## CNDE Webinar Presentation
## August 24, 2023 - 10:00 a.m. CST

This webinar will be recorded and made available on the [CNDE website](#)

**Artificial Intelligence and Machine Learning in NDT – A Perspective on Progress, Challenges and Future Directions**

**Presented by:  John C. Aldrin, Computational Tools**

## Abstract:

I have had the opportunity in my career to work actively on the subject of Artificial Intelligence and Machine Learning (AI/ML) in NDT over the past 25 years.  Recently, I had the pleasure to organize a technical focus issue on this topic for the July 2023 issue of Materials Evaluation. This talk will summarize some of the progress that has been made over the years and highlight recent work on AI/ML presented in the technical focus issue.  I will also discuss outstanding challenges and address how the community is working around these issues today and going forward.  Topics will include the types of AI/ML algorithms, case studies for promising applications, collaborative AI, and best practices for validation.  Lastly, I will discuss emerging AI chatbots and explore the benefits and concerns of using them as part of our work in the NDT field.

## Speaker:

Dr. John C. Aldrin obtained his Ph.D. in Theoretical and Applied Mechanics from Northwestern University in 2001.  Since, he has been working as the principal of Computational Tools, specializing in NDE modeling and simulation, data analysis, inverse methods, and reliability assessment.  Contracts have included a Visiting Scientist position with the Air Force Research Laboratory leading research on computational method in NDE, automated data analysis (ADA) software development services for SAIC and TRI/Austin, and participation in the NASA Engineering and Safety Center (NESC) NDE Technical Discipline Team. Dr. Aldrin has co-authored over 180 journal, conference, and book publications and is a Fellow of ASNT.

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