

Curriculum Vitae

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SUMMARY

EDUCATION

Ph.D. in Systems Engineering , George Washington University, Washington D.C.
D.Eng. in Electrical & Computer Engineering , Santa Clara University, Santa Clara, California
M.B.A. in Business Administration , Golden Gate University, San Francisco, California
M.S., Electrical & Computer Engineering , San Jose State University, San Jose, California
M.S., Industrial & Systems Engineering , San Jose State University, San Jose, California
B.S., Mechanical Engineering , Southern Illinois University, Carbondale, Illinois

EXPERIENCE

A. Academic Positions (6 Years)

Institution	Category	Job Title	Tenure
San Jose State University, San Jose California	Academic Administration	Visiting Associate Professor/ Endowed Pinson Chair Professor	2 years
Monterrey Institute of Technology (Tec De Monterrey), Mexico	Academic Administration	Visiting Associate Professor	1 year
Texas A&M University Commerce	Higher Education	Assistant Professor	3 years

B. Industry Positions (21 Years)

Institution	Industry	Job Title	Tenure
Intel Corporation Santa Clara, California	Semiconductors- Microprocessors	Program Manager Staff Engineer Senior Process Engineer	13 years
Nobel Designs San Francisco, California	Semiconductors- Solar Photovoltaic (PV)	Consultant	8 years

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Education

Doctor of Philosophy	Systems Engineering (2014) George Washington University, Washington D.C.
Doctor of Engineering	Electrical Engineering (2011) Santa Clara University, Santa Clara California
Master of Business Administration	Operations Management (1997) Golden Gate University, San Francisco California
Master of Science	Electrical and Computer Engineering (1992) San Jose State University, San Jose California
Master of Science	Industrial and Systems Engineering (1990) San Jose State University, San Jose California
Bachelor of Science	Mechanical Engineering (1989) Southern Illinois University, Carbondale Illinois

Professional Appointments/ Employment

A. Academia – 6 years

Tenure-Track Assistant Professor, Texas A&M University-Commerce, August 2016- Present

Visiting Associate Professor, Industrial & Systems Engineering, Monterrey
Institute of Technology (Tec de Monterrey), Mexico, June 2015- Sept. 2016

Visiting Associate Professor, Department of Industrial & Systems Engineering, San Jose State
University, San Jose, California, August 2011 to September 2013

Endowed Pinson Chair Professor, Department of Industrial & Systems Engineering, San Jose
State University, San Jose, California, August 2011 to September 2013

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Professional Appointments/ Employment Cont.

B. Industry (Private/Public Sector – 21 years)

2003-2011, Consultant, Solar Photovoltaic Energy Systems, Nobel Designs, San Francisco, California

1990-2003, Program Manager, Intel Microprocessor Group, Staff Engineer and Senior Process Engineer, Intel Corporation, Santa Clara, California

SERVICE

Department

1. Career and professional development advisor for junior and senior level Industrial Engineering (IE) students
2. Industry Advisory Board (IAB) coordinator for Industrial Engineering
3. Development of MS Engineering program design
4. Development of Six Sigma Green Belt Certification training course
5. Institutional Effectiveness (IE) Author for Industrial Engineering
6. Faculty Search Committee member for Department of Engineering and Technology.
7. 2018. Electrical Engineering tenure track faculty search: Resulted in the hiring of two (2) new tenure-track Electrical Engineering faculty members.
8. Industrial Engineering Learning Outcome Assessment Committee.
9. Institutional Effective Author for Industrial Engineering program.
10. ABET committee member.
11. Career and professional development advisor for graduating senior Industrial Engineering students.
12. Honor's Thesis Student Advisor Spring 2017.

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College

1. Development of MS Engineering Program Design.
2. New Cross-Sectional Industry Advisory Board for Industrial Engineering.
3. Institutional Effectiveness Author for Industrial Engineering.
4. Developed a Six Sigma Green Belt Certification Training Course to start in Fall 2019.
5. LINGO LAB Infrastructure Development
6. Faculty Search Committee
7. Accreditation Board of Engineering and Technology (ABET) Committees.
8. Career and Professional Advisor for Junior and Senior level Industrial Engineering students.
9. Industrial Engineering ABET Accreditation Task Force, 2017 Industrial Engineering Accreditation Program.
10. Industrial Engineering Undergraduate Curriculum Committee, 2016 - Present.
11. Founder and the current director of an international council on accelerating the transition to free-emission smart infrastructure (FESI).
12. Lead an interdisciplinary (Systems Engineering, electrical engineering, and civil engineering) research team across three different universities with collaboration with several renewable energy technology companies.
13. Created, directed, and monitored a research project for Hunt County Medical Center to improve its operations and Service Systems.

University

1. Invited as “Birds of a Feather” round table speaker/ moderator for smart cities development, Texas A&M Commerce 2019 Research Symposium, April 2019.
2. Invited as “Research Judge” for academic research evaluation, Texas A&M Commerce 2019

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Research Symposium, April 2019.

3. Invited as “Birds of a Feather” round table speaker/ moderator for industry workforce development, Texas A&M Commerce 2018 Research Symposium, March 2018

Industry Partnership

Total of eleven (11) industry sponsored projects during the past three academic years.

A. List of Senior Design Capstone Projects

Academic Terms	Company Sponsor	Project Category
<i>Fall 2016 – Spring 2017</i>		
1.	Lowe’s Distribution Center, Mt. Vernon, Tx	logistics & supply chain optimization
2.	ITCS, Commerce Tx	information systems
<i>Fall 2017 – Spring 2018</i>		
3.	L3 Communication	automation
4.	Campbell’s	transport logistics and supply chain optimization
5.	Lowe’s Distribution Center, Mt. Vernon, Tx	facilities design
<i>Fall 2017 – Spring 2018</i>		
6.	Priefert Manufacturing	Process Improvement
7.	Rodger Wades	Quality System
8.	Lowe’s Distribution Center	Facility Design
9.	Lowe’s Distribution Center	Automation

B. List of Service Systems Analysis Course (IE 486) Projects

Academic Terms	Company Sponsor	Project Category
<i>Spring 2018</i>		
10.	Hunt County Medical Center Critical Care Operation Greenville, Tx	1. Data Analytics 2. Operations Research 3. Simulation
<i>Spring 2019</i>		
11.	Hunt County Medical Center Clinical Operation Greenville, Tx	1. Data Analytics 2. Operations Research 3. Simulation

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Grants

- 2019 - In Progress, National Science Foundation (NSF), Planning Grant for Engineering Research Center for Free Emission Smart Infrastructure (FESI)
Role: Lead Principal Investigator
- 2019 - Texas A&M Engineering Experiment Station (TEES)
Autonomous Vehicles Infrastructure Development research seed money
Role: Lead Principal
- 2019 – In Progress, Texas A&M University Energy Institute, College Station Texas.
Free Emission Smart Infrastructure research seed money
Role: Lead Principal Investigator
- 2018 - Texas A&M Engineering Experiment Station (TEES) Free Emission Smart Infrastructure research seed money
Role: Lead Principal Investigator
- 2015 - Department of Veterans Affairs, Veterans Hospital Administration through San Jose State University Research Foundation
Number: 583-15-2-501-0001
Project Title: System Dynamics Modeling for Lean Enterprise
Deployment Role: Principal Investigator

Selected Publications

- 2019 Yaqub M., “Improved Techniques for Optimizing Hospital Critical Care Operation, “Proceedings of the 2019 Institute of Industrial and Systems Engineering Annual Conference.
- 2019 In Progress. Yaqub M., Rahman M., Oh E., "Deployment of a Practitioner Methodology for Engineering Capstone Design Experience,” Taylor and Francis Education
- 2019 In Progress. Yaqub M., Rahman M., Oh E., Attia J., Reydah R., Accelerating the Transition to Smart City Infrastructure through the Deployment of a universal Photovoltaic Building Unit (PVBU). Taylor and Francis, Distributed Generation and Alternative Energy Journal, in progress.

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- 2019 In Progress. Yaqub M., Institutional Effectiveness for Industrial Engineering program, August 2019.
- 2018 Yaqub M., Institutional Effectiveness for Industrial Engineering program, August
- 2017 Yaqub M., “Hospital Emergency Room Capacity Optimization Model,” International Conference on Industrial Engineering and Technology Management (IC-IETM), Dallas, TX. April 2017.
- 2014 Yaqub, M., Dissertation. George Washington University. A Framework for Assessing the Commercialization of Photovoltaic power generation, 2014.
- 2013 Yaqub M., Mazzuchi T., and Sarkani S., (2013), Addressing Solar-PV Power Generation: Commercialization Assessment for the US Energy Market. Taylor and Francis, Distributed Generation and Alternative Energy Journal, Vol. 28, No. 1, January 2013.
- 2012 Yaqub M., Sarkani S., and Mazzuchi T., (2012), Feasibility Analysis of Solar Photovoltaic Commercial Power Generation in California. American Society of Engineering Management (ASEM), Engineering Management Journal, Vol. 27, No. 4, December 2012.
- 2010 Yaqub, M. and Rahman, M., (2010), “Risks Analysis of Smart Grid Enterprise Architecture Under Uncertainty”, International Consortium on Systems Engineering (INCOSE), Information Systems Security Association (SSIA), INCOSE, Cyber Security and Enterprise Architecture Conference Proceedings, Nov. 2010.
- 1995 Statistical Techniques for Integrated Circuits Testing Characterization, Semiconductor Manufacturing Technology Institute (SEMATECH) Journal, May 1995.
- 1994 Integrated Circuits Reliability Monitors, Intel Technology Journal.
- 1992 Process Optimization of Integrated Circuits Testing, Electrical Engineering Book. San Jose State University Press.

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Invited Speaker

- June 2019 Proceedings of the 2019 Institute of Industrial and Systems Engineering Annual Conference, “Improved Techniques for Optimizing Hospital Critical Care Operation “
- May 2019 Proceedings of the 2019 American Society for Engineering Education Annual Conference. "Deployment of a Practitioner Methodology for Engineering Capstone Design Experience”
- Sept 2018 Texas A&M Energy Institute Annual Conference, College Station Texas, “Free Emission Smart Infrastructure”
- April 2017 Hospital Emergency Room Capacity Optimization Model, International Conference on Industrial Engineering and Technology Management (IC-IETM), Dallas,
- March 2017 “Design for Sustainability,” Santa Clara University Electrical Engineering Senior Design Capstone Project.
- May 2016 Monterrey Institute of Technology (Tec De Monterrey), College of Business and Economics, “Economics of Utility Scale Solar Photovoltaic Systems.”
- April 2016 Monterrey Institute of Technology (Tec De Monterrey), College of Engineering, “How Intel makes its Chips.”
- June 2010 International Council on Systems Engineering (INCOSE) Annual Conference, Virginia Beach, Virginia. “Risks Analysis of Smart Grid Enterprise Architecture Under Uncertainty.

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University Teaching Experience

A. Courses Taught at Texas A&M Commerce,

Tenure Track Assistant Professor

Fall 2016 - Present

1. IE 312 Operations Research I
2. IE 313 Operations Research II
3. IE 495 Industrial Systems Design Capstone Project
4. IE 471 Preparation for Industrial Systems Design
5. IE 491 Honors Reading
6. IE 486 Service Systems Design
7. IE 444 Systems Engineering
8. ENGR 411 Engineering Management
9. IE 409 Work Design
10. IE 313 Statistical Quality Control
11. TMGT 340 Managerial Statistics
12. IT 340 Quality Management and Improvement

B. Courses Taught at Monterrey Institute of Technology (Tec De Monterrey), Mexico, Visiting Associate Professor

Fall 2015 to Fall 2016

1. Optimization Models AKA Operations Research II
2. System Dynamics Simulation
3. Analysis of Production Systems
4. Data Analytics

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C. Courses Taught at San Jose State University, Visiting Associate Professor (Visiting Endowed Pinson Chair Professor)

Fall 2011 to Fall 2013

1. ISE 222 Advanced Systems Engineering (graduate course)
2. ISE 135 Data Analytics (upper division undergraduate course)

D. College Curriculum Design Experience

2017 – Present	Industrial Engineering Curriculum Review Committee member
2015 – 2016	As visiting Associate Professor at Monterrey Institute of Technology (Tec De Monterrey), Mexico, developed a course in Systems Dynamics Simulation, and revived industrial engineering senior courses' curriculum to better match ABET requirements.
2011 – 2013	As Pinson Chair Professor at San Jose State University (2011 to 2013), designed and deployed a novel master's degree program in Systems Engineering including detailed curriculum. The new graduate program and associated curriculum have been approved and implemented by the California State University System.

E. Students' Mentoring

Undergraduate Senior Students Mentorship

August 2016 - Present	Industrial Systems Design Senior Capstone Projects (9 different industry projects), Texas A&M University Commerce Industrial Engineering Department.
January 2019 - May 2019	Service Systems Design and analysis Senior Project, Hunt County Medical Center Healthcare System. Texas A&M University Commerce Industrial Engineering Department.
January 2018 - May 2018	Service Systems Design and analysis Senior Project, Hunt County Medical Center Healthcare System. Texas A&M University Commerce Industrial Engineering Department.

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January 2017 - May 2017 Trent Shankeria, Undergraduate Honor Thesis. Texas A&M University Commerce Industrial Engineering Department

August 2015 - May 2016 Industrial Systems Design Senior Capstone Projects (4 different projects), Monterrey Institute of Technology (Tec de Monterrey) Industrial and Systems Engineering Department.

Undergraduate Senior Students Career and Professional Advisement

August 2016 – Present - Advise graduating seniors on job markets careers and graduate programs options. Texas A&M University Commerce Industrial Engineering Department.

Undergraduate Senior Student Business Plan Competition Mentorship

March 2018, Texas A&M Commerce 2018 Research Symposium. Mentored Alexandria Whitely (a senior industrial engineering student) on developing and marketing a business plan for an e-commerce business venture.

Graduate Students Mentorship

Spring 2012 and Spring 2013. Advanced Systems Engineering (ISE 222) industry sponsored projects. San Jose State University Industrial and Systems Engineering Department.

Professional Development

1. Workshop on Process for Completing a Grant Application given by TEES, November 2017.
2. Stella Systems Dynamics Simulation Software Training- March 14-18, 2013.
3. NSF Proposal Submission Workshop held May 22, 2014 at University of Texas at Arlington.
4. Applied Material Solar PV Science Certificate, September 2009.
5. Intel Corporation Six Sigma Black Belt, June 2000.
6. State of California Engineer-in-Training Professional Engineering Registration License.
7. Member: International Consortium on Systems Engineering (INCOSE) American Society for Engineering Management (ASEM) American Society of Engineering Education (ASEE) Institute of Industrial and Systems Engineering (IISE) Engineering Honor Society (Tau Beta Pie).

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Scholarly and Creative Activities

1. October 2018, Peer Reviewer. *American Sociolity of Engineering Education Conference Proceeding Papers*
2. Scientific Committee Member, International Conference on Industrial Engineering and Technology Management (IC-IETM), April 8-7, 2017, Dallas, TX
3. NSF Proposal Submission Workshop held September 19, 2018 at Texas A&M University College Station.
4. Stella Systems Dynamics Software- Modeling Symposium, June 18-22, 2012, San Jose, California.
5. Invited as Judge for several scientific posters' sessions, Texas A&M Commerce 2018 Research Symposium, March 2018
6. Invited as "Birds of a Feather" round table speaker/ moderator for industry workforce
7. development, Texas A&M Commerce 2018 Research Symposium, March 2018
8. Texas A&M Energy Institute Annual Conference, September 24 – 26, 2018 in College Station Texas.
9. Texas A&M Engineering Experiment Station Meeting (TEES), May 22 - 24 2018.

Awards and Honors

2018	Member & Research Faculty Affiliate, Texas A&M Energy Institute, Texas A&M University, College Station Texas.
2011	Endowed Pinson Chair academic appointment (2 years appointment) San Jose State University, San Jose California.
2011	Engineering Honor Society (Tau Beta Pi) life-time fellow
2010	Merritt A. Williamson Best Paper Award American Society of Engineering Management (ASEM)