



INTERNATIONAL INSTITUTE OF WELDING

A world of joining experience

Doc. No: V-1929

74nd IIW Annual Assembly - COMMISSION V NDT and Quality Assurance of Welded Products

Agenda of the Technical Meetings of Commission V, NDT and Quality Assurance of Welded Products

ON-LINE-ANNUAL ASSEMBLY, July 15th – July 16th , 2021

Thursday July 15th , 2021: 13:00 – 16:00

13:00 – 13:20 Opening of the Meeting, *Marc Kreutzbruck*

Adoption of the Agenda, *Marc Kreutzbruck*

V-1930-21 Annual Report of Commission V, *Marc Kreutzbruck* (10 min)
Remarks

Commission V Election of the chair C-V (10 min)

Sub-commission VA Radiographic Based Weld Inspection Techniques, *Uwe Zscherpel*

13:20 – 14:00

V-1931-21 Annual Report of Sub-commission VA, *Uwe Zscherpel* (15 min)

V-1932-21 “Non-destructive measurement technique and quality metrics for
analysis of laser welded hairpin joints in electric drives with
computed tomography”, (25 min)
*Markus Omlor, Jainabalkya Guhathakurta, Rolf Graef,
Sven Simon, Klaus Dilger (Porsche AG, TU Braunschweig, DE)*

Sub-commission VC Ultrasonic Based Weld Inspection Techniques, *Channa Nageswaran*

14:00 – 15:00

V-1933-21 Annual Report of Sub-commission VC, *Channa Nageswaran* (5 min)

V-1934-21 “Real-time grain orientation mapping of anisotropic media for improved
ultrasonic non-destructive evaluation”, (20 min)
Jonathan Singh (University of Strathclyde, UK)

V-1935-21 “Machine learning improves reliability and efficiency of non-destructive
Evaluation”, (20 min)
Iikka Virkkunen (True Flaw, Finland)

V-1936-21 “Simulation-based training of a CNN for detection of cracking”, (15 min)
Xuening Zou (Loughborough University, TWI, UK)

Sub-commission VD Structural health monitoring, *Bastien Chapuis*

15:00 – 16:00

V-1937-21 Annual Report of Sub-commission VD, *Bastien Chapuis*, (10 min)

V-1938-21 **Resolution:**
new working group for the revision of ISO 18211 guided wave Standard (10 min)

V-1939-21 Qualification of Guided Wave Ultrasonic Technology for testing pipes, (20 min)
Graham Edwards (TWI, UK)

V-1940-21 On the benefit of using machine learning methods in SHM: (20 min)
Application to defect detection in high attenuating medium,
Mahjoub El Mountassir (Institut de Soudure, FR)

Friday July 16th, 2021: 13:00 – 16:00

**Sub-commission VE Weld Inspection techniques based on Electrical, Magnetic, and
13:00 – 14:10 Optical Methods, *Matthias Pelkner***

V-1941-21 Annual Report of Sub-commission VE, *Matthias Pelkner* (10 min)

V-1942-21 “Inspection of dissimilar metal welded joints using the metal (20 min)
magnetic memory technique”,
Anatoly Dubov, Alexandr Dubov,
Peter Ladany, Artem Marchenkov, Sergey Kolokolnikov,
(Energoagnostika, RU)

V-1943-21 Annual Report Working Group ECA- Eddy Current Arrays, (20 min)
Casper Wassink

V-1944-21 Process monitoring in metal AM@BAM: The project, (20 min)
C. Maierhofer, S.J. Altenburg, H. Ehlers and Team ProMoAM (BAM, DE)

**Sub-commission VF NDT reliability including Simulation of NDT Techniques,
14:10 – 15:10 *Pierre Calmon***

V-1945-21 Annual Report of Sub-commission VF, *Pierre Calmon* (20 min)

V-1946-21 “Simulation-assisted Machine learning applied to ultrasonic TFM (20 min)
multimodal analysis”,
Roberto Miorelli et al. (CEA, FR)

V-1947-21 “A Finite Element tool for the simulation of the ultrasonic (20 min)
propagation in austenitic welds”
Nicolas Leymarie et al. (CEA, FR)

Conclusion of the Meeting