

Engineering Testing Services Co.

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Engineering Testing Services Co. was founded in March 2001 for the purpose of solving complex equipment problems and to provide condition monitoring of plant equipment through the application of non-destructive testing techniques. The business stems from a successful career based on a hands-on approach of technology in product and process development for the manufacturing, aerospace, and the process industries.

ETS is about solving complex problems from problem definition through remediation. The general scope of the service relates to structural dynamics, machine diagnostics, stress analysis, and equipment acoustic analysis.

Using the hands-on application of advanced test technologies ETS has been providing solutions to clientele in the product and process industries since 2001. Experience encompasses a career in instrumentation, test & measurement, and machine design which encompasses an array of technologies including, dynamic analysis, fluid mechanics, stress analysis, finite element analysis, heat transfer, hydraulics, materials science, and control systems.

Technical Profile

Experience encompasses a career in instrumentation & control and machine design that resulted in the development of seventeen products and production systems. Competencies include design of instrumentation and controls, non-destructive test techniques, machine design, factory automation systems, and vehicle thermal management systems. This work encompassed an array of technologies including, dynamic analysis, fluid mechanics, stress analysis, finite element analysis, experimental stress analysis, heat transfer, hydraulics, materials science, analog and digital electronics, and supervisory control and data acquisition systems (SCADA).

Development projects of note: Road simulator for high-speed tire performance analysis for automobiles, trucks and aircraft; research leader of exhaust gas recirculation for heavy-duty diesel; research and development of metal, quartz, and silicon pressure sensors for aerospace and industrial markets; dynamic and magnetic analysis and the design of a vibration welder for automotive applications; Technical leader and project mngr. of large, completely automated, production lines (\$2-5M in size); RF data telemetry systems for gas and electric energy management.

A career weighted with the application of experimental techniques has led to a deep appreciation of the effectiveness of vibration and modal analysis for verification of equipment performance and problem resolution. This combined with an early career as an electrician provides the ability to comfortably approach equipment in a plant including power distribution systems, rotating machinery, and structural dynamics.

Serve contractually as a technical representative and application engineer for Oros Inc., PdMA Motor signature analysis, and The Modal Shop; all manufacturers of vibration analysis equipment for portable or installed process monitoring systems.

Technical Management

Management experience encompasses the departments of research and development, product engineering, and manufacturing engineering. A very visible engineer on the production floor: Employing a customer driven approach that cuts across organizational boundaries, championed and brought focus to the key elements of operational success such as on time delivery, profitability, inventory management, design for manufacturability and continuous improvement through the implementation of ISO 9001 and QS 9000 quality systems (management leader).

Education

BSME, with Distinction, University of Minnesota, 1974; Graduate, Minnesota Management Institute, 1989
Additional Training and Certification: Registered professional Engineer (MN & WI), Thermographer, Advanced Problem-solving, Design of Experiments
Modal Analysis (Navcon, Vibrant Technologies, and IMAC)
Awards: 2011 Minnesota Distinguished Engineer of the Year, Seven Technical Wonders of Minnesota Award, Dow Chemical Product Excellence award, and Chief Engineer responsible for the receipt of the John Deere Supplier of The Year award.
Recipient of 15 US patents
US Navy: Electricians Mate (E-5)
Board of Directors and chair of American Society of Mechanical Engineers and Minnesota Federation of Scientific & Technical Societies

Companies

Listed in descending chronological order:
Engineering Testing Services Co., US Filter Inc., Behr Heat Transfer Systems Inc., Remmele Engineering Inc., EF Johnson Communications Inc., Rosemount Inc., MTS Systems Inc., Pako Inc.,