



## Fraunhofer IKTS-ECU short course on ceramic technologies for industry

**This 2-day program aims to provide participants with comprehensive knowledge about the fundamentals of inorganic membranes, membrane processes and membrane plants. Selected applications will be discussed and results of case studies presented.**

Industries addressed: Mining, oil and gas; Nutrients, dairy, beverages; Power companies; Plant engineers and Project developers; Water industry

### What you will gain:

Working knowledge, case-study insights, a close look at the membrane demonstrator and module designs and optional one-to-one collaboration meeting with Fraunhofer IKTS and ECU.

### Day 1 (17 November 2025)

- Fundamentals of membrane technology – basic principles, terminology, benefits
- Membrane materials and construction principles, mass transfer and separation mechanism and advantages and disadvantages
- Fundamentals of inorganic membranes – preparation and characteristics
- Mixed-matrix-membranes
- Membrane processes, application and case studies with inorganic and mixed-matrix-membranes in
- Liquid filtration (micro, ultra and nano filtration)
- Pervaporation/vapor permeation
- Membrane distillation and extraction
- Gas separation
- Introduction of IKTS technologies and the joint lab @ECU campus

### Day 2 (18 November 2025-Optional)

One-to-one meetings for discussion on cooperation models with Fraunhofer IKTS and joint projects at the joint lab

A membrane demonstrator will be available to show the installation of ceramic membranes in process plants and the spectrum of ceramic membrane shapes.

### Details

DATE  
17-18 November 2025

TIME  
10:00 am – 4:00 pm  
(Lunch and tea provided)

LOCATION  
ECU South West  
Campus  
Bunbury

COST  
\$200  
Fee waiver available for industry professionals.  
Please contact  
[p.roach@ecu.edu.au](mailto:p.roach@ecu.edu.au)  
for details

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