RESUME Sept 9, 2023

Jan W. Brink

EDUCATION

University of Texas at Arlington
Received a Ph.D. degree in Industrial Engineering, December 1998, with a concentration in Manufacturing
Dissertation Topic: Decision Analysis of a Placement Machine for Low Volume High Mix Electronic Manufacturing Systems
Texas Tech University, Lubbock, Texas
Received a MS degree in Industrial Engineering, May 1985
Received a BS degree in Industrial Engineering, May, 1983

Licensed Professional Engineer (P.E.) since Feb 7 2003 till now(current: inactive status)
Registered Certified Fluid Power Specialist since March 1996 till now
Received 4 day training on Cognex Visions Systems, McKinney Texas, Dec 2020
Received 1 day Advanced ABET Training in Dallas 1/2018
Received 1 day Beginning ABET training in Seattle 4/2017
Received 3 days training on a Kawasaki RS005L robot, Detroit Michigan 8/ 2017
Received 2 days training in mechanical power transmission at Motion Industries, Birmingham, Alabama 5/2016
Received 2 day training in Automation Studio software at Famic, Montreal, Canada 5/2015
Received 1 day training in proportional valve hydraulics. Maumee, Ohio at Eaton 5/2015
Received 2 days training in pneumatics at Motion Industries, Birmingham Alabama 4/2015
Received 4 days of Advanced Hands on Hydraulics training at Womack, Houston TX 7/2013
Received 5 days of PLC training at Amatrol, Clarksville Indiana 6/2013
Received 4 hours of project management training, UTA
Received 2 more days of training on AB PLC/Panel View training from EMD
Received 2 days of individual CNC Mastercam training, Irving TX
Received 4 days of HAAS CNC mill training from HAAS Inc., Dallas
Received 4 days of AB PLC/Panel View training from EMD, Wichita Falls
Received 4.5 days Automation Studio training in Montreal, Canada
Received 4 day Vision system training from DVT corporation in Atlanta
Received 4 day Mastercam training for the CNC lathe/mill, Irving TX
Received 4 day Kawasaki C-controller robot training, Detroit Michigan
Received 5 day Kawasaki AS language robot training, Detroit Michigan
Received training in ergonomics from SME (Dearborn, Michigan)
Received training on injection molding machines from SME Clearwater, Florida)
Received training on Automation studio software from Famic using Microsoft Net Meeting – Montreal Canada
Received training on plant layout from SME (Dallas, Texas)
Received training on servo valves and proportional from IDAS Engineering Inc. (Dallas, Texas)
Received training on variable speed drives from Allen Bradley Appleton,Wisconsin)
Received instructor training in Allen Bradley SLC 500 PLC at Watson Electric (Sherman, Texas)
Received intensive instructor training at Amatrol (Louisville, Kentucky)Technical Training Institute in Hydraulics, Pneumatics,

Non Servo Robotics, Servo Robotics and C.I.M.(Computer Integrated Manufacturing) and Allen Bradley PLC-5 Training
Received training in Airlogic at Dynamco McKinney, Texas
Received training in CNC - Milling at D & M, Moorhead, Minnesota
Received training in hydraulic cartridge valves at Vickers, Rochester Hills, Michigan
Received training in Welding I, oxygen acetylene welding and arc welding at Carrigan, Wichita Falls, Tx.

WORK EXPERIENCE

Machine Operator 9/82 - 12/82	Texas Tech University, Machine Shop, Lubbock, Texas -- Operate vertical milling machine, engine lathe.
Time Study Analyst 9/82 - 12/82	Citibus, Maintenance Department, --Time study on regular daily service and cleaning of the buses in order to obtain a new cleaning and maintenance schedule. --Set up of an audio-visual training program for future service and cleaning personnel.
Machine Operator 5/83 - 8/83	Grinnell Fire Protection Systems, Machine Shop, Lubbock, Texas Operate vertical milling machine, engine lathe, surface grinder, universal grinder and drill press
Inventory Assistant 10/83 - 8/84	Texas Tech Health Science Center, Plant Operations, Lubbock, Texas set up an inventory system for a warehouse and check out tools to maintenance personnel.
Instructor 6/85 - 1989	Engineering Technology Department, Midwestern State University, Wichita Falls, Texas --Teaching courses such as Fluid Power Systems, Automation, Statics, Strength of Materials, Production Planning & Control,Manufacturing Processes, and Material Science. --Advise students with their course work --Expose the Engineering Technology Department to local industry.
Assistant Professor 1989 – 2004	Manufacturing Engineering Technology Department, Midwestern State University, Wichita Falls, Texas --basically same functions as instructor
Instructor 1990 - Present	Continuing Education, Midwestern State University

--Taught numerous seminars for the public and local and manufacturing companies in the field of hydraulics, pneumatics and Programmable Logic Controllers.

Consultant
Summer 1992
Automation and Robotics, Research Institute ARRI), Ft.Worth , Tx
--Contributed in the PLC Programming of the control required for an automated solder dispensing system.

Motion & Time Study Consultant
10/15/93 - 1/15/94
Vetrotex Certain-Teed, Wichita Falls, Tx
--Conducting motion and time studies in the fabrication department, of tank 5, to improve efficiencies and determine operator/machine requirements.

Consultant
6/96
Blocks Inc.
--Designed the pneumatic controls for a riveting machine.
--Designed and hooked up the electrical and pneumatic circuit for an automated sheave insertion machine.

Visiting Professor
6/15/98-20/7/98
ITESM, Chihuahua Mexico
-- Taught a summer class in Automation

Visiting Professor
6/15/99-20/7/99
ITESM, Chihuahua Mexico
-- Taught a summer class in Automation and the C.I.M. laboratory

Visiting Professor
6/15/00-20/7/00
ITESM, Chihuahua Mexico
-- Taught a summer class in Automation and the C.I.M. laboratory

Visiting Professor
6/15/01-20/7/01
ITESM, Chihuahua Mexico
-- Taught a summer class in Automation and the C.I.M. laboratory

Visiting Professor
6/15/02-20/7/02
ITESM, Chihuahua Mexico
-- Taught a summer class in Automation and the C.I.M. laboratory

Consultant
11/5/99
Fuel Tec, Wichita Falls Tx
-- Gave advise on troubleshooting of a portable hydraulic drilling rig

Consultant
11/10/2000
Jolly Truck Car wash, Jolly Tx
Gave advice on troubleshooting of their hydraulic system

Instructor
training of technicians from Vestas(A Danish manufacturing company of wind turbines company located in Oregon in hydraulics and PLC) 5/11-5/17 2003

Associate Professor 5/11 2004 till now	Received Promotion and Tenure.
Instructor Summer 2007 (Three 24 hours courses)	training of engineers and technicians from a variety of Wichita Falls industries in Allen Bradley programmable logic controllers, human machine interfaces, A.C. motor control using variable speed drives and Ethernet communication.
Consultant Sept 29 - Oct 4 2007	Pirate Drilling, Petrolia TX -assisted in the hydraulic design for a mobile drilling rig.
Instructor Summer 2008 (Two 24 hours courses)	training of engineers and technicians from a variety of Wichita Falls industries in Allen Bradley programmable logic controllers, human machine interfaces, A.C. motor control using variable speed drives and Ethernet communication.

RELATED EXPERIENCE (Part time)

Tutor 10/78 - 5/80	San Antonio College, Math Dept., --Help students with algebra and calculus
Research Assistant 6/81 - 8/81	Texas Tech University, I.E. Department, Lubbock, Texas --Analyze work physiology data.

PROFESSIONAL ORGANIZATIONS

Alpha Pi Mu (Industrial Engineering Honor Society)
Fluid Power Society
American Society of Mechanical Engineers

COURSES TAUGHT:

Manufacturing Engineering Technology:

Statics, Strength of Materials; Fluid Power I and II; Automation I and II; Production Planning and Control; Materials Science.

Mechanical Engineering:

Introduction to Engineering; Engineering Graphics; Solid Modeling; Materials Science; Statics; Mechanics of Solids, Applied Fluid Power Design, Electric Circuits, Engineering Economics, Senior Design I and II, Machine Control Programming and Materials Processing (this last course is no longer offered)

CURRENT FACULTY RESEARCH:

Working on research related to Senior Design Projects

PUBLICATIONS

- Calhoun, C., Scharfenberg, Q., and Brink J., "Flexible Drilling/Reaming Manufacturing System using a Kawasaki Robot and a Cognex Vision Inspection System", published in the IMECE 2022, Conference Proceeding pending presentation in Columbus, Ohio Oct 31-Nov 3, 2022.

- Shipley, M., Masuoka, J., McDonald, D., and Brink, J., "Work sampling of university academics in STEM departments with and without a graduate programme", accepted for publication by *World Transactions on Engineering and Technology Education*, Vol. 15, No. 1, 2018.

- Azzouz, S., and Brink J., "Twists and Turns of a Senior Design Project", Proceedings of the ASME 2016 International Mechanical Engineering Congress & Exposition, IMECE2016-66194 November 11-17, 2016.

- Goodey, D., Fidlar, A., Varuna Denawakage, D., Hudnell, D., Pemberton, R., Azzouz, S., and Brink J., "A Pneumatic Multi-Dome Active Energy Harvesting System", Proceedings of the ASME 2016 International Mechanical Engineering Congress & Exposition, IMECE2016-66162 November 11-17, 2016.

- Coffey, M., Dalke, R., Williams, R., Sutton, D., Brink J. and Azzouz, S., "Active Road Rumble Energy Harvesting System", Proceedings of the ASME 2015 International Mechanical Engineering Congress & Exposition, IMECE2015-52171, November 13-21, 2015.

- Goodey, D., and Brink J., "Material determination using a thermal imaging camera", World Transactions in Engineering and Technology Education, Vol. 13, No. 3, November 2015

- Brink, J., and McDonald, D., "Work Sampling Study of an Engineering Professor during a Regular Contract Period", College Student Journal, Vol. 49, No. 1, 2015.

- Dalke, T., Brink, J. Weller, M. "Material Determination using Spark Machining" Global Journal of Engineering Education, World transactions on Engineering and Technology Education, Vol. 15, No. 3, 2013.

- Brink, J., and McDonald, D., "Work Sampling of a Professor During Off Contract" Periods", College Student Journal, Vol. 45, No. 3, 2011, pp. 566-572.

- Brink J., Sutko A. "The linkage between Fluid Power and Mechanics", published in World Transactions on Engineering and Technology Education, Volume 2 – Number 2, in June 2003

- Brink, J., Capps E. "Student Exam Creation as a Learning Tool", published in the College Student Journal, Volume 38 – Number 2, in June 2004.

- Brink J., Hinds, B., Haney, A. Robotics Repeatability and Accuracy: Another Approach, published in the Texas Journal of Science, Volume 56 Number 2, in May 2004.

- Development of a Mini-Factory for a Production Planning and Control Course which was published in the Proceedings of the American Society of Engineering Education.

PRESENTATIONS

- Calhoun, C., Scharfenberg, Q., and Brink J., "Flexible Drilling/Reaming Manufacturing System using a Kawasaki Robot and a Cognex Vision Inspection System", presented at the IMECE 2022, Conference Proceeding pending presentation in Columbus, Ohio Oct 31-Nov 3, 2022.
- Brink, J., Azzouz, S., McDonald, D., Wang, S., and Azouz, I., "An Interdisciplinary Engineering Education Model", Proceedings of the 2011 ASEE Gulf-Southwest Annual Conference, March 9-11, 2011, The University of Houston, Houston, TX,USA.
  Above paper was presented at the Gulf Southwest Conference in San Antonio in October, 1996.
- Fluid Power Design Project which was published in the Proceedings of the American Society of Engineering Education. Above paper was presented above paper at the Gulf Southwest Conference in Houston March, 1997.
- Presented a speech about programmable logic controllers at the Second International Industrial Engineering Conference in Chihuahua, Mexico 1998.

CAMPUS AND PUBLIC SERVICE

2005-2006 Academic year - Bookstore Advisory Committee
2005-2006 Academic year - Readmission Committee
1996-May 1998, Chairman, Texas Alliance for Minorities in Engineering (T.A.M.E.) Wichita Falls Chapter -- Responsible for obtaining funds from local companies for the organization and responsible for all activities conducted by T.A.M.E.
1999-2011, Treasurer TAME -- Responsible for money as related to the organization
2008-2010 Academic Year – Faculty Senate
2008-2012 LULAC treasurer – Responsible for money affairs as related with the organization.
Advising of approximately 30 students per semester
Advisor ASME – 2013
Mentor for student Tarebi John, who presented at Schreiner University at TAS meeting in Kerrville, Texas, a paper "A comparative analysis between an analytical method and design software for solving fluid power problems" on Feb 28- March 2, 2013. This was at TAS meeting.
Chair of the Computer Science section at this TAS conference
Reviewer of three papers for the IMECE (International Mechanical Engineering Conference).They were "Ambient Air to Power Piston

Engines and optimize the Dynamic Stability of the Ground Vehicle", "Comparison of the Preparation Process and Final Polished Surface Finish of Specimen for Metallographic Examination between the Expert and the Non-Expert" and "Teaching Stress Transformation Through Laboratory", May 22, 2013.

AWARDS

Professor of the Year, Manufacturing Engineering Technology, MSU 2003
Spring 2007 - Certificate of Appreciation from the students, MSU 2003
Outstanding Chemistry Student CRC Press award 1980 San Antonio College

PERSONAL

Speak fluent English, Dutch, some German and Spanish. Leisure interests include watching soccer, tennis and fishing.