Level: master

Study programme: Master in Geography

Course title: Applied Climatology; dr Stevan Savić

Status: elective

ECTS: 6

Requirements: none

Learning objectives

Students will get information about the possibilities of using the energy of various meteorological parameters and climatological processes in the atmosphere and above the ground (solar energy, energy of wind, patterns of rainfall and snow melting as essential factors of hydropower potential). Students will gain knowledge about state-of-the-art technologies on using various sources of energy from atmospheric processes. Students will learn the positive and negative impacts of various climate events on economies and societies.

Learning outcomes

Students should be able to use energy sources from climatology or meteorology parameters or processes. They should learn if these sources are profitable enough as well as the general advantages and disadvantages of using these sources. Students will learn the possibilities of adaptation on eventually negative climate processes, which can affect the society and economy. In addition, students will find out opportunities to use the climatology processes in order to provide better quality of life and better environmental protection.

Syllabus

Theoretical instruction

Solar energy – global examples and current situation in Serbia;
Wind energy – examples of using this power in the World and possibilities of using wind energy in Serbia;
Hydropower – connection of rainfall patterns and seasonality of snow and ice melting with hydropower (global examples and situation in Serbia);
Climate events – flood waves as consequences of rainfall patterns and snow melting; heat waves; extreme weather events, forest fires, drought (global examples and situation in Serbia);
Methods of adaptation on extremes (global examples and situation in Serbia);
Importance and application of climate in tourism industry (global examples and situation in Serbia);

Practical instruction

Using the instruments which are used in monitoring various meteorological parameters (automatic weather stations, different analogue and digital instruments);
Visit Meteorological laboratory in Petrovaradin.

Weekly teaching load				Other:
Lectures: 2	Exercises: 2	Other forms of teaching:	Student research:	