

## ELECTRICAL ENGINEERING INSTITUTE NIKOLA TESLA - Laboratory for testing and calibration

Laboratory for testing and calibration is dedicated to obtain the highest quality and competent service to the clients according to SRPS ISO IEC 17025:2006 standards requirements. Laboratory for testing and calibration in Electrical Engineering Institute Nikola Tesla is accredited by the Accreditati...

Keywords:

Testing , Calibration , Measurement , Electrical quantities, Non -electrical quantities, Standard Methods, Proficiency Testing Schemes, Interlaboratory comparisons, SRPS ISO 17025, Accreditation

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## ELECTRICAL ENGINEERING INSTITUTE NIKOLA TESLA - Electrical measurements department

Diagnostic tests of rotating machines HV power and instrument transformers cables. Analysis of mineral insulating oils vegetable oils applied for electrical purposes . Accuracy testing of current and voltage transformers Diagnostic field tests and measurements of HV electrical equipment are pe...

Keywords:

Testing , Generator , Transformer , Diagnostic , Power quality, Insulating oil, Measurement of electrical quantities, Protective relaying, Energy management , PCB

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## FACULTY OF BIOLOGY - Chair of animal ecology and zoogeography

-Ecology faunistics and conservation biology of mammals and reptiles. -Idioecology population dynamics interspecies interactions (competition and predator-prey relationships) of ecologically or commercially important and/or threatened fishes. -Ecotoxicological research bioaccumulation and bio...

Keywords:

Ecology, Population dynamics, Conservation biology, Ecotoxicology, Faunistics, Biogeography, Insects, Fishes, Mammals, Reptiles and amphibians

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## FACULTY OF BIOLOGY UNIVERSITY OF BELGRADE - The centre for laser microscopy

Confocal microscopy on cell cultures and tissue samples. Cellular electrophysiology. Epifluorescence of ion markers in cells. MRI of small animals (in collaboration). Animal and cell models of neurodegenerative diseases. The role of extracellular matrix in the plasticity of the central nervous syste...

Keywords:

neurodegenerative diseases, amyotrophic lateral sclerosis, cerebral ischemia, extracellular matrix, inflammation

, oxidative stress, intracellular calcium, confocal microscope, patch clamp, neural cell cultures

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## FACULTY OF CHEMISTRY - Chair of chemical education

Chemistry education Pre-service chemistry teacher training In-service chemistry teacher training

Keywords:

Chemistry curricula, teaching/learning methods, chemistry learning outcomes and standards, pre-service chemistry teacher training, in-service chemistry teacher training, chemistry textbook

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## FACULTY OF CIVIL ENGINEERING - Department of roads airports and railways

Consulting services in planning design construction and maintenance of railway infrastructure; Creation of case studies in the field of railway infrastructure; Professional support in the process of harmonization of bylaws in the field of railway infrastructure; Preparation of professional seminar...

Keywords:

planning, design, construction, maintenance, railway infrastructure, road infrastructure, airports, maintenance management, financing, CAD

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## FACULTY OF FORESTRY - Cathedra for chemical and mechanical wood processing

Design improvement and characterization of wood based materials such as: particleboard fiber-boards oriented strand board (OSB) wood based mineral panels (cement bonded particleboard wood wool cement panels wood based gypsum boards etc) as well as other ligno-cellulose materials (i.e. strawb...

Keywords:

wood based composites, characterization of wood based composite materials, wood chemistry, wood chemical processing, wood adhesives, wood bio-ethanol, wood nano-cellulose

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## FACULTY OF GEOGRAPHY - Physical geography department

The spatial aspect of changes in air temperature and precipitation. Climate change. Geomorphology of high mountains. Geomorphological mapping. Speleology. Mountain tourism. Jurassic and Cretaceous biostratigraphy palaeoenvironments and palaeoecology. Monitoring of soil and water. Natural conditions...

Keywords:

Soil erosion, Natural hazard, Speleology, Chemical erosion, Gnomonics, Cartographic projection, Biostratigraphy, Hydrogeography, Climatic change

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## FACULTY OF GEOGRAPHY - Department for human geography

Sustainable development of urban and rural areas. Phenomena and processes in urban and rural settlements. Revitalization issues in rural depopulated bordering hilly and mountainous and economically peripheral areas. Socio-geographical problems of urbanization. Analysis and management of demog...

Keywords:

sustainable regional development, population processes, urban and rural development, location of economic activities, transport and services, migration of population, tourism, territorial social systems, cultural landscape, geopolitics

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## FACULTY OF GEOGRAPHY - Department of didactics and methods of teaching geography

Methodical and pedagogical-psychological training of students in the preparation and implementation of teaching within subjects: geography ecology and environmental protection conservationists civic education. Environmental education in formal non-formal and informal level the development of co...

Keywords:

geography teaching, pedagogy, teacher competence, curriculum, textbooks, environmental awareness, ambient classes, education, school

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## FACULTY OF GEOGRAPHY - The department of spatial planning

Planning of the optimal use of space - both natural and social resources. Regional development planning in certain administrative unit. Defining the best deployment of settlements population and material resources and means of work in order to standardize and accelerate socio-economic development. ...

Keywords:

spatial planning, urban planning, regional planning, sustainable development, environmental protection, environment, regional development

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## FACULTY OF GEOGRAPHY/INSTITUTE FOR ENVIRONMENT AND GIS - Department of gis

Geospatial data modeling. Tools and technologies for the analysis of complex data. Standardization in the field of GIS and environment. Production of geospatial data. Geoinformation technologies user training. Consulting services in the field of standardization and geoinformation technologies.

Keywords:

Geographic Information Systems, Geospatial data, Application of GIS, GIS seminars

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## FACULTY OF MECHANICAL ENGINEERING - Department of mathematics

The members of Department of Mathematics in Faculty of Mechanical Engineering (Belgrade) works in informatics artificial intelligence computer networks mathematical logic with applications in computing topology Banach spaces of vector functions nonlinear analysis theory of local convex spaces...

Keywords:

quadrature formulas, numerical construction, probability logics, computer networks, theory of fixed point, scientific computing

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## FACULTY OF MECHANICAL ENGINEERING - Internal combustion engines department - iced

Research in the field of thermodynamic and gasdynamic phenomena of Internal Combustion Engines and reciprocating Piston Compressors. Development and evaluation of complex numerical models for ICE working process simulation. Development and evaluation of complex numerical models for Hybrid Powertrain...

Keywords:

Internal Combustion Engines (ICE), Hybrid Powertrain Systems (HPTS), Fuel mixture combustion optimisation, Supercharging, ICE mechatronics, Bio- and alternative fuels, Numerical simulation, Laboratory test measurement, Energy Efficiency, Exhaust emission

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## FACULTY OF ORGANISATIONAL SCIENCES - Department of information systems

Information system analysis design and development. Software development. Software development methodologies. Model-driven software development. Planning and management of information system development process. ERP systems. Business process modeling and automation. Information systems integration ...

Keywords:

Information systems development, Software development, Model-driven development, Business process modeling, Database design, Database administration, Information systems integration, Information systems interoperability, ERP systems, IT management

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## FACULTY OF ORGANISATIONAL SCIENCES - Department for management of technology innovation and development

Creating and transferring knowledge on different levels of society economy and branches in the area of technology and development maintaining the focus on issues of organization and business development. Development of principles models and indicators of technological growth and development as ...

Keywords:

Technology, Technology management, Innovation, Innovation management, Sustainable development, Environmental management, Environmental risk management, Technological entrepreneurship , Sustainable energy management, Management of innovation projects

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## FACULTY OF PHARMACY - Department of pharmaceutical technology and cosmetology

Research into formulation development of conventional and modified release pharmaceutical dosage forms for various routes of administration; design and characterization of carriers for pharmaceutical active substances: microparticles colloidal vehicles (nanoemulsions microemulsions nanoparticles ...

Keywords:

formulation development of pharmaceuticals and cosmetic products, pharmaceutical-technical procedures for medicinal products evaluation, cosmetic products testing, biopharmaceutical characterization

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## FACULTY OF PHARMACY - Department of pharmacognosy

Educational scientific and professional activity in the field of natural medicinal raw materials (pharmacognosy) and phytotherapy. Providing the information on the plant sources of medicinal raw materials production ingredients and activity of herbal medicinal raw materials (herbal drugs and herb...

Keywords:

medicinal plants, morphological, chemical and pharmacological characterization, herbal medicinal raw materials, herbal drugs, herbal drug preparations, herbal medicinal products, herbal medicines, traditional herbal medicines, defining and quality control, rational phytotherapy

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## FACULTY OF PHARMACY - Department of medical biochemistry

Investigation of genetic and acquired risk factors linked to development of atherosclerosis-related diseases; exploring of genetic polymorphisms associated with inflammation oxidative stress and dyslipidemia; evaluation of genetic

polymorphism of enzymes involved in metabolism of xenobiotics; studi...

Keywords:

atherosclerosis; inflammation; oxidative stress; dyslipidemia; biomarkers; gene expression; genetic polymorphism; cost-effectiveness analyses; butyrylcholinesterase; laboratory technologies in hematology and hemostasis; hypercoagulable states; biochemistr

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## FACULTY OF PHYSICAL CHEMISTRY - Faculty of physical chemistry

Development of procedures for synthesis of functionalized materials (oxides complex metals polymers (polyanilines) aluminosilicates (natural and synthetic) Keggin-type polyoxometalates) and their characterization. Hydrothermal synthesis. Sol-gel synthesis. Development and characterization of nan...

Keywords:

Materials; Physicochemical Methods of Analysis; Electrochemistry; Biophysical Chemistry; Catalysts; Adsorbents; Nonequilibrium processes; Isotopes and Radiation

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## FACULTY OF PHYSICS - Department of applied physics and metrology

Preparation and characterization of oxide coatings (mostly on valve metals) obtained by classical anodization and electrolytic plasma oxidation. Obtained oxide coatings are characterized utilizing AFM/STM XRD XRF photoluminescent and electrochemical techniques with particular interest in photocat...

Keywords:

anodization plasma electrolytic oxidation oxide coatings thin films photocatalysis electrochemistry

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## FACULTY OF POLITICAL SCIENCES - Department of social policy and social work

Education of students-future social workers Scientific Research in the field of Social Policy and Social Work Publishing activity

Keywords:

Social Policy, Social Work, Social Development, Social Problems, Poverty, Social Pathology, Methods and Techniques of Social Work, Social Gerontology, Social Work with Marginalized Groups

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## FACULTY OF SPECIAL EDUCATION AND REHABILITATION - Department of tifology

The implementation of programme on primary and secondary prevention detection evaluation treatment education and individual support to people with visual impairment in preschools regular schools and schools for children with visual impairment and in clinics and social care institutions.

Keywords:

Visual impairment, person, prevention, detection, evaluation, treatment, education, individual support, school, clinical institutions.

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## FACULTY OF TECHNOLOGY AND METALLURGY - Department for organic chemical technology

Synthesis investigation and processing of polymeric materials-biodegradable refine with nanofillers antimicrobic.

bioactive biocompatible chemocompatible. Degradation and recycling of polymers and polymeric materials. Biodegradable food packaging. Waste water treatment-removal of heavy metal io...

Keywords:

polymers, polymeric biomaterials, recycling and degradation of polymers, Chemical reactor engineering, High pressure processes/ supercritical fluids, Chemical engineering design , Cleaner production , Heterogeneous catalysis, Bio- and alternative fuels

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## FACULTY OF TECHNOLOGY AND METALLURGY - Department of inorganic chemical technology

Preparation and characterization of: ceramics glass glass-ceramics and construction materials. The synthesis of ceramic powders by: sol-gel methods hydrothermal methods "spray"-pyrolysis method solid state reactions. Application of different sintering techniques to obtain dense ceramic material...

Keywords:

Ceramics, Glass, Construction Materials, Bioceramics, Chemical Thermodynamics, Combustion and Industrial Furnaces, Water Technology, Adsorption, Photocatalysis

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## FACULTY OF TECHNOLOGY AND METALLURGY - Department of chemical engineering

Process and equipment designs and analyses thermo-hydraulic heat exchanger calculation revamping reconstruction and optimization in Petrochemical and Oil industry. Heat and power integration energy synthesis in chemical and process industry. Renewable and conventional energy resource options. Ex...

Keywords:

biomedical engineering, multiphase systems, process intensification, Immobilization/encapsulation, controlled delivery, biodiesel production, biowaste, heterogenous transesterification, bioreactors, process design, numerical simulation, Green chemistry, environmental systems software development, mathematical modeling, non-linear dynamics, adsorption processes

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## FACULTY OF TECHNOLOGY AND METALLURGY - Department of biochemical engineering and biotechnology

Biotechnological production of bioactive compounds their incapsulation and implamentation in food and pharmaceutical products. Design of novel biocatalysts and immobilized biocatalyst reactor systems for production of structural lipids oligosaccharides esters biofuels and pharmaceuticals. Valoriza...

Keywords:

Biocatalysis, Immobilized biocatalysts, Bioactive compounds, Biofuels, Microbiota, Phylogenetic microarrays , Industrial wastes, Fermented feed, Fermented food

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## FACULTY OF TECHNOLOGY AND METALLURGY - Environmental engineering department

The development and implementation of new processes for the treatment of waste water gases waste materials. The design construction and commissioning of the plant for the control and treatment of pollutants preparing long-term plans for the plant. Activities within the community in this area th...

Keywords:

water treatment applications, air pollution control, waste water treatment, recycling and waste treatment, soil remediation

## FACULTY OF TRANSPORT AND TRAFFIC ENGINEERING - Joint division of aircraft operation and air transport planning and management and airports and air traffic safety

The Division's research and consulting efforts have focused on: - Airports and airport operations - Air Traffic Management airspace management traffic flow management traffic complexity - Risk and safety analysis - Traffic economics - Air transport planning transportation networks air...

Keywords:

air traffic, air traffic management, air traffic control, airports, safety, economics, airlines, transportation networks

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## FACULTY OF TRANSPORT AND TRAFFIC ENGINEERING - Division of aircraft

Management planning organization and exploitation cost of transport aircraft. Maintenance safety and security of aircraft. Computer simulation in the area of aircraft exploitation. Aviation and protection of the environment (emission of noise and pollutants). Energy efficiency of aircraft operati...

Keywords:

aircraft, transport aircraft performance, aircraft powerplants, aircraft instruments, aircraft systems, aircraft safety and security, aircraft maintenance, aircraft and environmental protection, energy efficiency of aircraft, aeronautical engineering

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## FACULTY OF VETERINARY MEDICINE - Department of biology

Molecular genetic analysis in veterinary medicine; Diagnosis of hereditary diseases and anomalies; Molecular detection and determination of pathogens in veterinary medicine; Genotyping; Haplotyping and analysis of genetic diversity of domestic and wild animals and their parasites; DNA Parentage Test...

Keywords:

Genotyping of domestic and wild animals, DNA analysis, Molecular (PCR) diagnosis in domestic animals, Detection and identification of pathogens and parasites, Beekeeping and bee diseases, Forensic genetics of hunting game, Cytogenetics of domestic animals, Genotoxicology (Comet assay), Genetics of cancer cells, Gene expression (qPCR)

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## FACULTY OF VETERINARY MEDICINE - Department for food hygiene and technology of animal origin

Scientific research at the Department is carried out through research projects funded by the Ministry of Education Science and Technological Development of the Republic of Serbia and are focused in three areas: safety of food of animal origin; improvement of technological processes in order to obta...

Keywords:

Food of animal origin, *Listeria monocytogenes*, *Salmonella* spp, *Campylobacter* spp, micotoxins, enterotoxins of *Staphylococcus aureus*, *Cronobacter* spp, antimicrobial resistance

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## FACULTY OF VETERINARY MEDICINE - Department of microbiology

Veterinary microbiology and Immunology Diagnostics and prophylaxis of bacterial fungal and viral infectious diseases of animals and humans - zoonoses Application of modern microbiological and immunological diagnostic methods including molecular methods (PCR) Antimicrobial therapy microbial resista...

Keywords:

microbiology, bacteriology, virology, immunology

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## INSTITUTE FOR BIOLOGICAL RESEARCH 'SINIŠA STANKOVIĆ' - Department of immunology

Characterization of immunomodulatory properties of natural products and synthetic compounds

Keywords:

immunomodulation, autoimmunity, lymphocyte, macrophage, drugs, plant extracts

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## INSTITUTE FOR BIOLOGICAL RESEARCH 'SINIŠA STANKOVIĆ' - Department of genetic research

Analyses of chromosomes and chromosome polymorphism in natural populations analyses of genetic diversity and population structure (DNA) molecular markers (microsatellites AFLP RFLP mitochondrial DNA) gene expression (RT PCR) morphometric analyses (fluctuating asymmetry geometric morphometric...

Keywords:

Chromosomes B chromosomes, microsatellites, populations genetic structure, endoparasites, geometric morphometry, genotoxicology

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## INSTITUTE FOR BIOLOGICAL RESEARCH 'SINIŠA STANKOVIĆ' - Department of genetics of populations and ecogenotoxicology

The main research focus of Department of genetics of populations and ecogenotoxicology are genetic phenomena related to dynamic of gene pool of populations and adaptive processes. As the presence of different agents in ecosystems and their influence on individuals and on gene pool of populations has...

Keywords:

Drosophila, plant and mushroom extracts, heavy metals, magnetic fields, genotoxicity, antimutagenicity, eco-genotoxicology, adaptation, sex linked recessive lethals in Drosophila melanogaster (SLRL), somatic mutations and recombinations in Drosophila melanogaster (SMART)

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## INSTITUTE FOR BIOLOGICAL RESEARCH 'SINIŠA STANKOVIĆ' - Department of hydroecology and water protection

Department of Hydroecology and Water Protection works on the biodiversity of algae aquatic vascular plants aquatic macroinvertebrates and fish. Beside fish parasites invasive aquatic taxa toxicology and genotoxicology in aquatic ecosystems fish feeding as well as microbiology of inland waters...

Keywords:

algae, microbiology of inland waters, bioindication, biodiversity, aquatic ecosystems, ichthioparasites, fish fauna, non-indigenous aquatic species, aquatic genotoxicology

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## INSTITUTE FOR BIOLOGICAL RESEARCH 'SINIŠA STANKOVIĆ' -

## Department of physiology

Analysis of antioxidant defence parameters and investigations of redox homeostasis in various aquatic organisms (invertebrates fishes amphibians reptiles). The main goal is to estimate environmental risk assessment (ERA). Uses of biotransformation phase I and phase II biomarkers (CYP1A and GST) ...

Keywords:

Molecular physiological biomonitoring, Oxidative stress biomarkers, Biotransformation enzymes, Neurotoxicity biomarkers, Metallothioneins, Freshwater organisms, Metals as pollutants, Bioindicators and biomonitors, Integrated biomarker response, Xenobiotics

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## INSTITUTE FOR BIOLOGICAL RESEARCH 'SINIŠA STANKOVIĆ' - Department of biochemistry

Biochemistry and molecular biology of steroid (glucocorticoid) hormones; molecular mechanisms underlying the role of steroid (glucocorticoid) hormones in pathogenesis of stress-associated pathological states including obesity metabolic syndrome type 2 diabetes cardiovascular diseases and psychia...

Keywords:

Steroid hormones, Glucocorticoid hormones, Steroid receptors, Glucocorticoid receptor, Metabolic syndrome, Obesity, Lipolysis, Lipogenesis, Insulin resistance, Psychiatric disorders

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## INSTITUTE FOR BIOLOGICAL RESEARCH 'SINIŠA STANKOVIĆ' - Department of neurophysiology

Investigation of the effects of neuroactive substances and environmental factors (magnetic field temperature light ...). in different model systems. Analysis of the functional properties of garden snail neurons and mechanisms of neuromodulation using the current clamp and voltage clamp techniques...

Keywords:

Electrophysiology of nerve cells, Analysis of electrophysiological signals, Morpho-functional characteristics of the brain, Animal behavior, Neuroactive substances, Magnetic fields, Animal models of diseases

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## INSTITUTE FOR BIOLOGICAL RESEARCH 'SINIŠA STANKOVIĆ' - Department of plant physiology

The research profile of the Department is characterized by several principal directions of investigation: developmental plant physiology with a focus on photomorphogenesis in vitro morphogenesis and cytodifferentiation stress physiology genetic engineering synthesis and accumulation of secundar...

Keywords:

developmental plant physiology, plant biotechnology, plant secondary metabolites , phytochemistry, in vitro plant culture , population genetics, GM technology , crop, medicinal and endangered plant species, microfungi , medicinal and edible mushroom

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## INSTITUTE FOR BIOLOGICAL RESEARCH 'SINIŠA STANKOVIĆ' - Department of insect physiology and biochemistry

The insects as the bioindicators of chemical and physical changes in environment. Detection and analysis of the physiological biochemical and molecular biomarkers of environmental pollutions.

Keywords:

## INSTITUTE FOR BIOLOGICAL RESEARCH 'SINISA STANKOVIĆ' - Department of neurobiology

Sleep and sleep related respiratory disorders research in the animal models of healthy aging and aging during neurodegenerative diseases of elderly (Alzheimer's diseases Parkinson's disease different types of dementia) by following the disease's onset and progression through the electroencephalogr...

Keywords:

sleep, sleep disoredrs, sleep related respiratory disorders, polisomnography, electroencephalography, electromiigraphy, animal models

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## INSTITUTE FOR MEDICAL RESEARCH - Group for cardiovascular physiology

Basic and preclinical testing of pharmacological and other bioactive substances on animal models in vivo. Studies are focused on experimental hypertension postischemic acute kidney injury focal-segmental glomerulosclerosis and cardomyopathy. Studies include haemodynamic measurements biochemistry...

Keywords:

Animal models, experimental hypertension, postischemic acute kidney injury, focal-segmental glomerulosclerosis, basic, preclinical

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## INSTITUTE FOR MEDICAL RESEARCH (IMR) - Centre for food and vector- borne zoonoses

IMR's Centre for Food and Vector-borne Zoonoses accredited as a Centre of Excellence (CE) in March 2015 (one of only two such CEs in the field of medical sciences in Serbia) succeeds the Centre for toxoplasmosis and medical entomology (accredited 2010-2014). Areas of expertise: Expert detection ...

Keywords:

medical parasitology, medical entomology, parasitic zoonoses, emerging infections, food borne infections, tick borne infections, toxoplasmosis, borreliosis, immunodiagnostic methods, molecular detection

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## INSTITUTE FOR THE APPLICATION OF NUCLEAR ENERGY INEP - Department for immunochemistry and glycobiology

Development of in vitro diagnostic devices (IVD); Immobilization of the bioactive substance to the solid phase; Labelling of antibodies and antigens with radioactive isotope of iodine enzymes colloidal gold etc.; IVD standardization; Ensuring traceability of measurements to reference preparations...

Keywords:

Biomarker, Antibody, Antigen, IVD, Immunoradiometric assay IRMA, Radioimmunoassay RIA, Enzyme-linked immunosorbent assay (ELISA), Immunochromatographic assay

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## INSTITUTE OF CHEMISTRY TECHNOLOGY AND METALLURGY - Center for catalysis and chemical engineering

Department of Catalysis and Chemical Engineering is unique institution in the country in the area of catalysis and

chemical engineering which covers the whole spectrum of activities in the area of catalysis catalytic processes and chemical engineering; from the basic research and development of ne...

Keywords:

Catalysis, Heterogeneous catalysis, Photocatalysis, Electrocatalysis, Nanomaterials, Composites and nanocomposites, Sustainable development, Environmental protection, Biofuels, Reactor engineering

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## INSTITUTE OF CHEMISTRY TECHNOLOGY AND METALLURGY - Department of chemistry

Development in the areas of organic chemistry instrumental analytical chemistry biochemistry biotechnology biomolecular chemistry synthetic polymers environmental chemistry medicinal chemistry theoretical chemistry and chemistry of natural products. Structure-activity relationships and medic...

Keywords:

Instrumental analysis of organic and inorganic compounds; (bio)organic and medicinal chemistry; biochemistry and biotechnology; environmental protection; geochemistry; biofuels; theoretical chemistry and molecular modeling; polymers; nanochemistry

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## INSTITUTE OF CHEMISTRY TECHNOLOGY AND METALLURGY (ICTM) - Department of electrochemistry

Development and electrochemical characterization of catalysts for fuel cells and supercapacitors; Kinetics of electrochemical oxidation reaction of small organic molecules; Dealing with bimetallic nanoelectrodes for fuel cell reactions ( oxygen reduction hydrogen evolution oxidation of CO methano...

Keywords:

AFM and STM microscopy, Electrochemical characterisation and electrocatalysis, Physics and chemistry of surfaces, Corrosion of metals and non-metals, Metallic and organic coatings corrosion inhibitors, Electro- and spectroanalysis, Electrochemical deposition of metals and powders, Materials protection

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## INSTITUTE OF MOLECULAR GENETICS AND GENETIC ENGINEERING - Laboratory for molecular biomedicine

Laboratory for Molecular Biomedicine (LMB) is well recognized for its research achievements and expertise in diagnosis of various rare diseases in Serbia as well as in the Balkan region. The research mission of LMB is oriented towards investigation of molecular basis of health and disease and transl...

Keywords:

Biomedicine, Rare disease, Pharmacogenomics, Personalized medicine, Predictive genomics

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## INSTITUTE OF MOLECULAR GENETICS AND GENETIC ENGINEERING - Laboratory for molecular biology

genotype-phenotype correlation investigation of molecular mechanism of cardiovascular (thrombosis cardiomyopathy) malignant neuromuscular and respiratory (cystic fibrosis) diseases. Prenatal diagnosis of inherited diseases Functional analysis of protein variants Pharmacogenetic testing for ant...

Keywords:

biomarkers, pharmacogenetics, personalized medicine, confocal microscopy, next generation sequencing, sustainable development, Zebra-fish, functional analysis

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## INSTITUTE OF MOLECULAR GENETICS AND GENETIC ENGINEERING - Laboratory for molecular microbial genetics and ecology

- The core expertise of our group is microbial molecular biology and ecology which we apply to a wide range of areas - Our research is interface of chemical and medicinal biotechnology - we have unique collection of Streptomyces and other soil actinomycetes and we continue our bioprospecting act...

Keywords:

Microbiology , Biotechnology , Molecular Genetics, Biocatalysis, Bioremediations , Bacterial Secondary Metabolites , Biopolymers , Biofuels , Microbial diversity, Ecology

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## TEACHER EDUCATION FACULTY - Department for foreign languages and romanian as a mother tongue

Foreign language teaching methodology (English German Russian and French). Foreign culture and LSP. Teaching methodology of Romanian language and literature.

Keywords:

teaching learning foreign language and culture LSP

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## TECHNICAL FACULTY IN BOR - (department) engineering management

Department of Engineering Management in its scientific activities has been developing research activities since its foundation in 2002 until today in the following fields: modeling in order to predict the outcome of technological processes; modeling in order to predict and rank the degree of pollu...

Keywords:

Multi-criteria optimization, Prediction of outputs, Modeling, Technological processes, Hybrid models, SWOT analysis, Prioritization of strategies, Genetic algorithms, Pollution of air water and soil.

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## TECHNICAL FACULTY IN BOR - Department of metallurgical engineering

Development of new and improvement of existing processes in extractive metallurgy and manufacturing. Analyzing and characterization of non-standard metal raw materials. Thermodynamics and kinetics of multicomponent metal and other systems. Electrochemical analysis of multiphase systems. Transport ph...

Keywords:

Extractive Metallurgy, Manufacturing Metallurgy, Metallurgical Engineering, Advanced metallic materials, Recycling of metallic materials, Thermodynamics of alloys, Metallic coatings, Powder Metallurgy, Environmental protection, Archaeometallurgy

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## TECHNICAL FACULTY IN BOR - Chemical engineering department for inorganic chemical technology

Electrochemical dissolution of copper and copper alloys in different aggressive solutions. Investigation of organic compounds as potentially good corrosion inhibitors. Finding biodegradable and non-toxic corrosion inhibitors. Copper and brass surface modification. Sampling and analysis of the plant ...

Keywords:

corrosion, corrosion inhibitors, copper, brass, sulfide minerals, protective films, electrochemistry

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## UNIVERSITY OF BELGRADE SCHOOL OF ELECTRICAL ENGINEERING - Department of computer engineering and information theory

Design development and testing of software Computer architecture and system software Multiprocessor computer systems and supercomputers Internet and mobile technologies Data mining and data processing Information technology and computer networks Design of information and embedded systems Data secur...

Keywords:

programming languages algorithms and data structures, computer architecture and organization, computer networks, databases and information systems, programming internet and mobile applications, system software, intelligent systems, data mining and big data

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## UNIVERSITY OF BELGRADE - FACULTY OF GEOGRAPHY - Department of cartography

Cartography is a science which deals with the methodology of modeling spatial and time transposition content from spherical to map.

Keywords:

Maps, methods, visualization, modeling, drawing scale, GIS, coordinate systems, coordinate networks

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## UNIVERSITY OF BELGRADE - FACULTY OF PHARMACY - Department of toxicology "akademik danilo soldatović"

Department of Toxicology "Akademik Danilo Soldatović" with its long tradition covers the investigations of poisons especially in following areas: toxicology of metals; toxicology of pesticides; toxicology of mixtures; mechanisms of toxicity; addictions; therapy and prophylaxis of poisoning; analyt...

Keywords:

toxicology of metals pesticides mixtures; mechanisms of toxicity; addictions; analytical toxicology; ecotoxicology; human health and environmental risk assessment

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