

Automated Defect Recognition and Artificial Intelligence (AI) in Digital Radiography

Lennart Schulenburg¹

¹Managing Director, VisiConsult X-ray Systems & Solutions GmbH, Germany

With increasing adoption of digital radiography and automated inspections systems, the bottle neck is shifting from the image acquisition process step to evaluation and reading. In high volume markets like automotive, this issue has been resolved through Automated Defect Recognition (ADR) algorithms since several years. As volumes are also growing in more safety critical environments like aerospace, there is a huge demand for smart inspection solutions that can assist operators or automate certain evaluation steps. With the whole world talking about AI solutions like ChatGPT, this webinar will provide an overview how AI can be applied in NDT and especially Digital Radiography. The presentation will five into aspects like data generation, labeling, training, deployment and ultimately qualification. It will provide practical examples and the technical background of this complex topic. Content outline: • Intro and state of the art in digital RT • What is Automated Defect Recognition • Differences between classic ADR and AI • How can AI be implemented and qualified Learning objectives: • Learn about the latest technology trends in Digital Radiography • Gain a basic understanding how ADR and AI works • Understand the challenges and pitfalls of ADR implementation • Being able to identify suitable applications for AI in your company • Getting an overview about applicable standards and regulations for AI