

# Summer School

In frame of the LIFE LOGOS4WATERS project

15-21 October

Baja and Magyaregregy, Hungary

# The purpose of the Summer School

- The need for climate and flood risk resiliency has induced changes in water policies in Europe and thus new challenges in water resources management are arising.
- Integrated approach and basin-scale, crossborder harmonized water management policies must prevail, and in order to achieve the basin-wide goals, attitudes towards floods and droughts have to be changed, as the importance of Nature-based Solutions is quickly emerging.
- LIFE LOGOS 4 WATERS project aims to contribute to the achievement of these goals.
- We created this Summer School in order to meet the recognized need for the improvement of water-related education. Our Faculty strives for the use of state-of-the-art technologies in day-to-day monitoring, and for the widest possible application of novel surveying, evaluation and design techniques.

# Quick overview

- During the summer school you are going to participate in:
  - Classroom lectures
  - Interesting presentations related to the topic
- You will learn methodologies of field surveys in hydro-geodesy and hydrometry (for the planning of Nature-based solutions you need them 😊 in design) and apply them yourselves
- You will learn how to process your own datasets and how to visualize your results
- You will work in groups, each with the guidance of an expert supervisor
- You will have fun 😊

# Day 1 (Sunday, 15 October)

- 08:00 BREAKFAST
- 10:00 **The purpose of the Summer School, introduction to the project** (Enikő Anna Tamás, UPS FWS)
- 10:30 **Labour safety and security** (Dániel Koch, UPS FWS)
- 11:00 Introduction of all participants
- 12:00 LUNCH
- 13:00 Presentation: **Habitat restoration along Drava River** (Barina Zoltán, WWF Hungary)
- 15:00 Lecture: **Hydro-geodesy** (László Vas, UPS FWS – LDWVA)
- 17:00 Lecture: **Hydrology and hydraulics** (Enikő Anna Tamás, UPS FWS)
- 19:00 DINNER

# Day 2 (Monday, 16 October)

- 08:00 BREAKFAST
- 09:00 Presentation: **Hydrological alterations of stream discharges and their effects in the central Danube region** (Lidija Tadic, Osijek University)
- 11:00 Presentation: **Ecological purpose restoration of small streams and the importance of monitoring** (Andrzej Struzynski, Krakow University of Agriculture)
- 13:00 LUNCH
- *14:00 Travel to the location of field measurements in Magyaregregy*
- 16:00 Presentation: **The experimental catchment in Magyaregregy** (Dániel Koch, UPS FWS)
- 17:00 Lecture: **Hydrometry** (Enikő Anna Tamás, UPS FWS)
- 19:00 DINNER

# Day 3 (Tuesday, 17 October)

- 08:00 BREAKFAST
- 09:00 FIELDWORK
  - Equipment introduction,
  - basic practical measurements at the field station (velocity/discharge measurement with different methods),
  - measurements of precipitation, infiltration and surface runoff,
  - soil moisture determination,
  - sediment sampling and analysis
- Afternoon: processing of the morning measurements
- 18:00 DINNER
- 19:00 Presentation: **Integrated wetland mangement and restoration** (István Zsuffa, UPS FWS)

# Day 4 (Wednesday, 18 October)

- 08:00 BREAKFAST
- 09:00 FIELDWORK
  - Measurements for hydrological longitudinal profile of the discharge of a creek, including morphological measurements (Cross-sections) with traditional and modern technology, junction measurements (walking distance: ~6km)
  - introduction to water-related monitoring techniques
- Afternoon: processing of the morning measurements
- 18:00 DINNER
- 19:00 Presentation: **Regulation of the Hungarian Danube reach and its consequences** (Enikő Anna Tamás, UPS FWS)

# Day 5 (Thursday, 19 October)

- 08:00 BREAKFAST
- *09:00 travel to the campus in Baja*
- 12:00 LUNCH
- 13:00 FIELDWORK
  - Measurements of the discharge and bathymetry with ADCP and sonar technology – River Danube
- 19:00 DINNER



# Day 6 (Friday, 20 October)

- 08:00 BREAKFAST
- 09:00 Processing of the measurements from the afternoon 19th, finalization of the documentation
- 12:00 LUNCH
- 13:00 Finalization of the documentations. Discussion and presentation of the results – by groups
- 20:00 Social dinner

# Day 7 (Saturday, 21 October)

BREAKFAST

Departure