Detailed plan for the GeoCLIC Winter school in Weihenstephan

The Winter School

- **Date**
  - Monday, Feb 27, until Friday, March 03, 2023
  - Arrival: Sunday evening; Departure: Friday afternoon
  - There will be an opportunity for a joint dinner on Sunday, February 26, for all those who arrive during the day. All participants are encouraged to arrive on Sunday anyway.
  - On Saturday, March 04, there is an option for a joint excursion (e.g. castle Herrenchiemsee).
    - ✓ This is not an official part of the Winter School, but all participants are invited to join (full day on Saturday).
- **Venue**
  - University of Applied Sciences Weihenstephan-Triesdorf (HSWT), Freising, Germany
  - There will be a full-day excursion on Tuesday to HSWT's other campus in Triesdorf in the Ansbach region. This day will contain lectures and practical exercises.
- **Target audience**
  - Students and graduate students from the institutions participating in the GeoCLIC project; overall 20-25 participants
  - All participants will receive a certificate.
- **Learning aims**
  - Get acquainted with the use of different Remote Sensing tools and products to support climate-friendly and climate-resilient landscapes
  - Be able to transfer the results between regions and develop own analyses for individual research or teaching purposes
  - There are five topics in the Winter School
    - ✓ Topic 1: Introduction to Remote Sensing and GIS applications for climate research
    - ✓ Topic 2: GIS/RS applications for characterizing soils in agriculture
    - ✓ Topic 3: GIS/RS applications for characterizing plants in agriculture
    - ✓ Topic 4: Implementation of GIS/RS field data to combat CC + field day
    - ✓ Topic 5: Economic and ecological consideration of the use of GIS/RS systems and farm data.
- **Task for the participants**
  - All participants will work on a land-use & climate related task during the week.
  - Each group can add different research questions to the core task, or different regions/data/etc.
  - Up to three student groups will be able to present the results from their work; these will be selected on Thursday.

- The task comprises four steps, of which numbers 3 and 4 are more ambitious:
  - ✓ STEP 1: Define land-use classes (forest, agriculture, peat, water, urban, etc.) by using remote sensing data; add soil information (type, moisture, humus content) where possible. The target area can be selected by the student groups.
  - ✓ STEP 2: Use different methods and data sources for task #1 and estimate the uncertainty
  - ✓ STEP 3: Use the LU classes to suggest better landscape designs, optimizing climate protection and climate resilience
  - ✓ STEP 4: Assess ecological and economic side effects of these suggested changes in the landscape
- **Dissemination event on Friday**
  - This event will host internal and external guests from administrative bodies, the private sector and research.
  - These groups will be selected in a test run on Thursday afternoon.

Schedule „GeoCLIC Winter School 2023"

Time	Monday Feb 27	Tuesday Feb 28	Wednesday March 01	Thursday March 02	Friday March 03
7-9		*Bus transfer to Triesdorf*			
9:00-12:00	9:00-11:15 • 9.00 – 9.15 Welcome of participants, explanation of WS concept: Logistics lectures – practice – task (Olaf Schroth) 9.15 – 10.45 • Quick introduction to RS: revisiting the preparation material (Jonathan Chan)	• Introduction to Triesdorf Campus and International Master Programme • Presentations within KoDA (Competence Centre for Digital Agriculture) on research and teaching (all GIS-related) • Field measurement of soil conductivity	9:00-11:15 • Introduction Topic 2: GIS/RS applications for Plants and Soils (UniZG) • RS for soil spectroscopy, including fields of application (UniZG) • GIS applications for soil science (UniZG) • Yield forecasting with RS (Bernhard Schauberger)	9:00-10:15 • Introduction Topic 3: Environmental and Agricultural Aspects of CCM • Options in land use for climate change management (Matthias Drösler/team) • Options in agriculture for adapting to climate change (Bernhard Schauberger)	• **Joint Dissemination and Multiplier Event**
	11:00-12:00 • Introduction Topic 1: GIS - Acquisition and Integration of different data (Olaf Schroth)		11:30-12:00 Introduction to the Climate Change Master programme at HSWT (Matthias Drösler/team)	10:30-12:00 Hands-on exercise for solving the task (in groups)	• **Joint Dissemination and Multiplier Event**
12:00 - 13:30	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Buffet Lunch
13:30-16:00	13.30 – 14.00 Task Setting up the groups (Bernhard Schauberger)	• Excursion to GIS applications in agriculture in/around Triesdorf • Data acquisition with drones and comparison to RS images (*tbc*)	Hands-on exercise for solving the task (in groups)	Time for individual practice (in groups) and preparation of the presentation **Management Meeting (parallel)**	• **Joint Dissemination and Multiplier Event** and closure of the Winter School
16:15 – 17:00	Time for individual practice (in groups) and short presentation of outcomes		Time for individual practice (in groups) and short presentation of outcomes	Time for individual practice (in groups) and **selection of presenting groups for Friday**	
17:00-19:00		*Bus transfer from Triesdorf*		Feedback round from participants	

19:00-22:00	Dinner (Huber)		Dinner (optional)	Dinner (Bräustüberl)	