

SAPII Summer school, 3-5 septembre 2018, Liège



Venue: Liège complexe Opéra, Salle Pousseur

https://www.campus.uliege.be/cms/c_5878408/en/o2-complexe-opera-amphitheatres

Monday 03.09

8:45: Registration

9:30 – 10:15: Welcome and Introduction to Process Integration (PI) (ULiège, MEFOS)

10:15 – 11:00: PI: a systematic approach; Design and off-design models (LTU)

11:00 – 12:15: Flowsheeting as a simulation tool + *Exercise* (ULiège, MEFOS)

12:15: Lunch

13:15 – 13:30: *Correction of flowsheeting exercise* (MEFOS)

13:30 – 15:00: Basic elements of Pinch Analysis (LTU)

15:00: Coffee Break

15:30 – 16:00: *Exercise: Data extraction for pinch analysis* (LTU)

16:00 – 16:45: **Industrial application:** Integrated conceptual design of heating system (LKAB)

16:45 – 17:30: **Industrial application:** Application of Pinch Analysis on galvanizing line: case study (AM)

17:30 – 17:45: *Introduction to on-line platform exercises* (ULiège)

Tuesday 04.09

8:30 – 10:00: Heat integration: Data Extraction, Utilities and Other Targets, Integration with CHP plants (LTU)

10:00: Coffee break

10:30 – 11:15: *Exercise: Pinch analysis and grand composite curve* (LTU)

11:15 – 12:00: Heat integration in batch & variable processes (AM)

12:00: Lunch

13:00 – 13:15: *Correction of on-line exercises* (All)

13:15 – 14:00: Applied tools for Process integration (MEFOS)

14:00 – 14:45: **Industrial application:** Electric steelmaking model (Höganäs)

14:45 – 16:00: *Exercise Mathematical programming* (MEFOS)

15:15: Coffee Break

16:00 – 16:45: **Industrial application:** Reclaiming Zinc-containing sludge from settling ponds (SSAB)

16:45 – 17:30: Data validation and reconciliation (ULiège)

19:00: Social event: Beer-tasting & Dinner

Wednesday 05-09

8.00: Shuttle bus leaving from Opera to Sart-Tilman Campus

8:30 – 10:00: *Exercise: Data Validation and Reconciliation* (ULiège)

10:00: Coffee break

10:20 – 11:00: Lab visit: Hall of Chemical engineering (ULiège)

11:00 – 11:50: Lab visit: Thermodynamic department and Organic Rankine cycles (ULiège)

11:50: Lunch

12:45: Shuttle bus from Sart-Tilman Campus to Opera

13:15 – 14:30: Integration of Carbon capture, re-use and storage (ULiège)

14:30 – 15:15: *Exercise: Process integration with carbon capture* (ULiège)

15:15: Coffee break

15:45 – 16:30: **Panel discussion:** barriers and drivers for process integration. Panel guests: D. Gauthier, L. Chefneux, Ph. Lingebrant, S. Salamé

16:30: Wrap-up (MEFOS) & farewell drink



Successful Application of Process Integration in the Industry

This course is organized in the framework of the SAPII project, funded by the EIT Raw Materials.

Supported by



This activity has received funding from the European Institute of Innovation and Technology (EIT), a body of the European Union, under the Horizon 2020, the EU Framework Programme for Research and Innovation

