

Name of the subject: Renewable Energy Resources and their Use		
Teacher(s): Slobodan B. Marković , Olja Ivanović Munitlak		
Status of the subject: elective		
Number of ECTS points: 15		
Condition: -		
Goal of the subject To acquire knowledge of all important renewable energy resources, their availability, accessibility, compatibility and the economics of use. Introduction to current communication and information technologies and their use in the field of renewable energy research.		
Outcome of the subject The acquired knowledge will enable students to analyse the use of renewable energy resources and their application relative to non-renewable fuels in terms of increasing energy supply, and promotion of sustainable development concept, for the benefit of human community in the present time and especially the future.		
Content of the subject <i>Theoretical part:</i> Historical background. Non-renewable and fossil fuels, advantages and disadvantages. Renewable energy resources – definitions and types of renewable resources. Insight and introduction to the main renewable resources: solar, hydro, wind, geothermal, biomass, bio-fuels, wave and tidal energy. Renewable energy resources - advantages and disadvantages. Available technologies for exploitation of renewable energy. Introduction to main technical- an technological principles application of renewable energy. Distribution and availability of renewable resources. Compatibility and profitability of renewable energy. Variety of renewable strategies. Renewable in Serbia: sources, distribution, capacities and application. Current research techniques related to renewable energy sources, with the use of the Internet, modern software, satellite technologies, as well as modern communication and information technologies <i>Practical part:</i> Preparation of the scientific project. Field work.		
Recommended literature		
<ol style="list-style-type: none"> 1. Marsh W., Grossa, J., (2002): Environmental Geography, Science, Land Use and Earth System, John Wiley & Sons, Inc., New York. 2. Tong W., (2010): Wind Power Generation and Wind Turbine Design. WIT Press, Southampton, UK, 571. 3. Twidell, J. and Weir, A. (2005): Renewable Energy Resources. Spon Press, London, 601. 4. Milošević, Z., and Marković, S.B., 2012. Changing Geopolitics of Energy. <i>Journal of the Geographical Institute "Jovan Cvijic", SASA</i>, 62, 125-134. 5. Blagojević, D., Radulović, M., Gavrilov, M.B., Lukić, A., Santo, D. and Marković, S.B., (2019): Residents' perception of renewable energy sources-a case study: Temska village, Stara Planina Mountain (Eastern Serbia). <i>Journal of the Geographical Institute "Jovan Cvijic", SASA</i>, 69, 271-278. 		
Number of active classes	Theory: 5(75)	Practice: 5(75)
Methods of delivering lectures Oral lectures, individual consultations, seminar papers, field work		
Evaluation of knowledge (maximum number of points 100) Project presentation: 50 points Oral exam: 50 points		