PETER C. BRUST, Ph. D., PE (Principal Consultant and Founder)

Mr. Brust is a Senior Manufacturing / Industrial Engineer with project management, start up, six sigma black belt, lean manufacturing, and R&D expertise. He possesses business savvy and is technically astute with a Ph.D., a Professional Engineering license and over 20 years of experience including 18 as an engineering consultant. He has worked on and managed productivity improvement projects in a wide variety of industries, literally everything from semiconductor chip fabrication to tortilla chip production and surveyed more than 200 manufacturing facilities.

Before founding Advanced Productivity Engineering (APE) Mr. Brust was employed as a Senior Industrial Engineer by Kulicke & Soffa (K&S) Test Division, an $85 million division focusing on the semiconductor wafer and package test markets. In this role, he planned and implemented a variety of cost reduction and productivity improvement projects such as increasing first pass yields of precision machined components and enhancing machine shop and labor efficiencies for high tolerance electro/mechanical assembly operations. He was also involved in training engineers for China start-up operations and factory relocation & shut down efforts.

Prior to his employment at K&S Mr. Brust was the Senior Industrial Engineer for Optical Switch Corporation, a start-up company involved in the design and manufacture of transparent optical cross connects, microphotonics, and interference lithography systems. In that capacity, he participated in creating the company's manufacturing infrastructure for 4 different product lines. Typical activities included designing clean room factory layouts, implementing Kanban systems for front and backend assembly lines, creating production capacity and cost models for new products and developing work methods and standards.

During his tenure at Southwest Research Institute, a large, private, applied science and engineering consulting organization, Mr. Brust participated, both as a consulting engineer and as a project manager, in a variety of manufacturing related projects for large and small companies in a variety of industries, as well as for the federal government. These projects included: designing assembly and manufacturing cells, developing concepts for the automation of an aluminum foundry, implementing lean manufacturing systems, evaluating and planning manufacturing facility layouts, implementation of MRP and ERP systems, performing manufacturing audits for military repair depots and automotive OEMs, developing manufacturing process plans and routings, and traditional industrial engineering methods analysis. He also developed and conducted lean manufacturing training seminars, both in-house and on-site at client facilities.

While a Fellow of Concurrent Manufacturing at Iowa State University, Mr. Brust participated in several manufacturing-oriented projects. Among them was a feasibility study of an automated conformal coating application process for printed circuit boards used in defense electronics. In another project, with the Department of Energy's Ames Laboratory, Mr. Brust provided concurrent engineering and project management support to the Integrated Design for Marketing and Manufacture Team. He also taught a class in general manufacturing processes. His doctoral research investigated and quantified the process parameters and the resulting surface finish produced by a novel " mass" finishing process.

During his Master's program, Mr. Brust worked at AMP,Inc's Manufacturing Technology Center where he was assigned to various manufacturing related projects. In addition, Mr. Brust completed a study of the investment justification and performance evaluation (both financial and productivity) of advanced manufacturing systems.

Other internships and assignments have included work at Lehigh University's Computer Integrated Manufacturing (CIM) Lab, United Parcel Service, and the City and County of Honolulu Department of Public Works.

Mr. Brust is active in the Industrial Engineering profession and serves on the NCEES committee to develop and score the National Professional Engineering Licensing Exam for Industrial Engineering and he is a member of the Institute of Industrial and Systems Engineers Body of Knowledge Governing Board.

PROFESSIONAL CHRONOLOGY:

Fellow of Concurrent Manufacturing at Iowa State University, 1991-6;Southwest Research Institute, (research engineer, 1996-8, senior research engineer, 1998-2000), Optical Switch Corporation, (Senior Industrial Engineer, 2000-2002), Kulike & Soffa (Senior Industrial Engineer, 2003-2005), Advanced Productivity Engineering (Founder and Principal Consultant, 2005- Present.)

EDUCATION:

B.S. Industrial Engineering, Lehigh University, 1988
M.S. Manufacturing Systems Engineering**,** Lehigh University, 1990
Ph.D. Industrial Engineering, Iowa State University, 1997

PROFESSIONAL CREDENTIALS:

Senior Member, Society of Manufacturing Engineers (SME) Certified Manufacturing Technologist, Senior Member, Institute of Industrial Engineers (IIE), American Society for Quality (ASQ) Certified Six Sigma Black Belt (# 4237), Licensed Professional Engineer in Texas (#97202), California (#4339) and Hawaii (#15961)