#### 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** 

<u>Dr. rer. nat. Johann Wilhelm Erning</u> 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 \*)

€ 385,
€ 400,
€ 425,
€ 130,
€ 90,
free

Exhibition stand \*\*)

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

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





<sup>\*)</sup> no VAT requested according to § 4.22 UStG, registration fee may include Business Package with VAT \*\*) plus VAT on taxable shares

#### 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 22nd 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

<u>Dr.-Ing. Peter Plagemann</u>
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 <u>Prof. Dr.-Ing. Peter Schaumann</u> 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

<u>Dr.-Ing. habil. Andreas Momber</u> 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
<u>Holger Bartels</u>
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

<u>Dr. Ole Knudsen</u>

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 GmH, 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 <u>Werner Krömmer</u> 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 Birit Buhr Jensen

DONG Energy, Gentofte, Denmark

10.30 Coffee Break / Poster / Exhibition / Networking

Please send registration to:

E-Mail: gfkorr@dechema.de, Fax: +49 - (0) 69 - 7564 391

GfKORR – Gesellschaft für Korrosionsschutz e.V. Theodor-Heuss-Allee 25 60486 Frankfurt / Main

#### Registration

## ANNUAL CONFERENCE 2018 'Corrosion Protection of Offshore Wind Power Plants' 6 - 7 November 2018

Hochschule Bremerhaven / University of Applied Sciences, An der Karlstadt 8, Haus T, 27568 Bremerhaven, Germany Title / First Name / Surname: Company: Street: Postcode, City: Phone: E-Mail: Datum: (please mark) - GfKORR Members ☐ € 385,-- MCN Members - Non-Members - Pensionaries ☐ € 130,- Students (under 35 years) ∏ € 90,-- Students (with poster) ☐ free Participation in (please mark) - Lunch. 6.11.2018 П - Conference dinner, 6.11.2018 - Lunch, 7.11.2018 ■ I would like to book an exhibition stand and would like further information. Registered participants can cancel in writing free of charge until 26 October 2018. Upon later cancellations no remittance

on my right to object to the use of my data at any time.

(for full details click the link: http://www.gfkorr.de/datenschutz.html).

is possible, however, the conference documents will be sent. Furthermore, you may nominate a substitute participant.

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