Manufacturing Operations and Process Engineering

Creates client value by identifying wasted time, effort, and materials in current processes and assists and supports clients in implementation of process modifications and new process technologies.

We provide...
- Assistance to customers in establishing a culture of continuous process improvement, generating economic benefits in today’s competitive environment.

We deliver...
- Solutions to manufacturing and process problems.

We connect...
- Customers to the Texas A&M University Engineering Program and apply technology to real-world problems.

SOLUTIONS OFFERINGS:

Manufacturing Operations
- Space utilization analysis
- Manufacturing process design
- Plant design and layout
- Time and motion studies
- Lean Manufacturing; Six Sigma
- ISO 9000 Auditing

Process Engineering
- Value stream mapping
- Process modeling and simulation
- Statistical Process Control
- Statistical Quality Control
- Human Factors; Ergonomics
- Safety

Testing & Tech Transfer
- Alternative process technologies
- Technology insertion
- Return of Investment (ROI)
- Process & Product prototyping
- Product developmental testing
- Product operational testing
- 3rd party test & evaluation

SPECIFIC CAPABILITIES:

- Quality Management Systems
- Database development
- Modeling & Simulation
- Process Optimization
- Workstation design
- Human Factors
- Line Balancing
- Methods Improvements
- Safety / Ergonomics
- Supply chain management
- Warehouse Productivity
- Process testing & validation
- Customized training

PERSONNEL

Dean Schneider, Ph.D., PE
Director, Manuf. Operations
- Advanced Manufacturing
- Robotics and Automation
- Test & Evaluation
- Reliability Analysis
- Statistical Analysis
- Design of Experiments
- Human Factors/Ergonomics

Bessie Irizarry, PE, PMP
Sr. Industrial Engineer
- ISO/QS 9000 Quality Systems
- Lean/Six Sigma Implementation
- Process Design & Validation
- Value Stream Analysis
- Plant Layout/Space Utilization
- Time & Motion Studies
- Safety

Jim Wall, Ph.D., CMSP
Exec. Director, TCAT
- Process Modeling
- Process Simulation
- Analysis of alternatives
- Requirements Analysis
- Process Analysis
- Decision Support Systems
TEXAS CENTER FOR APPLIED TECHNOLOGY

There are many problems that require the careful and proper integration of applied technologies to find solutions. The Texas Center for Applied Technology (TCAT) was created to focus on these specific problems and to develop effective and efficient solutions. TCAT’s core competency is the innovative application of existing technologies and advanced research to solve complex real-world problems.

TCAT’s primary objective is to apply and test technologies to address targeted problems and engage basic research as required. TCAT has employees in a variety of locations with the ability to perform research that cuts across multiple technologies, disciplines, and cultures. The Center’s employees are knowledgeable regarding customers’ requirements and are ready to respond effectively to provide the best value for the customers’ needs including expertise in technology insertion, technology assessments, and test and evaluation.

TCAT is part of the Texas A&M Engineering Experiment Station (TEES), a member of The Texas A&M University System. The A&M System is one of the largest and most comprehensive systems of higher education in the United States. Through a statewide network of eleven university campuses, seven state agencies, and a comprehensive health science center, the A&M System educates more than 120,000 students on its university campuses, conducts more than $780 million in research, and reaches another 22 million people through service each year. TEES is an engineering research agency for the state of Texas and conducts over $147 million in research annually. Because of the Center’s position within the Texas A&M Engineering program, TCAT’s expertise can easily be extended by rounding out its team with world class faculty researchers, as appropriate. TCAT is in an excellent position for collaboration not only with The Texas A&M University System components and their customers but with other universities, institutions, centers, and industry.

TCAT’S CORE COMPETENCIES

- Energy Sustainability
- Environmental Sustainability
- Manufacturing & Systems Engineering
- Information Technology
- Modeling & Simulation
- Technology Insertion
- Test & Evaluation

TEXAS A&M ENGINEERING

Texas A&M Engineering consists of the Dwight Look College of Engineering, and three engineering agencies, including TEES: Texas A&M Transportation Institute (TTI) conducts research and professional education in all modes of transportation. The Texas A&M Engineering Extension Service (TEEX) works to develop a highly skilled and educated workforce and enhances public safety through training, continuing education, and technical assistance.

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