

# BATTERY MASTERCLASS IN PERTH & SYDNEY

# Workshop 1

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## BATTERY CELL PRODUCTION: PROCESSES, PRODUCTS AND THEIR INTERACTIONS

### INTRODUCTION

As industries and researchers in Australia and across the globe transition to a cleaner energy environment, batteries are assuming an even more critical role in helping to power a lower carbon future.

Battery industry professionals require deep knowledge regarding product-process, their interactions and their influence on battery cell performance and overall costs to make informed business decisions and develop efficient production chains.

### WORKSHOP OVERVIEW

The **Battery cell production – processes, products and their interactions** one day masterclass explores battery cell production, advanced design and application-specific charge transfer structures of electrodes. Data will be presented on individual processes, their interactions and quality parameters, to help participants understand the impact of materials and processes on the mechanical, structural and electrical properties of physical electrodes.

Participants will learn about new monitoring technologies for critical production steps to maximise production efficiency and explore future trends in electrode and cell production in the context of emerging cell technologies. Innovative process routes for recycling and the re-synthesis of lithium-ion batteries, and current developments in the battery cell production circular economy will also be explored. The workshop will also draw on contemporary examples from research and industry.

### THE SPEAKERS

This workshop will be presented by three highly experienced experts in the field of green batteries:

- **Dr Arno Kwade**, from the Technische Universität Braunschweig and the Fraunhofer Institute for Surface Engineering and Thin Films, Germany
- **Dr Sabrina Zellmer**, from the Fraunhofer Institute for Surface Engineering and Thin Films, Germany
- **Dr Felipe Cerdas**, from Technische Universität Braunschweig

### WHO SHOULD ATTEND

This masterclass is designed for professional and technical operators, managers, investors, policy makers, scientists, early career researchers and research students.

### THE DETAILS

10am to 3:30pm, Monday 20 June 2022, Pan Pacific Hotel, Perth

**Duration:** 5.5 hours

**Cost:** \$550 (incl GST), includes full workshop materials, lunch and morning and afternoon tea. (FBICRC Participants \$450, Students \$250)

**Registration:** Closes Wednesday 15 June (participants limited to 30)

**Register:** [Eventbrite link](#)

## Workshop 2



# SUSTAINABLE BATTERIES THROUGH LIFE CYCLE ENGINEERING: PROCESSES, METHODS, USE CASES AND OUTLOOK

### INTRODUCTION

With significant current demand for Electric Vehicles (EV) and further exponential demand forecast over the next decade, electrification will play a key role in the transition to a cleaner energy future.

Battery industry professionals require deep understandings of the entire life cycle of a battery to make informed business decisions, foster sustainable electromobility and decrease environmental impacts from battery manufacturing.

### WORKSHOP OVERVIEW:

The Sustainable batteries through life cycle engineering: processes, methods, use cases and outlook one day masterclass explores the processes needed to produce EV batteries in a whole of life cycle context.

Participants will investigate battery life cycle evaluations, holistic product development approaches, recycling options and assess the environmental impacts of EV batteries with a focus on lithium-ion batteries.

Methods of life cycle assessment and engineering will be introduced and applied to specific issues in the field of EV batteries and electromobility. Participants will learn how to identify and quantify environmental hot spots and thereby avoid problem-shifting between different life cycle stages. The outlook for future battery types for sustainable electromobility will also be explored. The workshop will also draw on contemporary examples from research and industry.

### THE SPEAKERS

This workshop will be presented by two highly experienced experts in the field of green batteries:

- **Dr Sabrina Zellmer**, from the Fraunhofer Institute for Surface Engineering and Thin Films, Germany
- **Dr Felipe Cerdas**, from Technische Universität Braunschweig

### WHO SHOULD ATTEND

This masterclass is designed for professional and technical operators, managers, investors, policy makers, scientists, early career researchers and research students.

### THE DETAILS

10am to 3pm, Saturday 25 June 2022, University of Technology Sydney

**Duration:** 5 hours

**Cost:** \$330 (incl GST), includes lunch, and morning and afternoon tea. (FBICRC Participants \$280, Students \$150)

**Registration:** Closes Tuesday 21 June (participants limited to 30)

**Register:** [Eventbrite link](#)