

Miranda Marcus

Applications Engineer



TECHNICAL EXPERTISE

Miranda Marcus is responsible for leading EWI's technical expertise for all plastic and composite welding technologies. She has extensive knowledge of plastic welding technologies, their advantages and limitations, including ultrasonics, laser, spin, hot plate, vibration, thermal staking, radio frequency and infrared. Miranda has frequently consulted on joining projects to identify optimum process parameters, assist in proper tooling design, provide joint design recommendations, review overall part design for potential problems, and troubleshoot production failures.

BACKGROUND AND PROJECT EXPERIENCE

During college, Miranda interned at Honda of America where she identified resistance spot weld problems and implemented weld process corrections. She also interned at Babcock and Wilcox where she created a mobile comprehensive kit for troubleshooting and analysis of Tungsten Inert Gas (TIG) welds. For her senior project, Miranda worked with EWI and Alcoa on evaluating resistance spot welding of aluminum. In graduate school, Miranda shifted focus to polymer welding. Her thesis was on micro-embossing of thermoplastics for use with micro-electrical-mechanical systems (MEMS).

After college, Miranda spent seven years in the Intelligent Assembly Solutions division of Dukane Corporation, where she rose to the position of Senior Applications Engineer. While there, Miranda consulted on a wide variety of plastic welding applications, led several research projects, and provided training both at Dukane and at external locations. She has provided plastic welding support for several industries, including Automotive, Medical, Packaging, Electronics, Film / Fabric, Consumer Products, and Military. She joined EWI in 2013.

Miranda has written many magazine articles and has frequently published in industry conference proceedings. She has also been consulted as an expert plastic welding source for several technology reviews and has co-authored a chapter of a text book.

EDUCATION

- B.S. Welding Engineering. The Ohio State University
- M.S. Welding Engineering. The Ohio State University

PROFESSIONAL AFFILIATIONS

Society of Plastics Engineers



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