



DigiCell

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

Public Workshop

From Data-Driven to Physics-Informed Modelling for Batteries – a view from the EU project DigiCell

Free online workshop

Wednesday, 1 July 2026

15:00 – 17:00 CET

Login data will be sent to registered participants

Organizers:

METAS Federal Institute of Metrology

Johannes Kepler University Linz (JKU)

KREISEL Electric

Centre National de la Recherche Scientifique (CNRS)

Keysight Technologies Austria

EURICE GmbH

The European project DigiCell aims to improve battery production by developing new chemistries, leveraging advanced testing, modelling and AI/ML techniques. We are excited to announce the 4th public workshop in a series of events scheduled throughout the DigiCell project duration.

The event focusses on modelling of battery cells, ranging from data driven machine learning to physics-based finite element modelling, and extending to industrial applications up to the pack level as well as battery manufacturing. The introduction on statistical methods and machine learning is followed by state-of-health estimations using electrochemical impedance spectroscopy measurements. Further topics include finite element modelling including nanomechanical properties of cells, reduced-order aging modelling of industrial packs, and battery manufacturing modelling using physics-informed machine learning.

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

Agenda 1 July 2026 15:00 – 17:00 CET		
Time	Titel	Speaker
15:00 – 15:10	Welcome & DigiCell project overview	Ferry Kienberger (DigiCell coordinator)
15:10 – 15:30	Introduction to statistical and machine learning modelling: selected concepts and pitfalls	Fabian Guignard (METAS)
15:30 – 15:50	Battery state-of-health estimation from a minimal set of impedance frequencies using machine learning	Fabian Guignard (METAS)
15:50 – 16:10	Multiscale computational framework for degradation mechanism analysis in LIB	Georg Gramse (JKU)
16:10 – 16:30	Reduced-order electrochemical aging modelling of industrial battery packs	Alberto Romero (KREISEL)
16:30 – 16:50	Modelling battery manufacturing via physics-informed machine learning	Francisco Fernandez (CNRS)
16:50 – 17:00	Q&A session, closure of the workshop	All

The workshop is free of charge.

If you are interested, **please register on the [DigiCell website](#)**.
Login data (Teams Meeting) will be sent to registered participants.



Funded by
the European Union