

Tim Frech

Senior Engineer



TECHNICAL EXPERTISE

Tim Frech's expertise is in the areas of microwelding, ultrasonic metal welding, ultrasonic soldering, wire bonding, and resistance welding. He is also experienced in plastics joining, laser welding, and helium leak detection.

BACKGROUND AND PROJECT EXPERIENCE

Tim has been with EWI since 1990, where he has been responsible for numerous contract R&D projects for various clients in the electronics, automotive, and medical device industries.

Tim enjoys working with clients to select the proper welding process for the application, and using EWI's laboratories to develop process parameters to ensure a robust welding operation. He has directed projects and conducted hands-on work in welding of electronic modules, electric vehicle batteries, and medical devices.

Tim holds two U.S. patents in welding process technologies. He directed a portion of EWI's work on a Department of Energy-funded advanced technology program entitled "Enabling the All-aluminum Vehicle," and another program for development of joining methods for electric vehicle batteries.

Additionally, Tim has been very active development of technologies for battery manufacturing and high-reliability electronics. A recent project involved development and deployment of a resistance welding process for replacement of solder joints on a satellite application.

Tim is also a member of the Joint Defense Manufacturing Technology Panel – Electronics subpanel.

EDUCATION

- B.S. Mechanical Engineering Technology, Franklin University
- M.S. Materials Science & Engineering, The Ohio State University



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