2020 EUROPEAN CONFERENCE ON PROCESS SAFETY & BIG DATA

CCPS — An AIChE Technology Alliance — Center for Chemical Process Safety

EPSC

October 13–14, 2020
DECHEMA House
Frankfurt am Main, Germany

SUBMIT YOUR ABSTRACTS BY MAY 15, 2020

aiche.org/ccpseuropeanconference

The **5th Edition of the European Conference on Process Safety and Big Data** will be featuring Augmenting Process Safety Performance through Big Data, Digitalization and Robotics. Data generation & digitization is growing fast and can help to improve the safety of hazardous chemical operations. At this conference we will discuss the actual practices and opportunities. **Submit Your Abstract to: ccpseuropeanconference@aiche.org that demonstrate the relevance of process safety improvements through big data and digitalization. The call for abstracts will close on June 15, 2020.**

SESSION TOPICS INCLUDE:

1. **Tools to Avoid Human Errors**
   Digital tools to help operators and technicians avoid incidents caused by human error

2. **Data Lakes / Intelligent Dashboards / KPIs**
   Benefits of Data Lakes and Visualization to Safety, increasing transparency of process behavior and correlations between measurements and presence or absence of incidents

3. **Big Data Analytics**
   Benefits to process safety of using Big Data Analytics Closing the loop of safety life cycle. Increase Process Safety by improving manufacturing practices

4. **Standards & Methods**
   Machine Learning, Artificial Intelligence, Standards which facilitate Big Data Analytics, Status of Standardization

5. **Augmented/Virtual Reality**
   Solutions with Augmented Reality to support plant operators, maintenance workers to avoid human errors, give engineers the tools for human factor engineering/ergonomic plant design; Visualization of interrelations between measurements and safety, simulation of safety incidents

6. **Predictive Maintenance**
   Practical Big Data examples and successful projects that drive Process Safety through improving maintenance effectiveness

7. **Practical Examples/Case Studies**
   Early Identification of Process Safety and Hazard Risks, Intelligent Identification of Safety problems, solutions which reduce number and severity of incidents

8. **Robotics in Support of Safety**
   Mobile leak detection, Inspection by drones, risky tasks performed by robots and more

9. **Automation and Facilitation of PHA with AI**
   Rapid Progress in AI has put the Automation or partial Automation of PHA within reach. Researchers are invited to present their status of work and outlook on expected progress in the near future

10. **Dynamic Risk Assessment and Management**
    Practical approach for Dynamic Risk Assessment (DRA). Classic risk assessment is static, whereas DRA collects real-time data on probability of risk and uses this information into the risk assessment tool. Practical approach for Dynamic Risk Management (DRM). Classic risk management is usually based on a large number of non connected HSE documents and data, whereas DRM dynamically connects key documents and data. In doing so DRM is able to show the real process safety status of assets. For example Dynamic status of barriers

| PREDICTIVE MAINTENANCE | AUGMENTED REALITY | STANDARDS & METHODS | BIG DATA ANALYTICS FOR PROCESS SAFETY | DATA LAKES/ INTELLIGENT DASHBOARDS/ KPIS | TOOLS TO AVOID HUMAN ERRORS | PRACTICAL EXAMPLES | BIG DATA ANALYTICS FOR PROCESS SAFETY | AUTOMATION OF PHA | DYNAMICS RISK ASSESSMENT & MANAGEMENT |

PROCESS SAFETY IMPROVEMENTS

Hosted at **DECHEMA**