









## Al for power systems. Developments from TU\_DELFT and CITCEA-UPC

[Friday 31st May LS5 room ETSEIB-UPC]

10:00 – 10:10 h Welcoming and CITCEA-UPC, Joan Marc Rodríguez.

10:10 – 11:00 TU\_DELFT Research lab IA, Jochen Cremer.

- Automation of Power Systems with Supportive AI: Opportunities & Challenges
  - Keywords: congestion management, home energy management, security assessment, trust in AI and generalizability of AI.

11:00 – 12:15 CITCEA-UPC Research on IA, Mònica Aragüés / Sara Barja.

- o Keywords: distribution grids, non-technical losses, PV disaggregation, grid planning, load forecasting, flexibility services.
- Unveiling Grid Potential through Pattern Recognition Strategies: The Use Case of Non-Technical Losses Detection and Behind-the-Meter PV Disaggregation, Marc Jené.
- Comparison of machine learning regression models for reinforcement planning strategies in distribution networks, Antonio E. Saldaña.
- Federated Learning using private clustering techniques for short-term load forecasting, Oscar Cabrera.
- Flexibility services for Balancing Responsible Parties, Adriano Caprara.

12:15 - 13:00 h Discussion.



