



Specialized Course :

EXPLOSION SAFETY IN THE PROCESS INDUSTRY

21 – 25 OCTOBER 2019

LEUVEN | FACULTY CLUB



**Delta
Process
Academy**

SAMEN VOOR VEILIGHEID EN MILIEU



essenscia

where chemistry meets life sciences

DEAR MEMBER,

essenscia would like to present the details of the specialized course explosion safety in the process industry, organized by Delta Process Academy, essenscia and the Chemical Engineering Department of the KU Leuven (as part of the Advanced Master of Safety Engineering program). For additional information concerning these topics please feel free to contact **Mr. Geert Boogaerts (+32 476 906 663 | gboogaerts@essenscia.be)**.

PROGRAMME

Process safety is a specific discipline within the organization of a company. The level and quality of process safety management determines the success of the organization. Delta Process Academy aims, with this 5- day specialized course, to provide professionals with a process safety course offering the essentials of hazard analysis, based on the theoretical and practical foundation of explosions in the process industry. The lectures are taught by specialists in their discipline.

After the course a certificate will be granted at completion of the course. For each day a syllabus is provided by the organization.

THE GOVERNANCE BOARD AND STEERING COMMITTEE OF DELTA PROCESS ACADEMY

- **MSc. Yvan Pelgrims**, President Delta Process Academy, Evonik, Board Member of essenscia
- **MSc. Frank Beckx**, Managing Director of essenscia Flanders
- **MSc. Marnix Mahieu**, Managing Director, Kronos, Gent
- **MSc. Nico Hertoghe**, Core Safety Engineering, ExxonMobil
- **PhD. MSc. Pol Hoorelbeke**, Vice president Safety, Total
- **MSc. Geert Vercruysse**, Process Safety expert, BASF
- **MSc. Ronny Stulens**, Operations Director BU West, Janssen Pharmaceutica
- **MSc. Kris Deboutte**, Global SHE Manager INEOS Phenol
- **MSc. Frank Quaeyhaegens**, Operations Manager, Covestro

ATTENDEES

Professional engineers with industry experience for whom understanding and applying process safety thinking is an integral part of their jobs and who would benefit from a design engineering view on process safety for deepening the expertise in their roles and for their career development (e.g. operations, engineering, maintenance, R&D, safety professionals...).



LECTURERS

- **PhD. MSc. Filip Verplaetsen**, Visiting Professor KU Leuven, UGent, ADINEX
- **PhD. MSc. Filip Van den Schoor**, Visiting Professor KU Leuven, M-Tech
- **PhD. MSc. Jef Snoeys**, Fike Europe

AIMS

This specialized course deals with explosions, they still cause the greatest proportion of losses in the chemical process industry, an estimated 68 % against 30% caused by fire. The course aims at explaining the theoretical characteristics of explosions combined with the industrial ignition sources, industrial applications combined with prevention and mitigation measures. A real life visualization of the different types of explosions is included.

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DAY TO DAY OVERVIEW OF THE PROGRAMME: 08:30 – 17:30

DAY 01

1

MONDAY 21 OCTOBER 2019

Background and theoretical foundations

Fundamentals of gas explosion

 **PhD. MSc Filip Van den Schoor**

Fundamentals of dust explosions

 **PhD. MSc. Filip Verplaetsen**

Characteristics of gas explosion

 **PhD. MSc Filip Van den Schoor**

Characteristics of dust explosion

 **PhD. MSc. Filip Verplaetsen**

DAY 02

2

TUESDAY 22 OCTOBER 2019

Explosion risks: development and consequences

Explosion energy of physical and chemical explosions

 **PhD. MSc Filip Van den Schoor**

Pressure wave development and impact: case studies

 **PhD. MSc Filip Van den Schoor**

Effects of explosion on buildings

 **PhD. MSc. Filip Verplaetsen**

Effects of explosion on persons

 **PhD. MSc. Filip Verplaetsen**

DAY 03

3

WEDNESDAY 23 OCTOBER 2019

Real life visualization

ExELect-demo 14:00 - 18:00

Technopolis Mechelen

HOST CITY

Leuven

LOCATION

Faculty Club
Groot Begijnhof 14
www.facultyclub.be

LUNCH

Business menu 3-course dinner

TOTAL REGISTRATION FEE

€ 2200



DAY TO DAY OVERVIEW OF THE PROGRAMME: 08:30 – 17:30

DAY 04

4

THURSDAY 24 OCTOBER 2019

Ignition, equipment and legal aspects

Ignition sources: electrostatic discharge and mechanical sparks

 PhD. MSc. Filip Verplaetsen

Explosion prevention by explosion safe equipment

 PhD. MSc. Filip Verplaetsen

ATEX in practice: point of view of a notified body

 MSc. Patrick Hermans, Vinçotte

ATEX in practice: point of view of the industry

 MSc. Alain Schoeter, Bayer

DAY 05

5

FRIDAY 25 OCTOBER 2019

Prevention and protection

Explosion prevention systems

 PhD. Jef Snoeys

Explosion protection systems

 PhD. Jef Snoeys

Visit to the lab of industrial safety

 PhD. Filip Verplaetsen

How to determine intrinsic hazards

The Module is limited to 20 participants. Because a high level of interaction is foreseen.



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**EXPLOSION
SAFETY
IN THE PROCESS
INDUSTRY**

REGISTRATION FILE

Specialized course: Explosion safety in the process industry

PARTICIPANT

FIRST NAME

LAST NAME

EMAIL

COMPANY

FUNCTION

Member of Delta Process Academy Member of essenscia

THE INVOICE OF € 2200 (TOTAL REGISTRATION FEE, EXCL. VAT) CAN BE SENT TO

COMPANY

STREET AND NUMBER

POSTAL CODE AND CITY

V.A.T.

SIGNATURE OF THE PARTICIPANT

To be faxed to +322230 7118 or to be sent by mail
to **Ms. Michèle Celis** (mcelis@essenscia.be)
For additional information please feel free to contact
Mr. Geert Boogaerts (+32 476 906 663 | gboogaerts@essenscia.be)
or **Ms. Michèle Celis** (mcelis@essenscia.be).

