

School of Electrical and Computer Engineering of Applied Studies

STUDY PROGRAM

ENVIRONMENTAL ENGINEERING



WAMPPP
561821-EPP-1-2015
EPPKA2-CBHE-JP



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Belgrade, 2018.



STUDY PROGRAM ENVIRONMENTAL ENGINEERING
AT SCHOOL OF ELECTRICAL AND COMPUTER ENGINEERING OF APPLIED STUDIES
IN BELGRADE

School of Electrical and Computer Engineering of Applied Studies in Belgrade (VISER) has been engaged as a partner institution on the project “*Waste management curricula development in partnership with public and private sector / WaMPPP*” supported by the Erasmus + fund.

Participating in the WaMPPP project, one of VISER goals will be creating a study program that will deal with *Environmental Engineering*, and will be a multidisciplinary study program that will be a synthesis of environmental protection, energy efficiency, waste management and safety and protection at work.

The goals that VISER will achieve through the participation in the WaMPPP project are: development and improvement of their own teaching staff, development and improvement of laboratory capacities, development and improvement of teaching methods and resources, improvement of methods and forms of applied education and students' internship, contribution to students' mobility and teaching staff, the development of specialized training courses, the establishment of a network of business and social entities in the field of waste management.

Although there are a significant number of study programs at higher education institutions related to environmental protection, the study program *Environmental Engineering* brings a new aspect of environmental protection considerations. This concept is derived from a multi-year successful tradition of School of Electrical and Computer Engineering of Applied Studies in education of professional engineers in the field of electric power, and is reflected in the protection of the environment from energy entities, modes of energy production from waste materials, rationalization of energy consumption and reduction of dependence on fossil fuels, waste management with emphasis on special waste streams, primarily electronic and electrical waste.

Accreditation of the study program *Environmental Engineering* will complete the knowledge of future professional engineers on the efficient acquisition and consumption of energy by rational use of natural resources, as well as using alternative sources with a special emphasis on preserving and improving the environmental system and reducing pollution and hence the risk to life and health of people.

The actualization of environmental issues inevitably raised the question of the profile of experts who will deal with these issues as well as the positioning of the environmental engineering field in the field of engineering disciplines. The justification of the study of Environmental engineering at higher education institutions is also derived from the classification of relevant world organizations according to which environmental engineering represents one of the 11 traditional engineering disciplines "shoulder-to-shoulder" with electrical engineering, machine engineering, construction and other types of engineering (The World Book Encyclopedia (1994), Revised field of science and technology (FOS) classification in the Frascati manual, Organization for Economic Cooperation and





Development - OECD“ (2007)). All this points to the need to study Environmental engineering through a separate study program whose basic features will be a comprehensive and multidisciplinary approach to the study of environmental issues.

Environmental Engineering study program, apart from fundamental knowledge of environmental pollution, which includes knowledge of the ways and mechanisms of the operation of various spheres of human activity in the world around us, provides a specific approach to this problem. Namely, it is known that significant environmental pollution is closely related to the growing needs of a modern energy society, and this aspect requires special attention and will be the focus of study at **Environmental Engineering** study program. The modern understanding of energy that has been advocated for years in the technologically developed countries of Western and Northern Europe involves looking at the energy sector as an integrated whole. This approach is certainly inevitable in the field of energy efficiency, which is becoming a current topic in our society, so it is expected that the labor market will show the need for professional engineers who will acquire knowledge at study program of **Environmental Engineering**.

The main goals of basic applied studies “**Environmental Engineering**” are:

- application of European and world standards, organization of a high-quality studies in the field of Environmental Engineering;
- constant innovation of the teaching methods in accordance with the current world trends
- developing of knowledge and skills in the field of monitoring the environmental protection, sustainable energy, energy efficiency and ecological acquisition and rational energy consumption
- developing of knowledge of waste management, possibilities of waste use, ways of preventing and reducing the harmful effects on the environment;
- training of professional staff for the adoption, implementation and control implementation of normative acts that define the field of environmental protection
- training of the students for team work on environmental issues

