Academic Symposium  CCIB: Room 113, P1 Level

Join us and fellow educators, researchers, and industry collaborators for this half-day event to:

- Jumpstart your academic projects by attending this dynamic, collaborative event.
- Learn from colleagues as they share their pathways toward success with the PI System.
- Network with industry and attend our Academia-Industry Collaboration Workshop
- Learn how the PI System connects academia with campus facilities & operations.

Discover OSIsoft Learning resources and how several universities have used the PI System in the classroom. Hear from leaders who have used the PI System to motivate and support both institutes and large-scale research projects.

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:00-</td>
<td>Welcome and Overview of the Day</td>
<td>Nicolas Peels &amp; Ivan Mudron</td>
</tr>
<tr>
<td>13:15</td>
<td></td>
<td>Academic Program Managers, EMEA OSIsoft</td>
</tr>
<tr>
<td>13:15-</td>
<td>SIRIUS: Collaboration across the digital divides in the oil and gas supply chain</td>
<td>David Cameron</td>
</tr>
<tr>
<td>14:00-</td>
<td></td>
<td>University of Oslo</td>
</tr>
<tr>
<td>14:00-</td>
<td>A successful study case of collaboration through PI system: University of Granada and Abbott Lab</td>
<td>Juan Antonio Holgado Terriza</td>
</tr>
<tr>
<td>14:30</td>
<td></td>
<td>Universidad de Granada</td>
</tr>
<tr>
<td>14:30-</td>
<td></td>
<td>José Miguel Gutiérrez Guerrero</td>
</tr>
<tr>
<td>15:00</td>
<td></td>
<td>University of Granada</td>
</tr>
<tr>
<td>15:00-</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>15:00-</td>
<td>OSIsoft Cloud Offering: Transforming Student Education with the Academic Hub service</td>
<td>Erica Trump</td>
</tr>
<tr>
<td>15:30</td>
<td></td>
<td>Academic Program Product Manager, OSIsoft</td>
</tr>
<tr>
<td>15:30-</td>
<td>Intelligent Buildings Remote Monitoring Using PI System at the VSB - TU of Ostrava Campus</td>
<td>Jan Vanus</td>
</tr>
<tr>
<td>16:00-</td>
<td></td>
<td>VSB TU Ostrava</td>
</tr>
<tr>
<td>16:00-</td>
<td>Using the PI System in Chemical Engineering Education and Research</td>
<td>Željka Ujević Andrijić</td>
</tr>
<tr>
<td>16:30</td>
<td></td>
<td>University of Zagreb, Faculty of Chemical Engineering and Technology</td>
</tr>
<tr>
<td>16:30-</td>
<td></td>
<td>Nenad Bolf</td>
</tr>
<tr>
<td>16:30-</td>
<td>Smart Industrial Concept! – Design- and Operational Optimization</td>
<td>Rene Hofmann</td>
</tr>
<tr>
<td>16:30-</td>
<td></td>
<td>TU Wien</td>
</tr>
</tbody>
</table>
Academic Symposium Welcome and Overview of the Day  

CCIB: Room 113, P1 Level

We encourage industry collaborators, professors, post docs, and students to attend, as there is value for all to share and experience in our collaborative setting. If you have never attended an OSIsoft EMEA Users Conference, attend this year! If you have attended in the past, we look forward to welcoming you back with our expanded program.

Nicolas Peels  
Academic Program Manager, EMEA OSIsoft

Ivan Mudron  
Academic Program Manager, EMEA OSIsoft

SIRIUS: Collaboration across the digital divides in the oil and gas supply chain  

CCIB: Room 113, P1 Level

This paper describes how we have succeeded in setting up industry-university collaboration in SIRIUS, a centre for research-based innovation on digitalisation in the oil and gas industry. Funded through the Norwegian Research Council's programmes for centres of excellence, SIRIUS consists of researchers from two of Norway's largest universities and the University of Oxford. The industry partners represent the ecosystem of companies in the oil and gas industry, with one major operator, a major oil service company, and a set of vendor companies who specialize in different aspects of digitalisation. OSIsoft is one of these companies. We will present the challenges and opportunities offered by such centres for three-way collaborative research between end-users, vendors and academia. We will use examples from current projects that explore the next generation of data science and asset framework innovations.

David Cameron  
University of Oslo
A successful study case of collaboration through PI system: University of Granada and Abbott Lab

Collaboration between industry and academia is increasingly necessary to meet the challenges and opportunities that Industry 4.0 will provide in coming years.

The demand of qualified professionals capable to integrate expertise in engineering, computing, data analysis, artificial techniques, …, are becoming the key piece to advance and integrate new applications to the industry.

In this seminar we will present some of the benefits that Industry-University alliance can provide to both parties.

First, we will present some of the initiatives performed at the University of Granada with the flagship PI system of OSIsoft both for research and for the training of its students.

Then, we will show some of the results that we have achieved from the collaboration between the University of Granada and Abbott Laboratories in the last year.

In this collaboration, students of last year of Degree and Master worked at the Gr. plant of Abbott Lab. for the development of a condition-based maintenance
OSIsoft Cloud Offering: Transforming Student Education with the Academic Hub service

CCIB: Room 113, P1 Level

Work with OSIsoft to empower the workforce of tomorrow with the data-focused skills that industry demands.

Learn how courses have been revamped using OSIsoft’s Academic Hub service cloud-based offering.

Learn how to bring the OSIsoft's Academic Hub service to your university lab.

Erica Trump
Program Manager, Academic Learning, OSIsoft

Intelligent Buildings Remote Monitoring Using PI System at the VSB - TU of Ostrava Campus

CCIB: Room 113, P1 Level

Jan Vanus
VSB TU Ostrava

The aim of authors is to present the implementation of the PI System for monitoring of technologies in Intelligent Buildings (IB) and Smart Home (SH) at VSB TU Ostrava with the objective of the subsequent use of the BMS (Building Management System) application in accordance with possibility use it in the concept of Smart City (BroadbandLIGHT polygon) within individual PI System Tools and their properties for data analysis. Acquired data are used for the application of Soft Computing methods for the purpose of the long-term monitoring of the individual conditions of the building, followed by collecting information for optimizing of the operational and technical functions control in Intelligent Buildings. In the framework of the lecture will be also presented experiences with using of PI System in Education and research at VŠB TUO (collection of data from the Intelligent buildings, benefits for students education and benefits of PI System using for Intelligent building automatization).
Using the PI System in Chemical Engineering Education and Research

Fast development, new paradigms, intelligent devices and large amounts of data from industrial processes are constantly bringing new challenges. This has been recognized at the University of Zagreb where The Laboratory for Automation and Measurement deals with research and development in the fields of basic and advanced measurements, monitoring and diagnostics, process control, modelling and optimization.

This contribution illustrates how chemical engineering students utilize the PI process information system and predictive analytic tools in a real-plant data analysis.

In addition, it describes application of the PI tools for refinery heat exchanger diagnostics. Neural network-based models are intended for fouling detection and heat exchanger performance monitoring, enabling predictive condition-based maintenance. The template and related dashboard has been built utilizing the functionalities of the PI Asset Framework and the latest PI visualization tools.

Željka Ujević Andrijić
University of Zagreb, Faculty of Chemical Engineering and Technology

Nenad Bolf
University of Zagreb, Faculty of Chemical Engineering
The overall goal of SIC! is the development of methods for the energy-optimized operation of industrial plants, their energy conversion, distribution and storage, as well as, the investigation of their interaction with the general conditions of the energy industry. This should make a significant contribution to better integration of renewable sources of energy in increasingly volatile markets. An information model will serve as a central knowledge base and general data management tool. It will enable a more systematic access to data-driven modeling, analysis and simulation of component models. Key issues present heterogeneous data sources, poor data quality and availability, compatibility and interoperability of system components and implicit domain knowledge, which should be provided explicitly. The runtime system comprises the actual system for optimizing the operation of the energy supply and is envisaged to ensure optimum conditions both in extreme load situations and fluctuations.