

YASSER M. DESSOUKY, Ph.D.

Office:
Professor & Chair
San Jose State University
Department of Industrial and Systems Engineering
San Jose, CA 95192-0180
Voice: (408)-924-4133
Fax: (408)-924-4153
E-Mail: yasser.dessouky@sjsu.edu

Home:
3590 Ballantyne Dr.
Pleasanton, CA 94588
(925)-931-1685

EDUCATION

Ph.D. 1993 Industrial & Management Systems Engineering, Arizona State University.
M.S. 1987 Industrial & Management Systems Engineering, Arizona State University.
B.S. 1984 Industrial Engineering, University of Wisconsin-Madison.

INDUSTRIAL EXPERIENCE

Consulting Engineer, 1990-Present

Clients: Applied Materials, Texas Instruments, General Electric, JDS Uniphase, Power Integrations, American Casting, United Parcel Service, Paramount Farms, Desert Samaritan Hospital, Ingersoll-Rand, HMT Technology, TTM Technology, Vavni, Kalkan Foods, Christopher Ranch, Popular ReCare, FAA, Folsom Dog Resort, Morgan Technical Ceramics

analyze large industrial organizations,
handling features, developed an IDEF0

ation Modeling and Analysis
ated Production Management
d Statistics and Operations Research

ADMINISTRATOR EXPERIENCE

San Jose University, Chair Department of Industrial and Systems Engineering, Fall 2009-Present

San Jose University, Associate Chair Department of Industrial and Systems Engineering, Fall 2008-2009.

San Jose University, Acting Chair Department of Industrial and Systems Engineering, Fall 2006.

San Jose State University, Director, MSE/MBA Dual Degree Program, Lockheed Martin, 2005-2010

San Jose State University, Director, Systems Engineering Certificate, British Aerospace Engineering, 2004-2005

San Jose State University, Lab Director, Manufacturing Information Systems Engineering, 2004-Present.

TEACHING EXPERIENCE

San Jose University, Department of Industrial and Systems Engineering, 1997-Present
Full/Associate/Assistant Professor:

ISE 102 Engineering Economic Systems
ISE 110 Manufacturing Processes
ISE 115 Computer Integrated Manufacturing
ISE 125 Software Systems Engineering
ISE 130 Engineering Statistics
ISE 131 Statistical Process Improvement
ISE 140 Operations Planning and Control
ISE 167 Systems Simulation
ISE 196R Systems Reliability
ISE 222 Advanced Systems Engineering
ISE 230 Advanced Operations Research
ISE 241 Advanced Operations Planning and Control
ISE 265 Advanced Systems Simulation

Santa Clara University, Department of Operations Management Information Systems, 1998-2003, 2014-

Adjunct Lecture:

OMIS 357 Operations Management
OMIS 362 Computer Simulation Modeling
OMIS 372 Systems Analysis and Design

Applied Materials

Developing Operating Rules and Simulating Performance for One-dedicated-lane Bus Rapid Transit/Light Rail Systems

CalTrans: PATH - \$58,948 2004-2005.

Automatic steering for Conventional Truck Trailers: Development and Assessment of Operating Concepts for Improving Safety, Productivity and Pavement Durability.

National Science Foundation – University of Southern California, \$3,200, 2003.

Debugging of the scheduling module for the Virtual Factory Teaching System, developed at USC, for teaching students in manufacturing, engineering, and business programs to better understand the complexities of factory dynamics.

Applied Materials, \$15,100, 2001.

Development of a model to evaluate various test strategies.

California Workforce Initiative Allocation Funds, \$10,000, 2001-2002.

Promotion of activities for increasing Industrial and Systems Engineering enrollment, retention, and graduation rate.

Society of Manufacturing Engineering, \$70,000, 2000-2002

Support the purchase of capital equipment for the Microelectronics Process Engineering laboratory at San Jose State University.

NSF Undergraduate Education Division, \$478,817, 2000-2002.

Development of an interdisciplinary Microelectronics Process Engineering Curriculum that educates B.S. level process engineers for microelectronics.

National Science Foundation – University of Southern California, \$20,119, 1999-2002.

Assessment of a Virtual Factory Teaching System, developed at USC, for teaching students in manufacturing, engineering, and business programs to better understand the complexities of factory dynamics.

Internal

COE Endowment for STAR Fellows Program: \$79,750. 2018-2019.

COE Endowment for Supply Chain Analytics Curriculum Development, \$2000, 2018.

COE Endowment for Service Systems Engineering Innovation Center \$150,000,2016/17
Start-up funds to develop research projects in research engineering for a team of 12 faculty.

2010 SJSU COE Development Grant Award, \$15000, 2010.

Development of NSF Proposal for Carbon Footprint for Semiconductor Comc

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Benchmarking service engineering curriculum with other major institutions.

SJSU COE Development Grant Award, \$17,500, 2007.

Development of a Six Sigma Certificate to be offered by the ISE department.

2006 SJSU COE Development Grant Award, \$20,500, 2006.

Developing logistics models to improve supply chain material flow coordination.

2004 SJSU COE Development Grant Award, \$7000, 2004.

Determining optimal pick-up schedules for multi-time zone manufacturing.

2003 SJSU-COE Instructional Development Grant, \$10000, 2003.

Development of a supply chain concentration area for the ISE graduate program.

Professional Development Grant, \$1500, 2002.

Purchase of the ASPROVA high speed scheduling software.

San Jose State University – Teaching Excellence Fund, \$7000, 2002.

Development of a comprehensive case study to be implemented by the Virtual Factory Teaching System.

Professional Development Grant, \$1500, 1998.

Presented research work at a major conference.

Shoupp Award, \$3500, 1995-1997.

Development of an object-oriented virtual factory environment for linking logic controllers with a scheduling system in real-time.

OTHER SPONSORED RESEARCH PROJECTS WORKED ON

Fund for Improvement of Postsecondary Education, 2002

Assessment of the newly established Environmental, Health, and Safety Engineering Program.

Society of Manufacturing Engineering, 1998-2000

Development of a program to create and deliver appropriately designed curriculum to enable students of diverse education backgrounds to enter either the workforce or a community college program in manufacturing information systems engineering.

Rockwell International, 1993-1994

Implemented continuous simulation constructs into a function block discrete simulation model. The simulation model is used for validating control code logic that will be implemented into an Allen-Bradley PLC.

Honeywell Inc., 1990-1994

Assisted in the analysis, modeling, and development of an object-oriented model to support the simulation of batch and continuous processes for operator training in real-time.

Allied-Signal Aerospace Company, Garrett Engine Division

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business functions starting with the proposal stage and continu

9. Roberts, C.A., and Dessouky, Y.M. (1998), "An Overview of Object Oriented Simulation," Simulation, 70:7, pp 359-368.

8. Schmahl, K., Dessouky, Y.M., and Rucker, D. (1997), "Measuring Hidden Costs of Quality " Production and Inventory Management Journal, Fourth Quarter, pp 58-63.

7. Dessouky, Y.M., and Roberts, C.A. (1997), "A Review and Clas



10. Bayer, A. and Dessouky, Y. (2001), "Forecasting for Maintenance Through Simulation and DOE Modeling", pp 155-160, Advanced Simulation Technology Conference (ATSC) 2001 Proceedings, Seattle, Washington.
9. Dessouky, Y.M. and Senkandwa, B. (1999), "A Simulation Approach for Improving the Efficiency of the Department of Motor Vehicles", pp. 1681-1684, 1999 Winter Simulation Conference Proceedings, Phoenix, AZ.
8. Harris, J., and Dessouky, Y.M. (1997), "A Simulation Approach for Analyzing Parking Space Availability at a Major University", pp. 1195-1198, 1997 Winter Simulation Conference Proceedings, Atlanta, GA.
7. Roberts, C.A., and Dessouky, Y.M. (1996), "Discrete-Event Control Network Simulation for Logic Validation", Simulation in Industry, Proceedings of the 8th European Simulation Symposium and Exhibition (ESS 96), Vol. II, pp 249-253, Genoa, Italy.
6. Dessouky, Y.M., Roberts, C.A., Lee Y., and Agre, J. (1996), "Continuous Simulation Approach for the Noumenon Factory Design Environment", 1996 Object-Oriented Simulation Conference Proceedings, pp 51-56, La Jolla, CA.
5. Dessouky, M.M, Dessouky, Y.M., Roberts, C.A. (1995), "An OO Approach to Discrete Event Dynamic Control of Batch Chemical Systems", 1995 Object-Oriented Simulation Conference Proceedings, pp 89-94, Las Vegas, NV.
4. Dessouky, Y.M., Maggioli, G., and Szefflin, D. (1994), "A Simulation Approach to Capacity Expansion for the Pistachio Hulling Process", 1994 Winter Simulation Conference Proceedings, pp 1248-1255, Orlando, FL.
3. Dessouky, Y.M., Roberts, C.A., and Beaumariage, T.G. (1994), "Object-Oriented Simulation Architecture for Operator Training for the Process Industry", 1994 Object-Oriented Simulation Conference Proceedings, Simulation Series, 26:2, pp 15-20. Tempe, AZ.
2. Roberts, C.A., Dessouky, Y.M., Beaumariage, T.G., and Lee, Y.J. (1994), "VPSim: A Virtual Plant Simulator for the Process Industries", 1994 International Conference on Object-Oriented Modelling Simulation Proceedings, pp 388-392, Barcelona, Spain.
1. Roberts, C.A., Beaumariage, T.G., Dessouky, Y.M. and Ogle, M.K. (1991), "Object-Oriented Simulation Tools Necessary for A

Engineering”, 2019 *International Conference on Management*

International Journal of Production Research
Computers & Industrial Engineering International Journal
International Journal of Modelling and Simulation
Decision Support Systems
International Journal of Simulation and Process Modelling
International Journal of Intelligent Systems Technologies & Applications

Conference Proceedings

International Conferences On Computers and Industrial Engineering
Object-Oriented Simulation Conferences, Society of Computer Simulation

Textbooks

Simulation with Arena, 5th edition, by David Kelton, Sadowski, and Swets
Supply Chain Focused Manufacturing Planning and Control, 1st Edition, by William Benton
Simulation Modeling and Arena Review, by Manuel Rossetti
Manufacturing Planning, and Control, 5th edition, by Vollmann, Berrym Whybark, and Jacobs
Automated, Production Systems, and Computer-Integrated Manufacturing, 2nd Edition, by Mikell Groover, Prentice Hall
Systems Engineering and Analysis, 3rd edition, by Benjamin Blanchard and Wolter Fabrycky
Facilities Design, by Sunderesh Heragu
Facilities Planning and Design, by Alberto Garcia Diaz and J. MacGregor Smith

EDITOR/CO-Editor

Associate Editor, Computers and Industrial Engineering International Journal.
Computers and Industrial Engineering International Journal, Special Issue 41st Conference.
41st International Conference on Computers and Industrial Engineering Proceedings, Los Angeles, CA.
Computers and Industrial Engineering International Journal, Special Issue 34th Conference.
34th International Conference on Computers and Industrial Engineering Proceedings, San Francisco, CA.
Computers and Industrial Engineering International Journal, Special Issue 31st Conference.
31st International Conference on Computers and Industrial Engineering Proceedings, San Francisco, CA.
Editorial Board International Journal of Simulation and Process Modelling
Editorial Board International Journal of Business Performance and Supply Chain Modelling (IJBPSM)

AWARDS AND HONOR SOCIETIES

SJSU: College of Engineering: Applied Materials Award for Excellence in Teaching, 2015
Don Newnan ISE Teaching Excellence Award, 2008, 2014
Arizona State University Board of Regents Scholarship, 1990-1993
Arizona State University Acad

Chair of ISE Program Curriculum Committee, Department of Computer, Information, and Systems Engineering, San Jose State University, 1999- 2001.

CISE Department Curriculum Committee, Department of Computer, Information, and Systems Engineering, San Jose State University, 1997- 2001.

Engineering College, San Jose State University

College of Engineering Dean Search Committee, San Jose State University, 2016.

Financial Analyst Search Committee, 2014.

Resource Advisory Board, 2010-2012

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School of Applied Science, Miami University

Manufacturing Center Group, Interdisciplinary: School of Applied Science and School of Business, Miami University, 1994-1997.

Faculty Advisory Council, School of Applied Science, Miami University, 1995-1996.

Minority Recruitment and Retention Committee, School of Applied Science, Miami University, 1994-1995.

Engineering Management Committee, Interdisciplinary: School of Applied Science and School of Business, Miami University, 1994-1995.

SELECTED PROFESSIONAL PROJECTS

Simulation Related:

Task: Developed a simulation model analyze the training process of Flight Controllers

Relevance: Provided instructor capacity levels to reduce training time.

Client/Sponsor: FAA

Task: Developed a simulation model to analyze current capacity requirements for the test operations for IC units and proposed new capacity requirements to increase throughput. Also, studied factory layout and material handling to improve efficiency of factory operations.

Relevance: The study was used to suggest to management operating strategies to double the throughput of the testing of IC units.

Client/Sponsor: Power Integration

Task: Developed a simulation model to evaluate and analyze JDS Uniphase operating capacity and policies for the production of fiber optics, which included collecting data, building the model, and analyzing the output.

Relevance: The model was used to suggest to management potential operating strategies to increase production of fiber optics by 20%.

Client/Sponsor: JDS Uniphase

Task: Developed a simulation model to evaluate and analyze HMT Technology's operating capacity and policies for the production of substrate disks, which included collecting data, building the model, and analyzing the output.

Relevance: The model was used to suggest to management potential operating strategies to increase production of substrate disks.

Client/Sponsor: HMT Technology

Task: Developed a simulation model to evaluate and analyze Paramount Farms operating capacity and policies for production of pistachios, which included collecting data, building the model, and analyzing the output.

Relevance: The model was used to suggest to management alternatives to increase production by 40% without the need to invest in new capital.

Client/Sponsor: Paramount Farms

Task: Developed simulation models to determine the system effectiveness of the Midgetman and Peacekeeper/Rail garrison mobile missile systems, which included collecting data, building the

model, and analyzing the output.

Relevance: The models were used to report to military leadership the effectiveness of the United States missile systems against various threats.

Client/Sponsor: Texas Instruments Inc.

