

WORLD SCIENCE
2017 Nobel Prize in Physics

SCIENTIFIC RESEARCH
[Veselin Bosakov: Challenges to Understanding Religious Identity](#)

SCIENCE AND ETHICS
[Simeon Vassilev: False Science, Pseudoscience and Quality of Higher Education \(A New Interpretation of the Term „Pseudoscience“\)](#)
[Milen Zamfirov: Indigo Children in Special Education](#)

SCIENCE IN SERVICE OF SOCIETY
[Elisaveta Alexandrova: Providing Frequency-orbital Resources for the Telecommunication Satellite „Bulgaria Sat-1“](#)
[Mila Ilieva-Obretenova: Nanoinformatics – Basic Role and Responsibility](#)

PROJECT–BASED FINANCING OF SCIENTIFIC RESEARCH
[Nevena Ivanova: The WEMA Project in Service of the Wetlands Ecosystem Mapping and Assessment in Bulgaria](#)

ANNIVERSARIES
[Nikola Balalanov: 75 Years since the Launching of the First Nuclear Reactor](#)
[Elisaveta Alexandrova, Plamen Angelov, Tanya Ivanova: Bulgarian Astronautical Society – 60 Years of Activity](#)

THE FLOOR TO THE YOUNG PEOPLE
[Hristina Bancheva-Preoslavka: Forest Amelioration for Erosion Control in Nature Park „Vrachansky Balkan“ through Volunteer Activities](#)
Stefka Kitanova, Vasil Chakarov: Medals from the International Biology Olympiade 2017

SCIENTIST`S THOUGHTS
Panko Anchev: Are there Great Writers Today?

POINT OF VIEW
[Milka Vassileva: Modern Didactics and the Private Educational Methods in Education](#)
Ivan Panajotov: Rise and Fall of Bulgarian Agricultural Science

IN MEMORIAM
Associate Professor Petar Angelov Petrov (1929 – 2017)

BOOK REVIEW

SCIENTIFIC RESEARCH

Veselin Bosakov: Challenges to Understanding Religious Identity

CHALLENGES TO UNDERSTANDING RELIGIOUS IDENTITY

Veselin Bosakov

Abstract

The trends widely designated as features of globalization generate resistance that is increasingly based on the effort to maintain the identity of cultural traditions. In this connection, religious affiliation becomes one of the cores of meaning in the efforts to form a separate identity within the global debate on the quality of human development. A fundamental boundary marking the attitude toward Islam in Bulgaria, and the sustainability of one's religious identity, is defined by power. The attitude toward the religion of others is mediated through the problem of power. This has been indicated by all social surveys seeking arguments for interpretation that transcends the two-dimensional picture of the socially desired self-definitions of the concept of tolerance. This is the territory par excellence of tolerance in terms of a tense closure and lack of access to power resources that would allow neutralizing that which is tolerated. The religious world of the Other provokes rethinking the grounds of our own faith. We could not refer to the fundamental difference of another religion without affirming the grounds of our own.

SCIENCE AND ETHICS

Simeon Vassilev: False Science, Pseudoscience and Quality of Higher Education (A New Interpretation of the Term „Pseudoscience“)

FALSE SCIENCE, PSEUDOSCIENCE AND QUALITY OF HIGHER EDUCATION.

(A new interpretation of the term „pseudoscience“)

Simeon Vassilev

Abstract

The quality of higher education is the basic requirement of society for it and it is a decisive factor for the development and prosperity of every nation. It is a complex indicator depending on many factors varied in nature, but many of them are closely related to the educational documentation. These are the disciplines included in the curriculums and their content, reflected in the educational programs. To the extent that they are based on pseudoscientific facts and productions, they are capable of seriously damaging and substantially reducing the quality of the learning process and the overall preparation and orientation of classes, as well as the knowledge and skills of learners. What specific measures could be taken in order to limit the impact of that dangerous phenomenon, how and to what extent pseudoscience in the education process should be identified and evaluated – all these issues are at the core of the present work.

INDIGO CHILDREN IN SPECIAL EDUCATION

Milen Zamfirov

Abstract

This article present some conclusions about indigo children. In the last years indigo children have many popular supporters. They could be found among parents and some specialists. The article claims that indigo children should not be subject of special pedagogy.

PROVIDING FREQUENCY-ORBITAL RESOURCES FOR THE TELECOMMUNICATION SATELLITE
„BULGARIA SAT-1“

Elisaveta Alexandrova

Abstract

On June 23, 2017, the first Bulgarian telecommunication satellite „Bulgaria Sat-1“ (BGS-1) was launched toward its position on the geostationary orbit (GAS). This paper presents the background, the steps and the documents with the results of the studies and analyzes presented in support of the right of access of the Republic of Bulgaria to the frequency-orbital resources for satellite television broadcasting.

Key words: Broadcasting Satellite Service (BSS), International Telecommunication Union, Sector Radiocommunication (ITU-R), geostationary orbit (GSO), Equivalent Isotropic Radiated Power (EIRP).

NANOINFORMATICS – BASIC ROLE AND RESPONSIBILITY

Mila Ilieva-Obretenova

Abstract

Nanoinformatics is a mathematical science, which has revolutionary development and is dedicated to services. Data structuring from results set is considered. Researchers, developing new nanomaterials, use researched features to forecast their impact on human`s health and environment and for risk assessment. For the future work in the field of Nanoinformatics are defined two directions: 1. Synthesis of special functions, supporting the life cycle of nanomaterials and products of them and life cycle of underlying computer network and 2. Development of interface for all users.

Key words: Nanoinformatics, nanomaterials, nanoproducts, computer network, user interface.

PROJECT–BASED FINANCING OF SCIENTIFIC RESEARCH

Nevena Ivanova: The WEMA Project in Service of the Wetlands Ecosystem Mapping and Assessment in Bulgaria

WEMA PROJECT IN SERVICE OF THE WETLANDS ECOSYSTEM MAPPING AND ASSESSMENT IN BULGARIA

Nevena Ivanova

Abstract

The Institute of Biodiversity and Ecosystem Research at the Bulgarian Academy of Sciences (IBEI-BAS) has completed the implementation of the WEMA **project „Wetlands Ecosystem Services Mapping and Assessment in Bulgaria“**, funded under the Financial Mechanism of the European Economic Area 2009–2014. The project is funded under the BG03 Program Biodiversity and Ecosystems under Call BG03.02: Mapping and Assessment of Ecosystem Services. Organized and analyzed ecological and biological scientific information on wetland ecosystems outside the Natura 2000 network in Bulgaria. The collected information will be integrated into the Information System of the National Biodiversity Monitoring System of the Executive Environment Agency. Object of mapping and assessment of the condition and services provided were the following subtypes of „inland wetlands“ ecosystems: 1 / Valley mires, poor fens and transition mires (D2); 2 / Base-rich fens and calcareous spring mires (D4); 3 / Sedge and reedbeds, normally without free-standing water (D5). The main results are:

- 285 „Terrestrial Wetlands“ ecosystems identified and mapped through GIS and field studies;
- The condition of identified ecosystems is assessed by direct measurement or analysis of available data on plant and animal diversity, soils, waters, fires, dumping-grounds and invasive species;
 - Assessed provisioning, Regulating/Maintenance and Cultural ecosystem services;
 - Individual maps of sub-types of ecosystems, their condition and the ecosystem services they provided;
 - The information gathered and the assessments made are entered in a database.

Under the project has published four press releases on the BTA website, two project seminars, two brochures for the project activities (one of which are in English), a book for the project presenting the project results, two films - one for the general public and the other is intended for the more specialized audience (scientists, lecturers, experts in the EEA, RIEW) and presents the results of the project.

The results of the project will benefit the Ministry of Environment and Waters, the Environmental Executive Agency, the RIEW, the Basin Directorates, regional and local authorities, water and sewerage companies, non-governmental organizations, business, researchers, students and wetland users.

For more information: <http://www.iber.bas.bg/sites/default/files/projects/WEMA>.

ANNIVERSARIES

Nikola Balalanov: 75 Years since the Launching of the First Nuclear Reactor

75 YEARS SINCE THE LAUNCHING OF THE FIRST NUCLEAR REACTOR

Nikola Balalanov

Abstract

The article recounts the story of the launch of the first atomic reactor in 1942, preceded by major discoveries related to the control of nuclear power. In the words of Nobel laureate F. Sody, this event „can be compared to other top achievements of physics and technology ... with the opening of the steam engine, the flight of the first airplane, etc.“. The appropriate use of these „excellence depends the level of specialists, their culture and morals“.

BULGARIAN ASTRONAUTICAL SOCIETY – 60 YEARS OF ACTIVITY

Elisaveta Alexandrova, Plamen Angelov, Tanya Ivanova

Abstract

The paper presents the most important events in the history of the Bulgarian Astronautical Society (BAD) since its foundation until today. In Brief are presented some historical facts about the BAD's structural units - branches, sections, clubs, as well as about the heads of the Society over the years. There are also described the main moments of the activity of the BAD and its structural units, with an emphasis on the activity in recent years.

Key words: Bulgarian astronautical society, BAD, Nikola Bonev.

THE FLOOR TO THE YOUNG PEOPLE

Hristina Bancheva-Preslavska: Forest Amelioration for Erosion Control in Nature Park „Vrachansky Balkan“ through Volunteer Activities

FOREST AMELIORATION FOR EROSION CONTROL IN NATURE PARK „VRACHANSKY BALKAN“ THROUGH VOLUNTEER ACTIVITIES

Hristina Bancheva-Preslavska

Abstract

Erosion is the process of earth surface destruction, transportation and accumulation of the destroyed materials by the influence of water flows. It causes negative impact on the ecosystems through reduction of the soil layers or total land degradation and deterioration of the flow regime. This threatens the biodiversity and, in general, the functioning of nature parks, that are protected areas including various ecosystems with a diversity of plant and animal species and their habitats, with distinctive and remarkable landscapes and objects of inanimate nature. Therefore, erosion control is essential for nature protection.

This research aims to develop an approach for erosion control in Nature park „Vrachansky Balkan“. For achieving this aim an environmental characteristic of the protected area and description of the factors influencing erosion on the territory were made and the appropriate erosion control measures were identified.

The research uses the methods of scientific analysis and synthesis. Different theoretical and practical sources of information were investigated and an interdisciplinary approach for conducting forest amelioration in the nature park through volunteer activities was suggested.

POINT OF VIEW

Milka Vassileva: Modern Didactics and the Private Educational Methods in Education

MODERN DIDACTICS AND THE PRIVATE EDUCATIONAL METHODS IN EDUCATION

Milka Vassileva

Abstract

Modern didactics as a science and as a subject, is facing many challenges. Didactic theory naturally integrate into the paradigm of democratic pedagogical interaction of teachers and students in harmony with modern information technologies.

The present article advocates the idea of creative and specific search of optimal ratio – a parity between the traditional monologue lecture and educational dialogue (lecture, discussion) in various learning situations and specifics of subjects. Namely the diversity and adequacy of selected teaching forms and methods are particularly important factor in the quality and efficiency of modern educational process.

The author opposes researchers from „Methodology of education in...“ (Partial didactics) of the various disciplines in higher education, that underestimating general didactic principles, are trying to provide „innovative ideas“ for didactic instruments, ignoring the responsible role of the teacher.