



HARRY S. WILDBLOOD, M.S.

Master of Science in General Engineering

CURRENT EMPLOYMENT

Ruhl Forensic, Inc.

Retained consultant. Performs forensic investigations of machine, job site/workplace accidents as well as mechanical failures.

University of Illinois, Champaign-Urbana, June 1994 - Present

Advisor, Co-Chair, and now Chairman, Capstone Project Design Activity, Department of Industrial and Enterprise Systems Engineering, Senior Engineering. Duties include (1) liaison with industry in defining all industrially funded engineering projects posed by sponsoring companies, (2) managing the program of approximately 30 projects per year, involving approximately 20 other faculty and 80 senior engineering students per year, and (3) advising/directing research of undergraduate project teams for the solution of various industrial problems posed by the funding industrial sponsors. Mr. Wildblood's project teams have been awarded several national engineering design awards in the Lincoln Arc Welding National Engineering Design Competition.

PREVIOUS EMPLOYMENT/RESEARCH

The Training Channel, LLC, June 1998 – November 2002

Executive Vice President of information technology training and consulting firm. Duties included management, as well as database, web, and custom application development. These included a scrap and QC reporting database for Advanced Filtration Systems, Inc, manufacturing information databases for Mitsubishi Motor Manufacturing of America, customized truck load securement training software for Roberson, custom financial calculation software for Financial Players Group for demonstration to Nasdaq in Washington, DC.

Ruhl Forensic, Inc., September 1997 – April 1998

Full time, forensic specialist. Investigates accidents.

Michael's Cooperage Co., Inc., December 1995 - Aug 1997

Executive Vice President - Duties included design development of the Manufacturing Information System, management of production engineering, management and development of the ISO-9000 system, and plant safety and OSHA compliance initiatives.

Ruhl and Associates Forensic, Inc., June 1994 - Dec. 1995

Principal investigator for manufacturing analysis in a broad range of manufacturing and engineering applications. Duties also include the direction of junior engineering and support staff in the support of the Manufacturing Services Division.

University of Illinois, Champaign-Urbana, Illinois, 1989 - May 1994

Research Engineer and Principal Investigator, Technology Audit and Assessment Program with Industry, Department of General Engineering,

Principle responsibility was to perform a broad range of engineering and manufacturing analysis for Illinois based manufacturing companies. The overall goals of the program were to reduce costs, improve quality and productivity, increase profitability and preserve jobs. Each company analysis lasted from approximately four months to one year.

Other responsibilities included advising/directing industry funded manufacturing/engineering projects in G. E. 242, the six-credit capstone course taken by second-semester senior

engineering students prior to graduation. Other teaching duties included preparing/giving lectures and labs in applied statistical analysis and photoelasticity.

Century Tool, Cherry Valley, IL

Principal Investigator for a Technology Audit for analysis of the company's overall manufacturing capability and new product potential.

Century Tool, Cherry Valley, IL

Principal Investigator for Technology Assessment Team for a just-in-time manufacturing analysis and implementation. Results were reductions in lead times from 3 months to one week and a \$600,000 reduction in WIP inventories.

Amerock, Window Hardware Division, Rockford, IL

Principal Investigator for a Technology Assessment for analysis and control of a high volume, electrostatic, high-solids, metallic coating process for window hardware. Results increased quality, dramatically reduced scrap and overall costs, and eventuated in full EPA compliance.

Ballo, Inc., Aurora, IL

Co-Principal Investigator for Technology Audit of overall manufacturing capability for medium to low volume production of exotic-alloy ball-valve components. Results showed how to eliminate 10 of the former 13 steps in the production process, increase quality and reduce costs.

Swift-Eckrich, St. Charles, IL

Principal Investigator for a Technology Assessment involving analysis and simulation of material flow system for a plant producing \$60 million of salami and pepperoni annually. Results showed how to eliminate 50% of the material handling costs in the curing and drying area of the operation.

Revcor, Inc., Carpentersville, IL

Co-Principal Investigator in a Technology Audit which analyzed manufacturing capability and key areas for cost reduction and process control for metal fan and blower manufacturer. Results demonstrated how to increase quality, shorten lead times and reduce costs in areas throughout the company.

Amerock, Window Hardware Division, Rockford, IL

Principal Investigator for a Technology Assessment for a just-in-time or "Demand Flow" analysis and implementation. Results were an elimination of WIP, increased quality and drastic reduction in required plant space for the final assembly and testing of hardware components.

Alumax, Inc., St. Charles, IL

Principal Investigator for a Technology Audit of the entire production facility of a major aluminum extrusion operation. Results showed improved extrusion control methods, streamlining of operations in a just-in-time environment and overall quality and productivity improvements

Hussmann Corporation, St. Louis, MO

Analyzed a 1.3 million square foot manufacturing facility of the initial phase for just-in-time manufacturing of grocery display freezers and refrigeration equipment. Results gave a strategy for a new plant layout and organization to shorten lead times and provide for new product flexibility.

APL Engineered Materials, Urbana, IL

Principal investigator in an analysis of the fabrication of tiny press-blanked metal chips and the design of a prototype mechanism for automatic one-by-one dosing of the chips in a high volume environment.

General Cable, Monticello, IL

Developed and presented training sessions in statistical process control methods and techniques as a part of an overall just-in-time implementation for the company.

Amerock Window Hardware Division, Rockford, IL

Performed an investigation about amorphous diamond coatings used in high-end brass hardware by European competitors in the hardware industry.

Advanced Lifts, Inc., St. Charles, IL

Co-principal investigator in an analysis for potential manufacturing of a line of gear pumps as well as development of a competitive gear pump design.

Aurora Pump, Unit of General Signal, Aurora, IL

Co-principal investigator in an analysis of current and preferred methods for testing net-pump-suction-head (NPSH) for boiler feed and other hydraulic pumps.

Counselor Company, Rockford, IL

Co-principal investigator in an analysis of a bathroom scale design for step-wise elimination of manufacturing cost and performance enhancement.

Amerock Corporation, Auburn Plant, Rockford, IL

Principal investigator for analysis of die-casting operation.

Whitemoss, Inc., Champaign, IL

Co-principal investigator in several projects involving evaluation and design engineering for a newly patented revolutionary pump design. 1989 - 1994

Retained Consultant, Ruhl and Associates - Forensic, Inc., Champaign, IL

Micro-Switch, Division of Honeywell, Freeport, IL.

Member of project team that developed a PC interface for a Micro-Switch microprocessor-intelligent vision inspection camera to a commercially available statistical process control software package as well as a Microsoft Windows based user interface for the camera.

Flo-Con Systems, Inc., Champaign, IL

Principal investigator for a Technology Audit of production system for castable high-alumina slide gates used to control the flow of molten steel. 1986 - 1990

Consultant to the Construction Engineering Research Lab, U.S. Army Corps of Engineers, Champaign, IL

Voice Recognition System Evaluation

Evaluated the performance capabilities of a voice recognition system including commercial documentation, training and applicability to the Division of Engineering and Housing (DEH) operations at three beta test sites: Fort Knox, KY; Fort Monmouth, NJ; and Fort Campbell, KY.

Research Program Review

Aided the development of a new research information presentation package for USA-CERL, designed to make research results more readily understandable and useable in the field, and reviewed 119 USA-CERL research projects for the Facilities Engineering and Applications Program.

Technology Transfer

Aided the development of a new research information presentation format for USA-CERL, designed to make research results more readily understandable and useable in the field.

OTHER RELATED WORK HISTORY

R.R. Donnelley and Sons Company, Crawfordsville, IN, Summer 1986. Researched, analyzed and solved industrial quality control problems at solutions included: spectrofluorometry, high-intensity photometry, chemical analysis, color densitometry, equipment design fabrication, testing, implementation and personnel training.

University of Illinois, Champaign, IL, Fall 1986. Department of Theoretical and Applied Mechanics. Taught the undergraduate fluid mechanics laboratory for one semester.

SLM-Aminco, Urbana, IL, 1982-1983. Duties included electrical and mechanical fabrication and integration of a purchased line of technical instrumentation from the American Instrument Company into the SLM-Aminco production facility and processes.

RECENT UNDERGRADUATE DESIGN PROJECTS

InnerPac, Inc, Chicago, IL. Directed project team in a scrap reduction analysis for manufacturer of interlocking cardboard partitions.

Forsheda Engineered Seals, Vandalia, IL. Directed project team in cost reduction analysis for a zinc phosphate conversion coating line for cold rolled steel parts.

Anheuser-Busch, St. Louis, MO. Directed project team tasked to improve warehouse layout efficiency in distribution warehouses located throughout the country.

ACH, Champaign, IL. Directed project team tasked to reduce changeover time in a coffee creamer packaging line.

Eaton Corporation, Rochelle, IL. Directed project team in the analysis and redesign of a rubber seal in an automotive coolant valve for leak prevention.

Eaton Corporation, Rochelle, IL. Directed project team in the analysis and reduction in stamping tool maintenance costs and stamping lubricant evaluation.

Alumax Extrusions, Inc. West Chicago, IL. Directed project team in material handling analysis for ergonomic packaging system for aluminum extrusions.

Kraft Foods, Champaign, IL. Directed project team in the analysis and reduction of changeover time in a salad dressing formulation and mixing operation.

Archer Daniels Midland Company, Decatur, IL. Directed project team in the analysis and elimination of fouling scale in corn steepwater evaporators.

North American Glass Fabrication, Bensenville, IL. Directed project team in the analysis and elimination of delamination defects in decorative safety glass production.

Aurora Bleachery, Aurora, IL. Directed an investigation to reduce/eliminate the formation of pinhole defects in high-volume fabric coating process.

Inland Steel, Chicago, IL. Investigated potential recycling blast-furnace dust removed by in-place scrubbers.

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Driv-Lok, Inc., Sycamore, IL. Directed a process analysis and a designed experiment to investigate maximizing the groove profile in the production of stainless steel groove pins.

Rockford Products Corporation, Rockford, IL. Directed a process analysis and a designed experiment to extend the life of cold-heading dies.

Inland Fisher Guide. Directed a process analysis and an investigation into the adhesion of the reflective aluminum coating applied to injection-molded polycarbonate in the production of automobile head/tail lights.

General Electric, Bloomington, IN. Co-directed an analysis of the side-by-side refrigerator manufacturing facility layout for just-in-time implementation and finished-goods inventory reduction.

Cabot Corporation, Tuscola, IL. Directed the development of an improved compression testing procedure and apparatus for the analysis of the properties of fumed silica.

GM Foundry, Danville, IL. Directed the investigation, design and development of an automated bulk material dosing and delivery system for use in a high-traffic, hazardous foundry environment.

Micro-Switch, Division of Honeywell, Freeport, IL. Directed the investigation and prototyping of a non-contact vision gauging system for use in high-volume production of precision small plastic parts.

Revere-Ware Corporation, Clinton, IL. Directed the investigation and design of an improved buffing process for a new line of stainless steel saucepans, resulting in a safer operation with a shorter cycle time and improved output quality and consistency.

R.R. Donnelly & Sons Company, Crawfordsville, IN. Directed an investigation to measure and control the degree of cure of a high-intensity UV-cured clear coating used in high-volume, sheet-fed printing applications.

Phoenix Closures, Inc., Naperville, IL. Directed an investigation to analyze and reduce warpage in thin polypropylene injection-molded parts.

Augat Automotive, Clinton, MI. Directed an investigation into the cause and reduction of shorting failure of a two-stage injection molded automotive injection housing.

Scot Forge, Spring Grove, IL. Directed an investigation to analyze the flow distribution and uniformity of quenching fluid in a 100,000 gallon heat treating quench tank, used for heat treating open-die forged parts up to 50,000 pounds.

1990 - 1993

Private consultant to Industry, performing analysis of manufacturing processes, product design and company organization.

AWARDS

University of Illinois, William A. Chittenden Award, 1988 for "Outstanding work as a Graduate Student in General Engineering".

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University of Illinois, Bernt O. Larson Award, 1985 Project Design Award in General Engineering Project, "Coating Thickness Determination".

University of Illinois, Herbert J. Sprengel Award, 1986. Project: Design and Analysis of Balsa Wood Structure.

EDUCATION

B.S., Biology, Lehigh University, 1974

B.S., General Engineering, University of Illinois, 1985

M.S., General Engineering, University of Illinois, 1987

PROFESSIONAL ASSOCIATIONS

American Society for Quality Control

Illinois Society of General Engineers

National Safety Council (firm membership)

North American Die-Casting Association

Society of Manufacturing Engineers

PROFESSIONAL SEMINARS

Industrial Painting Processes (3 days) from the Society of Manufacturing Engineers

Grinding Processes (2 days) from the Society of Manufacturing Engineers

Machine-Tool rebuilding (2 days) from the Society of Manufacturing Engineers

Just-in-Time Manufacturing (3 days) from the Society of Manufacturing Engineers

Demand-Flow Manufacturing (5 days) from the Just-in-time Institute of Technology, Denver, CO.

ISO-9000 Lead Auditor (5 days) (RAB accredited) from Excel Partnership

ISO-9000 Documentation (2 Days) from Excel Partnership

MILITARY STATUS

U.S. Army Active Duty: March 1977 to July 1981, Honorable Discharge: July 1981