



2026615: FW-HTF-P: Design of Tools and Technologies for Industry 4.0 Manufacturing Work
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Goal: Develop a research agenda related to the implementation of Industry 4.0 within the manufacturing industry.

Tasks: (1) survey Industry 4.0 manufacturing system development, applications, and constraints; and (2) develop a convergent research agenda in close collaboration with representatives from a variety of manufacturing sectors and researchers with expertise in manufacturing engineering, human factors, human resource development, sociology, and computer science.

Activities: (1) Distributed survey to plant managers at manufacturing companies throughout the U.S.; (2) Conducted three industry workshops in collaboration with Alamo Colleges, San Antonio, TX; Florida Advanced Technological Education (FLATE) Center, Hillsborough, FL; Society of Manufacturing Engineers (SME), Detroit, MI

Workshop attendee affiliations: Seal Dynamics, Tampa, FL; Southern Manufacturing Technologies, Tampa, FL; Trividia Health, Inc., Fort Lauderdale, FL; Parabel, Vero Beach, FL; Knight's Armament, Titusville, FL; Custom Metal Designs, Oakland, FL; Forma Automotive, San Antonio, TX; Pressure Systems International, San Antonio, TX; HEB, San Antonio, TX; Comet Signs, San Antonio, TX; Cox Manufacturing, San Antonio, TX; Wire-Tech Manufacturing, San Antonio, TX; San Antonio Economic Development Foundation, San Antonio, TX; Toyota Motor Manufacturing, San Antonio, TX; PaR Systems, Shoreview, MN; Maijker Corp., West Lafayette, IN; Trane Manufacturing, Columbia, SC; Air Industries Company - PCC Fasteners, Garden Grove, CA; Managed Solutions, Inc., Vista, CA

Preliminary Findings: 1) Companies see the need for Industry 4.0, but don't know where to start; 2) severe shortage of skilled workers

Next Steps: Identify specific needs by industry