Study program: Master academic studies Environmental Risk Management (MASERM)		
Type and level of studies: Master academic studies, II level of studies		
Subject name: Global Monitoring for the Environment and Security	**Subject code**	6U1GMZ
Professor: dr Slavoljub Stanojević, professor		
Subject status: Elective		
Number of ECTS: 6		
Condition: none		

Subject goal

An explanation of the concept of remote sensing. Introduction to modern systems of satellite imagery. Analysis of the shots, preventing and responding to threatening processes generated by the environment. Prevention of negative consequences for the environment based on the study of methods of remote sensing.

Subejct outcome

Ability to monitor and use of satellite images, analysis and addressing a wide range of security challenges and threats, primarily environmental threats to the political, economic and other implications related to the use of natural resources and various forms of pollution.

Subject content

Theoretical classes

Basic concepts of remote sensing. Historical development of remote sensing. The building, electromagnetic radiation sensors, platforms. Wave bands of satellite images. Satellite imagery, Landsat, Spot, Kosmos, EDF, IRS, JRS, Ikonos. The methodology of collecting data from satellite images. Monitoring changes in the ecological status of the environment through satellite imagery. Applications: Google Erth, SASPlanta, MrSID. Environmental risks in the region and the world. GMES (GMES - Global Monitoring for Environment and Security), Kopernikus program - types of satellites and images, interpretations. Data analysis. Establishment of GIS database on the basis of available material

Practical classes

Analysis of satellite images. Downloading of the available satellite images from the internet. Georeferencing of satellite images. Correlation of satellite images, topographic maps and charts. Interpretation of data on the examples. Creating a database.

Literature

1. Radmils Pavlović, Tomas Čupković, Miroslav Marković, Даљинска детекција, 2004: Zavod za udžbenike i nastavna sredstva, Beograd, strana 356
2. Р.Krongerg 1988: Дистанционное изучение Земли, Издателъство Мир, Moskva, strana, 350.
3. http://www.copernicus.eu/
4. http://www.esa.int/Our_Activities/Observing_the_Earth/Copernicus

http://www.satcen.europa.eu/

Number of active teaching classes				Other classes
Lectures: 2(30)	Practices: 1(15)	Other class forms: 1(15)	Study research paper:	

Teaching methods

Interactive lectures, presentations and analysis of case studies, discussions on current and contemporary observations of the Earth. Ecological and safety risks in the region and the world, the study of methods of risk assessment and the risk and methods of observing the areas of risk, watching documentaries and commenting on them, etc. Audiovisual exercises, seminar paper and oral exam.

Knowledge evaluation (maximum number of points is 100)				
Pre-exam obligations	**points**	**Final exam**	**points**	
Activity during lectures	10	Written exam	50	
Practical classes	20	Oral exam		
Colloquium	/			

| Seminar paper | 20 | | |