# 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 PI 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)

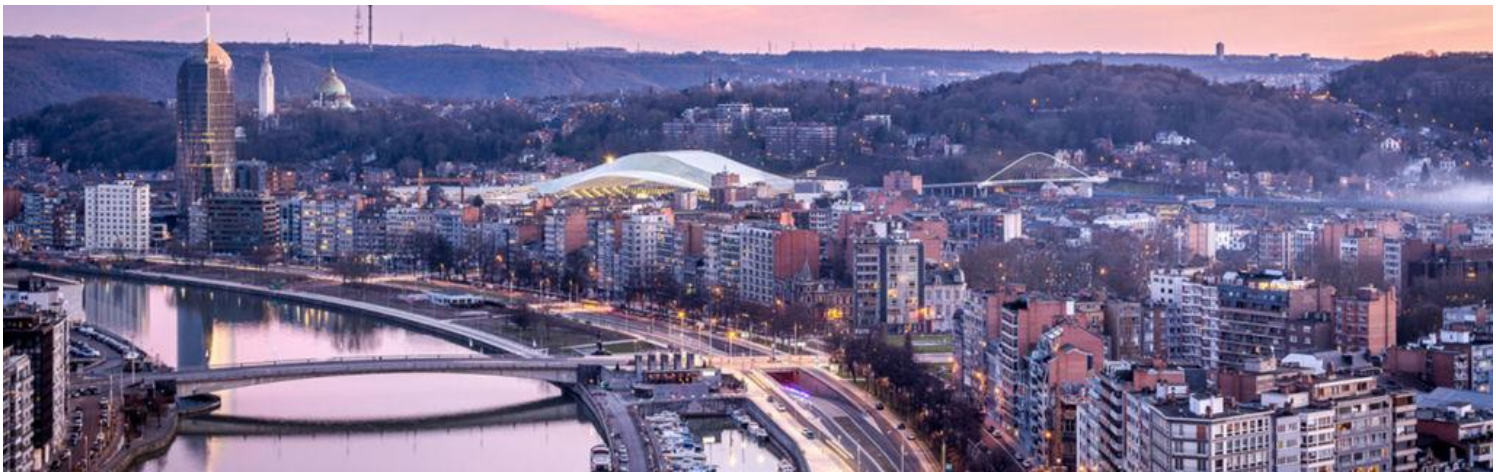
**Tuesday 04.09**
8:30 – 10:00: Heat integration: Data Extraction, Utilities and Other Targets, Integration with CHP plants (LTU)
10:00: Coffee break
10:30 – 11:15: *Exercise: Pinch analysis and grand composite curve* (LTU)
11:15 – 12:00: Heat integation in batch & variable processes (AM)
12:00: Lunch

13:00 – 13:15: *Correction of on-line exercises* (All)
13:15 – 14:00: Simulation tools for Process integration (MEFOS)
14:00 – 14:45: **Industrial application**: Effect of new BOF procedure (SSAB)
14:45 – 16:00: *Exercise Mathematical programming* (MEFOS)
15:15: Coffee Break
16:00 – 16:45: **Industrial application**: Electric steelmaking model (Höganäs)
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 – 14:15: Integration of Carbon capture, re-use and storage (ULiège)
14:15 – 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 (A-Spire), L. Chefneux (former AM), + others senior industry experts to be confirmed soon
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.