

Programme

5th International Conference on Fires In Vehicles - FIVE 2018

October 3-4, 2018 • Borås, Sweden

www.firesinvehicles.com



Cars

Trains

Alternative
fuels and
drives

Trucks

Buses

Fires In Vehicles - FIVE 2018

Fires in vehicles pose a significant threat to life and property. Recently, fires in buses have been in focus but fires in trains are also high on the agenda due to the new European train standard. At the same time new fuels and electrical vehicles are emerging together with new lighter materials in response to our need for sustainable transport alternatives. Such alternative vehicles introduce new fire challenges that need to be accounted for.

RISE Research Institutes of Sweden has instigated the International Conference on Fires In Vehicles (FIVE). The objective of this conference is to exchange knowledge concerning fires in vehicles, including both road and rail vehicles. In recognition of the fact that many of the fire problems faced by these vehicles are the same, the solutions to them can also be similar.

FIVE has become an important meeting place for fire researchers, operators, vehicle manufacturers, authorities, insurance companies and other stakeholders interested in vehicle fire safety. The conference was first held in Gothenburg (2010), next in Chicago (2012), Berlin (2014) Baltimore (2016) and is now held in Borås, Sweden.



■ Venue

The FIVE 2018 conference is held at:

Textile Fashion Center
Skaraborgsvägen 3
Borås, Sweden

Conference Themes

FIVE 2018 presents a broad range of interesting aspects all related to fires and vehicles including fire statistics, fire development, mitigation, ignition fire investigations, case studies and fire risks in vehicles with alternative fuels and alternative drives. It includes all types of vehicles such as passenger cars, buses and coaches, trains, trucks, etc. These aspects are covered both in speaker sessions and posters. The conference ends with a technical visit.

Each day is opened by invited Keynote Speakers, leaders in their field, providing an overview of their topic of expertise as an introduction to the themes of the day. FIVE 2018 invited Keynote speakers are:



Peter Newman, OTSI, Australia

Peter Newman has been an investigator at the NSW Office of Transport Safety Investigations (OTSI) since 2004, the year the office commenced. He has conducted investigations into bus, ferry and rail incidents. He also conducts rail investigations for the Australian Transport Safety Bureau. As investigator in charge he has completed numerous bus fire investigations, including the bus fire on the Sydney Harbour Bridge in 2016. For the past 3 years he has compiled the annual summary report on 'Bus Fires in NSW'.

Peter holds a Master of Safety Management from the University of Technology Sydney, a Graduate Certificate in Transport Safety from UNSW and a Diploma of Transport Safety Investigation from the Australian Transport Safety Bureau. He is a member of the Human Factors and Ergonomics Society of Australia.



Annika Ahlberg Tidblad, Volvo Car Group, Sweden

Annika is an electrochemist with extensive experience working with diverse aspects of battery technology and application. She is currently employed by Volvo Cars Corporation where she is committed to developing propulsion battery solutions for electric vehicles. Annika represents OICA in UN regulation development for Electric Vehicle Safety (EVS) and Environmental Factors (EVE) and is vice chair of ACEA TF-EVS. Previous employments include, Senior Engineer at Scania, Technical Director of Battery Expertise at Etteplan, Global Technical Manager for Electrochemical Energy Sources at Intertek and Senior Consultant in Battery Technology at Sagentia Catella.



Ola Willstrand, RISE Research Institutes of Sweden

Ola Willstrand works at the department of Fire Research at RISE Research Institutes of Sweden, Safety & Transport Division, since 2013. He is leading different types of projects focused on vehicle fire safety, fire detection, and spray diagnostics. Mr. Willstrand has experience of performing laboratory fire tests, from small-scale to full-scale, including extensive testing of different types of fire detection systems for vehicles. He has developed new test methods and certification rules in the area of vehicle fire safety and is involved in training offered by RISE within this area. Mr. Willstrand holds a Master of Science degree in Engineering Physics from Lund University.

Sponsors

Gold Sponsors



Fogmaker develops, manufactures and markets fire suppression systems with high pressure water mist for engine compartments/enclosed spaces. 150 000 Installations in more than 50 countries since 1995. Approved by: SBF127, AS 4587/5062. FM 5970-pending and UL-listed. Fogmaker's manufacturing and R&D facility are located in Väckjö, Sweden. We are approved according to ISO9001:2015 and ISO14001:2015. Currently we are working towards IATF 16949. Stand No. 1



Dafo Brand is one of the leading Nordic suppliers of fire and safety products. The company was founded in 1919 and is Sweden's oldest manufacturer and wholesaler of fire equipment. Dafo is a pioneer in Vehicle Fire Suppression with more than 120.000 sold systems for both military and civil customers in more than 35 countries worldwide. Stand No. 16



Rotarex Firetec is a world leader in certified, total flooding fire suppression systems with over 80 years of know-how. We offer a complete range of premium quality fire protection solutions with over 600 000 trusted installations worldwide. Our FireDETEC Compact Line System is the most-compact fire suppression system with UNECE R107 approval that is extremely easy to install. With our Compact Line Bus Engine Fire System you can be UNECE-compliant and strongly enhance your productivity. Stand No. 2.



At the heart of Reacton® is a team of exceptional engineers dedicated to the advancement of Fire Suppression technology, developing solutions that deliver reliability protecting both people and assets without compromise. Reacton® has developed a 'tried-and-tested' system specifically designed for vehicles, ensuring minimal downtime, disruption and cost in the event of a fire. Reacton's On Road and Off Road Automatic Fire Suppression system has achieved the highest marks possible during their SPCR 183, 197 & 199 approval testing. Stand No.12

Sponsors

Silver Sponsor



protecfire GmbH is a German manufacturer of state-of-the-art fire suppression systems for buses, coaches, trucks and underground mining and tunnel construction vehicles. Founded in 2001, protecfire delivers only the finest components meeting top quality standards capable of withstanding even the roughest of all mining applications and environmental conditions. Our unique and patented detexline technology combines detection and extinguishment in one and the same line. The system requires no external power, is non-pressurized when in stand-by and requires no change of parts for 10 years. Our extinguishment agent is free-of-fluorine, environmentally friendly and future-proof. Stand No. 14.



Dynamit Nobel Defence

DYNAMECO IS AN INNOVATIVE FIRE PROTECTION SYSTEM FOR VEHICLES

Dynameco fire extinguishing system from Dynamit Nobel Defence suppress fires in the phase leading up to the fires – in seconds – so that consequential damages of buses, trucks, trains, and military vehicle are avoided. The first seconds between the breaking out of the fire and fire fighting are decisive for the successful suppression of fires. Dynameco is designed for the suppression of fires in technical and engine compartment of different vehicle. Stand No. 15.



Honorary Sponsors



FIVE - Fires in Vehicles programme

Tuesday October 2nd

18.00-19.00 Preregistration and Reception with posters.

Day 1 Wednesday October 3rd

08.00 Registration

08.30-08.45 Opening ceremony

Keynote Session

08.45-09.15 Regulatory outlook on electric vehicle safety
Annika Ahlberg Tidblad

The Fire Problem

09.15-09.35 Bus Fires in the United States
Robert A Crescenzo

09.35-09.55 PRM Safety at Fire Hazard in Passenger Rolling Stock
Jolanta Maria Radziszewska-Wolińska

09.55-10.15 Case Study: Did the Israeli Standard I.S. 6278 (Israel Standard – Automatic Fire Extinguishing Systems in Bus Engine Compartments) solved the bus fires problem in Israel?
Shahar Dadon

10.15-10.25 Discussion

10.25-11.05 Coffee break and exhibits

Electrical vehicles

11:05-11:25 Full scale tests of electric vehicles
Andreas Sæter Bøe and Nina K. Reitan

11:25-11.45 Gas and fire risks with Li-ion batteries in electrified vehicles
Fredrik Larsson, Petra Andersson and Bengt-Erik Mellander

11.45-12.05 Promoting fire safety in innovating design of electric vehicles: the example of the EU-FUNDED DEMOBASE project
G. Marlair, A. Lecocq, P. Perlo, M. Petit, D. N'Guyen & P. Desprez

12.05-12.15 Discussion

12.15-13.45 Lunch and exhibits

Alternative fuel vehicles

13.45-14.05 Lilon Fire
Anders Gulliksson

14.05-14.25 Experimental investigation on the accidental release of CNG from cars
Lucie Hasalová, Milan Jahoda, Václav Vystrčil, Jan Karl

14.25-14.45 Experimental investigation of failure of LPG gas tanks in passenger cars during full fire development
Daniel Krentel

14.45-14.55 Discussion

14.55-15.35 Coffee break and exhibits

Alternative fuel vehicles

15.35-15.55 Fire Performance of a Cryogenic ISO Un-T75 Storage Tank Using Analytical Methods and Fire Testing
Jason Huczek

15.55-16.15 The Residual Strength of Automotive CFRP composite cylinders After Fire
Yohsuke Tamura, Koji Yamazaki, Kiyotaka Maeda

16.15-16.25 Discussion

16.35 Bus leaves for social event at RISE

FIVE - Fires in Vehicles programme

Day 2 Thursday October 4th

Keynote Session

- 08.30-09.00 Bus fires in New South Wales: an investigation agency's response
Peter Newman
- 09.00-09.30 Fire risk management: best approach to prevent vehicle fires
Ola Willstrand

Fire Investigations and case studies

- 09.30-09.50 Independent public Investigation of six vehicle fires in Norway.
Rolf Mellum
- 09.50-10.10 Unconsidered Hot Surface Ignition
Robert Bruce McKay

10.10-10.20 Discussion

10.20-11.00 Coffee break and exhibits

Fire Investigations and case studies

- 11.00-11.20 Seeing RED with vehicle fires
Richard Baker
- 11.20-11.40 Electrical Arc Tracking Fire in WAMATA Metro Tunnel
Joe Panagiotou
- 11.40-12.00 Case study of P-marked Fire suppression systems in Australia
Mick Cory

12.00-12.10 Discussion

12.10-13.40 Lunch and exhibits

Fire mitigation

- 13:40-14.00 Fire safety requirements and testing of electrical boxes installed on passenger aircraft
Thomas Krause
- 14:00-14.20 Flammability of Interior Materials – Overview
Jason Huczek
- 14:20-14.40 What can we learn from European train fire safety regulations for fire safety regulations for busses?
Anja Hofmann, Steffen Dülsen, Michael Försth and Jonas Brandt
- 14:40-15.00 Improvement of Vehicle Fire Safety in Mines by using Intelligent Digital Systems for Experience Feedback from Inspections and Incidents
Artur Zakirov, Mia Kumm and Jonas Brandt
- 15:00-15.30 Discussion and concluding remarks

Media Partners



The Fire Product Search website is an ever growing international community of fire chiefs, professional fire fighters, fire training officers and trade specialists covering the field of fire fighting and rescue. With over 225,000 unique visitors each year and growing, Fire Product Search provides the latest information on fire fighting and fire rescue equipment as well as the largest and most detailed database of fire and rescue companies in the world.

FIRE SAFETY SEARCH

ASIA PACIFIC
FIRE

Asia Pacific Fire Magazine, APF Magazine is the only quarterly journal for the Asia Pacific fire market dedicated to both fire protection and firefighting. Written by leading fire prevention and firefighting professionals, every issue is packed with in-depth technical features and the most recent developments in testing, codes and standards.

Gulf Fire نار الخليج

Gulf Fire Magazine is the only quarterly journal specific to the Middle East Fire market dedicated to both fire protection and firefighting. The editorial features are written by industry experts and comprise a unique blend focussing on the latest technology, training methods and equipment as well as highlighting sector specific issues from around the region. Regular product and company profiles, events updates and news make Gulf Fire Magazine the first choice read for fire protection and firefighting professionals. www.gulffire.com.

INTERNATIONAL
FIRE FIGHTER

International Fire Fighter Magazine, IFF Magazine is the leading global publication for municipal and industrial fire fighters and the fire and rescue industry. The editorial features are written by industry experts and comprise a unique blend focussing on the latest technology, training methods and equipment as well as highlighting sector specific issues from around the world. Regular product and company profiles, events updates and news make IFF the first choice read for fire and rescue professionals.

INTERNATIONAL
FIRE PROTECTION

International Fire Protection Magazine, IFP Magazine is the only international journal dedicated to fire safety, prevention and protection covering every aspect of the passive and active fire protection market. The editorial features are written by industry experts and comprise a unique blend focusing on the latest technology and equipment as well as highlighting sector specific issues from around the world. Regular product and company profiles, events updates and news make IFP the first choice read for fire safety professionals.

Media Partners

The logo for UK FIRE, with 'UK' in red and 'FIRE' in blue.

UK Fire is a quarterly journal specific to the UK Fire market dedicated to both fire protection and firefighting. The editorial features are written by industry experts and comprise a unique blend focussing on the latest technology, training methods and equipment as well as highlighting sector specific issues from around the region. Regular product and company profiles, events updates and news make UK Fire the first choice read for fire protection and firefighting professionals. www.ukfiremag.com.

The logo for RISE brandposten, with 'RISE' in white and 'brandposten' in orange and white on a black background.

Brandposten is published in Swedish and English by RISE Safety – Fire Research, and distributed without charge to RISE’s customers, fire and rescue services, public authorities, certification bodies, classification bodies, fire consultants, fire engineers and architects. The Swedish edition is distributed in 6000 copies and the English edition in 1500 copies worldwide. Brandposten can also be read online at www.sp.se (search for Brandposten).

Fires In Vehicles 2020

Call for papers

The language of the symposium is English.

Authors are invited to submit a manuscript for presentation at FIVE 2020. Manuscripts and posters will be reviewed on the basis of an extended abstract of not more than 2 pages. Acceptance for presentation and publication will be based on scientific quality and significance.

The manuscripts accepted for presentation at the symposium will be published as Proceedings of the Symposium.

Manuscript abstracts should be submitted to the Secretariat by email (five@ri.se) by 1st December 2019. All submissions should be in Microsoft Word (.doc) format, typed single-spaced on A4 white paper with 25 mm margins. Please use one-column format and 12 pt text.

Abstracts should contain the following details: Title, Authors, Affiliation/ Organisation of the Authors, Content.

Manuscript authors will be informed of the decision of the Scientific Review Board by 1st February 2020. Successful authors will be sent full instructions on formatting and submission of their papers in due time.

Conference venue

The fifth FIVE will be held in 2020. More information concerning the venue and program will be posted on the Conference website www.firesinvehicles.com.



RISE Research Institutes of Sweden • Safety - Fire Research

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