

## VINAY GONELA, Ph.D.

Assistant Professor of Management

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### EDUCATION

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

North Dakota State University, Fargo, ND

Dissertation: Stochastic optimization of sustainable industrial symbiosis based hybrid generation bioethanol supply chains

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

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### ACADEMIC EXPERIENCE

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- Assistant professor of Management, Texas A&M University – Central Texas, Aug 2016 - Present
- Assistant Professor of Management, Southwest Minnesota State University, Jan 2014 – Aug 2016
- Research Assistant/Teaching Assistant, North Dakota State University, 2009 – 2013
- Veterans Upward Bound Instructor, 2012

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### COURSES TAUGHT

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#### *Graduate courses*

- Managing operations and service (MGTK 511 – Online) – 3 course
- Management of Production and Operations (MBA 609 - In-class/Online) - 5 course
- Technology Management (MBA 680 – Online) – 1 course

#### *Undergraduate courses*

- Business Statistics ( GBK 311 – In-class) – 4 course
- Production and operations management ( MGTK 421 – In class/online) – 15 course
- Project Management (MGMT 323 – In-class) – 1 course
- Supply chain Management (MGMT 425 – Online) – 3 course
- Quality Management (MGMT 325 – Online) – 1course
- Automation labs (IME 482) – 1 course
- Work/Station Design and Measurement labs (IME 311) – 1 course
- Systems engineering and management teaching assistant (IME 450) – 1 course
- Simulation lab – 1 course

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### PUBLICATIONS

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#### *Journals ( Citations: 220, h-index - 5, i10-index – 5)*

- Gonela, V. (2018). Stochastic optimization of hybrid electricity supply chain considering carbon emission schemes. Sustainable Production and Consumption, 14, 136–151. (Cite score: 3.52; Cite score percentile: 88%, Ranked 37/128 in the field of renewable energy, sustainability and the environment)
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- 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, Cabell's: Significant)**
  - 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\*, Cabells: 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)**
  - 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, Submitted to 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.

#### *Certifications*

- Completed 40 hours certification in introduction to project management professional, Central Texas College, 2017
- Completed 15 hour Quality Matters certification, 2017

#### *Papers under review*

- Gonela, V., Salazar, D., Zhang, J., Osmani, A., Awudu, I., Altman, B., Designing a sustainable stochastic electricity generation network with hybrid production strategies, *International journal of production research (R & R minor review process)*.
- Gonela, V., Zhang, J., Salazar, D., Osmani, A., Awudu, I., Solid waste management: A holistic review of categories, stages, networks, decisions, and models – *Waste management & Research*.
- Iddrisu, A., Asare, A., Asa, E., Osmani, A., Gonela, V., Afful-Dadzie, A., Hedging strategies in a processing environment: The case of ethanol, *Annals of Operations Research*.

#### *Working papers*

- Gonela, V., Zhang, J., Techno-economic optimization of energy production from citrus waste

#### *Grants*

- City of Florence, Rainwater conservation project PI 2017, Grant amount: 6600 \$
  - Received Research Innovation Grants (VPRED-RIGS) 2017 of \$ 2000.
  - Directed Enactus student in Walmart Women empowerment, 2016 grant write-up of 1500\$. The grant has been received.
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- Developed Bush foundation grant proposal of \$145000 (2015-2016) as a board member of literacy volunteer of southwest Minnesota. The grant has been received.
  - Received Faculty improvement grant \$640 (2013-2014) and \$800 (2014-2015)

### ***Technical Reports***

- Gonela, V., Altman, B., Murphy, W., Klein, D., Ochoa, E., Farrero, M., Leimer, M., City of Florence – Water conservation report, 2017 – 2018, P1 – 94
- J. Zhang, A. Osmani, V. Gonela, 2012, “Access and Scheduling: Measuring scheduling effectiveness in VHA – Metric implementation plan”, Midwest Mountain VERC, P1- 13
- J. Zhang, A. Osmani, V. Gonela, 2012, “Access and Scheduling: Measuring scheduling effectiveness in VHA – Validation of measures”, Midwest Mountain VERC, P1- 17
- J. Zhang, A. Osmani, I. Awudu, V. Gonela, 2012, “Access and Scheduling: Measuring scheduling effectiveness in VHA – Metrics and Validation plan”, Midwest Mountain VERC, P1- 17
- J. Zhang, V. Gonela, N. Aslani, A. Osmani and I. Awudu, 2011, “Final Briefing: Computer Model to Allow Facilities to Decide Whether to Schedule in a Centralized or Decentralized Manner”, VERC, P1-68.
- J. Zhang, V. Gonela, N. Aslani, and A. Osmani, 2011, “Development of performance evaluation tool for Patient Appointment Scheduling System”, VERC, P1-38.
- J. Zhang, V. Gonela, N. Aslani, and A. Osmani, 2011, “Development of implementation plan for Patient Appointment Scheduling System”, VERC, P1-60.
- J. Zhang, V. Gonela, and N. Aslani, 2010, “Development of centralized, decentralized and hybrid scheduling model”, VERC, P1-33
- J. Zhang, V. Gonela, and N. Aslani, 2010, “Development of the decision tool”, VERC, P1-49.
- J. Zhang, V. Gonela, D. Song, N. Aslani and N. Dharmadhikari, 2010, “VA briefing on centralized vs. Decentralized scheduling”. VERC. P1-43.
- J. Zhang, V. Gonela, and N. Aslani, 2010, “Summary of Current State Clinic Flow Findings”. VERC. P1-99.
- J. Zhang, V. Gonela, and N. Aslani, 2010. Literature analysis on clinic flows and the analysis. VERC. P1-35
- J.Zhang, K. Farahmand, Shi. J, V. Gonela, and R. Srinivasan, 2010. Laboratory Report. VAMC. P1-77.
- J.Zhang, K. Farahmand, Shi. J, V. Gonela, and R. Srinivasan, 2010. Audiology clinic space improvement. VAMC. P1-53
- J. Zhang, V. Gonela, and N. Aslani, 2009. Literature review on clinic flows and the analysis. VERC. P1-70.

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

- Gonela, V., Awudu, I., Designing a sustainable biomass based electricity supply chain, 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 conference.
  - Gonela, V., Zhang, J., Osmani, A. (2015). “Stochastic optimization of Industrial Symbiosis based Hybrid Generation bioethanol supply chain under uncertainties”
  - 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.
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- 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.

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### **PROFESSIONAL/INSTITUTIONAL AND COMMUNITY SERVICE**

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- Faculty senate member, Budget committee (2017-2018).
- Served as session chair supply chain optimization, INFORMS Houston conference 2017.
- Serving on Nolanville Economic Development Committee (2018)
- UCARE faculty fellow (2017-2018)
- Reviewed articles for sustainability (3 papers), sustainable production and consumption (1 paper), ISERC conference 2017 (2 papers), Transportation research Part E: Logistics and Transportation Review (5 papers).
- Attended professional grant development workshop, University of Austin, Austin TX, June 8-9, 2017.
- Attended Quality Matter conference sept 26, 2017 in Fort Worth, TX
- Attended 2016 Enactus United States Fall training Conference , Dallas, TX
- Attended AACSB conference Assurance of Learning Seminar I, Oct 24 -25, 2016, Tampa
- 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.
- Involved in One planet MBA committee (2016-2017), Visiting assistant professor management committee (2017), scholarship committee (2013-2014, 2014-2015), curriculum committee (2014-2015), Academic Technology committee (2014-2015), Accounting/Finance search committee (2014-2015), Honor task program (2015-2016), Administrative hearing committee (2015-2016), and strategic enrollment management committee.
- Member, Interfaculty organization (2014-2015)
- Member, Management department core committee (2014-2015)
- Involved in advising management students
- Participating member of Minnesota Collaborative Project pilot study (2014-2015)
- Board member and tutor of literacy volunteer of Southwest Minnesota (2014-2015).
- Student support services tutor, Veterans upward bound instructor, North Dakota State University (2012-2013)

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### **PROFESSIONAL WORK EXPERIENCE**

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

- Implemented oracle 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
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- Maintained and trouble shooted Caterpillar products such as Bull Dozers, Dumpers that include work on six cylinder engines, transmission systems.

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### **HONOURS AND AWARDS**

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- 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

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### **PROFESSIONAL MEMBERSHIPS**

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- Member of Decision Science Institute, 2015, 2016
- Member of INFORMS, 2013, 2014, 2015, 2017
- Member of CSCMP, 2014
- Invited member of the honor society of Phi Kappa Phi, 2013
- Member of Institute of Industrial Engineers, 2013

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### **SKILLS**

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GAMS, AMPL, 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.

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