

## Inspection and Repair

### 11.00 Corrosion issues and monitoring techniques for offshore wind turbines

Internal corrosion, external corrosion, corrosion mapping

B.Sc.Eng. Lars Nøhr-Nielsen

FORCE Technology, Brøndby, Denmark

### 11.30 Utilisation of remote inspection techniques on offshore structures and effective integration of their data with digital asset management systems

Inspection and control, digital asset management

Malcolm Connolly

Cyberhawk Innovations Ltd, Livingston, UK

## Microbially Influenced Corrosion

### 12.00 Microbially influenced corrosion – Where are we today?

MIC, sulfate-reduction, electron acceptors, accelerated low water corrosion

Dr. Jan Kuever

MPA - Amtliche Materialprüfungsanstalt der Freien Hansestadt Bremen, Germany

### 12.30 Corrosion forum

Discussion of current corrosion issues and exchange of experience for practitioners; contributions and addressing of issues from the audience

#### Moderation

Dr. rer. nat. Johann Wilhelm Erning

Bundesanstalt für Materialforschung und -prüfung, (BAM), Berlin, Germany

### 13.00 Light lunch and end of the conference

Unforeseen program changes are reserved.

The lectures will be accompanied by an exhibition of equipment, products and services from companies and institutes.

At the end of the first day of the event, we ask all participants to take part in the election for the GfKORR student poster award.

#### Image source:

- Oliver Kranz, Fraunhofer Institut für Fertigungstechnik und Angewandte Materialforschung – IFAM, Bremen, Germany
- Thilo Vogel, Hochschule Bremerhaven / University of Applied Sciences, Bremerhaven, Germany

## Organisation

### Registration

For organisational reasons, please send your registration no later than 22 October 2018 to:

GfKORR - Gesellschaft für Korrosionsschutz e.V.

Theodor-Heuss-Allee 25, 60486 Frankfurt / Main

Phone: +49 (0)69 7564-360/-436, Fax: +49 (0)69 7564-391

E-Mail: gfkorr@dechema.de, Web: www.gfkorr.de

### Conditions of participation

The receipt of the registration is considered as binding confirmation of the participant. Upon receipt, you will receive confirmation and an invoice for the order due. Registered participants can cancel in writing free of charge until 26 October 2018. Upon later cancellations no remittance is possible, however, the conference documents will be sent. Furthermore, you may nominate a substitute participant. Free participation for students participating in the poster exhibition.

### Participation fees \*)

|                           |         |
|---------------------------|---------|
| Members of GfKORR         | € 385,- |
| Members of MCN            | € 400,- |
| Non-Members               | € 425,- |
| Pensionaries              | € 130,- |
| Students (under 35 years) | € 90,-  |
| Students (with poster)    | free    |

### Exhibition stand \*\*)

|                   |         |
|-------------------|---------|
| Members of GfKORR | € 470,- |
| Non-Members       | € 520,- |

\*) no VAT requested according to § 4.22 UStG, registration fee may include Business Package with VAT

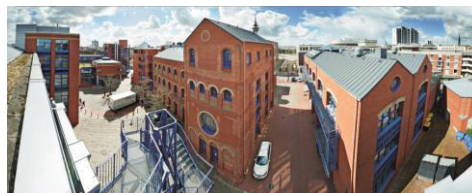
\*\*) plus VAT on taxable shares

The registration fees include conference proceedings, list of participants, beverages during breaks, social evening on 6.11.2018, lunch on 6. and 7.11.2018

### Venue

Hochschule Bremerhaven / University of Applied Sciences

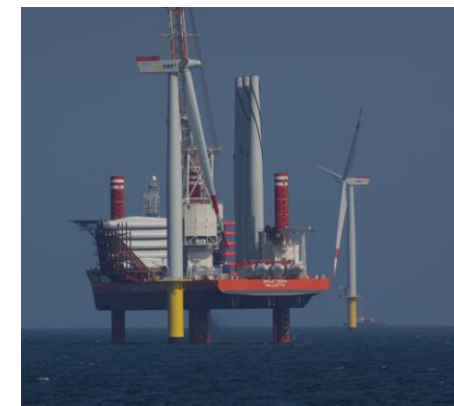
An der Karlstadt 8, Haus T, 27568 Bremerhaven



**GfKORR – Gesellschaft für Korrosionsschutz e.V.**

## ANNUAL CONFERENCE 2018 with student poster exhibition

## Corrosion Protection of Offshore Wind Power Plants



**6 - 7 November 2018**

Hochschule Bremerhaven  
University of Applied Sciences

Germany



## Introduction

Ensuring the power supply of the future - for sustainable energy supply, wind energy plays a key role not only for Germany. Offshore wind energy has a high potential due to continuous wind speeds and hence resulting reliable availability. However, the maritime environment and the operating times of more than 20 years required for economic operation also pose a particular technical challenge for the corrosion protection of the plants. Although offshore wind energy is on the sea, it is not restricted to national borders. Therefore, this year's GfKORR meeting will be held in Bremerhaven as one of the German centers for offshore wind energy. And for the first time, the conference will be held in English to welcome many international participants. It is intended to equally address corrosion experts and professionals from the wind energy industry to enable the dialogue and to learn from each other's experiences.

### Programme – Tuesday 6 November 2018

9.30 23rd ordinary general meeting of the GfKORR e.V. (separate invitation required)

### GfKORR – Annual Conference 2018

#### 13.00 Welcome

Prof. Dr.-Ing. Ralf Feser

FH Südwestfalen - Hochschule für Technik und Wirtschaft, Iserlohn, Germany  
Chairman of the Executive Board of GfKORR

#### Moderation

Dr.-Ing. Peter Plagemann

Fraunhofer Institut für Fertigungstechnik und Angewandte Materialforschung – IFAM, Bremen, Germany

### General Aspects

#### 13.15 Corrosion – Design of offshore wind power plants

Design, impact on fatigue, connections  
Prof. Dr.-Ing. Peter Schumann  
Leibniz Universität Hannover, Germany

- 13.45 **Wind offshore technology – Industry, market, lessons learned and innovation related to corrosion protection**  
Technology, economy, innovation, corrosion protection industry  
M.Sc./Dipl.-Ing. Oliver Heins  
EnBW Energie Baden-Württemberg AG, Hamburg, Germany
- 14.15 **Surface protection of OWEA: Review on nationally and internationally funded research and development projects**  
Corrosion, coating technology, design, maintenance and repair  
Dr.-Ing. habil. Andreas Momber  
Muehlhan AG, Hamburg, Germany
- 14.45 Coffee Break / Poster / Exhibition / Networking
- 15.15 **Offshore corrosion protection – Nothing for people afraid of water or frost boils**  
Rope access, work on site, safety  
Holger Bartels  
Strako GmbH, Bremerhaven, Germany

### Rules and Standards

- 15.45 **Changes in ISO 12944**  
ISO 12944, revision, corrosion protection of steel structures  
Dr. Irmgard Winkels  
Sika Deutschland GmbH, Vaihingen, Germany
- 16.15 **Special features of the guidelines of GfKORR and VGB / BAW for corrosion protection in offshore wind - assessments and experiences from the point of view of the certifier**  
Surface preparation and ISO 12944:2017, coating selection and application conditions, quality control and inspection, benefits and possible difficulties of the GfKORR guideline and/or the VGB / BAW standard  
Dipl.-Ing. Lars Lichtenstein  
DNV GL SE, Hamburg, Germany

16.45 Coffee Break / Poster / Exhibition / Networking

## Coatings

- 17.15 **Protective coatings for offshore wind power constructions**  
Coating lifetime, exposure zones, qualification of coatings, experiences  
Dr. Ole Knudsen  
SINTEF Materials Technology, Trondheim, Norway
- 17.45 **Corrosion protection design by protective paint systems – challenges from design to application**  
Corrosion protection design, paints, guidelines, standards (e.g. EN ISO 12944 Part 3), field examples  
Dipl.-Ing. (FH), M.Sc. Jens Rettke  
M.Sc. Jutta Stutzmann  
Ramboll GmbH, Hamburg, Germany
- 18.15 Exhibition and poster presentation  
Conference dinner

### Programme – Wednesday 7 November 2018

9.00 - Exhibition and poster presentations during the  
13.00 whole event

9.00 **State of the art in metallization for corrosion protection at offshore wind energy towers**  
Metallization, duplex coatings  
Werner Krömmer  
Linde AG, Unterschleißheim, Germany

9.30 **Corrosion protection performance of mechanically damaged OWEA coating systems**  
Coating, impact, abrasion, corrosion protection performance  
Dipl.-Wirt. Ing. Michael Irmer  
Fraunhofer-Einrichtung für Großstrukturen in der Produktionstechnik IGP, Rostock, Germany

### Cathodic Corrosion Protection

- 10.00 **Cathodic protection of offshore wind structures, possibilities, challenges and performance**  
Cathodic protection, performance, offshore wind  
Birgit Buhr Jensen  
Ørsted, Gentofte, Denmark
- 10.30 Coffee Break / Poster / Exhibition / Networking