Connie Reichert LaMorte

Principal Engineer
Design, Controls, and Automation

TECHNICAL EXPERTISE

Connie LaMorte is an expert in the areas of laser-based vision, control systems and adaptive welding. She has been with EWI since 1996, serving in all engineering roles from Researcher to Principal, as well as Team Leader for the Design, Controls, and Automation team from 2007 - 2012. Connie initiates, leads and oversees contract R&D projects for EWI members. She has developed inspection and control solutions in a range of industries with an emphasis on weld-related defect detection. She has published papers on corrosion detection, weld inspection, and adaptive welding.

BACKGROUND AND PROJECT EXPERIENCE

In the field of machine vision, Connie has been heavily involved with the development of a laser-based weld inspection and corrosion-mapping tools for the oil and gas industry. She has deployed over a dozen systems for automated inspection of pipe welds for on- and off-shore applications. Prior work involved automated detection and repair of corroded pipe on in-service pipelines. The resulting system was the first of its kind to automate the manual welding repair method. Connie has developed a library of algorithms for vision-based weld inspection of weld flaws and features for different weld joints. She has developed numerous weld inspection systems using this software and vision sensors for heavy manufacturing, automotive, and oil and gas industries.

In the field of welding automation, Connie helped to develop automated systems for plastic pipe inspection, resistance spot welding (RSW) electrode inspection process, automated inspection of filler wire quality, and inspection of heated aerospace components.

Connie has been involved in the application of adaptive welding for the shipbuilding and other industries. Early on, she was a key contributor in a substantial Navy-sponsored project that resulted in the development and application of an adaptive welding system. Recent work involved applications of adaptive welding for the heavy manufacturing industry and aerospace industries. She has worked to develop automated path-planning tools for fusion and laser welding processes using custom hardware and commercial robotic welding systems. She holds two patents.

EDUCATION

B.S.   Electrical Engineering, DeVry University

PROFESSIONAL AFFILIATIONS

American Welding Society
International Society for Optics and Photonics (SPIE)

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