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BOOK REVIEW

This year we celebrate 350 years since Newton made his great discovery – the Law of universal attraction. The following article comprises of a etudes illustrating the factors that led to this discovery: the century, in which Newton lived and worked, „the shoulders, on which he leaned", his remarkable teacher, „the legend with the apple" that we relate to the discovery of gravity, and the synchronicity in the mind and workings of Newton, the physicist, and lord Byron, the poet – the revolt against the Medieval view of Man and Nature.

70 years the Stephan Angeloff Institute of Microbiology at the Bulgarian Academy of Sciences – Member of the International Association of the Institut Pasteur Network

Hristo Najdenski

Abstract

Founded on March 7th, 1947 by the world-famous Bulgarian scientist Academician Stephan Angeloff, the Institute of Microbiology, BAS (IMicB) this year celebrates its 70th anniversary! As its first director for 15 years we give well-deserved tribute to the life and work of our patron – Academician Stephan Angeloff!

The foundation of the Institute fulfilled the real need for formation of a research center of national significance, which had to conduct research on emerging and promising branches of microbiological science. Originally 5 structural units were built: bacteriological (for medical, agricultural and industrial bacteriology) protozoological, virological (for the study of viruses and viral diseases in humans, animals and plants), immunological and biochemical.

70 years later, the Institute is well established national research center, integrated in all branches of microbiological sciences. Moreover, he is recognized regional center for microbiology as in the Balkan region and the European research area, especially since its association with the International Network of the Institut Pasteur – a total of 33 institutes all over the world. As one of the 7 European institutes received this status on June 26, 2004 along with the Pasteur Institute in Brussels, St. Petersburg, Lille, Athens, „Sapienza" (Rome) and the Institute 'Cantacuzino' (Bucharest), we received high assessment and recognition given to our overall research and education activities.

Nowadays, IMicB successfully implements its mission to conduct research in fundamental and applied character in the most recent trends in contemporary microbiology that matter to solve specific problems in health care, food safety and technologies, pharmaceutical industry, biotechnology, including alternative energy and environmental protection in accordance with national and European priorities.

NONFORMAL EDUCATION IN PHYSICS AND ASTRONOMY

Ginka Exner

Abstract

The paper discusses the possibilities to utilize non-formal education methods in learning physics and astronomy at school and university level. Supported by the last changes in the civil law in Bulgaria concerning this matter, teachers and university professors may now develop excellent programs, which goal can be encouraging young people to understand deeper the processes in the nature, applying active learning (learning by doing) approach. In the attempts to develop such programs, the author suggests to be used the long year experience of "International young physicist's tournament", releasing each year 17 scientific problems, which are solved by the help of provided supplementary materials (papers, web-site links, and books). The author also discuss some open issues in the field of place of non-formal education among all three main types, the financial status of such programs, and the qualification of the educators, willing to apply such approach.

COSMONAUTICS IN TEACHING PHYSICS

Garo Mardirossian

Abstract

The report make an attempt with concrete examples to illustrate the statement that cosmonautics is a source of attractive and memorable examples in teaching physics at secondary school course. This relate to all major units of the course in physics. The examples also enable students to become familiar with the most considerable achievements of Bulgarian scientists and specialists in the field of space research. The teachers can use with and without adaptation these examples depending on the class.

INTERNAL REVOLUTIONARY ORGANIZATION – A POLITICAL STRATEGY OF THE APOSTLE

Konstantin Kossev

Abstract

As a leader of the Bulgarian national liberation movement Vasil Levski adopts a new tactics and strategy. The aim is to achieve a political settlement of the Bulgarian questions in the frame of the Eastern question. He believes that this can be done only by an armed uprising under appropriate external conditions, which will ensure the favorable consequences for the Bulgarian liberation cause. Following the adopted strategy the Apostle builds an unique Internal revolutionary organization in Bulgaria which prepares and realizes the April uprising in 1876, opening the way to the modern Bulgarian state.

The National Institute of Archaeology with Museum at the Bulgarian Academy of Sciences organized the National Archaeological exhibition "Bulgarian Archaeology 2016" for the tenth year in a row. Traditionally, it presented the results from the last season of archaeological fieldwork by displaying some of the most interesting finds, along with extensive illustrative material. Contributions to the exhibition came from thirteen museums in the country, co-organizers of the event, with finds from their depositories.

The exhibition brought together more than 350 artefacts from 18 archaeological sites belonging to different types and chronology, ranging from the Early Prehistory to the Middle Ages and including gold and silver adornments, ceramic anthropomorphic figurines, pottery vessels and many others. It was opened to the public between 14 February and 19 March, 2017.

Werner von Siemens is one of the genius engineers and scientists of the 19-th century. He really changes the worlds' technologies. His innovations help people to improve their everyday life and easy communication. With his creative spirit, strong business intuition and active social position, W.F. Siemens stays in the human history as great inventor and extremely successful entrepreneur.

Only 31 years old, together with a friend, Siemens established a firm that deals with telegraphy, telegraphy lines, with fine mechanics and optics, as well as with electro-medical apparatus.

He invented the technology for laying the underwater telegraph cables. This technology made possible the existing of the transatlantic telegraph.

Inventing the principle of the electrical dynamo also belongs to Siemens, as well as a lot of new practical usages of the electricity as: the first electric locomotive, the first electric tram, first electric elevator, the street lamps etc.

Doing his great scientific and business work, at the same time, W.F. Siemens takes care for his workers and their families ensuring them socially. He established the first model of the pension fund.

Initial study of dysfunctional beliefs, positive and low self-esteem in individuals with anxiety disorders

Filipa Kamenova

Abstract

The aim of this study is testing the hypothesis that there is a significant correlation between personality inadaptability, negative Self-concept, positive and low self-esteem in people with anxiety disorders. According to the results established correlation between positive beliefs about the world, others and self and a sense of helplessness among those with marked anxiety compared to the control group. The analysis revealed the presence of significant correlation between positive and low self-esteem in people with anxiety disorders. The implications of those results are being discussed.

The refugee and migration crisis in the Schengen area

Kalina Orlinova Georgieva

Abstract

This article describes the consequences of the refugees and economic migrants crisis over the development of the European integration and in particular over its internal regulations for freedom of movement. The main thesis in the paper suggests that the refugee crisis deepens the general crisis in the EU. The first strikes of the refugee crisis to the integration community in Europe are on its borders and more precisely on the principles that regulate the common territory of the European countries. These principles build also the Schengen system, which is one of closest manifestations of the federalism in the union and therefore is one of its most fragile achievements. This paper presents an analysis of the new challenges in front of the Schengen space and the scenarios for future solutions of its difficulties, underlining that some of the weaknesses in the Schengen system were initially present, but the refugee crisis made them more visible.

About Academician Doncho Kostov

Georgi Rukmansky

Abstract

Academician Doncho Kostov, one of the prominent geneticists of the 20th century, in his brief 25-year creative road, completes 206 scientific work pieces, with over 30 scientific contributions, 232 publicist articles and 122 official conversations with scientists and scientific institutes. The question is what are the factors that contributed to his massive productivity. The answer is: his natural qualities – his extraordinary talent as a researcher, unique work efficiency, the aim for full scientific awareness and his unique popularization abilities. His studies in Germany, his USA specialization and research in Moscow give him the opportunity for complete realization of his extraordinary qualities.

Stoyan Zaimov and his place in development of cultural tourism in Bulgaria
Contribution and literary heritage

Emilia Zornishka

Abstract

Stoyan Zaimov's activity for the idea of new Bulgaria is a symbol of patriotism and spread of the free national spirit. As a chair man of Committee „King Liberator Alexander II" Zaimov takes an uneasy task to protect for generations the memory of glorious past, to save the memory of the fighters for independence and died for liberation of Bulgaria. He has a contribution for establishing of first in Bulgaria memorial museums and monuments – house museums, parks, and monuments in Pleven, Pordim, Biala and Gorna Studena, dedicated to Russian-Turkish war 1877–1878, chapel-museum „St. George Victorious" in Pleven, the memorial „King Liberator Alexander II" in Sofia, as well as the idea of a museum of Bulgarian Renaissance and Home for disabled for fighters and volunteers. Participant in Bulgarian national Renaissance, revolutionary and public figure, educator and memory writer, he has an honor place among the builders of new Bulgaria. Historical knowledge neglects and underestimates his part as a memory writer and a history explorer, and his contribution for development and promotion of museum work and cultural tourism in after liberation Bulgaria stayed in the shadow of the past.

In the process of creating War historical houses museums St. Zaimov is led by the achievements of museum work in Europe and the whole world. The main idea in Zaimov's conception for the development of museums and their turning into the lovely tourist destination is in Bulgaria to be put into practice the European practice in organizing and leading groups, which will result in increasing attendance of museums. His ideas St. Zaimov carries out practically as a Chief of Head quarters in Pleven from 1908 to 1932. During all his life he works with inspiration on cultural flowering of the Bulgarian society, for improving of the national spirit for protecting the historical memory.

Created by him with real professionalism museums, memorial parks and monuments – places of the memory, are the source of country love and patriotism, push for shaping and protecting the national self-awareness and identity in the modern world of dynamic, informational technology and globalization of society, eternal relation between past and present, guarantee for the future of Bulgaria.

Today, from the position of achieved, going past in the time, we reach the BEGINNING, which Stoyan Zaimov puts – the first memorial museums in new Bulgaria, museum deed and the beginning of the historical and cultural tourism.