

# Evgueni Todorov

Technology Leader, NDE



## TECHNICAL EXPERTISE

Evgueni Todorov has 30 years of experience in the development and industrial application of NDE and electronic measurement technologies. He specializes in advanced electromagnetic, ultrasonic and x-ray material testing technologies, and has led the development and deployment of novel techniques through modeling, simulation, and comprehensive experimental studies. Evgueni has developed and implemented methodologies for validation and qualification of NDT techniques and procedures through objective criteria such as probability of detection (POD) experiments and validation measurements.

As Technology Leader, Evgueni is responsible for the development and maturation of NDE and quality measurement technologies to improve first-time quality through real-time manufacturing process monitoring and analysis, advanced NDE, computer vision, non-contact metrology, and condition monitoring. Based at EWI Colorado in Loveland, he oversees the activities of the advanced process monitoring and control technologies team.

## BACKGROUND AND PROJECT EXPERIENCE

Prior to joining EWI in 2004, Evgueni was an NDT engineer at Bombardier Aerospace in Toronto, Canada. His activities included investigation of NDT techniques for new and existing structure design concepts, development of techniques and procedures for in-service aircraft (DAHS 8 and GLOBAL EXPRESS) inspections, validation of NDT methods and techniques, and management of NDT developmental process.

As a Visiting Scientist at the University College London, Center for Nondestructive Evaluation, U.K., Evgueni specialized in the area of Alternate Current Potential Drop (ACPD) and Alternate Current Field Measurements (ACFM) NDE techniques. While there, he investigated the application of advanced array electromagnetic sensors for ACFM.

Evgueni has published 32 papers on nondestructive testing and holds two patents. He is certified "Level 3" in eddy current and ultrasonics, in accordance with the international standard ISO 9712 (CGSB adopted).

## EDUCATION

- M.S. Electrical Engineering (Honors) – Instrumentation and Control, Harkov Polytechnic Institute, Harkov, Ukraine
- Ph.D. Advanced Nondestructive Testing with Eddy Currents – Material Characterization and Signal Processing, Technical University of Sofia, Sofia, Bulgaria

## PROFESSIONAL AFFILIATIONS AND AWARDS

- American Society of Nondestructive Testing
- Canadian Society of Nondestructive Testing and Canadian Institute of NDE
- 2011 EWI Technical Excellence Award "Measurement of Electromagnetic Properties of Nuclear Heat Exchanger Tubes with Eddy Current Computer Modelling Techniques"



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