KROHNE

measure the facts

KROHNE - SAMSON Academy

Decarbonisation and digitalisation in the process industry

Seminar 20 April 2023

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First-hand knowledge

Decarbonization and digitalization are two major trends that are transforming the process industry. Decarbonization refers to the reduction of carbon emissions in order to mitigate climate change, while digitalization involves the use of digital technologies to optimize processes and increase efficiency. These two trends are interconnected, as digitalization can enable more effective decarbonization strategies by providing real-time data, modeling tools, and predictive analytics to optimize energy consumption and reduce emissions. The process industry, which encompasses a range of sectors including chemicals, oil and gas, and manufacturing, has a significant role to play in achieving decarbonization goals. By leveraging digital technologies, the industry can reduce its carbon footprint while improving productivity and competitiveness.

In cooperation with SAMSON, the KROHNE Academy is organising a multidisciplinary seminar on the topic of „Decarbonisation and digitalisation in the process industry" on the 20th of April 2023.

Topics such as AI for valve management, communication protocols, custody transfer & sustainable solutions for H_2 & CO_2 applications and much more will be covered.

In addition to the lecture programme and live demos, participating companies will display their products, services and expertise on the exhibition floor during the breaks. The presence of the speakers on the exhibition floor and the many contact moments will provide ample opportunity to exchange opinions and experiences.

Please register on our website at https://krohne.link/academy-energie-be.

The event is free of charge for you.
We look forward to your participation!

Morning

08:30 – 09:00 h	**Reception**
	DECARBONISATION
09:00 – 09:15 h	**Introduction + Agenda**
09:15 – 10:00 h	**Decarbonisation of the industry**
KROHNE *Speaker:* *Mark Vandezande*	Hydrogen is foreseen to play an important role in the energy transition and will be an important piece of the puzzle to decarbonize the industry. Traditionally hydrogen is applied as feedstock in the industry, but with its new role as energy carrier, the volume of hydrogen (especially green and blue) is expected to grow exponentially. KROHNE has many decades of experience in measuring hydrogen in various industrial applications where hydrogen is applied both as feedstock and as energy carrier. In this presentation we will present a selection of these applications and use our field experience to highlight the benefits, potential and challenges of measuring hydrogen.
10:00 – 10:30 h	**Custody Transfer**
KROHNE *Speaker:* *Nico Mathhies*	During the presentation, there will be a comprehensive overview of the regulations specified in the European measuring instruments directive 2014/32/EU for custody transfer instruments. The annexes that are applicable to gas, thermal energy, and liquids other than water will also be introduced and elaborated upon using specific examples.
10:30–11:00 h	**Break & demo**
11:00–11:30 h	**Strategic position of Belgium in tomorrow's energy policy**
Speaker: *An Stroobandt*	Europe has the ambition to become climate neutral till 2050. The current war in Ukraine was not only a wake-up call to remind us of the fragility of peace, but also the fragility of our dependance on fossil fuels. However, energy is not a story of gloom and doom, but also a story of hope. Therefore, this presentation will focus on the long term ambitions for Belgium on climate neutrality and on solutions for electrification and for molecules within the responsibility of the federal minister of energy.
11:30 – 12:15 h	**Control valve solutions for the sustainable H2 value chain**
SAMSON *Speaker:* *Frank Horlebein*	SAMSON supplies control solutions for hydrogen service to process industry customers all across the globe. These solutions include control valves as well as digital tools and services that function reliably over decades thanks to their accuracy, ruggedness and efficiency. This presentation will give you more info on hydrogen generation using electrolysis, hydrogen purification and hydrogen liquefaction & transport.
12:15 – 13:00 h	**Lunch break & demo**

Afternoon

	DIGITALISATION
13:00 – 13:15 h	**Introduction + Agenda**
13:15 – 14:00 h FOCUS-ON *Speaker:* *George Borst*	**New way of control (Integration os sensors and control)** We are currently living in an era of aging where the „digital-native" new generation must be equipped to handle advanced technologies related to sensors, controls, communication, and data processing. This entails integrating and combining well-established sensor and control technology with computer technology, which yields numerous benefits. What exactly do these benefits entail, and how can this integration improve the performance of these systems?
14:00 – 14:45 h SAMSON *Speaker:* *Robert Nijhuis*	**Data for predictive maintenance, less is more?** In the process industry gathering and storing process data is common. Large amount of data are stored in data-historians. How can we use these already available data for predictive maintenance? Or is it necessary to install extra hardware to gather extra data? In this presentation we discuss this dilemma, taking the SAMGUARD solution as guideline. What are the possibilities using data in your historian, what conditions should be met and when do you need extra hardware and data?
14:45–15:15 h	**Break & demo**
15:15–16:00 h *Speaker:* *Kurt Polzer*	**Three key technologies for Digital Transformation** **FDI - Ethernet-APL - NOA with PA-DIM** The field level in automation solutions within the process industries contains valuable data that could be utilized to optimize or evaluate the system's condition. However, the lack of communication infrastructure prevents the continuous reading of this data. In this regard, the digitalization of the field level plays a crucial role in addressing this challenge. Fortunately, technological advancements such as FDI, Ethernet-APL, and the NAMUR Open Architecture (NOA) are now available in the market to provide a solution to this issue, complemented by the already existing components. These technologies will be discussed in the lecture, and a live demo system will be available for viewing during the breaks via remote access.
16:00–16:15 h	**Closure**
16:15 – 18:00 h	**Reception**

Organisers

SAMSON

SAMSON REGELTECHNIEK is part of the globally operating SAMSON. With branches in more than 50 countries, the company is a reliable global player. Together with AIR TORQUE, CERA SYSTEM, KT-ELEKTRONIK, LEUSCH, PFEIFFER, PRECOGNIZE, RINGO, SED, STARLINE and VETEC, SAMSON offers a full range of control valves for industrial processes and far-reaching digitalisation in the field of smart control valves.

www.samsongroup.com

FOCUS-ON

FOCUS-ON is a joint venture between KROHNE and SAMSON, which have joined forces and technologies in the emerging era of Autonomous Factories and Industry 4.0. FOCUS-1 integrates Control Valve, Measurement Sensors and Data Analysis into 1 instrument. Combining these critical functions which, come together in many controls, has resulted in a product that can autonomously control, monitor, diagnose and optimise industrial production processes.

www.focus-on-process.com

KROHNE

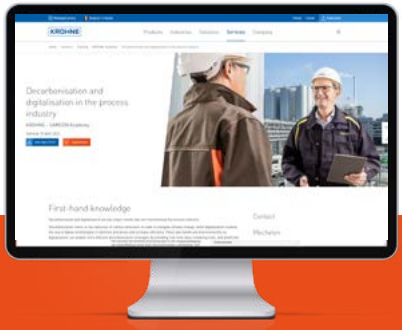
KROHNE is a global leader in the development and production of innovative and reliable measurement technology, offering measurement solutions for all conceivable industries. KROHNE: your partner for flow, level, pressure, analysis and temperature measurement instrumentation.

www.krohne.be

Event location

Mechelen

UGC Cinema
Spuibeekstraat 5
2800 Mechelen



Register for free :
krohne.link/academy-energie-be

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