

Security and Resilience of the Digital Twin of the Electricity Grid

Sign up for Webinar on April 18, 2024, 9-12hrs CEST



We are excited to invite you to our upcoming webinar on **Security & Resilience (S&R) of the Digital Twin of the electricity distribution grid**, taking place online via teams on April 18, 9-12 hrs CEST. For free registration pls. send an email to office@griddata.eu.

The webinar will cover the following topics:

- Introduce the principles of the digital twin of the electricity distribution grid and how they can benefit public distribution grids and corporate grids
- Demonstrate the digital twin on a live medium voltage (20kV) grid
- Show practical experiences and present practical expectations on security and resilience
- Show the potential and important learnings for the practical application of modern Machine Learning methods in critical systems
- Demonstrate how machine learning approaches can detect data quality issues caused by malicious activities or by accidental faults
- Show that key performance indicators of resilience of the digital twin can benefit significantly from the introduced approaches

In the webinar you will learn key results of the RS2DG project executed within the framework of SecurIT (<https://securit-project.eu/funded-projects/rs2dg/>). In RS2DG, GridData GmbH (<https://www.griddata.eu>) and Resiltech Srl. (<https://www.resiltech.com/>) integrated a Security & Resilience (S&R) component based on machine learning into the GridData DigitalTwin of Stadtwerke Landau a. d. Isar (<https://www.swlandau.de/>). The S&R component is a powerful tool that can detect cybersecurity threats as well as anomalies in the electrical measurements. Immediate alarms and automated reactions increase the resilience and the security of the digital twin of the electricity grid that is the basis for operations and planning of the low and medium voltage grids.

Webinar April 18, 2024: Security and Resilience of the Digital Twin of the Electricity Grid

Agenda: (timing is indicative and given in Central European Summer Time (UTC+2hrs))

8:50 Teams login opened and pre-meeting tech check

9:00 Welcome and Introduction (GridData, SecurIT)

9:15 The DigitalTwin of electricity distribution infrastructure (GridData)

9:30 Benefits and practical deployment experiences of the DigitalTwin (StwLandau)

9:50 Demo of the StwLan DigitalTwin (GridData/StwLandau)

10:10 Security and Resilience – Protecting the digital twin – the case of missing data (Resiltech)

10:20 Demo - Missing Data Detection (GridData/Resiltech)

ca 10:30 Break

10:40 Practical application of Machine Learning for operation of critical systems (University of Firenze)

11:00 Using Machine Learning for the detection of attacks on input data (Resiltech)

11:20 Demo - Input data anomaly detection for the DigitalTwin (GridData/Resiltech)

11:40 Summary and Outlook (GridData)

11:50 Q&A

We encourage you to join us and learn more about the S&R component and its benefits for the electricity grid. Here again the important information:

When: April 18, 9-12hrs CET

How: The webinar will be held using the MS Teams platform – you will receive a link for joining the day before via email. The webinar will be held in English language.

Registration: Please register by email at office@griddata.eu.

*Thank you for your interest and **we look forward to receiving your registration by April 11, 2024!***