, V., Knowles, M., **Rath, S.**, Rowe, D., & Wood, B. C. (2025). A Data-Driven Approach to Optimize Surgical Instrument Trays. (Book Chapter) *Foundations and Trends in Technology, Information and Operations Management*, 19(2–3), 201–228.

Rajaram, K., & **Rath, S.** (2017). Managing the Operating Room Suite at UCLA Ronald Reagan Medical Center. (Magazine Article) *Impact*, 3(2), 31–35.

Rath, S., Deo, S., Nandwani, R., Saini, N., Jain, V. M., Whorra, T., & Kant, D. (2026). Post-Adoption Value of NABH Digital Health Standards: A Multi-Hospital Assessment in India. (White Paper) Max Institute of Healthcare Management, Indian School of Business.

Teaching Record

Indian School of Business

Post-Graduate Program (PGP)

MSDW: Managing Services in the Digital World, 2025
–Average Instructor Rating: 4.76/5

OPMG: Operations Management, 2025, 2026
–Average Instructor Rating: 4.73/5 (2025)

PADM: Prescriptive Analytics for Business Decision Making, 2024 (Visiting Faculty; co-taught, 50% of sessions)
–Average Instructor Rating: 5.61/7

Advanced Management Program in Healthcare (AMPH)

Process Excellence in Healthcare Organizations, 2026
–Average Instructor Rating: 4.70/5

Advanced Management Program in Operations and Supply Chain (AMPOS)

MASO: Managing Service Organizations, 2025
–Average Instructor Rating: 6.25/7

UNC Chapel Hill, Kenan-Flagler Business School

Undergraduate Program

BUSI 403: Operations Management, *Spring 2017–2025*
–Average Instructor Rating: 4.69/5

BUSI 532H: Healthcare and Service Operations Management, *Spring 2018–2025*
–Average Instructor Rating: 4.75/5

PhD Thesis Committees

Umit Celik, Kenan-Flagler Business School, UNC, 2025

Anand Bhatia, Kenan-Flagler Business School, UNC, 2022

Conference and Seminar Presentations

Peer-Reviewed Conference Presentations

Data-Driven Surgical Tray Optimization to Improve Operating Room Efficiency

POMS CHOM Research-in-Practice Showcase Presentation, 2022

Collaborative Care for Mental and Physical Health

Manufacturing & Service Operations Management Conference, 2022

Manufacturing & Service Operations Management Conference, 2021

Staff Planning for Hospitals with Cost Estimation and Optimization

Manufacturing & Service Operations Management Conference, 2019

Manufacturing & Service Operations Management Conference, 2018

Invited Conference Presentations

Data-Driven Approach to the Surgical Block Release Decision

INFORMS Annual Meeting (Atlanta, 2025), POMS Annual Meeting (Atlanta, 2025), INFORMS Annual Meeting (Seattle, 2024), INFORMS Annual Meeting (Phoenix, 2023)

Multilocation, Dynamic Staff Planning for a Healthcare System: Methodology and Application

INFORMS Annual Meeting (Atlanta, 2025, *presented by co-author*), POMS Annual Meeting (Orlando, 2023)

Data-Driven Workforce Planning for Healthcare Organizations

INFORMS Annual Meeting (Indianapolis, 2022)

Data-Driven Surgical Tray Optimization to Improve Operating Room Efficiency

POMS Annual Meeting (Online, 2022)

Appointment Scheduling with Off-line Discretionary Work

POMS Annual Meeting (Online, 2022), INFORMS Annual Meeting (Anaheim, 2021)

Collaborative Care for Mental and Physical Health

POMS Annual Meeting (Online, 2022), POMS Annual Meeting (Online, 2021), INFORMS Annual Meeting (Seattle, 2019), INFORMS Healthcare (Boston, 2019), INFORMS Annual Meeting (Phoenix, 2018)

Staff Planning for Anesthesiologists

INFORMS Annual Meeting (Phoenix, 2018, *presented by co-author*)

INFORMS Annual Meeting (Seattle, 2019), INFORMS Healthcare (Boston, 2019), INFORMS Annual Meeting (Houston, 2017), INFORMS Annual Meeting (Nashville, 2016)

Integrated Staff and Room Scheduling for Surgeries

INFORMS Healthcare (Rotterdam, 2017), INFORMS Annual Meeting (Nashville, 2016), INFORMS Annual Meeting (Philadelphia, 2015), INFORMS Healthcare (Nashville, 2015)

Planning for HIV Screening, Testing, and Care

INFORMS Annual Meeting (San Francisco, 2014)

Other Invited Academic Presentations

UCLA Anderson School of Management, 2027 (*scheduled*)

Paul Merage School of Business, UC Irvine, 2027 (*scheduled*)

Ivey Business School, Western University, Ontario, 2027 (*scheduled*)

ISB Insights Forum, Mohali, India, 2025

Indian School of Business, Hyderabad, India, 2024

University of Kansas School of Business, 2024

Workshop in Management Science, San Pedro de Atacama, Chile, 2023

Carlson School of Management, University of Minnesota, 2023

Johns Hopkins Carey Business School, 2023

Robert H. Smith School of Business, University of Maryland, 2023

UNC Kenan-Flagler Center for the Business of Health Faculty Research Share Session, 2023

Midwest Healthcare Workshop, Geis College of Business, UIUC, 2023

Department of Statistics and Operations Research, UNC, 2023

Sloan School of Management, MIT, 2023

Carroll School of Management, Boston College, 2023

NC State Doing Good with OM/OR Workshop, 2022

Kelley School of Business, Indiana University, Consortium Friday Seminar Series (online), 2021

UNC Business of Healthcare Convocation, Chapel Hill, 2019

Kenan-Flagler Business School, University of North Carolina, Chapel Hill, 2015

Communication, Networks and Systems Seminar, University of Southern California, 2015

Southern California OR/OM Day, Los Angeles, 2015

DOTM Colloquium Series, UCLA Anderson, 2015

Other Invited Non-Academic Presentations

Talk on telehealth delivery, Digi Health Conclave, Department of Health, Medical Education & Family Welfare, Government of Jharkhand (Ranchi, 2026)

Yashoda Hospitals AI 2.0 Workshop (Hyderabad, 2026), Sindhu Hospital (Hyderabad, 2025), ApMoSys Technologies (Mumbai, 2025)

Honors

Teacher of the Year, Advanced Management Program in Healthcare, Indian School of Business, 2025

Bullard Faculty Research Impact Award, UNC, 2024 (co-winner with Vinayak Deshpande)

Nominated for Weatherspoon Undergraduate Teaching Award, UNC, 2023

POMS CHOM Research-in-Practice Showcase Presentation, 2022

Finalist, INFORMS Innovative Applications in Analytics Award, 2022

UCLA Dissertation Year Fellowship, 2015–2016

UCLA Anderson Doctoral Fellowship, 2011–2015

Fellowship for Postgraduate Studies, Government of India, 2005–2006

National Talent Search Examination Scholarship, Government of India, 1999–2005

Media Coverage

Hardest Part of Going Digital May Be Changing How People Work (Interview), *Healthcare Executive*, 2026

New Research Finds Data-Driven Staffing Model Delivers Major Cost Savings for Health Care Systems, *Medical Xpress*, 2026

New Research Finds Data-Driven Staffing Model Delivers Major Cost Savings for Healthcare Systems, *INFORMS News*, 2025

A Major Medical Center Gets a Cheaper, Fairer Way to Assign Doctors, *UCLA Anderson Review*, 2025

Data-Based Physician Staffing Stands to Save Millions of Dollars for Multi-Hospital Health Systems, *HealthExec*, 2025

Collaborating to Cut Hospital Costs, *UNC Kenan-Flagler News*, 2022

Surgeons Diagnose a Problem and Find a Business Solution, *UNC Kenan-Flagler News*, 2022

A Scheduling Tool that Considers Employee Preferences, *UCLA Anderson Review*, 2021

Professional Service

To the Discipline

Associate Editor

Decision Sciences, 2025–present

Reviewer

Management Science, Manufacturing & Service Operations Management, Operations Research, Production and Operations Management, Naval Research Logistics, IISE Transactions

Judge

INFORMS Health Applications Society Best Student Paper Competition, 2023, 2025, 2026

INFORMS Public Sector OR Best Paper Competition, 2022

MSOM Conference Healthcare SIG, 2021, 2022, 2023, 2024, 2025

Pierskalla Best Paper Award, 2020, 2025

POMS College of Healthcare Operations Management Best Paper Competition, 2017, 2020, 2021, 2022, 2023

Conference Track Chair

POMS International Conference, Mumbai, 2027 (*scheduled*)

POMS Annual Meeting 2023

Conference Session Chair

POMS Annual Meeting 2025, 2026

INFORMS Annual Meeting 2015, 2017, 2018, 2019, 2021, 2023

INFORMS Healthcare Conference 2015, 2019, 2023

To ISB

ISB Insights Forum Committee Member, 2026–2027

Recruitment Committee Member

Operations Management Faculty Search, 2025

Team Member

ISB–Government of Telangana Design and Evaluation Partnership for AI in Healthcare, 2025–present

Panel Moderator

Panel on Operationalizing AI in Healthcare, Healthcare 4.0, ISB, 2026

Panel on Operationalizing AI in Healthcare, Healthcare Catalyst, ISB, 2026

Panel on Data Science and Digital Technologies in Healthcare Administration, ISB Insights Forum, 2025

Meeting Attendee

SAHI (Strategy for Artificial Intelligence in Healthcare for India) Implementation Roadmap Writing Workshop, Ashoka University, Sonipat, 2026

Instituting the Care Coordination Model (CCM) Community of Practice (online), 2026–present

Convergence Workshop on National Strategy for AI in Healthcare, Vijayawada, December 2025

ABDM 2.0 Consultation Workshop, IIIT Hyderabad, August 2025

Other Service

Panel Moderator, "Building India's Digital Health Ecosystem," NABH Patient Safety Conference, New Delhi, 2026

Organizing Committee Member, UNC Healthcare Operations Workshop, 2019

Chair, Operations Area Faculty Seminar Series, UNC, 2017–2019

Organizing Committee Member, Manufacturing & Service Operations Management Conference, 2017