

**RESEARCH PROJECTS SUPPORTED BY THE MINISTRY OF EDUCATION,
SCIENCE AND TECHNOLOGICAL DEVELOPMENT**

2011–2018

Projects in the field of interdisciplinary research

1. III 43014: Improvement of the monitoring system for assessing long-term population exposure to pollutants in the environment through neural network applications
2. III 42008: Assessment of energy performance and indoor environmental quality in educational buildings in Serbia and their impact on health
3. III 41018: Preventive, therapeutic, and ethical approaches to preclinical and clinical studies of genes and modulators of redox cell signalling involved in immune, inflammatory, and proliferative responses
4. III 43012: Monitoring of electromagnetic radiation from mobile telecommunication systems on the environment, the analysis of molecular mechanisms and biomarker damage due to chronic exposure and the development of risk assessment models and methods for radiation protection
5. III 44006: Development of new information and communication technologies, based on advanced mathematical methods, with applications in medicine, telecommunications, power systems, protection of national heritage and education
6. III 42006: Research and development of highly efficient and environmentally friendly polygeneration energy systems based on renewable energy sources
7. III 43011: Joint research on measurement and the effect of ionizing and UV radiation in medicine and environmental protection

Projects related to research in technological innovation and development

1. TR 33035: Development, implementation, optimization and monitoring of a network modular rotating photovoltaic system with a power of 5 kW
2. TR 33009: Examination of energy efficiency of 2kW photovoltaic solar power station
3. TR 35005: Research and development of a new generation of energy-efficient wind-powered generator
4. TR 31060: Production of new dietary dairy products for high-risk population based on qualitative and quantitative analysis of health risk markers for milk consumption
5. TR 37020: Development of methodologies and tools for noise protection in urban areas

Projects in the area of fundamental research

1. OI 174025: Problems of Nonlinear Analysis, Operator theory, Topologies and applications
2. OI 174026: Representations of logical structures and formal languages and their application in computing
3. OI 172047: Natural products of plants and lichens: isolation, identification, biological activity and application
4. OI179074: Tradition, modernization and national identity in Serbia and the Balkans in the European integration
5. OI179013: Sustainability of the identity of Serbs and national minorities in the border municipalities of Eastern and Southeastern Serbia

**PROJECTS FUNDED BY THE MINISTRY OF SCIENCE AND ENVIRONMENTAL
PROTECTION, AND THE MINISTRY OF SCIENCE AND TECHNOLOGICAL
DEVELOPMENT**

2005–2010

**Projects related to research in technological innovation and
development**

1. TR7071 Design and application of management methodologies for controlling the use of electrical equipment in facilities with potentially explosive environments
2. TR 6320: Development of the systems for separate collection, transportation, reloading and compacting of municipal waste
3. TR 6237: A multimedia platform for emergency management in technological systems
4. TR 6623: System for programmed initiation of explosive charges and reduction of blasting-induced vibrations
5. TR 7026: Feasibility study for the foundation of scientific-technological parks in Serbia
6. TR 21016: Initiation and development of coordinated involvement of all industrial sectors and their employees in promoting health, ethics, and quality of life as a foundation for sustainable development
7. TR 21010: Development of a system for the analysis of waste gas purification
8. TR 14010: Development and improvement of infrastructure for conformity assessment of products according to the requirements based on the EU's New and the Global Approach
9. TR 17021: Research on coal-mine transportation technologies in natural and urban environments
10. TR 20012: Implementation and development of modern technical and technological systems for housing, feeding, fertilization, and milking of cows to enhance milk production
11. TR 21009: Characterization of respirable particulate matter in indoor and outdoor environments in Serbia
12. TR 21036: Development and implementation of local systems for continuous measurement and monitoring of environmental and

- meteorological parameters in accordance with international standards
13. TR 21040: Development of an expert system to quantify greenhouse gas emissions and their mitigation at sources in populated areas of Serbia
 14. TR 21030: Research and development of an expert system and methods for assessing the ergo-environmental risk of accidents in the Electric Power Industry in Serbia
 15. TR 21035: Development of models for evaluating the environmental risks associated with radiation from mobile phone base stations

Projects in the field of energy efficiency

1. NPEE 283007: Procedure for calculating and experimental determination of energy efficiency for buildings at different locations in Nis
2. NPEE 242006: Intelligent adaptive management of distinct heating systems
3. NPEE 273009: Development and testing of thermal and hybrid collectors with
4. concentrated solar radiation
5. NPEE 273012: Study of forest biomass in the Middle Ponisavlje area
6. NPEE 222001: Development of a measurement and information system for monitoring and analysis of distribution substations
7. Increasing energy efficiency of road transport of hazardous goods by applying a database relevant to ADR, optimization of structural parameters and compatibility parameters of cistern vehicles using GIS technologies
8. NPEE 243010: Web portal for balancing, planning and managing production and consumption in the local community
9. NPEE 263006: Development of low- and medium-power boilers and furnaces designed for burning straw bales

Projects in the area of fundamental research

1. OI 144013: Representation of logical structures and their application in computer science
2. OI 144036: Spectral techniques on finite groups with applications in signal processing and system design
3. OI 142054: Secondary metabolites: structure, biological activity and antioxidant activity
4. OI 144002: The problems of technical and theoretical mechanics of rigid and solid bodies. Mechanics of Materials.
5. OI 144003: Operator theory, stochastic application and analysis
6. OI 149014: Culture of peace, identity, and interethnic relations in Serbia and the Balkans during the European integration process
7. OI 144021: Stochastics and its practical applications