

## VINAY GONELA, Ph.D.

Associate Professor of Management

Compliance and Graduate Coordinator, College of Business Administration

◆ FH217 ◆ Texas A&M University – Central Texas ◆ Killeen, TX 76549 ◆

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### EDUCATION

Ph.D., Industrial and Manufacturing Engineering, Dec 2013

Specialization: Operations and Supply Chain Management

North Dakota State University, Fargo, ND

Master of Science, Industrial and Systems Engineering, Dec 2008

Specialization: Engineering Management

University of Florida, Gainesville, FL

Bachelor of Engineering, Mechanical Engineering, May 2006

RKDF Institute of Science and Technology

Bhopal, Madhya Pradesh, India

### ACADEMIC EXPERIENCE

- Associate Professor of Management, A&M University – Central Texas, Aug 2021 – Present
- Compliance and Graduate Coordinator, COBA, June 2021 - Present
- Assistant Professor of Management, A&M University – Central Texas, Aug 2016 – July 2021
- Assistant Professor of Management, Southwest Minnesota State University, Jan 2014 – Aug 2016
- Research/Teaching Assistant, North Dakota State University, Aug 2009 – Dec 2013
- Veterans Upward Bound Instructor, North Dakota State University, May 2012 – August 2012

### COURSES TAUGHT

#### *A&M University – Central Texas*

- Sustainable Operations & Services (MGMT 5311), face-to-face/online, Graduate course
- Production and Operations Management (MGMT 4321), face-to-face/online, Undergraduate course
- Business Statistics (BUSI 3311), face-to-face, Undergraduate course

#### *Southwest Minnesota State University*

- Management of Production and Operations (MBA 609), Face-to-face/online, Graduate course
- Technology Management (MBA 680), Online, Graduate course
- Production and Operations management (MGMT 421), Face-to-face/online, Undergraduate Course
- Project Management (MGMT 323), Face-to-face, Undergraduate Course
- Supply Chain Management (MGMT 425), Online, Undergraduate Course
- Quality Management (MGMT 325), Online, Undergraduate Course

#### *North Dakota State University (Teaching Assistant)*

- Automation labs (IME 482), Face-to-face, Undergraduate course
- Work Station Design and Measurement labs (IME 311), Face-to-face, Undergraduate Course
- Systems Engineering and Management (IME 450), Face-to-face, Undergraduate

## INTELLECTUAL CONTRIBUTIONS

- **Research Interests:** Renewable and Sustainable Energy Supply Chains, Circular Economy, Stochastic Optimization, Simulation, Predictive and Data analytics, Machine Learning.
- **Citations (as of July, 2021 from google scholar): 460, h-index - 6, i10-index – 6**

### *Peer reviewed journal publications*

- Doumbia, M., Yakubu, M., **Gonela, V.**, Awudu, I., Pharmaceutical Supply Chain Management Practices and Organizational Performance: A Ghanaian Perspective, IGI Global Publication, Accepted in International Journal of Information Systems and Supply Chain Management. **(Acceptance rate: 21 - 30%)**
- **Gonela, V.**, Zhang, J., Salazar, D., & Awudu, I. (2020). Solid Waste Management: A Review from the Supply Chain Perspective. Journal of Supply Chain and Operations Management, 18(2), 229. **(Acceptance rate: 20%)**
- **Gonela, V.**, Altman, B., Zhang, J., Ochoa, E., Murphy, W., & Salazar, D. (2020). Decentralized rainwater harvesting program for rural cities considering tax incentive schemes under stakeholder interests and purchasing power restrictions. Journal of Cleaner Production, 252, 119843. **(Impact factor: 6.395, ABDC: A, Cabell's: Premiere)**
- Awudu, I., Asare, A., Asa, E., Osmanu, A., **Gonela, V.**, & Afful-Dadzie, A. (2019). Maximizing Profits in an Ethanol Supply Chain with Hedging Strategies. Journal of Supply Chain and Operations Management, 17(2), 221. **(Acceptance rate: 30%)**
- **Gonela, V.**, Salazar, D., Zhang, J., Osmani, A., Awudu, I., & Altman, B. (2019). Designing a sustainable stochastic electricity generation network with hybrid production strategies, International Journal of Production Research. **(Impact factor: 3.199, ABDC: A)**
- **Gonela, V.** (2018). Stochastic optimization of hybrid electricity supply chain considering carbon emission schemes. Sustainable Production and Consumption, 14, 136–151. (Impact factor: 3.66)
- **Gonela, V.**, Zhang, J., & Osmani, A. (2015). Stochastic optimization of sustainable industrial symbiosis based hybrid generation bioethanol supply chains. Computers & Industrial Engineering, 87, 40-65. **(Impact factor: 2.623, ABDC: A)**
- **Gonela, V.**, Zhang, J., Osmani, A., & Onyeaghala, R. (2015). Stochastic optimization of sustainable hybrid generation bioethanol supply chains. Transportation Research Part E: Logistics and Transportation Review, 77, 1-28. **(Impact factor: 2.974, ABDC: A\*, Cabell's: Premiere)**
- Gonela, V., & Zhang, J. (2014). Design of the optimal industrial symbiosis system to improve bioethanol production. Journal of Cleaner Production, 64, 513-534. **(Impact factor: 5.715, Cabell's: Premiere, ABDC: A)**
- Zhang, J., Osmani, A., Awudu, I., & **Gonela, V.** (2013). An integrated optimization model for switchgrass-based bioethanol supply chain. Applied Energy, 102, 1205-1217. (Impact factor: 7.182)
- Osmani, A., Zhang, J., **Gonela, V.**, & Awudu, I. (2013). Electricity generation from renewables in the United States: Resource potential, current usage, technical status, challenges, strategies, policies, and future directions. Renewable and Sustainable Energy Reviews, 24, 454-472. (Impact factor: 8.050)

### *Conference proceedings*

- Vallabh, K., **Gonela, V.**, Lampl, D., Nygard, K., Optimal placement of relay station in wireless sensor networks, 32nd International Conference on Computers and Their Applications CATA 2017.
- **Gonela, V.**, Zhang, J., Osmani, A., Awudu, I., Farahmand, K., Shi, J., Designing effective and efficient scheduling policy to improve laboratory performance, Proceedings of the 2013 Industrial and Systems Engineering Research Conference.
- Zhang, J., Osmani, A., **Gonela, V.**, & Awudu, I., Adaptive Hospital Bed Allocation Approach under Multiple Uncertainties, Proceedings of the 2013 Industrial and Systems Engineering Research Conference.
- Osmani, A., Zhang, J., Awudu, I., & **Gonela, V.**, Optimal Scheduling Approach to Minimize Resource Conflict in Audiology Clinics, Proceedings of the 2013 Industrial and Systems Engineering Research Conference.

### ***Presentations at professional meetings***

- **Gonela, V.**, Zhang, J., Salazar, D., Awudu, I., Understanding Solid Waste Management from a Supply Chain Context, Virtual CSUPOM 2021 Annual Conference.
- **Gonela, V.**, Rainwater harvesting potential for a rural city in Central Texas, Virtual SUSTEX Summit 2021.
- Boison, D., Awudu, I., **Gonela, V.**, Cargo Clearance Process: A sustainability case with smart ports, Virtual SUSTEX Summit 2021
- **Gonela, V.**, Atman, B., Awudu, I., Shah, L., A simulation-optimization based approach to evaluate the effectiveness of Decentralized Rainwater Harvesting Program for rural cities, INFORMS Virtual Conference 2020.
- **Gonela, V.**, Decentralized rainwater harvesting program for rural cities considering stakeholder interests and purchasing power restrictions, Faculty senate summit scholarship, A&M University – Central Texas, 2020.
- **Gonela, V.**, Awudu, I., Gosnell, J., Designing a Coal and Biomass Based Electricity Network Considering Different Emission Schemes, 2019 INFORMS Seattle conference.
- Awudu, I., **Gonela, V.**, Sustainability in Bioenergy Industry, SUSTEX summit 2019, Texas A&M University Central Texas.
- Ochoa. E., **Gonela. V.**, Altman. B., Murphy. W, A Simulation Model to Determine the Effectiveness of Decentralized Rainwater Harvesting for Rural Areas, 2018 Pathways research symposium, West Texas A&M University – student presentation – Student won 2nd prize.
- **Gonela. V.**, Awudu. I., designing a sustainable biomass-based electricity supply chain, 2017 INFORMS Houston conference.
- Awudu. I., Afful-Dadzi, A., **Gonela. V.**, Buyer and supplier strategies for hedging against risk in the Ethanol industry?, 2017 INFORMS Houston conference.
- Panel member for “The Doctoral Student Consortium for Pre-Proposal Defense” at 2016 DSI conference, Austin, TX.
- Fogarty, C., **Gonela., V.**, Szmerekovsky, J., Non cooperative Vs. Cooperative placement of relay stations under wireless sensor networks, 2015 INFORMS Philadelphia conference.
- **Gonela, V.**, Zhang, J., Osmani, A. (2015). “Stochastic optimization of Industrial Symbiosis based Hybrid Generation bioethanol supply chain under uncertainties”, 2015 INFORMS Philadelphia conference.
- **Gonela, V.**, Zhang, J., Osmani, A., Awudu, I., Farahmand, K., Shi, J., Designing effective and efficient scheduling policy to improve laboratory performance, ISERC Conference, May 2013, San Juan, Puerto Rico.

- Zhang, J., Osmani, A., Awudu, I., & **Gonela, V.**, Optimal Scheduling Approach to Minimize Resource Conflict in Audiology Clinics, ISERC Conference, May 2013, San Juan, Puerto Rico.
- **Gonela, V.**, Zhang, J., Awudu, I., Osmani, A., Decision tool to decide best scheduling system for clinic setting, ISERC Conference, May 2013, San Juan, Puerto Rico.
- Zhang, J., Osmani, A., **Gonela, V.**, & Awudu, I., Adaptive Hospital Bed Allocation Approach under Multiple Uncertainties, ISERC Conference, May 2013, San Juan, Puerto Rico.
- **Gonela, V.**, Zhang, J., Design of sustainable industrial symbiosis to improve bioethanol production, INFORMS conference, Oct 2013.
- Chijioke, I., **Gonela, V.**, Szmerekovsky, J., “Decision support system to schedule coffee shop staff”, 2013 INFORMS conference.

### **Grants**

- Team member, TEES seed grant, “Industrial Flexships to Meet Diverse Learner Needs for WorkPlace Readiness”, Grant amount: \$2500.
- Principal Investigator, City of Florence, Water conservation project, 2017-2018, Grant amount: \$6600.
- Received Vice President for Research and Economic Development - Research Innovation Grant award (VPRED-RIGS), 2017, Grant amount: \$2000.
- Co-Advisor, Enactus student in Walmart Women empowerment, 2016, Grant amount: \$1500.
- Developed Bush foundation grant proposal as a board member of literacy volunteer of southwest Minnesota (2015). The grant has been received. Grant amount: \$145000
- Received Faculty improvement grant, 2014 – 2015, Grant amount: \$800.
- Received Faculty improvement grant, 2013 – 2014, Grant amount: \$640.

### **Project reports**

- Gonela, V., Patrick, A., Almond, B., Rua, T., BBA Management Program Review, 2019, P1- 573.
- Gonela, V., Altman, B., Murphy, W., Klein, D., Ochoa, E., Farrero, M., Leimer, M., City of Florence – Water conservation report, 2017 – 2018, P1 – 94.
- Zhang, J., Osmani, A., Gonela, V., 2012, “Access and Scheduling: Measuring scheduling effectiveness in VHA – Metric implementation plan”, Midwest Mountain VERC, P1- 13.
- Zhang, J., Osmani, A., Gonela, V., 2012, “Access and Scheduling: Measuring scheduling effectiveness in VHA – Validation of measures”, Midwest Mountain VERC, P1- 17.
- Zhang, J., Osmani, A., Awudu, I., Gonela, V., 2012, “Access and Scheduling: Measuring scheduling effectiveness in VHA – Metrics and Validation plan”, Midwest Mountain VERC, P1- 17.
- Zhang, J., Gonela, V., Aslani, N., Osmani, A., and Awudu, I., 2011, “Final Briefing: Computer Model to Allow Facilities to Decide Whether to Schedule in a Centralized or Decentralized Manner”, VERC, P1-68.
- Zhang, J., Gonela, V., Aslani, N., and Osmani, A., 2011, “Development of performance evaluation tool for Patient Appointment Scheduling System”, VERC, P1-38.
- Zhang, J., Gonela, V., Aslani, N., and Osmani, A., 2011, “Development of implementation plan for Patient Appointment Scheduling System”, VERC, P1-60.
- Zhang, J., Gonela, V., and Aslani, N., 2010, “Development of centralized, decentralized and hybrid scheduling model”, VERC, P1-33.
- Zhang, J., Gonela, V., and Aslani, N., 2010, “Development of the decision tool”, VERC, P1-49.
- Zhang, J., Gonela, V., Song, D., Aslani, N., and Dharmadhikari, N., 2010, “VA briefing on centralized vs. Decentralized scheduling”. VERC. P1-43.

- Zhang, J., Gonela, V., and Aslani, N., 2010, “Summary of Current State Clinic Flow Findings”. VERC. P1-99.
- Zhang, J., Gonela, V., and Aslani, N., 2010. Literature analysis on clinic flows and the analysis. VERC. P1-35
- Zhang, J., Farahmand, K., Shi. J, Gonela, V., and Srinivasan, R., 2010. Laboratory Report. VAMC. P1-77.
- Zhang, J., Farahmand, K., Shi. J, Gonela, V., and Srinivasan, R., 2010. Audiology clinic space improvement. VAMC. P1-53.
- Zhang, J., Gonela, V., and Aslani, N., 2009. Literature review on clinic flows and the analysis. VERC. P1-70.

### ***Media Coverage***

- Florence Water conservation project: [https://kdhnews.com/news/education/a-m-central-texas-faculty-translates-research-into-real-life-for-florence/article\\_1dabae46-e6a5-11eb-a9cb-97943448c061.html](https://kdhnews.com/news/education/a-m-central-texas-faculty-translates-research-into-real-life-for-florence/article_1dabae46-e6a5-11eb-a9cb-97943448c061.html)

### ***Certifications***

- Completed QM rubric update sixth edition, January 12, 2019
- De-escalation strategies, 2019
- Navigating Conflict in the Classroom, 2018
- Student engagement, 2018
- Completed 40 hours certification in introduction to project management professional, Central Texas College, 2017
- Completed 15 hour Quality Matters certification, 2017
- Canvas Webinar: Assignment & Discussion, April 6, 2017
- Canvas Webinar: Structuring your Canvas course & Discussion, January 27, 2017

### ***Under Review***

- Gonela. V., Khoja, F., A new paradigm in business education: A circular 4-phase conceptual framework for end-to-end program design, submitted to organizational management journal.

### ***Working Paper***

- Nandi, S., Gonela, V., Rainwater Harvesting for Domestic Use: A review from a policy perspective
- Behara, K., Bhero, E., Agee, J., Gonela, V., Artificial Intelligence in Medical Diagnostics: A review from a South African Context
- Gonela, V., Impact of Different Tax Schemes on Decentralized Rainwater Harvesting Program for Rural Cities

## **PROFESSIONAL, INSTITUTIONAL, AND COMMUNITY SERVICE**

### ***A&M University – Central Texas***

- COBA faculty awards committee, 2021
- University Assessment Committee member, 2020 - 2021
- Undergraduate Assessment and Curriculum Chair, 2020 – 2021
- Marketing Program Review member, 2020 – 2021
- SUSTEX Summit 2021 steering committee, 2020 - 2021

- Faculty Scholarship and Research Committee member, 2019 – Present
- One Planet Educational Network (OPEN) fellow, 2019 – Present
- Worked on developing Supply Chain Management and Operations Management courses, 2020
- Attended virtual AACSB Assurance of Learning training II September 29 – October 01 2020
- Editorial board member for international journal of sustainability management and information technologies, 2019 - Present
- Served as reviewer for following journals: (1) Energy, (2) Sustainability; (3) Infrastructure; (4) Processes; (5) Sustainable Production and Consumption; (6) ISERC conference 2017; (7) Transportation research Part E: Logistics and Transportation Review; (8) International journal of production research; and (9) Energy Policy; (10) Computer and Industrial Engineering; (11) Cleaner Engineering and Technology; (12) Information
- Public YouTube channel with 91 videos on operations management and business statistics course content
- BBA Management Program Review Chair (2019 - 2020)
- Faculty scholarship and research committee, 2019 - 2020
- Assessment lead, BBA Management (2018 - Present)
- Member, Faculty Senate member (2017 - 2019)
- Member, Budget committee (2017 - 2019)
- Member, By-laws committee (2018 - 2019)
- Member, Blue reports committee (2018 - 2019)
- Member of Nolanville Economic Development Committee (2018 - 2019)
- UCARE faculty fellow (2017 - Present)
- Attended TEES annual research conference May 22, 2018 Energy session
- Served as session chair supply chain optimization, INFORMS Houston conference 2017
- Helped City of Florence through water conservation research project (2017 - 2018)
- Attended professional grant development workshop, University of Austin, Austin TX, June 8 - 9, 2017
- Attended Quality Matters conference in Fort Worth, TX, sept 26, 2017
- Member, Visiting assistant professor management committee (2017)
- Attended 2016 Enactus United States Fall Training Conference, Dallas, TX
- Attended AACSB conference Assurance of Learning Seminar I, Tampa, Oct 24 -25, 2016
- One planet MBA committee (2016 - 2017)
- Production and Operations management (MGMT 4321) course lead
- Sustainable Operations and Services (MGMT 5311) course lead

***Southwest Minnesota State University***

- Served as a chair for “Green Supply Management session” in INFORMS Conference, 2015
- Developed supply chain management concentration, minor and certificate program
- Developed transportation and logistics management, quality management, supply chain management, and inventory management courses.
- Member, scholarship committee (2013 - 2015)
- Member, Curriculum committee (2014 - 2015)
- Member, Academic Technology committee (2014 - 2015)
- Member, Accounting/Finance search committee (2014 - 2015)
- Member, Honor task program (2015 - 2016)
- Member, Administrative hearing committee (2015 - 2016)

- Member, strategic enrollment management committee (2015-2016)
- Member, Interfaculty organization (2014 - 2015)
- Member, Management department core committee (2014 - 2015)
- Involved in advising management students at Southwest Minnesota State University
- Participating member of Minnesota Collaborative Project pilot study (2014 - 2015)
- Board member and tutor of literacy volunteer of Southwest Minnesota (2014 - 2015)

### ***North Dakota State University***

- Student support services tutor, (2012 - 2013)

### **HONOURS AND AWARDS**

- Received COBA scholar of the year award, 2019.
- Finalist for Outstanding Faculty/Staff Quantitative Scholarship Award category in Eighth Annual Outstanding University Research Awards, 2020, held at A&M – Central Texas.
- Received Faculty senate summit scholarship award of \$500, 2020.
- Received outstanding service to COBA and University 2018 award.
- Received certificate of outstanding contribution in reviewing for Journal of Transportation Research Part E: Logistics and Transportation Review, 2017.
- Enactus Sam Walton fellow 2016 - 2017.
- Received RECKED (Recognition for excellence, creativity, knowledge and engaging diversity) award (2016 - 2017) from student government.
- Nominated distinguished student leadership and service awards (2016 - 2017).
- Received achievement award of 11050 USD at University of Florida.
- Received College Reading and Learning Association (CRLA) tutoring certificate.

### **PROFESSIONAL MEMBERSHIPS**

- Member of Decision Science Institute, 2015 - 2019
- Member of INFORMS, 2013 – Present
- Member of CSCMP, 2014
- Invited member of the honor society of Phi Kappa Phi, 2013
- Member of Institute of Industrial Engineers, 2013

### **PROFESSIONAL WORK EXPERIENCE**

#### ***Supply Chain Trainee, Jan 2009 – Aug 2009***

- Implemented oracle ERP applications like Inventory, Purchasing and Order management.
- Identified the nuances of the supply chain for the business processes currently going on in the company and improving them in order to reduce costs.
- Worked on AIM (Application implementation methodology) methodology which includes Business requirement Gathering, Fit/Gap Analysis, System Configuration Setup, User Acceptance Test, User Trainings, and Go – Live.
- Set up automated workflows that substantially reduced the time, simultaneously giving opportunity for a layman to work with ease. This reduced the costs significantly.

#### ***Mechanical Engineer, 2006 – 2007***

- Identifying various processes and drawing layouts/charts in order to improve defective processes.
- Monitored machine utilization time/ idle time and provided detailed bi-monthly reports
- Maintained and troubleshooted Caterpillar products such as Bull Dozers, Dumpers that include work on six cylinder engines, transmission systems.

### **SKILLS**

Python, WARM, GAMS, AMPL, Vensim, Rockwell ARENA, Matlab, Minitab, Automode, VB, Vb.Net, Asp.Net, SQL, Html, C, AutoCAD, CNC programming, Visio PLC unit operations, RFID, Machine vision, Barcoding, Microsoft office package, D2L, Blackboard, Canvas