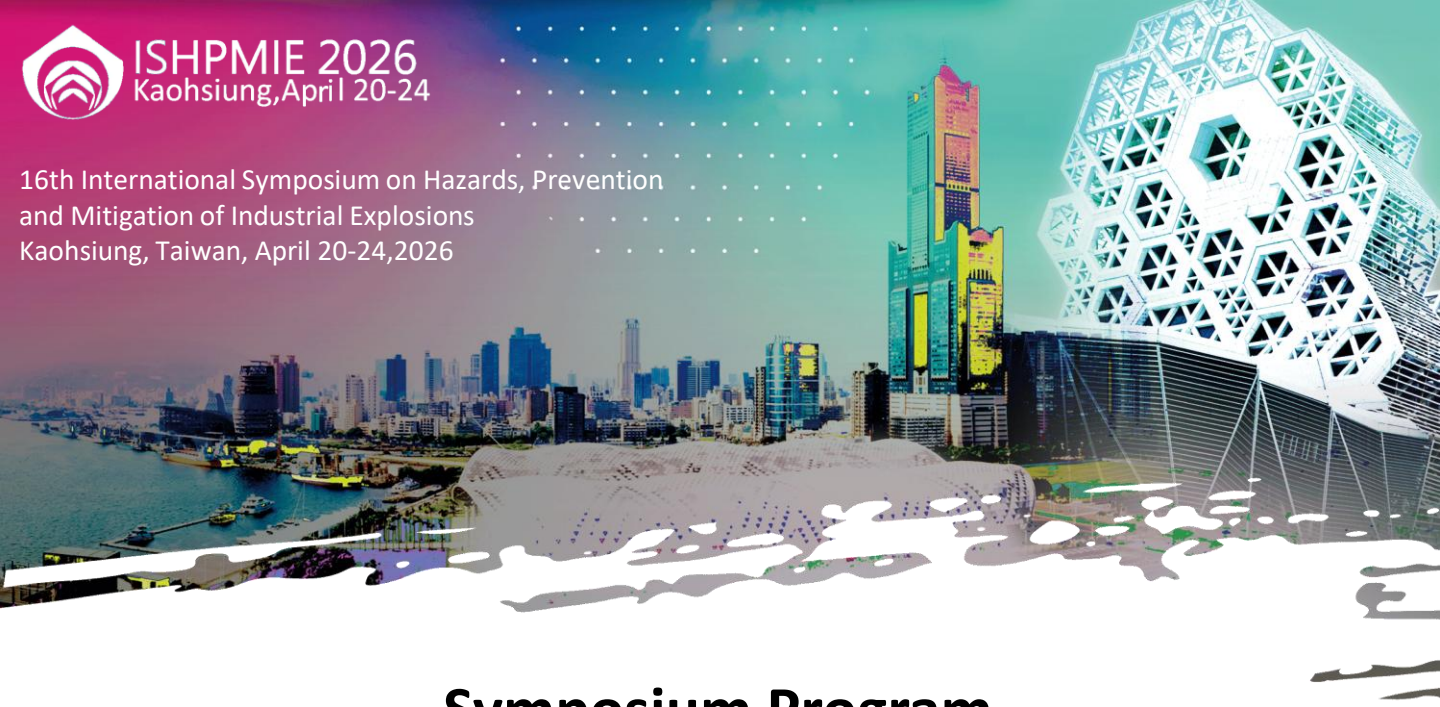

Symposium Program

Revised April 12 2026

Time	Day 0 - April 19 2026 Sun.	
14:00-17:00	Pre-registration	
Time	**Day 1 - April 20 2026 Mon.**	
08:45-09:20	Registration	
09:20-09:50	Opening Room: 301b	
09:50-10:30	Plenary 1 Room: 301b	
10:30-11:00	Break with tea/coffee at 301b rear section	
11:00-12:15	Dust & Explosion Mitigation I 301b	Flame Propagation 302a
12:15-13:45	Lunch Buffet at Belon near Yacht Harbor	
13:45-15:25	AI & Databasing Applied to Explosions 301b	Hydrogen and Gas Safety I 302a
15:25-15:50	Break with tea/coffee at 301b rear section	
15:50-17:05	Explosion Prevention & Mitigation I 301b	Battery Safety I 302a
17:05-19:00	Welcome reception at Belon near Yacht Harbor	
Time	**Day 2 - April 21 2026 Tue.**	
09:30-10:15	Plenary 2 Room: 301b	
10:15-10:45	Break with tea/coffee at 301b rear section	
10:45-12:00	Dust & Explosion Mitigation II 301b	Explosion Modelling 302a
12:00-13:30	Lunch Buffet at Belon near Yacht Harbor	
13:30-15:10	Battery Safety II 301b	Ignition & Extinction I 302a
15:10-15:40	Break with tea/coffee at 301b rear section	
15:40-17:20	Dust & Hybrid Explosions I 301b	Hydrogen and Gas Safety II 302a

Time	Day 3 - April 22 2026 Wed.	
09:10-09:50	Plenary 3 Room: 301b	
09:50-10:30	Plenary 4 Room: 301b	
10:30-11:00	Break with tea/coffee at 301b rear section	
11:00-12:15	Hydrogen and Gas Safety III 301b	Dust & Hybrid Explosions II 302a
12:15-13:00	Lunch box en route on bus to Guided tour	
13:00-17:00	Guided tour 3 Options	
17:00-18:00	Bus return to Restaurant	
18:00-20:00	Gala dinner Old New Taiwanese Cuisine, a Bib Gourmand Restaurant	
Time	**Day 4 - April 23 2026 Thr.**	
09:10-09:50	Plenary 5 Room: 301b	
09:50-10:30	Plenary 6 Room: 301b	
10:30-11:00	Break with tea/coffee at 301b rear section	
11:00-12:15	Detonation & DDT 301b	Ignition & Extinction II 302a
12:15-13:45	Lunch Buffet at Belon near Yacht Harbor	
13:45-15:25	Dust & Explosion Mitigation III 301b	Risk Management 302a
15:25-15:50	Break with tea/coffee at 301b rear section	
15:50-17:05	Dust & Hybrid Explosions III 301b	Explosion Prevention & Mitigation II 302a
Time	**Day 5 - April 24 2026 Fri.**	
09:10-10:25	Work-in-Progress Poster Presentation 301b	
10:25-11:00	Break with tea/coffee at 301b rear section	
11:00-11:50	Dust & Explosion Mitigation IV 301b	Ignition & Extinction III 302a
11:50-12:20	Closing & Best Paper Award 301b	
12:20-15:00	Lunch on Boat Tour to Kaohsiung Harbor Board from Yacht Harbor	

Time	Day 0 - April 19 2026 Sun.	
14:00-17:00	Pre-registration	
Time	**Day 1 - April 20 2026 Mon.**	
09:00-09:20	Registration	
09:20-09:50	Opening Speech, **Chung-Hsin, Wu,** President of NKUST , Room: 301b	
09:50-10:30	Plenary 1: Kaohsiung Underground Pipeline Explosion – Recovery from a Major Disaster **Chien Hsiung Wei**, 301b, Chair: **Jenq-Renn Chen**	
10:30-11:00	Break with tea/coffee at 301b rear section	
11:00-12:15	Dust & Explosion Mitigation I / 301b Chair: **Paul Amyotte**	Flame Propagation / 302a Chair: **Marco Gerbeit**
11:00-11:25	58) Fire and Explosion of Dust Suspensions in Unconfined Environment **Enrico Danzi**	146) When Gravity Affects Instability Growth: The Dynamics of Ultra-Lean H2/air Flames **Jagannath Jayachandran**
11:25-11:50	65) Examining Efficiency of Deflagration Vents Through Physics-based Modelling **Lorenz Boeck**	177) Flame Size Analysis in Premixed Starch/Suppressant Powders as a Reference Case for CFD Model Validation **Stefan Puttinger**
11:50-12:15	75) Dual Strategies to Mitigate Dust Explosions in Humid Environments: Fighting Moisture or Leveraging It **Yajie Bu**	126) Experimental Study on Buoyancy Effects and Instability Behavior of Spherical Flames in Lean Hydrogen –Oxygen Mixtures **Weisheng Chu**
12:15-13:45	Lunch Buffet at Belon near Yacht Harbor	
13:45-15:25	AI & Databasing Applied to Explosions / 301b Chair: **Ali Rangwala**	Hydrogen and Gas Safety I / 302a Chair: **Dieter Gabel**
13:45-14:10	62) Data-Driven Prediction of Explosion Limits Using a Hierarchical Machine Learning Approach **Solmaz Nadiri**	152) Strength of knowledge in risk assessments for hydrogen systems: Status and prospects **Lucie Pratabuy Tran-Quang**
14:10-14:35	54) A Data-Driven Approach to Explosion Prevention in High-Hazard Industry Sectors **Paul Amyotte**	153) Experimental Characterization of the Temperature Field of Hydrogen Fire Jets **Vojtech Jankuj**
14:35-15:00	115) A Metadata Schema for the Field of Explosion Prevention **Carsten Uber**	82) Hydrogen and Ammonia Dispersion Test in Ventilated Enclosure **Elena De Leo**
15:00-15:25	113) Intelligent Ensemble System for Tunnel Fire Source Identification: Integrating Gaussian Physical Model with Multi-algorithm Optimization **Xinru Zhang**	53) Structural Behavior of Aerospace Materials Under Gaseous Hydrogen-Air Explosion Loads: A Combined Experimental and Numerical Approach **Romain Le Dortz**
15:25-15:50	Break with tea/coffee at 301b rear section	
15:50-17:05	Explosion Prevention & Mitigation I / 301b Chair: **Holger Grosshans**	Battery Safety I / 302a Chair: **Wookyung Kim**
15:50-16:15	162) Estimating the Minimum Quantity of Fuel Needed to Pose a Room Explosion Hazard **Regis Bauwens**	186) Experimental Characterisation of Jet Fires from NMC Battery Thermal Runaway: Passive Fire Protection Perspective **Karthik Nagendra**
16:15-16:40	150) Flame-Expansion Wave Interactions: When Venting Enhances Flames **Kevin Cheevers**	174) Explosion Hazard Assessment in Wing-Body Trucks Transporting Reused Lithium-Ion Batteries: A CFD-Based Comparative Study **Byoungjik Park**
16:40-17:05		109) Comparative Assessment of CFD Tools for Gas Dispersion Modeling in Lithium-Ion Battery Energy Storage Systems against Large-Scale Tests **Prasanna Chinnathambi**
17:05-19:00	Welcome reception at Belon near Yacht Harbor	

Time	Day 2 - April 21 2026 Tue.	
09:30-10:15	Plenary 2: Understanding Flame Dynamics in Gas, Dust, and Hybrid Mixtures **Wookyung Kim,** Room: 301b, Chair: **Trygve Skjold**	
10:15-10:45	Break with tea/coffee at 301b rear section	
10:45-12:00	Dust & Explosion Mitigation II / 301b Chair: **Bretislav Janovsky**	Explosion Modelling / 302a Chair: **Sergey Dorofeev**
10:45-11:10	76) Numerical Investigation of Vent Shape Effects on Dust Explosion **Kasun Weerasekara**	118) Numerical Investigation of the Interaction Between Blast Wave and Structures in Large-Scale Explosions **Kenta Nakajima**
11:10-11:35	78) Investigation of Potential Explosion Risks in Traditional Chinese Medicine Dust Based on Dust Explosion Characteristic **Ming-Yu Hsu**	145) Insights from LES Toward Improving PDR Models for Gas Explosion Safety **Vagesh Narasimhamurthy**
11:35-12:00	83) Influence of Vent Ducts and Weather Protection Covers on the Reduced, Maximum Explosion Overpressure in Explosion Vented Dust-Laden Systems **Jef Snoeys**	50) CFD-DEM Coarse-Graining for Modelling Self-Heating of Direct Reduced Iron **Christoph Spijker**
12:00-13:30	Lunch Buffet at Belon near Yacht Harbor	
13:30-15:10	Battery Safety II / 301b Chair: **Karthik Nagendra**	Ignition & Extinction I / 302a Chair: **Kazunori Kuwana**
13:30-13:55	163) Behavior of Electric Vehicle (EV) Fires in Tunnels under Different Ventilation Systems **Yan Ting Ye**	88) Autoignition Testing: Injection, Mixing, and Ignition **Charline Fouchier**
13:55-14:20	164) Study on the Impact of Fire Safety Strategies on Electric Vehicle Fire Performance in Underground Car Parks **Feng Jui Huang**	94) Prediction of Hot-Surface Ignition Temperature of Hydrogen-Air Mixtures Using a Reduced Model **Osamu Kadowaki**
14:20-14:45	147) On the Flammability of Polymer/Acetonitrile Mixtures **Benedetta De Liso**	95) Study on Flame Spreading Behaviour of Combustibles with Coarsely-wetted Dots **Hibiki Nishikawa**
14:45-15:10	181) Integrating Aging Data and Machine Learning for Real-Time Battery State of Safety Monitoring **Kishan Patel**	124) Ignition Temperature of Propane Jet in Air Impinging to a Hot Surface **Tomoki Sawayama**
15:10-15:40	Break with tea/coffee at 301b rear section	

Time	Day 2 - April 21 2026 Tue.	
15:40-17:20	Dust & Hybrid Explosions I / 301b Chair: **Andreas Brandl**	Hydrogen and Gas Safety II / 302a Chair: **Romain Le Dortz**
15:40-16:05	49) Safety of Iron as an Energy Carrier - A View on the Reduction Process **Daniele Morra**	55) Effect of Temperature and Pressure on Fire-Safety characteristics of the mixture of natural gas and hydrogen **Matěj Mašín**
16:05-16:30	66) Modeling Combustible Dust Off-Gassing: Mass Loss Rate and Mole Fraction Accumulation of Ignitable Vapors in a Naturally Ventilated Compartment **Hannah Murray**	56) Factors Influencing the Ignition Range and Explosion Regime of Ammonia Hydrogen Mixtures **Dieter Gabel**
16:30-16:55	72) Dust Explosion Propagation In Vented Interconnected Vessels at Low Reduced Explosion Pressures **Marius Bloching**	57) Characterisation of Porous Materials for Utilisation in Explosion Protection Systems Along the Hydrogen Value Chain **Sabrina Herbst**
16:55-17:20	85) Can an Explosion Chamber of Non-Standard Shape Produce Results Comparable to Standard Explosion Chamber? **Bretislav Janovsky**	97) Friction-Induced Spontaneous Ignition in Premixed Hydrogen-Air Mixtures **Rafał Porowski**
Time	**Day 3 - April 22 2026 Wed.**	
09:10-09:50	Plenary 3: Advanced Acoustic Computed Tomography for Real-Time Tunnel Temperature Field Reconstruction: Algorithm Optimization and Intelligent Sensor Layout **Zihe Gao,** Room: 301b, Chair: **Jenq-Renn Chen**	
09:50-10:30	Plenary 4: Explosion Safety for Battery Energy Storage Systems: Emerging Engineering Best Practices and Research Challenges **Lorenz R. Boeck,** Room: 301b, Chair: **Wookyung Kim**	
10:30-11:00	Break with tea/coffee at 301b rear section	
11:00-12:15	Hydrogen and Gas Safety III / 301b Chair: **Rafał Porowski**	Dust & Hybrid Explosions II / 302a Chair: **Jef Snoeys**
11:00-11:25	117) Reliable Long-Range Detection and Imaging of Small Hydrogen Flames under Daylight Conditions **Jens Brunzendorf**	101) Effect of Carbon Dioxide Concentration on the Minimum Explosible Concentration of Aluminum Powder **Ryosuke Inoue**
11:25-11:50	63) Extending the Capability Limits of Flame Arresters for H_2 Applications Using Composite Materials **Nils-Hendrik Dennda**	111) Study on Flame Stability of Powder–Gas Hybrid Combustion **Yuyang Jiang**
11:50-12:15	185) Hydrogen Explosion Dynamics in Complex Geometries: CFD–Experiment Comparison Using PDRFoam **Ashok Choudhary**	119) Towards the implementation of pyrolysis mechanisms for polymer dust explosion simulation **Tima Al Haffar**
12:15-13:00	Lunch box en route on bus to Guided tour	
13:00-17:00	**Guided tour** 3 Options	
17:00-18:00	Bus return to Restaurant	
18:00-20:00	**Gala dinner** Old New Taiwanese Cuisine, a Bib Gourmand Restaurant	

Time	Day 4 - April 23 2026 Thr.	
09:10-09:50	Plenary 5: The Detonation Research Test Facility – Going Upscale! **Elaine Oran** / Room: 301b / Chair: **Luc Bauwens**	
09:50-10:30	Plenary 6: Chemical Suppression Systems: Review of Best Practices for Optimal Performance and Reliability **Jeramy Slaunwhite** / Room: 301b / Chair: **Regis Bauwens**	
10:30-11:00	Break with tea/coffee at 301b rear section	
11:00-12:15	Detonation & DDT / 301b Chair: **Elaine Oran**	Ignition & Extinction II / 302a Chair: **Charline Fouchier**
11:00-11:25	104) Heat Flux Investigations for Acetylene and Oxygen Explosions in Pressure Relief Systems **Marco Gerbeit**	127) Effect of Flow Velocity on the Quenching Distance of Methane–Air Premixed Flame **Jun-ichi Suematsu**
11:25-11:50	123) DDT Process subsequent to Flame Acceleration **Luc Bauwens**	159) Assessing the Degree of Pyrophoricity for Gaseous Silanes **Trung Thanh Nguyen**
11:50-12:15	144) A One-Dimensional Model to Elucidate Pressure Gain During Flame Acceleration in Smooth Channels **Jagannath Jayachandran**	133) Observation of Blowoff Process of a Diffusion Flame Formed on a Wooden Cylinder in a Blast Extinguishment with a Micro-explosive **Makiko Fukuda**
12:15-13:45	Lunch Buffet at Belon near Yacht Harbor	
13:45-15:25	Dust & Explosion Mitigation III / 301b Chair: **Trygve Skjold**	Risk Management / 302a Chair: **Ali Rangwala**
13:45-14:10	120) Hybrid Mixture Explosion from Biomass: When 1 + 1 Does Not Necessarily Equal 2 **Nicodème Goma Kidihou**	160) Application of the Fire Defense-in-Depth Concept to Mitigate Fire Spread in Residential-Industrial Hybrid Buildings using Numerical Simulation **Chung Hwei Su**
14:10-14:35	105) Inspection and Maintenance of Industrial and Commercial Fire Protection Equipment After an Earthquake **Jing-Siang Tu, Chen-An Hong**	71) A Calibrated Flashover Resilience Index for Constrained Enclosures **Han Shun Hsu**
14:35-15:00	180) Interpreting Measurements of Iron Dust Explosions in 20-L sphere: Insights from Mass and Heat Balance Analysis **Aleksandra Semenova**	107) Taiwan Fire Act Related Hazmat Compliance -An Updated Analysis **Shu-Feng Liao**
15:00-15:25	184) Electrostatic Discharges from Workwear Charged by Electrostatic Induction **Kwangseok Choi**	158) Investigation of an Organic Peroxide Dust Explosion Incident **Hsiang-Ching Peng**
15:25-15:50	Break with tea/coffee at 301b rear section	
15:50-17:05	Dust & Hybrid Explosions III / 301b Chair: **Lorenz Boeck**	Explosion Prevention & Mitigation II / 302a Chair: **Regis Bauwens**
15:50-16:15	148) Effect of Thermal Radiation on Flame Propagation: Revisiting a Dust Explosion Experiment From the Past **Trygve Skjold**	52) New Tools for Measuring and Modeling Particle Charging to Improve Gas, Liquid, and Dust Safety **Holger Grosshans**
16:15-16:40	114) Effects of Hydrogen Concentration on Flame Speed of Iron-Hydrogen-Air Mixtures **Akihiro Ueda**	171) Industrial Safety and Explosion Risk Management of Isopropyl Nitrate **Ayan Mousse Rayaleh**
16:40-17:05	129) Explosion Characteristics of TiFe–Mn Alloy Powder in Air and Sub-LEL Hydrogen Atmospheres: Implications for Hydrogen Storage Safety **Patrick Funnemann**	179) Important Safety Gaps for Process Industries for Dust Explosion Risk! **Ricky Chang**

Time	Day 5 - April 24 2026 Fri.	
09:10-10:25	Work-in-Progress Poster Presentation Room 301b / Chair: **Jagan Jayachandran**	
09:10-09:25	P1) Experimental Investigation of Hydrogen–air Flame Propagation and Quenching Distance in Narrow Gap **Yichen Gan**	
09:25-09:40	P2) Experimental investigation on the suitability of materials as pressure relief elements in flameproof enclosures for hydrogen-air atmospheres **Stefanie Spörhase**	
09:40-09:55	P3) Research on the Physical Risk Assessment of Hydrogen Leak Accident Scenarios Using Consequence Modeling Software **Ritsu Dobashi**	
09:55-10:10	P4) PDR Alliance: Collaborative development of PDR solvers for industrial-scale explosions **Sudesh Rathnayake**	
10:10-10:25	P5) Mechanism analysis of heat-flux-induced ignition in a quiescent gas under confined conditions **Detlev Markus**	
10:25-11:00	Break with tea/coffee at 301b rear section	
11:00-11:50	Dust & Explosion Mitigation IV / 301b Chair: **Ritsu Dobashi**	Ignition & Extinction III / 302a Chair: **Trung Thanh Nguyen**
11:00-11:25	86) Explosion Detection Delay in Open Enclosures **Andreas Brandl**	176) Effect of Ambient Oxygen Concentration on Flame Extinction with Water Vapor **Yoshitoshi Matsushima**
11:25-11:50	84) Assessing the Explosion Risk Differences Between Aged and Fresh Metal Dusts: A Case Study on Magnesium and Aluminum **Chia-You Gao**	157) Risk of Silane Formation from Aminosilanes Hydrolysis **Yu-Ting Lin**
11:50-12:20	**Closing** **Best Paper Award** 301b	
12:20-15:00	**Farewell Party** Lunch on Boat Tour to Kaohsiung Harbor	