

February 2017

VITA

I. PERSONAL DATA

Name: David P. Sly
Title: President, Proplanner
ISU Rank: Professor of Practice/Sr. Lecturer
ISU Department: Industrial and Manufacturing Systems Engineering
ISU Office Address/Phone: 3031 Black Engineering Building/296-3120
Home Address: 603 T Ave, Nevada, IA 50201
Cell Phone: 515-450-2335
PE License: State of Iowa, 1991

II. EDUCATION

Ph.D. Iowa State University, Industrial Engineering, 2004
M.B.A. Iowa State University, College of Business, Marketing, 1994
M.S. Iowa State University, Industrial Engineering, 1990
B.S. Iowa State University, Industrial Engineering, 1985

III. ACADEMIC EXPERIENCE

Senior Lecturer (Professor of Practice), Industrial and Manufacturing Systems Engineering, 2004-present
IMSE DOGE Professional Programs, 2014F to Present
Lecturer, LOMIS Department, College of Business, 2003-2014

IV. INDUSTRY EXPERIENCE AND SPECIALIZATION

Proplanner, President and Founder, Ames, Iowa, 2002-present
UGS/EDS, Director of e-Factory LOB, Ames, Iowa, 2000-2002
Engineering Automation, Vice President e-factory Division, Ames, Iowa, 1997-2000
CIMTECHNOLOGIES, President and Founder, Ames, Iowa, 1987-1997

Design and Development of Shop Floor Information and Control Systems. Specific focus on assembly facilities and continuous flow plants. Industry consulting at Automotive/Recreational: Tesla, Nissan, Ford, Chrysler, Polaris, Honda; Ag/Industrial: Deere, CNH, AGCO, HAGIE; and Food: Kraft, Webster City Custom Meats, Royal Cup Coffee, DC Logistics, Royal Carribean.

V. HONORS AND AWARDS

Don Grant Faculty Award 2011, 2015 (Excellence in Undergrad Education)
First Place "Innovations in IE Curriculum Award", Sales Engineering Course, IIE Conference 2010
Graduate Student Award, IMSE Department, 2003
"Winner"-Best Business Plan Competition – Chicago Software Association, 2002
Professional Progress in Engineering Award, ISU, College of Engineering, 2000
Cadalyst/Cadence "Product of the Year", Factory CAD/FLOW, 2000
Graphic World Innovative Technology Award, Innovative Technology Award, 1998.

VI. ACADEMIC AREAS OF SPECIALIZATION

Courses Taught in IMSE Department:

Engr. 160	Engineering Problems with Computer Applications; 2004F; 2005S&F; 2006F; 2007F; 2008S, 2009F
IE 148	Information Engineering (Visual Basic); 2005F; 2006S&F; 2007S&F; 2008S&F, 2009F, 2010F, 2011S, 2011F, 2012F, 2013S
IE 271	Applied Ergonomics and Work Design; 2005S; 2006S; 2007S
IE 305	Engineering Economic Analysis; 2004S&SS; 2005S&SS; 2006S,SS,F; 2007S, SS, F; 2008S,SS,F; 2009S,SS, F and EDE, 2010S, SS, F and EDE, 2011SS, F and EDE, 2012S, 2012SS, 2013S, 2013SS, 2014SS, 2015SS, 2016SS
IE 431X/432	Industrial Electronic Control Systems, 2008S, 2012S, 2013S
IE 441	Capstone, 2013F, 2014S, 2014F, 2015S, 2015F, 2016S, 2016F, 2017S
IE 450X	Technical Sales for Engineers, 2008F, 2009S, F and EDE, 2010 S, F, EDE, 2011 S, 2011F and EDE, 2012F and EDE, 2013 F and EDE, 2014 F and EDE
IE 451X	Technical Sales for Engineers II, 2009S, 2010S, 2011S, 2012S and EDE, 2013S and EDE, 2014S and EDE
IE 570	Project Management (Dual Degree) F2013
IE 587X	Manufacturing Information Systems and Data Exchange in Ecommerce, 2005F; 2008SS, 2012F
IE 590	Capstone Business Simulation (Dual Degree) S2014

Courses Taught in LOMIS Department, College of Business

POM 320	Production Operations Management, 2004F
Trans Log 360	Logistics and Supply Chain Mgmt, 2003SS, 2004F, 2005S, 2006S
SCM 301	POM/Logistics Intro 2010F
MIS 434	E-Commerce, 2005SS
SCM 422	Supply Chain Planning, 2007S
SCM 522	Supply Chain Planning and Control Systems, 2008F
SCM 524	Process Analysis and Improvement, 2009S, 2010S
MIS 533	Data Management for Decision Makers, 2006SS
MIS 537	Project Management 2011S, 2012S, 2013F, 2014S

VII. TECHNICAL PUBLICATIONS

Journals Articles:

Approved: Sly, Baumblauskas, Carberry, "Selling Technical Sales to Engineering Learners", *Advances in Engineering Education (AEE)*, For Publication in 2017

Sly, Baumblauskas, Carberry, "Evaluation of Perceptual Changes in an Engineering Sales Program", *ASEE Annual conference*, June 2013.

Sly, Dave, March 2011, "Handling Material Problems As They Arise", *Cutting Tool Engineering*, pp 30.

Sly, Peters, Baumblauskas, "Development of a Sales Program", *IIE Innovations in Curriculum Competition*, May 2011

- McLean, C., F. Riddick, D. P. Sly, and S. Moorthy. 2001. Manufacturing simulation and visualization: a discussion plan for NIST's assumption of SDX standardization activities. *MEL/NIST*.
- Sly, D. P. 1999. Sim factors. *Computer Graphics World*.
- Sly, D. P. May 1996. Using CAD for space planning and asset management. *Industrial Engineering Solutions*, 36-44.
- Sly, D. P., M. Benoit, and E. Grajo. 1996. Layout design and analysis software. *Industrial Engineering Solutions*, 18-24.
- Sly, D. P. 1995. Automatic optimal route flows in AutoCAD. *Industrial Engineering Solutions*.
- Sly, D. P. 1995. Issues and techniques for using CAD to draw factory layouts. *Industrial Engineering Solutions*.
- Sly, D. P. August 1995. Computerized facilities design and management: a survey of factory layout design and analysis software. *Industrial Engineering Solutions*, 43-51.
- Sly, D. P. 1995. Material flow analysis and space planning of automotive manufacturing plants. *Automotive Manufacturing International*.
- Sly, D. P. 1994. New s-curve analysis capability improves design by over 50%. *Industrial Engineering Solutions*.
- Sly, D. P. 1993. Fairtron scores big with new cabinet production layout redesign. *Industrial Engineering*, **3**, 34-36.
- Sly, D. P. 1990. Plant layout and material handling analysis using interactive graphics. *Industrial Engineering*, **6**.
- Sly, D. P. March 1988. What is Xenix? a viable alternative to Ms/DOS. *Cadence*, 120-122.
- Sly, D. P. 1987. Taking a part from CAD to CAM. *Versatility Magazine*(11), 34-36.
- Sly, D. P., D. Eichner. 1985. Computer assisted techniques for solving math and geometry associated with CNC machining. *Journal of Computers and Industrial Engineering*, **9**, 223-226.

Conference Proceedings:

- Sly, D.P. May 2009, Addressing Real-World Constraints for Line Balancing within Large and Complex Assembly Plants. *IIE Conference*.
- Sly, D.P. September 2009, Digital Factory – Practical methods for integrating assembly processes and layouts, *Bentley Systems Conference*.
- Sly, D.P. Sept. 2008, Computer Based Part and People Flow Diagramming Methods, *SME IMTS Conference*.
- Sly, D.P. Dec. 2008, Factory Floor Layout – Trends and Technologies, *Autodesk University*.

- Sly, D. P. May 2008. Systematic design of tugger delivery routes. In *IIE Research Conference*.
- Sly, D. P. 2002. Presentation of metrics for the design and benchmarking of automotive assembly plants. PhD colloquium. In *Winter Simulation Conference*.
- Sly, D. P. 1997. Success stories: manufacturing chair: dave sly (cimtechnologies corporation). In *Winter Simulations Conference*.
- Sly, D. P. 1997. Before dynamic simulation: systematic layout design from scratch. In *Simulation Conference Proceedings*, 645-648.
- Sly, D. P. 1996. A systematic approach to factory layout and design with factoryPLAN, factoryOPT and factoryFLOW. In *Simulation Conference Proceedings*.
- Sly, D. P. 1995. Plant design for efficiency using autoCAD and factoryFLOW. In *Winter Simulation Conference*, 437-444.
- Sly, D. P. 1995. Material flow analysis of automotive assembly plants using factoryFLOW. In *Winter Simulation Conference*, 902-908.
- Sly, D. P. 1995. Methodology for simulation application to virtual manufacturing environments. In *Winter Simulation Conference*.
- Sly, David. 1995. Material Analysis of Large scale manufacturing facilities. In *Winter Simulation Conference*.
- Sly, D. P. 1993. AutoCAD based industrial layout planning and material flow analysis in factoryFLOW and PLAN. In *Winter Simulation Conference*, **3**, 34-36.

Other Publications:

- Textbook Chapter: *Digital Product Management, Technology and Practice*, Troy Strader, Business Science Reference, New York, 2011
- Sly, David, 2009. PFEP (Plan for Every Part) Logistics Planning and Execution System versions 1.0 to 1.2. *Integrated in-plant part logistics planning and e-Kanban/Supermarket Kitting management data models and associated software applications. Launched to Case New Holland and BAE Systems in August 2009.*
- Sly, David. 2005. Benchmark study of the MTM-B standard versus that of MTM-UAS. *MTM Association*.
- Sly, David. 2004. Workplace planner application versions 1.0 to 2.6. *Workplace design, simulation and animation application with parsers for MTM, MODAPTS, MOST and User-defined systems. Includes full Lean analysis capabilities*, 2004-present.
- Sly, David. 2004. Flow Path Calculator Application Versions 1.0 to 2.6. *Plant layout and material flow analysis application with detailed diagramming, analysis and reporting capabilities. Based on MS and PhD research in Industrial Engineering*, 2004-present.
- Sly, D. P. 2003. MS. NET time study parser, MTM-1, 4M MTM-VAS and MTM-B.

Theses/Dissertation:

Dissertation, Transport Effort, a Metric for the Evaluation and Benchmarking of Automotive Assembly Plants, ISU Press, Ames, Iowa, (2004).

Thesis, A Method for Industrial Plant Layout and Material Flow Analysis in Autocad, ISU, (1990).

X. PRESENTATIONS

Systematic Analysis of Tugger Delivery Systems, MSUG (Michigan Simulation Users Group), October 2016

Digital Manufacturing Technology for Today, ABI Conference, Altoona, Iowa, October 2016

Mixed Model Line Balancing for Automotive Assembly Plants Using the Comsoal Method, Michigan Simulation Users Group, Dearborn, Michigan, 2007.

Integrating Products and Processes from PDM to ERP via MPM, Michigan Simulation Users Group, Dearborn, Michigan, 2005.

Panel Presentation: MPM – Deployment Issues Surrounding Manufacturing Planning Systems, CPD PLM Conference, Detroit Michigan, 2005.

Benchmark Study of the MTM-B Standard Versus that of MTM-UAS MTM Association, Chicago, Illinois, 2005.

MPM – Leveraging PLM Downstream, Product to Process Integration, CPD PLM Conference, Detroit, Michigan, 2004.

XI. EXTENSION AND OUTREACH

Professional Practice:

Successfully developed and sold manufacturing software products to over 1,800 companies in 38 countries. Obtained global dominance in the factory software market, 1987 - present

Cyber Innovation Institute, Market Research, 2008

SME Magazine, Waurzyniak, Patrick, Lead Story for magazine, contributing expert, 2001

Featured expert, Alan S Brown, Role Models, Mechanical Engineering, 1999

Featured expert, Dave Sly featured expert, Tom Anail, Get It Right Before Its Real, Material Handling Engineering, 1999

Featured Expert, CAD/CAM: Designing in Harmony, Server/Work Station Expert, 1999

Featured Expert, Pamela Waterman, The Virtual Factory, Desktop Engineering, 1999

Featured Expert, Miller, Robert and Schmitz, Barbara, Manufacturing Goes Virtual, Computer Aided Engineering, 1998

Extension:

Creation of RFID design and applications video series for EDE, 2009

Regularly present seminars on entrepreneurship and technical sales for various groups throughout central Iowa, 1999 - present

Plant Layout and Material Flow Analysis, taught over 100 seminars at international companies, society meetings, and university extension programs at Iowa State University, University of Wisconsin, University of Nebraska, and George Washington University, 1999 – present

International Experience:

Consulting, Aston Martin, United Kingdom; Renault, France; Fiat-CNH, Ferrari Italy, 2008

Engineering Distance Education, Valencia Spain, Taught IE 305 to visiting ISU Students, 2007

Fiat Automotive Consulting, Turin Italy, Assisted with design of processes to integrate ergonomics and time estimation., 2007

Sales Engineering, Europe, Travelled to Germany, Italy, UK, Sweden, France, to assist clients and distributors with process engineering software and methods for Proplanner, 2002 - 2007

Cordys IT Conference, Denmark, Travelled with IMSE department head to a conference that was planned to be hosted at ISU's IMSE department in the following year, 2006

Automotive Consulting, Mexico, Travelled several times to GM, and Ford factories, as well as many key suppliers. Efforts involved automating engineering processes, 2004 - 2005

Sales/Mgmt Engineering, Europe, Asia, Travelled extensively (every 2 months) to countries such as, Taiwan, Japan, Germany, Italy, Sweden, France, UK, Mexico. Developed distribution for industrial engineering software products and managed country managers, 1997 - 2002

Sales, Consulting, Management, Europe, Asia, Countries included, Japan, Mexico, Italy, Germany, France, UK, Sweden. Developed international distribution and support for new factory layout engineering products, 1990 – 1997.

XII. SERVICE AND PROFESSIONAL ACTIVITIES

Professional Societies Membership and Leadership

Institute of Industrial Engineers – current senior member
Computer and Information Systems, Board member, 2000-2006
Society of Manufacturing Engineers – current senior member
Past President of Des Moines Chapter, 1990
Rotary International Member, Ames Morning Chapter, 2005 to current
Modapts Time Measurement Association, 2004-2009
Methods and Time Measurement Association, MTM
Board Member, 2000-present

XIII. PROFESSIONAL DEVELOPMENT

Seminars/Conferences/Classes Attended:

Capstone Engineering Conference (2014, 2016)
Deming Institute Conference, 2012 (organized in Ames), 2014,
2015(organized in Ames)
MTM Card Certification, 2003 - present
Commercial/Instrument Rated Pilot, 1997 - 1999
Dale Carnegie Sales Training, Attendee, 1991

IX. UNIVERSITY ACTIVITIES

University:

Judge for the Caterpillar Fall Innovation Challenge (2016F) – letter follows
Iowa State University Research Foundation (ISURF)
Board of Directors, 2000-2011 (VP 2009 to 2011)
Pappajohn Scholar Grant Committee, 2005-2010, 2012, 2013, 2014, 2015, 2016
Judge for College of Ag Entrepreneurship Competition 2013S, 2014S, 2015F, 2016S
Judge for Entrepreneurship Learning Community Competition 2012S, 2013S, 2014S,
2016S, 2016F
**Judge for the Okoboji Entrepreneurship Institute, August 2008, 2009,2010, 2011,
2012, 2013**
**Speaker for the COB Entrepreneurship Course, 2008S, 2009S, 2010S, 2011F, 2013S,
2014S, 2014F, 2015S, 2015F, 2016S, 2016F**
Speaker for the ISU COE course in Engineering Leadership, 2005-2010, 2015

College/Department:

DMDII Award Won (\$1.8 million with Guiping Hu as PI)
DOGE of Professional Programs 2014F to Present
IE 305 Large Course Assessment Organizer (2013/2014, 2014/2015)
Deming conference organizer, 2012 F, 2015F
Fundamentals of Engineering Course Presenter/Reviewer, 2005-2007
Order of the Ring Ceremony Master, 2005-present
Entrepreneurship Curriculum Development Committee, 2003-2007
Industry Advisory Board Members, 1997-1999
Sales Engineering Club Advisor, 2009-present
ISU Car Club Advisor, 2016 to present
Kappa Sigma Fraternity Advisor, 2010-present

Gul,

Last semester, CoE hosted the Caterpillar Innovation Challenge in collaboration with CAT - several engineering student teams participated in a day long design challenge. Several faculty and staff from CoE helped, including Dave Sly from IMSE who volunteered as a judge and provided guidance to some of the teams during the event. I wanted to be sure you were aware of his role in making the event a success.

Caterpillar was overall very pleased and are looking to continue this collaboration.

Thanks and best wishes,

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Sriram Sundararajan
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Professor of Mechanical Engineering
Iowa State University

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