Curriculum Vitae

Name: Vikram Tiwari

Office Phone: 6159368483

1211 21st Avenue South Office Address: Nashville Tennessee, 37212 Work Email: vikram.tiwari@Vanderbilt.Edu

Education

B.S. in Electronics & Communications Engineering from College of Engineerig, 06/1993

JMI, New Delhi, India

07/2002 M.B.A. in IT & E-Commerce from Illinois Institute of Technology, Chicago, IL

Ph.D. in Operations Management & Decision Sciences. Dissertation:

"Information Sharing and Coordinated Capacity Management in Service 08/2008

Delivery Networks" from Indiana University Kelley School of Business,

Bloomington, IN

Academic Appointments

Assistant Professor of Logistics & Supply Chain Management, University of 08/2007 - 07/2012

Houston College of Technology (Houston, Texas)

Assistant Professor of Anesthesiology, Vanderbilt University (Nashville,

08/2012 - Present Tennessee)

Assistant Professor Biomedical Informatics, Vanderbilt University (Nashville,

04/2014 - 06/2017 Tennessee)

Adjunct Professor, Owen School of Management, Vanderbilt University 03/2016 - 05/2016

Academic Scholar, Cornell Institute for Healthy Futures (Ithaca, New York), 03/2016 - Present

Adjunct Professor, Owen School of Management, Vanderbilt University 01/2017 - 05/2017 Assistant Professor of Biomedical Informatics, Vanderbilt University

07/2017 - Present (Nashville, Tennessee)

Professor of Management, Owen Graduate School of Management, 08/2017 - Present

Vanderbilt University (Nashville, Tennessee)

Hospital Appointments

Director of Surgical Business Analytics, Vanderbilt University Hospital, 08/2012 - Present

Vanderbilt University Medical Center (Nashville, Tennessee)

Other Work Experience

06/1995 - 10/1997 Assistant Manager of Materials, Flex Industries, Ltd.

10/1997 - 11/1998 Assistant Manager of International Sales, Flex Industries, Ltd. 11/1998 - 07/2000 Supply Chain Analyst and Product Manager, GBC Modi Ltd.

07/2001 - 02/2002 Supply Chain Analyst, Global Tech USA Inc.

Professional Activities

Intramural

08/2012 - Present	Perioperative Executive Committee, Perioperative Services
08/2012 - Present	Surgical Chairs and Chiefs Committee, Anesthesiology

Extramural

2005 - Present	Ad-hoc Reviewer for European Journal of Operational Research
2005 - Present	Ad-hoc Reviewer for Health Care Management Science

2007 - Present Ad-hoc Reviewer for Decision Sciences

Healthcare Operations Management Track, Production and Operations

2008 - 2009 Management Society Annual Conference (May 2009), Orlando, Florida, Co-

2008 - Present Ad-hoc Reviewer for Production and Operations Management

2009 - 2010	Healthcare Operations Management Track, Production and Operations Management Society Annual Conference (May 2010), Vancouver, Canada, Co-Chair
2010 - 2011	Cluster Chair, College of Healthcare Operations, INFORMS Healthcare 2011, Montreal, Canada, Sponsored Cluster Chair
2010 - 2011	College of Healthcare Operations Management, Production and Operations Management Society, VP (Meetings)
2010 - 2011	Healthcare Operations Management Track, Production and Operations Management Society Annual Conference (May 2011), Reno, Nevada, Co-Chair
2011 - 2012	Scheduling Committee, Production and Operations Management Society Annual Conference (April 2012), Chicago, Illinois, Chair
2011 - 2013	College of Healthcare Operations Management, Production and Operations Management Society, President
2011 - Present	Ad-hoc Reviewer for Computers & Operations Research
2012 - 2014	Production and Operations Management Society, Board Member
2012 - 2013	Scheduling Committee, Production and Operations Management Society Annual Conference (May 2013), Denver, Colorado, Chair
2013 - 2014	Scheduling Committee, Production and Operations Management Society Annual Conference (May 2014), Atlanta, Georgia, Chair
2013 - 2014	Healthcare Systems and Medical Informatics Cluster, Institute for Operations Research and Management Science Annual Conference (November 2014), San Francisco, California, Cluster Co-Chair
2013 - 2014	College of Healthcare Operations Management 1-day Conference, Synapse - Applied Healthcare Operations Management and Research Conference (May 2014), Atlanta, Georgia, Organizer
2013 - 2015	College of Healthcare Operations Management, Production and Operations Management Society, President
2013 - Present	Ad-hoc Reviewer for Anesthesia & Analgesia
2013 - Present	Ad-hoc Reviewer for IIE Transactions on Healthcare Systems Engineering
2014 - 2014	Program Committee, Health Systems Optimization Workshop, Center for Engg and Health, Northwestern University; Chicago, IL Sept 2014
2014 - 2015	Synapse - Applied Healthcare Operations Management and Research Conference, Washington D.C., College of Healthcare Operations Management, Production and Operations Management Society
2014 - Present	Ad-hoc Reviewer for Socio-Economic Planning Sciences
2014 - Present	Ad-hoc Reviewer for Journal of Medical Systems
06/2014 - 07/2015	Program Chair, INFORMS Healthcare 2015, Nashville, INFORMS, Program Chair
06/2014 - Present	Ad-hoc Reviewer for Annals of Operations Research
07/2014 - 12/2014	International Advisory Committee, NITIE POMS International Conference 2014
07/2014 - Present	Ad-hoc Reviewer for Journal of Simulation
07/2014 - Present	Ad-hoc Reviewer for Anesthesiology
01/2015 - Present	Ad-hoc Reviewer for Canadian Journal of Anesthesia
03/2015 - Present	Editorial Board for Perioperative Care and Operating Room Management
01/2016 - 12/2016	Health Applications Society, INFORMS, President-Elect, Organized HAS Cluster at INFORMS Nashville Conference 2016
05/2016 - 07/2017	Program Committee, INFORMS Healthcare 2017, Erasmus University, Rotterdam, Advisor
01/2017 - 12/2017	Health Applications Society, INFORMS, President
01/2017 - 08/2017	Student Paper Competition Judge,, INFORMS, Health Applications Society, Judge

Teaching Activities

08/2003 - 05/2004	Technology in Business Independent Lab Instructor, Kelley School of Business, Indiana University, Bloomington, Indiana
08/2004 - 12/2006	Operations Management Core Course Discussion Section Instructor, Kelley School of Business, Indiana University, Bloomington, Indiana
08/2007 - 05/2008	Supply Chain Management and Logistics Processes University of Houston, Houston, Texas
08/2007 - 05/2013	Introduction to Logistics Technology University of Houston, Houston, Texas
11/2014 - Present	Predictive Analytics in Healthcare: Healthcare Finance Managers, Remote participation in Q&As
06/2015 - Present	Applied Analytics and Operations Research in a Medical Center: DBMI Summer Seminar Series, Department of Biomedical Informatics

03/2016 - Present	Healthcare Analytics, Instructor, Owen Graduate School of Management, MBA Elective Course, Spring 2016 Mod 4
01/2017 - 03/2017	Healthcare Operations Management, Instructor, MBA students at the Owen Graduate School of Business
03/2017 - 05/2017	Healthcare Analytics, Instructor, MBA students at the Owen Graduate School of Business
10/2017 - 2017	Healthcare Operations Management, Instructor
03/2018 - 04/2018	Healthcare Analytics, Instructor

Research Supervision / Mentorship

08/2007 - 05/2008	Divya Tummala University of Houston. (Graduate Student, Education)
08/2007 - 05/2008	Grayson Fitch University of Houston. (Graduate Student, Education)
08/2007 - 05/2008	Ashwin Venkateswaran University of Houston. (Graduate Student, Research)
08/2008 - 05/2009	Gautam Dhodhi University of Houston. (Graduate Student, Education)
01/2009 - 12/2010	Melissa McWhirter University of Houston. (Undergraduate, Research)
08/2009 - 05/2010	Siddhu Vadakattu University of Houston. (Graduate Student, Education)
08/2009 - 05/2010	Ramya Mandava University of Houston. (Graduate Student, Education)
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01/2010 - 07/2010	Kenneth Peterson University of Houston. (Undergraduate, Research)
01/2010 - 07/2010	Ian Ellis University of Houston. (Undergraduate, Research)
05/2010 - 05/2010	Arezou Mobasher, Ph.D. University of Houston. (Graduate Student, Education)
08/2010 - 05/2011	Melissa Haught University of Houston. (Graduate Student, Education)
08/2010 - 05/2011	Abhijath Kondragunta University of Houston. (Graduate Student, Education)
08/2011 - 05/2012	Reshmi Kurada, M.S. University of Houston. (Graduate Student, Education)
03/2013 - 09/2013	Rimmert van der Kooij University of Twente, Netherlands. (Graduate Student, Education)
08/2013 - Present	Michael J. Ward, M.D., M.B.A. Vanderbilt University Medical Center. (Faculty, General Mentorship)
07/2014 - Present	Maya Yiadom, M.D., M.H.A. Vanderbilt University Medical Center. (Faculty, General Mentorship)
07/2015 - 09/2016	Teus Kappen, M.D., Ph.D. School of Medicine, Vanderbilt University Medical Center. (Post-doc Fellow, Research)
08/2016 - 06/2018	Joonyup Eun, Ph.D. School of Medicine, Vanderbilt University Medical Center. (Post-doc Fellow, Research)

Other Significant Activities

10/2013	Pre-recorded radio interview and press release at American Society of Anesthesiologists annual meeting (San Francisco, CA) for research "Evaluating Improvements in First Case Start Times Using Process Control Methodologies":
09/2016	Professors Roundtable, Vanderbilt Healthcare Symposium: Owen Graduate School of Management

Grants and Funding

Grant number unavailable 2008 - 2012

 ${\it Michael E deBakey Veterans Affairs Medical Center - Houston}$

Improving Operating Room Efficiency

Role: Principal Investigator Total Cost: \$219,000.00

Grant number unavailable Miertschin S (Co-PI) (PI) 2010 - 2011

University of Houston Faculty Development Internal Program

Using RSS to push course information for enhanced student success

Role: Co-Principal Investigator

Total Cost: \$12,000.00

Grant number unavailable 2011 - 2011

Baylor College of Medicine

Process Mapping and Patient Flow Optimization for Patient-Centered Medical Home: a practice

transformation effort at Baylor Family Medicine

Role: Principal Investigator

Total Cost: \$5,000.00

Grant number unavailable Panos Kougias (PI) 2014 - 2018

Veterans Affairs

4-year research study on using predictive modeling to improve operating room scheduling efficiency at the VA Hospital, Houston, TX

Role: Co-Investigator Total Cost: \$65,000.00

Grant number unavailable Maame Yaa (Maya) Yiadom (PI) 07/2016 - Present

Emergency Medicine Foundation

Improving the Trigger Criteria for an Early ECG to Diagnose STEMI

Role: Consultant

Grant number unavailable Panagiotis Kougias (PI) 10/2017 - 09/2021

Veterans Affairs

Use of predictive modeling to improve efficiency of the operative suite

Role: Co-Investigator

Honors / Awards

2006	Doctoral Dissertation Fellowship Award for Life Sciences Research (\$3,000), Kelley School of Business
2006	Panschar Award for Teaching Excellence Nominee, Kelley School of Business
2007	Texas State's Higher Education Assistance Fund Award (\$25,000), The Division of Reserach, University of Houston
2008	Provost Faculty Travel Fund Award for conference travel, University of Houston
2009	Faculty Mentor Award, University of Houston Honors College, Awarded for mentoring an undergraduate student under the Summer Undergraduate Research Fund program
10/2013	"Predicting Surgical Volume" abstract selected for presentation at Clinical Science Best of Abstracts Session, American Society of Anesthesiologists
03/2014	"Evaluating Improvements in First Case On-Time Starts Using Process Control Methodologies," 1st Place Abstract, Association of Anesthesia Clinical Directors

Publications

Peer Reviewed Publications

Research Articles

- 1. **Tiwari V**, Venkataramanan MA, Gavirneni S. Optimal placement of web proxy servers considering latency in the network. <u>Decision Sciences Institute Conference Proceedings</u> 2003.
- 2. **Tiwari V**, Shunko M. ERP implementation and success measures. <u>Midwest Decision Sciences Institute Conference Proceedings 2004</u> 2004.
- Tiwari V, Patterson JH. Multi-mode resource constrained project scheduling considering resource substitutability due to duration and quality. <u>Decision Sciences Institute Conference Proceedings 2004</u> 2004.
- 4. **Tiwari V**, Patterson JH, Mabert VA. Multi-mode resource constrained project scheduling considering resource substitutability due to duration and quality. <u>International Conference on Project Management and Scheduling Proceedings</u> 2006.
- Tiwari V, Gavirneni S. Recoupling inventory control research and practice: guidelines for achieving synergy. <u>Interfaces</u> 2007 Apr;37(2):176-186.
- 6. **Tiwari V**, Ding D. Service supply chains and customer-need complexity. <u>Southwest Decision Sciences Institute Conference Proceedings</u> 2008.
- 7. **Tiwari V**, Dhodhi G. Procurement decision support tool for determining optimal speed of contracted platform support vessels. <u>Institute of Supply Management North American Research and Teaching Symposium Proceedings</u> 2009.
- 8. **Tiwari V**, Bretthauer KM, Venkataramanan MA. Coordinating patient flows in hospitals. <u>Indian Subcontinent Decision Sciences Institute Conference Proceedings</u> 2009 Jan.

- Tiwari V, Patterson J, Mabert V. Scheduling projects with heterogeneous resources to meet time and quality objectives. <u>European Journal of Operational Research</u> 2009 Mar;193(3):780-790.
- 10. **Tiwari V**, Heese HS. Specialization and competition in healthcare delivery networks. <u>Health Care Manag Sci</u> 2009 Sep;12(3):306-324. PMID: 19739362.
- 11. **Tiwari V**, Ding D. Role of customer-need-complexity on customer satisfaction in service supply chains. <u>3rd International Conference on Global Interdependence in Decision Science (organized by Administrative College Staff of India) Proceedings</u> 2009 Dec.
- 12. **Tiwari V**. System versus process perspectives of enterprise resource planning implementations. BVICAM's International Journal of Information Technology 2010 Jul;2(2):223-228.
- 13. **Tiwari V**. Impact of perishable products' inventory policies on the retailer's profits. <u>Southwest Decision Sciences Conference Proceedings</u> 2011.
- Haught, M., Kovach, J.V. and **Tiwari, V**. Redesigning the SKU Creation Process Using Design for Six Sigma. <u>Proceedings of the 2012 Industrial and Systems Engineering Research Conference</u> 2012 Jan.
- 15. Kougias P, **Tiwari V**, Orcutt S, Chen A, Pisimisis G, Barshes NR, Bechara CF, Berger DH. Derivation and out-of-sample validation of a modeling system to predict length of surgery. <u>Am J Surg</u> 2012 Nov;204(5):563-568. PMID: 23140826.
- Kougias P, **Tiwari V**, Barshes NR, Bechara CF, Lowery B, Pisimisis G, Berger DH. Modeling anesthetic times. Predictors and implications for short-term outcomes. <u>J Surg Res</u> 2013 Mar;180(1):1-7. PMID: 23158406.
- Dexter F, Ledolter J, Tiwari V, Epstein RH. Value of a scheduled duration quantified in terms of equivalent numbers of historical cases. <u>Anesth Analg</u> 2013 Jul;117(1):205-210. PMID: 23733843.
- Tiwari V, Dexter F, Rothman BS, Ehrenfeld JM, Epstein RH. Explanation for the near-constant mean time remaining in surgical cases exceeding their estimated duration, necessary for appropriate display on electronic white boards. <u>Anesthesia and analgesia</u> 2013 Aug;117(2):487-93. PMID: 23780422.
- Tiwari V, Furman WR, Sandberg WS. Predicting case volume from the accumulating elective operating room schedule facilitates staffing improvements. <u>Anesthesiology</u> 2014 Jul;121(1):171-83. PMID: 24940734.
- 20. **Tiwari V**, Krupka DC, Sandberg WS. Calculating the True Cost of Robotic Hysterectomy. Healthcare Financial Management 2014 Aug.
- 21. Dobie KH, **Tiwari V**, Sandberg WS. "What Have We Done for Us Lately?"--Defining Performance and Value at the Individual Clinician Level. <u>Anesthesiology clinics</u> 2015 Dec;33(4):659-77. PMID: 26610622.
- 22. McEvoy MD, Wanderer JP, King AB, Geiger TM, **Tiwari V**, Terekhov M, Ehrenfeld JM, Furman WR, Lee LA, Sandberg WS. A perioperative consult service results in reduction in cost and length of stay for colorectal surgical patients: evidence from a healthcare redesign project. Perioperative medicine (London, England) 2016; 5:3. PMID: 26855773 PMCID: PMC4743367.
- 23. **Tiwari V**, Ehrenfeld JM, Sandberg WS. Does A First-Case-On-Time-Start Initiative Achieve Its Goal by Starting the Entire Process Earlier or by Tightening the Distribution of Start Times?. (Under Review) 2016 Apr.
- 24. Kougias P, **Tiwari V**, Berger DH. Use of simulation to assess a statistically driven surgical scheduling system. <u>The Journal of surgical research</u> 2016 Apr;201(2):306-12. PMID: 27020812.
- 25. Jung KS, Pinedo M, Sriskandarajah C, **Tiwari V**. Scheduling Operating Rooms with Elective and Emergency Surgeries. (2nd round revision at Production and Operations Management) 2016 Sep.
- 26. King AB, Spann MD, Terekhov M, **Tiwari V**, Wanderer JP, Sandberg WS, McEvoy MD. Enhanced recovery after bariatric surgery. (<u>Under Review</u>) 2016 Sep.
- 27. Kistler J, Janakiraman R, **Tiwari V**, Kumar S. The effect of surgical process changes on patient flow: evidence from field research. (<u>Under Review</u>) 2016 Oct.
- 28. **Tiwari V**, Sandberg WS. Perioperative Bed Capacity Planning Guided by Theory of Constrains. <u>Proceedings of the 2016 Winter Simulation Conference</u> 2016 Dec;1894-1903.
- 29. **Tiwari V**, Queenan C, Jacques PS. Impact of Waiting and Provider Behavior on Surgical Outpatients' Perception of Care . <u>Perioperative Care and Operating Room Management</u> 2017 Jun;7(June):7-11.
- Tiwari V, Kumar AB. A Novel Method for Evaluating Key Success Factors in a Multifaceted Critical Care Fellowship using Data Envelopment Analysis. <u>Anesthesia and Analgesia</u> 2017 Jul; PMID: 28742779.
- 31. Yiadom MYAB, Baugh C, Barrett T, Liu X, Storrow A, Vogus T, **Tiwari V**, Slovis CM, Russ S, Liu D. Measuring Emergency Department Patient Population Acuity. <u>Academic Emergency Medicine</u> 2017 Sep; PMID: 28940546.

Abstracts

1. Anaya DA, **Tiwari V**, Berger DH. Improving efficiency and productivity in the operation room: implementing a process flow control system. <u>J Surg Res</u> 2012 Feb;172(2):296.

- Kumar AB, **Tiwari V**. A novel method of evaluating critical care fellow performance compared to their peers in a busy multifaceted fellowship using data envelopment analysis. <u>Journal of the</u> <u>Intensive Care Society</u> 2015 Nov;16(4(supplement)):73.
- Kumar AB, Scharfman K, Tiwari V. Myasthenic Crisis: Epidemiology, Economics and Outcomes

 A Single Center Retrospective Analysis. <u>Critical Care Medicine</u> 2015 Dec;43(12 Supplement 1):129-130. PMID: 26570173.

Non-Peer Reviewed Publications

Research Papers

- Tiwari V. Learning from the healthcare debate: need for multidimensional scoping of OM research problems. <u>Production and Operations Management Society Chronicle</u> 2009; 16(2):9-10.
- 2. **Tiwari V**, Sandberg WS. Analytics-Based Surgical Volume Predictions Improves Capacity Planning and Operations at the Vanderbilt University Medical Center. <u>Association of Anesthesia</u> Clinical Directors Newsletter 2014 Nov;(Oct/Nov 2014):1-3.
- 3. **Tiwari V**, Sandberg WS. Creating Leverage: The Roles of Operations Researchers in Academic Anesthesiology. <u>Association of University Anesthesiologists Newsletter</u> 2015; (Fall 2015):13-14.
- 4. Mathias JM, **Tiwari V**, Wyatt DA. Data analytics improve odds for predicting surgical case volume. <u>OR Manager</u> 2016 Mar;32(3) PMID: 27012138.

Abstracts

 Kumar AB, Tiwari V. A novel method of evaluating peer to peer performance of critical care fellows using DEA analysis. <u>Critical Care Medicine</u> 2015 Dec;43(12 Supplement 1):59. PMID: 26569892.

Case Reports

1. Cipriano LE, **Tiwari V**, Sandberg WS, Zaric G. Vanderbilt University Medical Center: Elective Surgery Schedule. <u>Ivy Publishing Case Studies</u> 2015 Apr.

Presentations

Presentations at Scientific Meetings

- Tiwari V, Venkataramanan MA, Gavirneni S. Decision Sciences Institute Annual Conference. Washington, District of Columbia. 2003 Nov; Optimal Placement of Web Proxy Servers Considering Latency in the Network.
- 2. Tiwari V, Shunko M. Midwest Decision Sciences Institute Conference. Cleveland, Ohio. 2004 Mar; ERP Implementation and Success Measures.
- 3. Tiwari V. INFORMS Annual Meeting. Denver, Colorado. 2004 Oct; Appointment Scheduling under Revenue Consideration: Simulation Study for a Single Physician Clinic (invited paper in the health applications section).
- 4. Tiwari V, Patterson JH. Decision Sciences Institute Annual Conference. Boston, Massachusetts. 2004 Nov; Multi-mode Resource Constrained Project Scheduling Considering Resource Substitutability due to Duration and Quality.
- 5. Tiwari V, Heese HS. INFORMS Annual Meeting. San Francisco, California. 2005 Nov; Service Capacity Competition and Service Networks.
- 6. Tiwari V, Bretthauer KM, Venkataramanan MA. Decision Sciences Institute Annual Conference. San Francisco, California. 2005 Nov; Resource Sharing in Service Networks.
- 7. Tiwari V, Heese HS. INFORMS Annual Meeting. Pittsburgh, Pennsylvania. 2006 Nov; Specialization and Competition in Healthcare Delivery Networks.
- 8. Tiwari V, Bretthauer KM, Venkataramanan MA. Service Management Track Decision Sciences Institute. San Antonio, Texas. 2006 Nov; Information Sharing for Coordinated Capacity Management in Service Delivery Networks.
- Tiwari V, Bretthauer KM, Venkataramanan MA. Production and Operations Management Society annual conference. Dallas, Texas. 2007 May; Value of Information in Service Networks.
- 10. Tiwari V, Bretthauer KM, Venkataramanan MA. Decision Sciences Institute. Phoenix, Arizona. 2007 Nov; Resource Flexibility and Information Sharing for Patient-Flow Coordination.
- 11. Tiwari V, Heese HS. Production and Operations Management Society Annual Conference. La Jolla, California. 2008 May; Specialization and Competition in Healthcare Delivery Networks.
- 12. Tiwari V. Innovations in Healthcare Delivery Conference. Cincinnati, Ohio. 2008 Oct; Improving Operating Room Efficiency: a brief introduction to multi-year research grant.

- 13. Tiwari V, Bretthauer KM, Venkataramanan MA. Decision Sciences Institute. Baltimore, Maryland. 2008 Nov; Value of Information and Capacity Flexibility in Healthcare Delivery.
- 14. Tiwari V, Bretthauer KM, Venkataramanan MA. Indian Subcontinent Decision Sciences Insitute. Mumbai, India. 2009 Jan; Coordinating Patient Flows in Hospitals.
- 15. Tiwari V, Bretthauer KM, Venkataramanan MA. Production and Operations Management Society Annual Conference. Orlando, Florida. 2009 May; Coordinating Hospital Capacity through Information Sharing.
- 16. Tiwari V, Ding D. Decision Sciences Institute Annual Conference. New Orleans, Louisiana. 2009 Nov; Complexity of Customer Needs as a Determinant of the Collaboration Effort Required in Service Supply Chains.
- 17. Tiwari V, Ding D. 3rd International Conference on Global Interdependence in Decision Science (organized by Administrative College Staff of India). Hyderabad, India. 2009 Dec; Role of Customer-Need-Complexity on Customer Satisfaction in Service Supply Chains.
- 18. Tiwari V, Berger D, Ehni B, Kougias P. International Conference on Systems Analysis Tools for Better Health Care Delivery: A New Engineering Health Care Partnership. Gainesville, Florida. 2010 Mar; Developing Daily Surgery Schedules Based on Probability Distribution of Surgical and Anesthesia Case Durations.
- 19. Tiwari V, Berger D, Ehni B, Kougias P. Production and Operations Management Society Conference. Vancouver, Canada. 2010 May; Using Estimates of Surgical and Anesthesia Case Durations for Creating Day-of-Surgery Schedules.
- 20. Tiwari V, Berger D. Production and Operations Management Society. Vancouver, Canada. 2010 May; Operating Room Efficiency Improvement Project a collaborative effort between Houston's Veterans Affairs Hospital and the University of Houston.
- 21. Tiwari V, Berger D. INFORMS Healthcare Conference. Austin, Texas. 2010 Nov; Elective Surgery Scheduling.
- 22. Tiwari V, Berger D. Decision Sciences Annual Conference. San Diego, California. 2010 Nov; Operating Room Scheduling Using Probabilistic Estimates of Surgery-Times.
- 23. Tiwari V, Groznik A. INFORMS Healthcare Conference. Austin, Texas. 2010 Nov; Incentive Games in Healthcare Delivery pay-for-performance in primacy care.
- 24. Tiwari V. Southwest Decision Sciences Institute Conference. Houston, Texas. 2011 Mar; Impact of Perishable Products' Inventory Policies on the Retailer's Profits.
- 25. Tiwari V, Anaya D, Berger D. Annual Meeting of the Association of VA Surgeons. Irvine, California. 2011 Apr; Implementation of Process Flow Control in the Operating Room.
- 26. Kougias P, Pisimisis G, Tiwari V, Weakley S, Bechara C, Berger D. Annual Meeting of the Association of VA Surgeons. Irvine, California. 2011 Apr; Predicting the Unpredictable. Is It Possible to Model the Time Length of an Operative Intervention?.
- 27. Tiwari V, Kougias P. Production and Operations Management Society conference. Reno, Nevada. 2011 May; Identifying Predictors of Vascular Surgery Case Durations.
- 28. Tiwari V, Berger D. INFORMS Healthcare Conference. Montreal, Canada. 2011 Jun; Improvement in Day-of-Surgery Operations After Implementation of a Real-time Patient Tracking System.
- 29. Tiwari V, Berger D. Mayo Clinic Conference on Systems Engineering and Operations Research. Rochester, Minnesota. 2011 Aug; Real Time Flow Control in the Operating Room.
- 30. Tiwari V, Groznik A. INFORMS Conference. Charlotte, North Carolina. 2011 Nov; Incentives for Improvement of Patients' Health in Primary Care.
- 31. Tiwari V, Kougias P, Barshes NB, Lin PH, Bechara CF. 7th Academic Surgical Congress. Las Vegas, Nevada. 2012 Feb; Modeling Anesthetic Times. Predictors and Implications for Short Term Outcomes.
- 32. Tiwari V, Berger D. Production and Operations Management Society conference. Chicago, Illinois. 2012 Apr; Operating Room Efficiency Improvement with Real-Time Information Sharing.
- Tiwari V, Bretthauer KM, Venkataramanan MA. INFORMS Conference. Phoenix, Arizona. 2012
 Oct; Role of Demand Variability, Information Sharing & Resource Flexibility in Coordinating Patient Flow
- 34. Tiwari V, Ehrenfeld JM, Sandberg WS. Production and Operations Management Society Conference. Denver, Colorado. 2013 May; Improving and Sustaining On-Time Case Starts at Operating Rooms.
- 35. Dakin B, Tiwari V. Production and Operations Management Society Conference. Denver, Colorado. 2013 May; Influence of Volume and Service-Mix Variability on Operating Rooms Supply Costs.
- 36. Tiwari V, Rothman B. Production and Operations Management Society Conference. Denver, Colorado. 2013 May; Key Marker Identification for Real-Time Updating of Surgical Case End Time.
- 37. O'Neill L, Tiwari V, Tucker A. Production and Operations Management Society conference.

 Denver, Colorado. 2013 May; The Happy Hospital: The Influence of Hospital Design and Nurse Staffing on Patient Satisfaction.
- 38. Tiwari V, Furman WR, Sandberg WS. American Society of Anesthesiologists Annual Meeting. San Francisco, California. 2013 Oct; Predicting Surgical Volume.

- 39. Tiwari V, Ehrenfeld JM, Sandberg WS. American Society of Anesthesiologists Annual Meeting. San Francisco, California. 2013 Oct; Evaluating Improvements in First-Case-On-Time-Starts Using Process Control Methodologies.
- 40. Tiwari V, Furman WR, Sandberg WS. American Association of Clinical Directors Perioperative Leadership Summit. Nashville, Tennessee. 2014 Mar; Daily Surgical Volume Predictions: Theory to Implementation.
- 41. Tiwari V. Association of Academic Surgery Administrators South-East Regional Retreat. Nashville, Tennessee. 2014 Apr; Using Analytics and Modeling to Add Value to the OR.
- 42. Tiwari V, Sandberg WS. Association of University Anesthesiologists 61st Annual Meeting. Stanford, California. 2014 Apr; Using Providers' Self-Reported Time Away Information to Predict Daily Surgical Service Volume Months in Advance.
- 43. Tiwari V, Furman WR, Sandberg WS. Production and Operations Management Society Annual Conference. Atlanta, Georgia. 2014 May; Operating Room Planning.
- 44. Tiwari V, Sandberg WS. Canadian Operational Research Society Conference. Ottawa, Canada. 2014 May; Short and Long-Range Predictions of Operating Room Case Volume.
- 45. Tiwari V, Sandberg WS. Health Systems Optimization Workshop. NSF; Center for Engineering & Health Northwestern University; Chicago, Illinois. 2014 Sep; Predicting Day-of-Surgery Case Volume.
- 46. Kougias P, Tiwari V, Berger D. Health Systems Optimization Workshop. NSF; Center for Engineering & Health, Northwestern University; 2014 Sep; Inception and Design of a Randomized Trial to Study the Impact of Case-Specific Operative Time Prediction on Operating Room Productivity.
- 47. Vikram Tiwari. Americal Society of Anesthesiologists. New Orleans, Louisiana. 2014 Oct; Using Providers' Self Reported Time Away Information to Predict Daily Surgical Service Volume Months in Advance.
- 48. Vikram Tiwari. INFORMS Annual Meeting. San Francisco, California. 2014 Nov; Predicting Daily Surgical Service Volume Using Provider-Away Information.
- 49. Vikram Tiwari. American Association of Clinical Directors Perioperative Leadership Summit. Las Vegas, Nevada. 2015 Mar; Using Long-Term Provider-Availability-Data to Predict Daily Surgical Service Volume.
- 50. Vikram Tiwari, Avinash B Kumar. Association of University Anesthesiologists. Nashville, Tennessee. 2015 Apr; Evaluating Peer-to-Peer Performance of Anesthesiology Critical Care Fellows Using Data Envelopment Analysis: A Case Study.
- 51. Kougias P, Tiwari V. Production and Operations Management Society. Washington DC2015 May; A Novel Approach for Operating Room Scheduling.
- 52. Vikram Tiwari. IIE Annual Conference and Expo. Nashville, Tennessee. 2015 Jun; Models for Predicting Daily Surgical Case Volume.
- 53. King, A., Wanderer, J., Geiger, T., Tiwari, V., Sandberg, W.S., McEvoy, M. Anesthesiology 2015 (Annual Meeting). American Society of Anesthesiologists; San Diego, California. 2015 Oct; Effect of Ongoing Process Improvement on an Enhanced Recovery After Surgery.
- 54. McEvoy, M., King, A., Spann, M.D., Tiwari, V., Sandberg, W.S., Wanderer, J. Anesthesiology 2015 (Annual Meeting). American Society of Anesthesiologists; San Diego, California. 2015 Oct; Effect of Implementing an Enhanced Recovery After Surgery (ERAS) Pathway Via.
- 55. Tiwari V. Healthcare Conference: Patient-Centric Healthcare Management in the Age of Analytics. Kelley School of Business, Indiana University; Bloomington, Indiana. 2015 Oct; Experiments towards Dynamic Reallocation of Surgical Block Capacity.
- 56. Tiwari V, Sandberg WS. American Society of Anesthesiologists Annual Meeting. San Diego, California. 2015 Oct; Simulation Modeling Informs Pre & Post-Op Bed Allocation.
- 57. Tiwari V, Kumar AB. Institute for Operations Research and Management Sciences. Philadelphia, Pennsylvania. 2015 Nov; Evaluating Peer-to-Peer Performance of Anesthesiology Fellows using Data Envelopment Analysis.
- 58. Sharath, S, Pathak A, Garcia A, Chen M, Barshes NR, Ramsey D, Tiwari V, Berger D, Kougias P. ASSOCIATION OF VA SURGEONS. Veterans Affairs; Virginia Beach, Virginia. 2016 Apr 10; A Data-Driven Surgical Case Scheduling System Improves Multiple Measures of Operative Suite Efficiency. Results of a Randomized Controlled Trial.
- 59. Jung KS, Pinedo M, Sriskandarajah C, Tiwari V. Production and Operations Management Society. Orlando, Florida. 2016 May; Scheduling Operating Rooms with Elective and Emergent Surgeries.
- 60. Jung KS, Pinedo M, Sriskandarajah C, Tiwari V. INFORMS Annual Meeting. Nashville, Tennessee. 2016 Nov; Scheduling Operating Rooms With Elective And Emergency Surgeries.
- 61. Tiwari V, Sandberg WS. Simulating Complex Service Systems. Winter Simulation Conference, INFORMS; Washington DC, District of Columbia. 2016 Dec; Perioperative Bed Capacity Planning Guided by Theory of Constrains.
- 62. Maiga AW, Kummerow BK, Tiwari V, Solorzano CC, Roumie CL, Patel MB. Association of VA Surgeons, 41st Annual Surgical Symposium. Houston, Texas. 2017 May; Predicting Operative Time for Elective Outpatient Surgery.

- 63. Eun J, Tiwari V, Sandberg WS. 28th Annual Conference. Production and Operations Management Society; Seattle, Washington. 2017 May; A Method to Predict Day-of-Surgery Case Volume Months in Advance.
- 64. Eun J, Tiwari V, Breidenstein M, Sandberg WS, Tsai MH. International Anesthesia Research Society. Washington D.C., District of Columbia. 2017 May; Optimal Algorithm for Assignment of Anesthesiologists to Non-Operating Room Sites.
- 65. Kistler J, Janakiraman R, Tiwari V, Kumar S. 28th Annual Conference. Production and Operations Management Society; Seattle, Washington. 2017 May; Analyzing Impact of Surgical Process Changes on Patient Flows: Evidence from Field Research.
- 66. Eun J, Tiwari V, Sandberg WS. INFORMS Healthcare 2017. Rotterdam, Netherlands, The. 2017 Jul; Evaluating Usefulness of Information Quality in Predicting Daily Surgical Volume.

Invited Presentation - Local

- 1. Tiwari V. Council of Supply Chain Management Professionals Houston Chapter. Houston, Texas. 2008 Nov; Applying Supply Chain Concepts in Healthcare.
- 2. Tiwari V. Houston VA Hospital; Houston, Texas. 2009 Jul; Surgical Time Estimation.
- 3. Tiwari V, Berger D. VA HSR&D Center of Excellence; Houston, Texas. 2010 Apr; Increasing Operating Room Efficiencies with Systems Engineering; a MEDVAMC & UH Collaboration.
- 4. Tiwari V, Berger D. VA Implentation Conference. Houston, Texas. 2011 Sep; Role of Systems Engineering in Intervention Research.
- 5. Tiwari V, Sanders B. Quarterly Multidisciplinary Perioperative Morbidity, Mortality & Improvement Conference. Vanderbilt University Medical Center; Nashville, Tennessee. 2016 Dec 2; Turnover Time Improvement.

Invited Presentation - Regional

- 1. Tiwari V, Berger D. Mayo Clinic; Rochester, Minnesota. 2010 Nov; Operation Room Efficiency, an Oxymoron?.
- 2. Tiwari V. Monthly Informatics Research Seminar. Vanderbilt University Medical Center Department of Anesthesiology; Nashville, Tennessee. 2011 Aug; Surgery Scheduling Based on Probabilistic Estimates of Case Duration Times.
- 3. Tiwari V. Mayo Clinic Conference on Systems Engineering. Rochester, Minnesota. 2011 Aug; Healthcare and Operations Management.
- 4. Tiwari V. Regenstrief Center for Healthcare Engineering, Purdue University; West Lafayette, Indiana. 2016 Oct 12; Applied Analytics for Operating Rooms Capacity Management.
- 5. Vikram Tiwari. New York University, Stern School of Business; New York, New York. 2017 Apr 28; Capacity Planning and Management in Healthcare: applied research projects.
- 6. Center for Healthcare Engg. and Patient Safety, University of Michigan; Ann Arbor, Michigan. 2017 Jul; Managing Perioperative Capacity: applied research projects.

Invited Presentation - National

- 1. Vikram Tiwari, David A. Wyatt. OR Managers. Long Beach, California. 2014 Sep; It's all About the Data: How Advanced Data Analytics Will Help your Department Shine.
- Vikram Tiwari, Scott Strech. University Health Systems Consortium Annual Conference.
 University Health Systems Consortium; Las Vegas, Nevada. 2014 Oct; Data Analytics Helps Demystify Variability In Monthly Surgical Supply Costs.
- 3. Tiwari V, Wyatt DA. OR Manager Conference. Nashville, Tennessee. 2015 Oct; Developing and Sustaining Successful Outcomes from Analytics Projects.
- 4. Tiwari V. 4th Rutgers Applied Probability Conference: Analytic Methods in Health Care and in Clinical Trials. Rutgers Business School; New Burnswick, New Jersey. 2015 Oct; Probabilistic Operational Decision Making in Healthcare: 3 applied research projects.
- 5. Wyatt DA, Tiwari V. Executive Summitt: Association of Operating Room Nurses Conference. Anaheim, California. 2016 Apr; Analytics: Asking the Right Questions.
- 6. Tiwari V, Wyatt DA. OR Manager Conference. Las Vegas, Nevada. 2016 Oct; Embedding Analytical Thinking into Perioperative Operations.
- 7. Tiwari V, Wyatt DA. Executive Leadership Summitt. Association of Operating Room Nurses Confernce; Boston, Massachusetts. 2017 Apr 3; Choosing the Right Operations Management Principle and Analytical Approach.

Other

- 1. Tiwari V. Sinopec USA, Inc.; Houston, Texas. 2007 Nov; IT Applications in Logistics and Supply Chain Management (Presentation to Executives).
- 2. Tiwari V. Houston, Texas. 2008 Jan; Presented to the President and the Chancellor of the University of Houston on her visit to the College of Technology. The presentation included a poster presentation about the federally funded ongoing healthcare effciency project.

3.	Tiwari V, Doddapanneni R, Vadakatu S. Memorial Hermann Southwest Hospital. Houston, Texas. 2010 Apr; Improving Effectiveness of Automatic Supply Dispensing Systems at the Operating Rooms (presentation of research report/proposal).