



Battery Material Characterisation and Digital Twins for Cell to Pack Performance in Agile
Manufacturing Pilot Lines and Automotive Field

Public Workshop

Advanced materials characterisation and modelling techniques for battery electrochemical and nano- mechanical properties

Free online workshop

24 June 2024
15:00 – 17:10 CEST

Login data will be sent to registered participants

Organisers:

Università degli Studi Roma Tre
Johannes Kepler University Linz

The European project DigiCell aims to revolutionise battery production by leveraging advanced testing, modelling and machine learning techniques. We are excited to announce the first public workshop in a series of events scheduled throughout the project duration. This first workshop will focus on electrochemical and mechanical characterisation at the nano to macro-scale.

The event will feature the following three key presentations:

- Johannes Kepler University Linz (JKU) will discuss the characterisation of energy materials using advanced electrochemical microscopy techniques.
- Università degli Studi Roma Tre (ROMA3) will explore the application of machine learning algorithms in the mechanical characterisation of advanced materials.
- Keysight will address the importance of quality control in battery manufacturing by presenting on the inspection of battery separators using partial discharge spectroscopy.
- Austrian Institute of Technology (AIT) will present status and progress on battery new materials including Mg-ion batteries

If you are interested to attend, please register for the workshop on the [DigiCell website](#).

Agenda Monday, 24 June 2024 15:00 – 17:10 CEST (Teams)		
Time	Titel	Speaker
15:00 – 15:05	Welcome	Marco Sebastiani (ROMA3)
15:05 – 15:15	DigiCell project overview	Nawfal Al-Zubaidi R Smith, technical project coordinator (Keysight)
15:15 – 15:55	Nano-macro scale energy material characterisation through advanced electrochemical microscopy techniques	Georg Gramse (JKU)
15:55 – 16:35	Impact of machine learning on development of advanced materials	Edoardo Rossi (ROMA3)
16:35 – 16:50	Quality inspection of battery separators by partial discharge spectroscopy	Manuel Kasper (Keysight)
16:50 – 17:05	Battery new materials – Mg-ion batteries	Irshad Mohammad (AIT)
17:05 – 17:10	Closure of the workshop	Marco Sebastiani (ROMA3)

The workshop is free of charge.

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