

**EUSAS e.V.** (European Society for Automatic Alarm Systems e.V.; c/o University of Duisburg-Essen) provides an international platform for promoting the science of fire protection and security comprising fire detection, extinguishing, intrusion detection, access control and video monitoring. The principal objective is experience sharing, exchange of views among professionals, and know-how consolidation. For this purpose EUSAS e.V. organises conferences. The conference language is English.

# Addressing the Fire Risks of Electromobility



**ZVEI e.V.** (Electro and Digital Industry Association) represents the common interests of the electrical and digital industry and the associated service companies in Germany and on an international level. The industry employs around 877,000 workers in Germany. In 2021, its turnover was around 200 billion euros. Three out of four companies in the electrical industry regularly bring product or process innovations to the market. Annually, the industry spends around 20 billion euros on R&D and more than seven billion euros on investments. One third of the sector's turnover is accounted for by product innovations.

## Conference fees

EUSAS & ZVEI Members	300 EUR
Students	50 EUR
Public services (e.g. fire brigades)	400 EUR
Others	500 EUR

## 10% Early bird discount

There will be a discount of 10% for registration until March 29<sup>th</sup>, 2023



## Aim of the conference

Electromobility is intrinsically linked with the storage of electric power, which increasingly is being sourced from renewable energy sources. In this context, many different aspects and challenges arise, with the changing fire risk being of particular interest and requiring new solutions. The conference will provide an up-to-date overview of the hazards from different perspectives and developments with a look at technologies, politics and law. Furthermore, current research activities, concrete technical solutions and applications are shown.

## Conference organisation

Universität Duisburg-Essen  
EUSAS e.V. Sekretariat  
Dr.-Ing. Thorsten Schultze  
Mrs. Patricia Mang

Bismarckstrasse 81  
47057 Duisburg / Germany  
e-mail eusas@uni-due.de

Venue: ZVEI, Lyoner Str. 9, 60528 Frankfurt a.M. (Germany)  
May 10th, 2023



11:00 **Welcome**

Prof. Dr. Andreas Czulwik, EUSAS Chairman, André John, ZVEI

### Session 1 Current Hazards and Electromobility

11:15 Peter Krapp, ZVEI, Germany

11:30 **Electromobility Risks: Fire in Electric Vehicles (Risks, Extinguishing Strategies and Parking Structures)**

Tom Hessels, Netherlands Institute for Public Safety, The Netherlands

12:00 **Challenges with Electromobility – A View from the Fire & Rescue Services**

Matthew Deadman, National Fire Chiefs Council, UK

12:30 **Break**

### Session 2 Current Developments on Electromobility – Technologies, Politics & Law

13:30 Michael Scharnowsky, Euralarm, Germany

13:45 **Overview EU Vehicle Market**

Michael Armbruster, Research Institute for Automotive Engineering and Powertrain Systems Stuttgart (FKFS), Germany

14:15 **Overview Interaction Electromobility and Power Grid**

Prof. Dr. Jochen Kreusel, Hitachi Energy, Germany

14:45 **EV Fire Detection and Suppression in Parking Garages and In-House Charging Stations**

Gerd Huelsen, Siemens, Switzerland

15:15 **Coffee break**

### Session 3 Research Activities Part I

15:45 Dr. Sebastian Festag, Hekatron, Germany

16:00 **A Study on Thermal Runaway Propagation in Battery Modules Assembled from Pouch Cells**

Dr. Sarah Hahn, Rico Tschirschwitz, Kofi Amano, Elena Gimadieva,  
Prof. Ulrich Krause, Otto-von-Guericke-University Magdeburg, Germany

16:30 **Emissions from EV Fires and Mitigation of Thermal Runaway in Large-Scale Battery Applications**

Dr. Jonna Hynynen, RISE Research Institutes of Sweden

17:00 **End of the first day (summary)**

Dr. Sebastian Festag, Hekatron, Germany

17:15 **EUSAS General Meeting (members only)**

19:00 **Dinner: Fratellis Downtown, Lyoner Straße 20, 60528 Frankfurt am Main**

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### Session 4 Research Activities Part II

09:00 Rolf Martin White, Fire Service Trondheim, Norway

09:15 **Overview of the latest Research on Electromobility Fire Risks from the NFPA Research Foundation in the US**

Victoria Hutchison, Fire Protection Research Foundation at NFPA, USA

09:45 **Lithium-ion Batteries, Vapour Cloud Explosions and Elephants**

Prof. Paul Christensen, Lithiumionsafety Ltd., UK

10:15 Coffee Break

### Session 5 Technologies, Applications, Current Issues

10:45 Peter Massingberd-Mundy, Xtralis, UK

11:00 **Detection: Overview on Technologies**

Dr. Arnd Rogner, Securiton AG, Switzerland

11:30 **Suppression: Rescue and Charging Stations**

Annika Bühls, ZVEI, Germany

12:00 **„ALBERO“ – Fire Protection Issues with Alternatively Powered Vehicles on Ferry Ships**

Dr. Jörg Kelleter, GTE, Germany

12:30 **Discussion**

13:00 **Closing of the conference**

Prof. Dr. Andreas Czulwik, EUSAS Chairman

**Registration** Please use the enclosed registration form and send it by email to [eusas@uni-due.de](mailto:eusas@uni-due.de) by April 26<sup>th</sup>, 2023 at the latest. Please note that the number of conference participants is limited and will be allocated on a first come first served basis. You may also find the registration form on the EUSAS homepage [www.eusas.org/events](http://www.eusas.org/events)

**Hotel recommendation** A limited number of rooms has been reserved at the Crowne Plaza Frankfurt - Congress Hotel, Lyoner Straße 44-48, 60528 Frankfurt am Main (in walking distance to the venue). Single room 119,- Euro, please make your own hotel reservation mentioning "EUSAS" until March 20<sup>th</sup>, 2023 at the latest (room reservations will be allocated on a first come first served basis). Contact: [contingent@cp-frankfurt.com](mailto:contingent@cp-frankfurt.com) or +49 (0)69 6633 1291.

**Cancellation** Registrations can be cancelled in written form without charge until 2 weeks before the conference. No re-imburement of fee is possible in case of later cancellation. In case a registered participant is indisposed, it is possible to appoint a deputy. Please be so kind to give us the person's name well in advance. In case the conference is cancelled by EUSAS, we shall reimburse the registration fee that has already been paid. EUSAS shall not accept any claims beyond that.