

## WORKSHOP

# PITTING CORROSION AND PIT-TO-CRACK TRANSITION: RECENT ADVANCES AND REMAINING CHALLENGES

OCTOBER 25, 2022

## PROGRAMME

|       |                                                                                                                            |                                                                                                     |
|-------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 09:00 | Registration                                                                                                               |                                                                                                     |
| 09:50 | Welcome                                                                                                                    | <b>Dr Nicolas Larrosa,</b><br>UNIVERSITY OF BRISTOL, UK                                             |
| 10:00 | Adopting cellular automaton and finite element modelling to predict lifetime prediction of pit-initiated corrosion fatigue | <b>Visiting Professor Bob Akid,</b><br>UNIVERSITY OF BRISTOL, UK                                    |
| 10:40 | Image-based modelling of pits observed in nickel aluminium bronze (NAB) exposed to marine environment                      | <b>Tamsin Dobson,</b> UNIVERSITY OF BRISTOL, UK                                                     |
| 11:20 | Coffee break                                                                                                               |                                                                                                     |
| 11:30 | Fatigue limit prediction in the presence of corrosion pits: a fracture mechanics evaluation                                | <b>Dr Bernd Schönbauer,</b><br>UNIVERSITY OF NATURAL RESOURCES AND<br>LIFE SCIENCES (BOKU), AUSTRIA |
| 12:10 | Pitting, cracking and life assessment challenges for offshore wind turbines                                                | <b>Professor Ali Mehmanparast,</b><br>UNIVERSITY OF STRATHCLYDE, UK                                 |
| 12:50 | Lunch                                                                                                                      |                                                                                                     |
| 13:50 | Electro-chemo-mechanical phase field-based predictions of pitting, pit-to-crack transition and stress corrosion cracking   | <b>Dr Emilio Martinez-Paneda,</b><br>IMPERIAL COLLEGE LONDON, UK                                    |
| 14:30 | Microstructural fracture mechanics approaches for pit-to-crack transition and life estimations                             | <b>Dr Nicolas Larrosa,</b><br>UNIVERSITY OF BRISTOL, UK                                             |
| 15:10 | Innovative ideas to characterise pitting corrosion with transition to environment assisted cracking in stainless steels    | <b>Professor Dirk Engelberg,</b><br>UNIVERSITY OF MANCHESTER, UK                                    |
| 15:50 | Discussion                                                                                                                 | <b>Pat Liddicott,</b> SELLAFIELD, UK                                                                |
| 16:00 | Finish                                                                                                                     |                                                                                                     |

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