



eseia International Summer School 2020

Climate Friendly Bioenergy Solutions

14 – 25 September 2020

In Eastern Finland

Information

- The two-week programme in Eastern Finland consist of:
 - Lectures
 - Laboratory works
 - Site visits
 - Workshops
 - Group tasks
 - Supervised group tasks
 - Presentation of preliminary ideas with feedback
 - Final presentations
- The student will receive comprehensive overview of environmentally friendly bioenergy solutions (by lectures, laboratory works and site visits) and they will apply their knowledge to solve problems given by companies working on bioenergy sector.
- The eseia ISS 2020 will be organized together with bioeconomy specialized universities in Eastern Finland:
 - Savonia UAS (Varkaus, Kuopio, Iisalmi)
 - Karelia UAS (Joensuu)
 - University of Eastern Finland (Kuopio, Joensuu)
- **Deadline for Application is May 2020**

Programme

1 st week 13.9-20.9.2019

Sunday 13 th	Arrival at Varkaus
Monday 14 th	Introduction of ISS 2020 Presentation of challenges (owner companies) Bioeconomy and innovations (Lecture UEF) Orientation to project work (supervised group work)
Tuesday 15 th	Savonia, UEF Kuopio (lectures, lab works, site visits)
Wednesday 16 th	Soil improvement and circular fertilizer products based on industrial side streams and their processed mixtures Microbe-based biorefining, accelerated composting system for biomasses, slow pyrolysis, biogas production Possibilities to utilize ash as such or purified by proper processing for fertilizers, earth construction materials and composites are included in Biosphere topics
Thursday 17 th	Savonia Varkaus (lectures, lab works,) at Energy research center
Friday 18 th	Environmental friendly combustion technologies, (testing of emission reduction technologies with fluidized bed pilot plant)
Saturday 19 th	Excursion (Cruising on Kallavesi and Sauna/Saana)
Sunday 20 th	Free day

Programme

2nd week 21.-25.9.2019

Monday 21 st	Karelia, UEF Joensuu (lectures, lab works, site visits)
Tuesday 22 nd	Regional bioenergy solutions - design of technical solution - biofuel supply chain management
Wednesday 23 rd	Savonia Varkaus, Supervised group works
Thursday 24 th	Savonia Varkaus, Supervised group works, preparation of final presentation
Friday 25 th	Savonia Varkaus, final presentations of group works, certificates and closing ceremonies Farewell