

IMSE Institute Student Research Projects

Student Name	Faculty Member(s)	Date	Project Titles
Abdel-Wahab, Amgad M.	Roberts, Stephen	1996	Platform
Ade, Victor K.	Hodgson, Thom J	2001	Budget & Tool Management in the Future State
Agarwal, Amit	Silverberg, Lawrence M	2001	A Part and Assembly Process for the Production of the POWERBLIND
Akpan, Moses I.	Jackson, Steven D	2005	Standard Operating Procedures, Calibration and Uncertainty Measurements in the Constructed Facilities Laboratory
Alexander, Donna T.	Sanii, Ezat	1986	The Information Collection for the Structural Design of Databases for Procurement Quality Engineers
Alexander, James D.	Sanii, Ezat	1985	FMS Work Station Configuration and Scheduling Strategy Development
Allen Doyle B	Rust, Jon Paul	1992	Development of a Mechanical Stylus Based Surface Analysis System for Soft Paper Products (Part 1)
Ananthan, Pakshiraj	Jackson, Steven D	2008	Shifting Assembly Operations to a Low Cost Country: Mexico
Aneja, Sudhir P	Zorowski, Carl F	1991	An Expert System for Bolted Joints
Anfindsen, Cynthia P	Trevino, Jaime	1991	Forecasting the Product Demand Cycle of an Electronic Consumer Product with Limited Marketing Life
Arbelaez, Adrian	Meier, Wilbur L, Jr	1997	Business Study and Strategic Planning for a Small Manufacturer
Armstrong, Frank B.	Trevino, Jaime & Wilson, James R	1996	An Application of Simulation Modeling to Aid in the Evaluation of a New Production Line Layout
Arumugam, Vijay S	Roberts, Stephen	1998	Rapid Software Development for Manufacturing Operations Management at John Deere Turf Care, Fuquay-Varina, North Carolina
Arun, Sekar	Jackson, Steven D	2007	Design and Implementation of Information Systems to Automate and Provide Decision Support
Atwell, Richard H	King, Russell E	2002	Implementation of Short-Cycle Cellular Manufacturing in an Apparel Plant
Baker, Anthony T	Hodgson, Thom J	2005	Quick Response Manufacturing: Alternative to Lean Manufacturing
Baldwin, Keith E	Sanii, Ezat	1985	Research on the FMC Project
Balyan, Ashish	Meier, Wilbur L, Jr	1996	Steps to QS-9000 Registration
Barreto, Natalia C	Lemaster, Richard & Saloni, Daniel	2008	Study, Analysis, and Development of a Simulation Model for the Processes Used in the Office Furniture Industry for Different Manufacturing Systems Configuration
Batttan, Apu Jose	Jackson, Steven D	2008	Process Improvement in Weld Quality at JDTC's Fuquay-Varina, NC Facility
Bash, Amnon	Trevino, Jaime	1989	Throughput Improvement with Setup Time Reduction
Beaton, John R	Clapp, Timothy G	1992	Optimization of the Design of a Ply Separation Device using Design for Assembly Techniques
Bhangoo, Jharmal S	Mittal, Ravi O	1991	Design for Manufacturing and Development of an Early Cost Estimation Model
Bhide, Abhijit A	Sanii, Ezat	1997	Electrotechnologies and its Applications in the Industry with Emphasis on Electric Infrared and Radio Frequency Heating
Bhutani, Gaurav	Jackson, Steven D	2005	Implementation of Packaging Standard and Purchase Planning Analysis
Bianchi, John J	Trevino, Jaime	1991	An Operating Sequence Approach to Manufacturing Cell Design for Just-in-time Production
Bihani, Anuj	Sutton, John C	1993	Design for Assembly Using Fuzzy Sets (FussyPDM)
Birch, Linda V (Kern)	Sanii, Ezat	1987	The Application of Emulation in the Development of a Manufacturing Shop
Blount, Ife J	Hodgson, Thom J	2006	ePIPE - Parts and Returnable Pipeline Management System
Boyet, Ali F	Jackson, Steven D	2003	Decision Analyses for the Development Process of a Gas Clothes Dryer
Brewer, Albert S	Hodgson, Thom J	2008	Virtual Companies: Independent Businesses within a Plant
Brewster, Samuel M	Culbreth, Tom	1995	Development of an Integrated Numerical Control Validation and Optimization System for Machining Operations

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Broca, Viraj	Jackson, Steven D	2006	Strategic Value Chain Profitability Modeling & Migration of Wheel Skidder Frames (WSK) - Fabrications
Burney, Brian M	Jackson, Steven D	2008	Development of VRAM Mobile Robot Platform (VMRP) From Prototype to Production
Cabrera, Rafael E	Trevino, Jaime	1992	A Kanban Design Tool Using Simulations
Cardenas, Adriana	Lemaster, Richard	2006	Evaluation of Abrasive Belt Cleaning Techniques on Belt Life and Material Removal Rate
Carroll, John D	Boyette, Michael D	2000	A Computer Aided Tobacco Curing Management System
Carroll, Melissa R	Hodgson, Thom J	1999	The Inventory Zone Program Methods and Procedures for Domestic Inventory Management Logistics' ISO 9002 Manual Excerpts
Carrubba, Thomas J	Boyette, Michael D	1998	The Mechatronic Redesign of an Incremental Ice Making System
Carver, Melvin L	Jackson, Steven D	2003	Assembly Line Balancing and the Methods Used at an Automotive Assembly Plant
Cellucci, Thomas A	Hodgson, Thom J	1994	Glaxo Resource Allocation & Scheduling Program (GRASP)
Chafekar, Chirag Shashi	Jackson, Steven D	2004	Process Improvement in Denture Manufacturing Laboratory & Product Design Using DFA Guidelines
Chandhok, Puneet	Jackson, Steven D	2003	Analysis and Improvements of the Bosch High Speed Hole Saw Manufacturing Process
Chatterjee, Atreya	Silverberg, Lawrence M	2002	Integrated Control of Light and Temperature in Intelligent Buildings
Chen, Chih-Chung	Trevino, Jaime	1989	Product Design Merit II
Chen, Pai-Chou	Sanii, Ezat	1987	The Development of an Ultrasonic Object Recognition System for Industrial Robots
Chi, Jen-Wen	Trevino, Jaime	1989	Applying Just-in-time Production Concepts to Facility Layout
Choi, Hye S	Hodgson, Thom J	2007	Comparing the Deployment Scheduling Analysis Tool (DSAT) with the Joint Flow and Analysis System for Transportation (JFAST) System
Choudhary, Mohit	Jackson, Steven D	2006	Design, Development and Implementation of a Vendor & Drayman Performance Tracking System - Lowe's Companies, Inc.
Clark, Michael J	Rust, Jon Paul	1995	Implementation of a Real-time Feedback Controller for the Textile Carding Process
Cleary, John C	Luo, Ren C	1992	(not available)
Clemmer, Andrew H	Hodgson, Thom J	2002	Proposed Caterpillar Customer Specific Requirements for the QS-9000 Quality System
Clincy, Victor A	King, Russell E	1989	Integration of a Multi-Cell Controller and Work-Cell Emulators via Computer Networks
Colbert, Lee P	Sanii, Ezat	1989	SSURF - A Tool Path Planning System for Machining Three-Dimensional Sculptured Surfaces
Conda, Rahul Goverdhan	Kay, Michael G	2003	Cost Reduction Measures for the Large Volume Production (LVP) Products at Abbott Laboratories
Crawley, Francis W	Silverberg, Lawrence M	2003	The Design Modification of the Drive Train Module of an Autonomous Underwater Vehicle
Creel, James M	Sanii, Ezat	1986	The Design of a Force Sensor and Its Applications in Path Control of Robot Manipulators
Cytryn, Ryan J	Jackson, Steven D	2008	Development of a Material Handling System for Motorcycle Wheel Pin Stripping and Assembly Operations
Czarnecki, Michael T	Roberts, Stephen		(not available)
Danabalan, Vignesh	Culbreth, Tom	2007	Establishing and Validating a Test Protocol for Performance Analysis of Food Containers
Daniel, John H	Young, Robert E	2000	Design for Development: The Effect of Speed to Market on Product Design
Daniel, Robert K	Clapp, Timothy G	1991	Enhance the Commercial Acceptance of an Automatic Ply Separation & Feeding System for Apparel Fabrics
Dasu, Sridhar	Handfield, Robert B	2001	Interactive e-Supply Chain Integration Simulation Using Virtual Teams
Datar, Girish H	Banks-Lee, Pamela & Grady, Perry L	1994	High Power Ultrasonics for Improving Fabric Dyeing

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Dattani, Hemen M	Ghosh, Tushar K	1997	Biaxial Tensile Testing of Non-Woven Textile Fabrics
Davis, Ronald E	Sanii, Ezat	1989	A Distributed Computer Aided Process Planning System
Dawkins, Benjamin C	Hodgson, Thom J	2002	Increase Visibility into Part Conformance through the Development and Implementation of a Part Conformance Tracking Database and Statistics Package
Dayal, Kishan J	Kay, Michael G	2005	Lean Management Initiatives at Volvo Construction Equipment in Asheville, NC
Decrescenzo, Eugenio	Taylor, James B	1997	Construction and Testing of a Prototype and Development of a Computer-Based Control of a Precision X-Y Microstage with a Maneuverable Kinematic Couple Mechanism
Desai, Chintan N	Jackson, Steven D	2005	Networking Lab Inventory and Checkout System
Deshpande, Nikhil A	Jackson, Steven D	2007	Integral Wall Moisture Sensing: Approaches and Execution Architectures
Dhru, Shasit S	Sanii, Ezat	1999	Development of an Intranet at John Deere Turf Care
Digsby, Sasha A	Jackson, Steven D	2008	Modeling of the National Renewable Energy Laboratory's Biomass to Syngas Thermochemical Process Development Unit
Dikshit, Sandeep S	Young, Robert E	1991	Constraint-based Modeling of CIM System Requirements
Dockery, Leonard S	Meier, Wilbur L, Jr & Trevino, Jaime	1996	Set-up Time Reduction: Implementation and the Human Factor
Dominick, Gregory W	Luo, Ren C	1991	The Development of a Three Dimensional Optical Scanning System
Duvedi, Sneha, P	Jackson, Steven D	2006	Quality Control, Improvement and Planning Efforts at John Deere Turf Care
Dyess, John M	Jackson, Steven D	2006	Scrap Reduction of an Automated Welding, Planishing, and Grinding Machine
Edwards, Jon K	Ro, Paul I	1993	Design and Implementation of a Distributed, Hierarchical system for Control of Multiple Robots using Transputers
Fahmy, Karim S (Ali, Karim)	Trevino, Jaime	1994	Integrated Sensor Based monitoring, Design of Experiments, and Artificial Neural Networks to Improve Quality in Manufacturing Processes
Feng, Taojian	Cormier, Denis R	1998	An Artificial Intelligence-Based Constraint Network Approach to Requirement-Based Software Testing
Fenters, Kevin E	Wilson, James R	1993	Foxslam: A Personal Computer-Based Environment for Combined Discrete Continuous Simulation
Finch, Jeffrey L	Maday, Clarence J	1987	Information Control and Dynamic Scheduling in a Batch Manufacturing Shop
Fiorica, Onofrio	Trevino, Jaime	1988	(not available)
Flythe, Laurel C	Culbreth, Tom	2008	Improvements to the Safety Program of General Electric's Mebane Facility
Fohn, Steffen, M	Young, Robert E	1990	CIM System Development for Small to Medium Size Companies
Francis, Glen M	Damerdi, Halim	1993	Determining Plant Capacity of an Advanced Manufacturing Facility Using Simulation
Freier, Mark E	Sutton, John C	1993	Decision Tree Induction and Neural Network Solutions to a Resource Constrained Scheduling Problem
Gadicherla, Archit		2003	(not available)
Galler, Richard J	Hodgson, Thom J	1999	Scheduling for Multiple Product Just-in-Time Kanban (PULL) Manufacturing Systems
Gasaway, Josh A	Hodgson, Thom J	1999	Project Management in the Accelerated Implementation Center Department at Ford Motor Company
Gerrey, David P	Jackson, Steven D	2007	Information Systems Background & Implementation of Customized Information Systems Tools at John Deere Turf Care
Gerson, David A		1992	The Design of a Wire-Routing End-Effector
Gnadt, Mary J	Clapp, Timothy G	1991	Automated Handling of Yarn Packages
Gogia, Kapil	Jackson, Steven D	2003	Reducing Non-Conformance in Monobolt and Interlock Fasteners

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Gohil, Robin R	Jackson, Steven D	2003	Manufacturing - Principles and Implementation
Gonzalez, Luz C	Sutton, John C	1991	The Use of Neural Networks to Solve Resource Constrained Scheduling Problems
Gonzalez-Miranda Carlos J	Trevino, Jaime	1990	A Design Procedure for Microload Automated Storage/Retrieval System Using Simulation
Goodfellow, Timothy S	King, Russell E	1993	The Application of Just-In-Time Principles in an Environmental Testing Laboratory Engineering
Govindankutty, Karthike	Meier, Wilbur L, Jr	1999	Manufacturing Systems Design for a Mass Information Storage Product in a Mid Size Electronics Company
Grant, James A	Nuttle, Henry L	1990	The Testing of SAM: An Intelligent Manufacturing Control System
Green, Caroline K	Jackson, Steven D	2004	Instrumentation of a Two-Stroke, Variable-Compression Ratio Diesel Engine
Greenwood, Douglas D	Spiekermann, Charles E	1990	Use of Computer Graphics to Aid in the Design of Three Dimensional Framed Structures
Gregory, William D	Bao, H.	1986	Cad-Pack Subroutine to Recognize Orthographic Drawings and Generate Process Routing
Griffin, Matthew S	Hodgson, Thom J	2000	Evaluating Compliance to Automation Requirements During Equipment Selection
Guidry, Paul J	Joost, Michael G	1987	An Evaluation of a Prototype Multi-Modal, Human Computer Interface
Gulyaz, Erdogan	Jackson, Steven D	2003	Streamlining New Product Development with Effective Product Data Management
Gurganus, Timothy S	Culbreth, Tom	1992	The Implementation of a Flexible Manufacturing Cell for Furniture Production
Gutierrez, Hector M	Rust, Jon Paul	1993	Modeling, Instrumentation and Control for Carding
Hafley, Bruce A	Roise, Joseph P	1992	Furnidat: A Microcomputer Based Furniture Manufacturing Decision Analysis Tool
Halima, Djohan	O'Grady, Peter J & Trevino, Jaime	1990	Manufacturing Cell Formation for Group Technology
Hardin, Lance A	Young, Robert E	2002	Documenting the Software Requirements of a Customer Relationship Management System Using IDEF0 and IDEF1X Information Modeling Techniques
Hayes, Lynne H	Harrysson, Ola	2005	The Planning and Development of a Material Kitting System for an Aircraft Engine Line
Hensler, Richard E	Hodgson, Thom J	2001	e-Learning: A Strategy for Learning in a Distributed Corporation
Heung, Herman	Luo, Ren C	1987	Explorations in Grinding Mechanics for Robotic Grinding/Deburring
Hitchcock, Michael F	O'Grady, Peter J	1987	Integrated Manufacturing Planning Systems (IMPS)
Hiteshew, Leslie L	Maday, Clarence J	1987	Continuous Flow Manufacturing
Holmberg, Kurt L	Clapp, Timothy G	1995	Computer-Aided Engineering Design Graphics
Holt, Sandra L	Luo, Ren C & Sommerich, Carolyn M	1996	Use of Rapid Prototyping in an Ergonomic Assessment of the Relationship Between Hand Anthropometry and Mouse Size
Honng, Wenliang	Trevino, Jaime	1990	Mathes II: An Expert System for Material handling Equipment Selection
Horn, Timothy J	Steward, John S	2006	An Overview of HALT & HASS for Manufacturing
Hsieh, Hsien-Chung	Sanii, Ezat	1992	Computer-Aided Process Planning System for Electronics Assembly
Hu, Weishang A	Sanii, Ezat	2000	Mechatronic Design and Prototyping of Automated Floss Labeler
Hudson, Tony L	Sanii, Ezat	1988	Control and Interfacing of Components in a Flexible Manufacturing System
Hurley, Barbara J	Trevino, Jaime	1990	A Mathematical Model for the Economic Justification of setup Time Reduction
Hurrell, Ryan E	Jackson, Steven D	2005	Alpha Stage Development of an Automated Pharmaceutical Dispensation System (APDS): Examination of Bin/Counter Subsystem Development
Hurst, Robert R III	Jackson, Steven D	2007	Lean Manufacturing Initiatives at Elkay Southern Corporation
Hurst, Ronald D	Hodgson, Thom J	1997	A Structured Model for the New Product Development Process for High Technology-Based Manufacturing Companies

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Hussein, Jawad	Lee, Yuan-Shin	2001	Computer Simulation Analysis of the Harley-Davidson Fuel Pump Module Line
Ingham, Harry F	Clapp, Timothy G	1992	Design for Assembly of Ultrasonic Squeeze Roll System for the Application of Direct Ultrasonic Energy to Textile Materials in the Dyeing Process
Irajpour, Shahram	Wilson, James R	1999	Analysis of Nortel Line Card Manufacturing System Using Simulation Techniques
Jackson, Steven D	Mittal, Ravi O	1993	An Object Oriented Method for the Generation of Two Axis Plasma Arc-Laser Flamecutter NC Programs from CAD with Path Planning
Jacobsen, Johanny	Trevino, Jaime	1995	An Approach for Successfully implementing Enterprise Resource Planning Systems
Jadhav, Dhiraj B	Jackson, Steven D	2006	Implementation and Maintenance of Manufacturing Execution Systems & Peripheral Utilities at John Deere Turf Care
Janet, Jason A	Luo, Ren C	1994	Global Motion Planning and Self-Referencing for Autonomous Mobile Robots
Jaros, Elaine M	Aldrich, David W	1991	The Total Quality Self-Assessment Process: Instructional Tools for Getting Started
Jayakumar, Siddharth	Jackson, Steven D	2007	Design and Implementation of a Mixed Model Scheduling Application at John Deere Turf Care
Jayaram, Sriram	Hodgson, Thom J	2000	Bar Coding in Warehouse Management
Jelinski, Thomas L	Meier, Wilbur L, Jr	1997	Performance Management for the Production Worker
Jhanb, Pratik	Jackson, Steven D	2006	Design, Development and Implementation of a Manufacturing Execution System at John Deere Turf Care
Johnson, William M	Taylor, James B	1998	Lean Manufacturing Process Improvements in a Midsize Electronics Company
Jones, Tommie M	Hodgson, Thom J	1995	Simulation Within a Simulation: Decision Support System
Joshi, Aditya	King, Russell E & Godfrey, Blanton	2008	Bosch & Siemens Home Appliances Six Sigma Program
Joshi, Rajeev S	Young, Robert E	1996	Real-Time Acquisition from the D30 Checkweigher for Process Control and Batch Documentation
Jyotula, Bolshevik	Jackson, Steven D	2007	Design of Paint Configurations and Other Paint Process Improvements at John Deere Turf Care
Kandaswamy, Sudarshan	Kay, Michael G	2003	(not available)
Kanics, Iain M	Zorowski, Carl F	1993	Tool Design for Raychem's Dterminator2™ Initial Production Facility
Kaundinya, Manjiri G	Trevino, Jaime	2002	e-Supply Chain Management Effort at ABB
Kaushal, Bhasker	Jackson, Steven D	2004	Material Flow Process Analysis & Inventory Reduction Initiative and John Deere Turf Care, Fuquay-Varina, NC
Keadle, Tasha L	Rust, Jon Paul	1993	Development of a Mechanical Stylus Based Surface Analysis System for Soft Paper Products (Part 2)
Kee, Byoung Choul	Sanii, Ezat	1988	Computerized Hybrid Machining Parameter Selection System (CHMPS)
Keller, Kurtis P	Luo, Ren C	1994	The Development of a Three Dimensional Optical Scanning System
Kim, Myung H	Mittal, Ravi O	1993	Loop-Based Recognition of Machined Features from a 3D Wire-Frame Model
Kloypayan, Jirawan	Lee, Yuan-Shin	1998	Material Removal Rate Analysis for High Speed Machining
Knowles, Mark A	Eberhardt, Allen C	1988	Integration of Vision, CAD Data and Robotics in a Manufacturing Work Cell
Kosur, Mohan A	Sanii, Ezat	2001	The Tube Combos Project
Kovacs, Eva T	Jasper, Warren J	1993	Utilization of Backpropagation Neural Networks to Interpret Spectral Data in Textiles: Two Applications
Krishnan, Abhishek	Jackson, Steven D	2006	Process Improvement at B/S/H/ Home Appliances
Krishnan, Bharath	Jackson, Steven D	2008	Optimization of Manpower Allocation to Production Lines at John Deere Turf Care
Krishnan, Bhavana	Kay, Michael G	2000	Prototype Development and Testing Within a Production Transmission Line Fault Location Application

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Lahti, Douglas W	Trevino, Jaime	1997	A Review of Defect Tracking and Corrective Action Process at Ateza
Landahl, William T	Ramasubramanian, Melur K	2000	Analysis and Control of Flex Length in the Manufacture of Carbon Brushes
Lang, Timothy J	Jackson, Steven D	2006	Paradigm Shift: Lean Manufacturing
Lawrence, Mark J	Bao, H.	1987	A Group Technology Based Systematic Approach to Automated Flexible Assembly Classification
Lewis, Christopher D	Hodgson, Thom J	2004	Value Improvement of a John Deere 2653A Triplex Utility Mower
Lewis, Robert E.	Jackson, Steven D	2008	Retail Metric Analysis and the AUR Project.
Li, Dongxia	Lemaster, Richard	2007	Operation and Economic Analysis of Wide-Belt Sanders
Li, Lan	Fathi, Yahya	1997	Nortel Raleigh Area Operations Circuit Pack Inventory Data Collection and Analysis
Li, Ruqian	Hodgson, Thom J	1999	Implementation of SCM by Using Starteam™
Li, Tao	Young, Robert E	1998	The Development of Web-Based Historical Reports for Process Operation Systems
Lowery, Robin R	Hodgson, Thom J	2001	Life Cycle Development a Batch Control System (Bayer Corporation, Clayton, NC)
Lu, Liya	Hodgson, Thom J	1999	The Process Monitoring and Control on a CNC Wood Router
Luisana, Bryan R	Buckner, Gregory D	2002	Embedded Webserver Control of Industrial Automation
Luk, Wayne K	Kay, Michael G	1998	Design of a Facility to Produce Bulk Components for a Pediatric Pneumonia Vaccine
Ly, Dung K	Young, Robert E	1999	Business Process Re-Engineering at Storagetech - A Case Study
Ly, Mai Xuan	Young, Robert E	2000	Development of a User Interface for a Global Production Planning System
Lyons, Pamela M	Ramasubramanian, Melur K & Silverberg, Lawrence M	2000	Design and Implementation of an Automated High Speed Cable Inspection system
Ma, Roderick B	Bao, H.	1987	Surface Mount Technology: An in Depth Survey of Its Classification, Characteristics, Processes, and Application
Madipalli, Chalamaiah N	Trevino, Jaime	1990	CAWES - Computer Aided Warehouse Equipment Selection
Malcolm, Scott A	Young, Robert E	1998	Application of Activity Modeling Techniques to a Power Company Billing System
Mallapragada, Bhargava	Kay, Michael G	2003	Methods and Standards Improvement at QVC, Inc., Rocky Mount, NC Distribution Center
Manjrekar, Pankaj V	Sanii, Ezat	2001	B2B e-Marketplace and Information Exchange Industry Standards
Mann, Russell R	Smith, William A Jr	1987	Applications of In-Process Verification and Design for Quality
Masilamani, Arun J	Trevino, Jaime		(not available)
Maxon, Michael S	Meier, Wilbur L, Jr	1996	Implementing a Kanban System in an MRP Environment
Mayo, Darleen G (Tibbs)	Meier, Wilbur L, Jr	1997	Process Layout for PC Server Manufacturing (document not available)
McKirachan, John F Jr	Bao, H.	1987	Data Representation and Design Manufacturing Rating for Surface Mount Technology Printed Circuit Board Assembly
McLain, Mark E	Zorowski, Carl F	1986	The Development of CAE Tools for the Personal Computer
Mehra, Gautam	Jackson, Steven D	2007	Integral Wall Moisture Sensing: Approaches and Execution Architectures
Meiswinkel, Kent B (Marshall)	Cormier, Denis R	2007	Applications of Rapid Manufacturing in a Mechatronic System: A Rolling Ball Clock
Michelli, Richard D	Silverberg, Lawrence M	2000	Automatic Following Outdoor Electric Vehicle
Minglani, Mayank	Jackson, Steven D	2006	ROP: (Roll over Protection) Placement Mechanism
Moats, Julia L	Trevino, Jaime	1992	An Investigation of the Critical Factors for the Successful Implementation of World Class Manufacturing
Mohamed, Hatem M	Kay, Michael G	1998	Improvement of Production Operations in a Window and Door Manufacturing Facility
Mohanka, Sharad	Jackson, Steven D	2008	Improvements in Quality at the Honeywell Chesterfield Plant

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Molten, Bridget, C	Maday, Clarence J	1988	Real Time Dynamic Scheduling and Sequencing in a Batch Manufacturing Shop
Monahan, Bryan C	Joost, Michael G	1986	An Investigation into the Use of Multiple Modes to Provide for a Flexible Human-Computer Interface
Monahan, Daniel J	Sanii, Ezat	1987	Flexible Automated Manufacturing of Printed Circuit Boards
Moody, Ryan M	Silverberg, Lawrence M	2001	The Design, Construction and Testing of a Flexible Fin Propelled Autonomous Underwater Vehicle (AUV)
Moore, David M	Johnson, Thomas	1993	Continuous Improvement Initiatives at the Shop Floor Level
Moore, Samuel A	Jasper, Warren J	1996	The Importance of the Application Layer Protocol to the Success of CIM in the Textile Industry
Morats, Jeffrey A	Meier, Wilbur L, Jr	1997	Clean-up Time Reduction in the Granulation Process at the Aspertec Pharmaceutical Company
Mullen, Patrick T	Trevino, Jaime	1994	An Integrated Computer Simulation, Design of Experiments, and Weighted Evaluation Approach to the Design and Control of Manufacturing Cells
Mullen, Robert E	Luo, Ren C	1988	Visually Guided Robotic Object Tracking and Identification
Munn, Donald D	King, Russell E	1992	User Interface for C.A.S.S. A Computer Aided Scheduling System
Murthy, Tejukiran H	Jackson, Steven D	2007	Food Tray Cost Reduction
Mussawwir, Maurita R	Hodgson, Thom J	2001	Analysis and Design of a Coupling Device for Military Weapon Systems
Nagarajan, Suresh S	Jackson, Steven D	2007	Design and Implementation of a Mixed Model Scheduling Application at John Deere Turf Care
Nagpal, Arvind	Hodgson, Thom J	1997	Integrating Company's Logistics Process with Its Supply Chain Partners Using EDI
Nair, Abhilash R	Jackson, Steven D	2007	Fermentation Data Analysis towards Implementation of Lean Production Strategies at Novozymes North America
Nagasimhan, Shreyas	Jackson, Steven D	2008	Inventory Management Project at ABB, Inc., Raleigh, NC
Nelson, M Kevin	Bao, H.	1985	Technical Report: Robotic Hardware, Software, and Material Handling Considerations in the Design, Development, and Implementation of a Flexible Manufacturing Center for Education and Research
Nelson, William A	Sanii, Ezat	2000	Multi-Colored Powder Coating System for Moen Faucets
Nguyen, Nghia D	Kay, Michael G & Trevino, Jaime	1996	Internal Assessment of Aeroglide's Manufacturing Processes
Oehman, Robert E Jr	Zorowski, Carl F	1987	Computer Aided Engineering: Bearing, An Knowledge Processing System for Bearing Selection
Omar, Prashant	Jackson, Steven D	2004	(not available)
Outlaw, Alan D	Johnson, Thomas	1994	Implementing ISO 9000: A Guide
Pakala, Chandra V.	Silverberg, Lawrence M	2000	An Evaluation of the PowerBlind Production Process
Palakodeti, Bhanu	Sanii, Ezat	1999	Quality Monitoring System on the 'Square D' Intranet
Pan, Ching-Lin	Zorowski, Carl F	1990	Manufacturability Rating System for Printed Circuit Board Design
Panarusky, Mark	Clapp, Timothy G.	1992	On-Line Measurement of Fabric Stiffness
Panchal, Harshkumar R	Jackson, Steven D	2004	Supplier Improvement Program with the SQMS Database
Parambi, Raphael S.	Young, Robert E	1991	Development of a Bi-Directional Translator
Paravasthu, Pattabhiraman	Jackson, Steven D	2008	Avaya, Inc. - Benchmarking the Sales Contracting Function Royal Dutch Shell - Post Award Contracting Function Royal Dutch Shell - Post Award Contract Management Best Prices for IACCM.
Parlikad, Sajithkumar N.	Jackson, Steven D	2004	ISO 9000 Implementation at GE Carolina Products Plant
Parsons, Stephen T.	Spiekermann, Charles E	1992	Power Drill Gear Train Dynamics and Noise Investigation
Patalay, Kailash K.	Ramasubramanian, Melur K	2001	Tele-Extender Machine Systems Simulation: Modeling, Analysis & Design
Patel, Dilip P.	Trevino, Jaime	1994	Integrated Container Selection Approach for an Air Cargo Manufacturing Facility

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Patel, Monilkumar B	Jackson, Steven D	2008	(not available)
Pathak, Yogendra K.	Trevino, Jaime	1991	Graphical Representation of Plant Layout
Pearlswig, David M	Wilson, James R	1995	Simulation Modeling Applied to the Single Pot Processing of Effervescent Tablets
Percy, David A.	Hodgson, Thom J	2001	300mm Wafer Material Handling Systems Testing and Integration
Perkins, Carroll G.	Sutton, John C	1989	Selection and Implementation of a Numerical Control Tape Delivery System in a Mixed-Age Machine-Tool Environment
Pope, Daniel D.	Trevino, Jaime	1994	Aeroglide Corporation's Efforts Toward Becoming a World Class Manufacturer
Potts, Bobby K. Jr.	Trevino, Jaime	1988	Simulation and Design of a Dual-Kanban Production System
Poulter, Stephen M.	Leach, James W.	1995	A Guide to Energy Conservation and Waste Studies from Carolina Industries
Powell, Jeffrey T.	Jackson, Steven D	2006	Development of FactoryCad Facility Layouts and Virtual Simulation Analyzing the Ergonomic Impact on the IRS Deck Installers
Prabakaran, Arun	Jackson, Steven D	2008	Logistics Projects to Reduce Lead Time and Operationsl Costs @ BSH, New Bern, NC
Promislow, Mark R.	Joost, Michael G	1988	Multi-Modal Computer Communications Interface
Punnoose, Bino	Mittal, Ravi O	1997	Application of JIT, Synchronous Manufacturing and TPM for Increased Throughput
Purushothaman, Naveen	Meier, Wilbur L, Jr	1996	Revolving Joints Layout Design Project at an Industrial Manufacturing Company
Pusalkar, Sheetal H	Hodgson, Thom J	2002	Supplier Development with John Deere Agricultural Division
Qu, Pei J	Hodgson, Thom J	2002	Fiber Optimization Scheduler for Corning Cable Systems WCP, Winston-Salem, NC
Quinn, Michael P	Hodgson, Thom J & O'Grady, Peter J	1992	Life Cycle Engineering: A Continuation of Constraint Network Development for Rigid Printed Circuit Board Design
Raghavan, Raman V	Jackson, Steven D	2005	Evaluation and Selection of Software for Implementation of Statistical Process Control
Raghu, Vijay M	Silverberg, Lawrence M	2004	In-Plane Minimum-Time Trajectories for the Serve, Volley, and Ground Stroke by Numerical Analysis of Racket-Body/Tennis Ball Collisions
Ramachandran, Manikanta	Jackson, Steven D	2002	Development of a Foam Test Application and Analysis of the Foam Test Machine
Ramakrishnan, Arun	Sanii, Ezat	1992	A Computer Aided Manufacturing System for Custom Orthopedic Shoe Last Production
Raman, Sanjiv	Jackson, Steven D	2006	Design, Development and Implementation of a Manufacturing Execution System at John Deere Turf Care
Ramanan, Balamurugan	Winchester, Samuel C Jr	2003	Constraint Based Analysis of the New Product Development Process and Developing a Simulated Learning Environment for the Product Development Process
Ramanna, Apurva	Jackson, Steven D	2006	FNbG Capacity Expansion Project
Ramesh, Ranjani	Jackson, Steven D	2008	Process Improvement in Weld Quality at JDTC's Fuquay-Varina, NC Facility
Rao, Maddali V	Ghosh, Tushar K		(not available)
Rasquinha, Sachin M	Jackson, Steven D	2003	Operations Analysis at John Deere Turf Care
Raval, Abhijit P	Jackson, Steven D	2005	Development of a Real Time Data Acquisition and Control System for a Small Scale Resistance Welding Application
Ravindran, Saishyam	Jackson, Steven D	2008	Optimization of Manpower Allocation to Production Lines at John Deere Turf Care
Raymond, Bruce	O'Grady, Peter J	1987	Real-Time, Multi-Tasking Manufacturing Cell Control
Razdan, Rohit	Hodgson, Thom J	2002	Design of Software Tools for Manufacturing Planning Management
Reeder, Martin E	Young, Robert E	1990	Application of CIM System Design Techniques for the Development of a Prototype Tool Information Management System at Consolidated Diesel Company
Reinhart, Victor A	Maday, Clarence J	1992	Design and Control of High-Speed Manufacturing Systems

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Student Name	Faculty Member(s)	Date	Project Titles
Resto, Pedro	Meier, Wilbur L, Jr	1996	Methodologies, Practices, and Tools Used by the World Class Manufacturing Research Team
Rice, Darin S	Hodgson, Thom J	2002	Quality Product Assurance @ John Deere Turf Care, Fuquay-Varina, NC
Rich, Robert K	Hodgson, Thom J		(not available)
Richani, Ibrahim M	Zorowski, Carl F	1987	Data Representation and Design Manufacturing Rating for Surface Mount Technology Printed Circuit Board Assembly
Roberts, Barney P	Sanii, Ezat	1995	Graphical Representation of Three Dimensional Machining of Surfaces Using Patches
Robertson, William P	Trevino, Jaime	1993	A Multi-Constrained Approach to Manufacturing Cell Selection for Coupled Cells
Robinson, Jeffrey A	Kay, Michael G	1995	Virtual Manufacturing
Robison, Robert J	Roberts, Stephen	1994	Determination of Private Sector Priorities for Commercial Vehicle Operations
Rogers, Brad A	Zorowski, Carl F	1992	Optimization of Injection Molding Process Using Computer-Aided Modeling
Rupperty, Jason K	Sutton, John C	1989	Implementing Artificial Intelligence and Expert Systems in R. J. Reynolds' Manufacturing Environment
Russell, Jay J	Kay, Michael G	1995	Object Detection and Tracking System for Monitoring the Travel Area of Free-Ranging Automatic Guided Vehicles
Saloni, Daniel E	Jackson, Steven D	2003	Abrasive Machining Process Characterization on Material Removal Rates, Final Surface Quality, and Power Consumption When Wood is Used
Sansiberio, Alberto	Jackson, Steven D	2006	Shifting Sources of Supply to a Low Cost Country: Mexico. Which parts of the Business to Select and How to Realize Benefits While Reducing Risk
Satterfield, Benton S	Hodgson, Thom J	1996	Efficient Electric Technologies: Water Recycling and Wastewater Treatment
Savva, Andreas I	King, Russell E	1989	Variations in Hybrid Push/Pull Production Control
Schaefer, Kenneth J	O'Grady, Peter J	1989	Natural Language Processing as Applied to Automated Manufacturing
Schmiedel, Patrick G	Hodgson, Thom J	1996	Simulation and Analysis of a Waste Paper Processing and Storage System for Pulp and Paper Mills
Schultz, Scott R	Hodgson, Thom J	1985	Developing Control Rules for an AGVS Using Markov Decision Processes
Schwebel, David A	Hodgson, Thom J	2003	Supply Chain Analysis of Slow Moving Inventory and Implementation of Optimal Solution systems
Scott, Dean A	Jackson, Steven D	2007	Upgrade of a SCADA Software Application to meet 21 CFR Part 11 Compliance
Seelhammer, Mark A	Ro, Paul I	1991	Two-Arm Kinematic Posture Optimization for Fixtureless Assembly
Seethamraju, Suman	Jackson, Steven D	2004	Improvement in Product Quality - First Pass Yield and Weld Process Capability on the 2500 Greens Mower at John Deere Turf Care
Seiden, Steven A	Carawan, Roy E & Felder, Richard M	1991	Optimization of a Brine Separation Tank
Seifert, Michael	Luo, Ren C	1989	Development of a Sensor-Based System for Automatic Assembly
Seifert, Ralf	Wilson, James R	1994	Evaluation of Routing Strategies for AGVS Based on Computer Simulation
Senbetta, Tibebe	Eberhardt, Allen C	1988	Real-Time Control Emulation
Serad, Samuel L	Ramasubramanian, Melur K	1995	Implementation of Total Quality Manufacturing Into Traditional Design for Manufacture and Assembly Techniques
Shah, Ankit S	Jackson, Steven D	2007	Development of Tools to Increase the Efficiency off the Cycle Counting and Critical parts Counting Processes at Bosch and Siemens Home Appliances
Shah, Ankur	Jackson, Steven D	2008	Automation and Process Improvement Projects at John Deere Turf Care
Shah, Anuj P	Young, Robert E	2001	Design and Implementation of Manufacturing Execution Systems and their Components
Shah, Bijoy M	Jackson, Steven D	2007	Relocation of Fabrication Machines and Equipment and Fabrication Database

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Shah, Gauravkumar K	Jackson, Steven D	2006	Design, Development and Implementation of a Manufacturing Execution System at John Deere Turf Care
Shah, Pilak R	Jackson, Steven D	2005	Study of Workflow Processes and Change Management Systems at Ingersoll Rand Productivity Solutions, Southern Pines, NC
Shankar, Ramya	Blackhurst, Jennifer V	2003	Process Improvement Analysis of the Material Replenishment and Manufacturing Operations at Sanmina-SCI, RTP, NC
Shanmugam, Udayakumar	Hodgson, Thom J	2001	Schedule Optimization of Georg Fin Folder Production Line
Sharma, Anubhav	Jackson, Steven D	2007	Lean Six Sigma Projects at Magneti Marelli Powertrain USA, Sanford, NC & BSH Home Appliances Corporation, New Bern, NC
Shaw, Kao-Kai	Bahler, Dennis R	1990	An Expert System for Automation Design
Shih, Chih-Kun	Luo, Ren C	1991	Design and Development of the Intelligent Sensor-Based Robot Gripper
Shinouda, Nader S	Jackson, Steven D	2005	Networking Lab Inventory and Checkout System
Sidhu, Sarabjit S	Mittal, Ravi O	1991	Automatic Generation and Evaluation of Assembly Sequences for Mechanical Parts
Sills, James M	Meier, Wilbur L, Jr	1996	The Integration of Just-in-Time and the Theory of Constraints Within Batch Order Manufacturing Operations
Silva, Diana C		1990	Concurrent Product and Process, Design for Assembly
Singh, Amit R	Rossie, Jonathan G Jr	2000	Roundtrip Engineering Using a UML based CASE Tool
Sirivasandha, Nareuponn	Jackson, Steven D	2007	Simulation of a Mixed Model Assembly Line with Model Sequence Sensitivity
Sirohi, Ajai S	Johnson, Thomas	1992	An Application of the International Standards Organization 9001 Quality Management System
Slagel, Jamie W	Hodgson, Thom J	2000	Logistics Corporation and Business-to-Business e-Commerce
Smiley, Mark J	Jackson, Steven D	2006	Automated Material Handling Systems Intel Fab 12 300mm Conversion
Smith, Larry E Jr	O'Grady, Peter J	1989	Life Cycle Engineering and Constraint Nets Applied to Printed Circuit Board Design
Smith, Mark A	Trevino, Jaime	1994	An Artificial Intelligence Approach to Predictive Statistical Quality Control
Smith, Rachel G	Young, Robert E	1997	Integrated Scheduling and Order Entry System
Smolensky, Heather M	Fathi, Yahya	2000	Development of a Training Program for Manufacturing Technicians
Son, Changho	Hodgson, Thom J	2006	Possibility of Using Deployment Scheduling Analysis Tool (DSAT) for Scheduling Military Deployments
Song, Hoon M	Meier, Wilbur L, Jr		(not available)
Sood, Sachin D	Jackson, Steven D	2006	Stock Optimization Project
Spano, Michael R	O'Grady, Peter J	1990	Artificial Intelligence Constraint Network Applied to the Manufacturing Systems
Srinivasan, Sandeep	Jackson, Steven D	2007	Planning and Design for Deployment of mySAP Supplier Relationship Management (mySAP SRM) Application
St. Louis, Matthew D	Jackson, Steven D	2006	Lean Manufacturing Initiatives at Elkay Southern Corporation
Steigerwald, Michael L	King, Russell E	1995	Integration of Flexible Devices into a Furniture Manufacturing Cell
Subramaniam, Kuruparan	Handfield, Robert B	2001	Total Cost Tool
Subramanian, Sriram	King, Russell E	2001	Inventory Reduction at Nortel Networks' Raleigh Systems House
Sukjirawat, Sermsak	Roberts, Stephen	2000	Simulation for Systems House C42 Frame process at Nortel Networks
Sumer, Suleyman O	Sanii, Ezat	1993	Flexible Manufacturing Systems
Sun, Chao-Hsin	Maday, Clarence J	1987	Comparison of Three Information Control and Dynamic Scheduling Methods in a Batch Manufacturing Shop

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Targos, Peter J	Ramasubramanian, Melur K	1995	Product Design Merit (PDM) IV, Design for Life Cycle
Telford, John B	King, Russell E	1995	Balance Automation for the Support of Manufacturing Execution Systems
Telford, John S III	King, Russell E	2007	Discrete Event Simulation Library in C#
Tharrington, Ashley M	Rust, Jon Paul	2006	Development of More Accurate Knitting Element Measurement Systems and Techniques
Thomas, Alwin M	Jackson, Steven D	2006	Six Sigma Projects at B/S/H/ Home Appliances Corporation
Thrush, Melissa M	Sutton, John C	1993	Training Methodologies and Environments in Manufacturing
Tien, Yi-Lih	Bahler, Dennis R	1991	An Intelligent System for Fault Diagnosis in a Steam Boiler Control System
Tran, Chau M	Fathi, Yahya	1990	A Study of the Flat Cable Production at Company A
Tsai, Kun-Hui A	Zorowski, Carl F	1987	Data Representation and Design Manufacturing Rating for Surface Mount Technology Printed Circuit Board Assembly
Tseng, Wen-Ta P	Trevino, Jaime	1991	Cost Accounting for JIT Production System
Valdes, Manuel	Trevino, Jaime	1994	A Methodology to Develop and Measure a Manufacturing Strategy
Varadharajan, Srinivasan	Jackson, Steven D	2008	New Facility Set-up and Process Improvement Analysis for Tape Storage Libraries
Vasquez, Jaime A	Wilson, James R	1994	Pancanal-SIM: A Simulation Model of the Flow of Vessels through the Panama Canal
Vaught, William L	Sutton, John C	1991	Development of a Statistical Process Control Data Collection System
Velasco-Gallegos, David A	Trevino, Jaime	1993	Warehousing Design: Selection of Material Handling and Storage Alternatives, Warehousing Sizing and Product Allocation
Venkataraman, Vivek	Kay, Michael G	2000	Design of ABB-Aphrodite Production Line Using Simulation Techniques
Verma, Ankit	Jackson, Steven D	2007	Development, Implementation and Maintenance of Manufacturing Execution System at John Deere Turf Care
Vincent, India E	Sutton, John C	1993	Analysis of Manufacturing Issues Surrounding the Purchase and Start-up of New Equipment
Visser, Craig	Roberts, Stephen	1996	Product and Tooling Databases for Morganite, Inc.
Vlasos, Roger	Fathi, Yahya	1999	Two Case Studies Using Six Sigma Statistical Tools, and Techniques in Defining, Measuring, Analyzing, Improving, and Controlling Projects
Wade, Tameka M	Hodgson, Thom J	2001	Strategically De-Marketing a Product Portfolio's Business and Supply Chain Operations
Waluk, Thomas J	Young, Robert E	1997	Applications and Methods of Design for Testability and Manufacturability with High Volume Electronic Products
Wang, Jun	Trevino, Jaime		(not available)
Wang, Lan	Sanii, Ezat	1991	CAD-Based Manufacturing Features Extraction System for Rotational Parts
Wang, Pang-Min	King, Russell E	1990	An Investigation of Demand Horizon in Routing Rules for an Automated Guided Vehicle System
Wang, Weidong	Hodge, George L & Seyam, Abdelfattah	1993	CIM Application in Wet-Lay Nonwovens Web Forming System
Ward, Elizabeth J	Jackson, Steven D	2007	Engineering Support, Database for Ordering Supplies and Metric Tracking System
Watkins, Melissa P	King, Russell E	1995	Modular Manufacturing: An Industrial Application
Watson, Bruce R	Rasdorf, William	1986	ADI: An Adaptive Database Interface for Dynamic Databases
West, Jennifer D	Jackson, Steven D	2004	Product to Market Development of Vortex Regenerative Air Movement Technology
White, Seth B	Jackson, Steven D	2008	ABB Corporate Tools and Projects
Williams, Elizabeth G		1996	Managing Information in the Supply Chain
Williams, Luther R	Jackson, Steven D	2004	Problem Solving Using Red X Strategies in the GM Baltimore Assembly Plant

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Williams, Melvin T	Hodge, George L & Rust, Jon Paul	1993	A Design of a Production Control System for Ring Spinning
Wilkins, Steven Mark	Hodgson, Thom J.	2008	
Wong, Paul H	Nuttle, Henry L	1989	Production Introduction
Xu, Peng	Fornaro, Robert J	2003	Performance Analysis on Multithreaded Scalable Applications
Yu, Yanglin	Hodgson, Thom J & King, Russell E	2002	Multi-Echelon Inventory Models for Repairable Systems
Yuan, Min	Ramasubramanian, Melur K & Silverberg, Lawrence M	1999	Shoe Foxing Automation - A Mechatronics Approach
Zhang, Hong	Hodgson, Thom J	1999	Quality and Maintenance Monitor System on "Square D" Intranet