



# Space School Educational Initiative

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## Educational events

Educational event, devoted to International day of aviation and cosmonautics - 12 of April.

Every year we organize educational workshops for secondary school students, devoted to International day of aviation and cosmonautics.



Educational events for secondary school students, devoted to the celebration of the World Space Week (4-10 October)

In October 2017 an Educational workshop with discussion „Modern technologies for Earth Observation and Their Role in Education” was held in Vidin, Bulgaria.



Event held on 26 of April 2017 at SRTI-BAS and attended by 130 students between 6 and 11 grade from 6 schools in Sofia.

Open Day at the Aviation Museum – branch of the NMMH in Krumovo town on April 12, 2018 on the occasion of International Day of Aviation and Cosmonautics.

GIS Day for Education, devoted to the International GIS Day celebrated in November – we have organized 4 successful events in 2017, 2018, 2019, 2020

The first GIS Day for education was successfully held on 30th of November 2017 at the National High School of Mathematics and Sciences



Third GIS Day for education held in 2019 at the Sofia High School of Civil Engineering, Architecture and Geodesy "Hristo Botev" in Sofia



Educational event, devoted the World Water Day - 22 of March.



An educational workshop “Clean water for sustainable world” was held on 22<sup>nd</sup> of March 2018 as a part of the activities of the Space School educational initiative devoted to the World Water Day– 22<sup>nd</sup> of March, as the theme announced by UN for 2018 is Nature for Water was held at the Great Hall of the Bulgarian Academy of Sciences. This is the first educational workshop dedicated to the UN Sustainable development goals (SDGs) and in particular Goal 6: Clean water and sanitation, Goal 11: Sustainable Cities and Communities Goal 15: Life on Land.

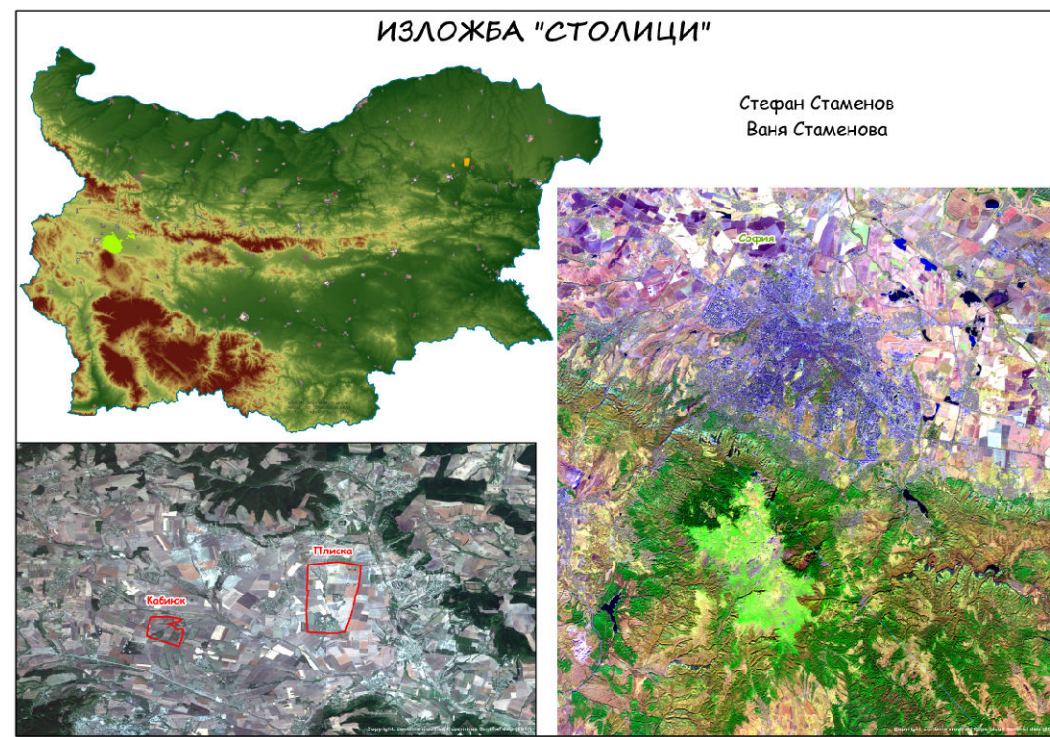
Webinars and workshops for school teachers

We have organized 6 webinars, several workshops and online events, and summer school for teachers in geography.

## Abstract

This presentation presents an educational initiative called *Space School* started 7 years ago, which aims to provide education and communicate science among students and teachers in school. Although initially focused on higher school the initiative covered all school education stages. The topics span the education are vast, but the main focuses and activities are devoted to Earth observation, remote sensing of the Earth and planets, space technologies, aviation and UAV, and geomatics. It also includes space physics, astrophysics, space biology and biotechnologies. The initiative have attracted thousands of participants during approximately 150 educational events.

## Exhibition "Capitals"



The exhibition “Capitals” with authors Dr. Stefan Stamenov and Dr. Vanya Stamenova is devoted to the 140 anniversary of the establishment of Sofia as a capital of Bulgaria and represents results from three research projects. It includes seven posters of the First Bulgarian Capital – Medieval Pliska, non-capital royal residences Kabiuk of the First Bulgarian Kingdom and the modern capital – Sofia city and results of the project GIS of Old Sofia. The exhibition was presented first during the GIS day on 13 of November 2019 organized by ESRI Bulgaria, then during the third GIS day for education, it was exposed at 4 primary and secondary schools and at the St. St. Cyril and Methodius National Library.

## Activities

Educational events

Exhibitions

Publications

Lectures

Courses

## Courses



In the period 2015-2019, five courses were conducted with students from the National High School of Mathematics and Science “Acad. L. Chakalov” on the following topics:

- Basic course “**Introduction to Geographic Information Systems**” for secondary school students. Lecturers – Assoc. Prof. Dr. Vanya Stamenova, Chief Assist. Dr. Stefan Stamenov.
- Course “**Introduction to Remote sensing and Geographic Information Systems**” for secondary school students. Lecturers – Assoc. Prof. Dr. Vanya Stamenova, Chief Assist. Dr. Stefan Stamenov.

## Lectures

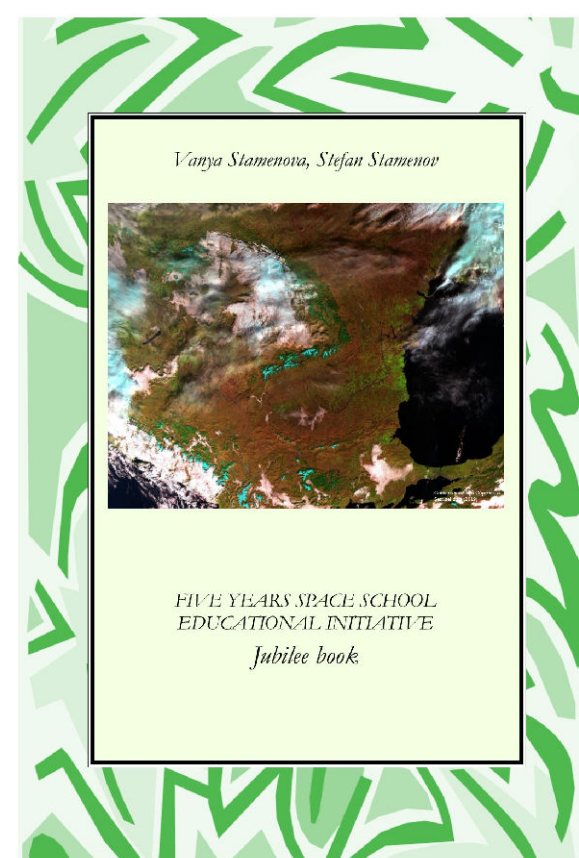


## Exhibition “Liberation – View from Space”

The exhibition “Liberation – View from Space” was organized on the occasion of the 140 years from the Liberation of Bulgaria on 6-16 March 2018 at the Central building of the Bulgarian Academy of Sciences. The exhibition aims to present through modern satellite imagery and historical maps and products the places of significant military action during the Russian-Turkish War (1877-1878). The exhibition is unique and is held for the first time. The exhibition has an educational character as it aims to attract the students’ interest to cartography products and products resulting from satellite Earth observation and their applications in various scientific fields, including the study of the past. Authors of the exhibition are Dr. Stefan Stamenov and Dr. Vanya Stamenova.



## Publications

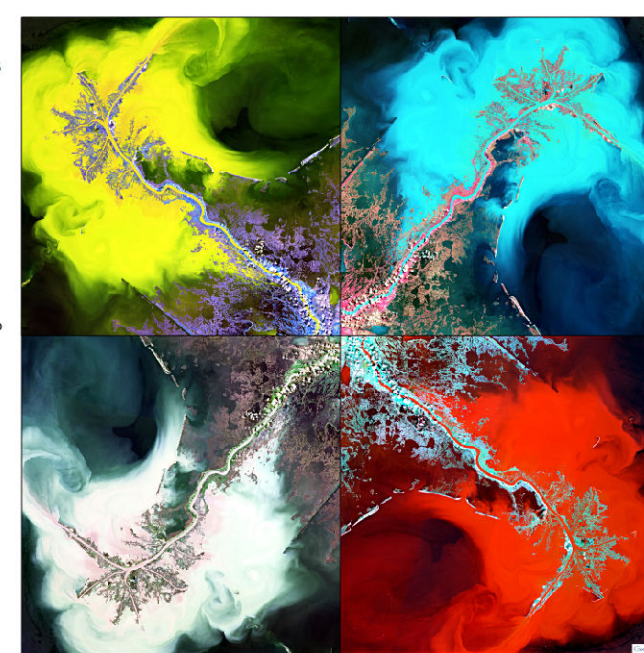


Jubilee book “Five Years Space School Educational Initiative” issued in Bulgarian and in English

Vanya Stamenova, Stefan Stamenov

ПРИРОДАТА НАВЪН

Стефан Стаменов, редактор



Vanya Stamenova, Stefan Stamenov

NATURE OUTSIDE

Stefan Stamenov, Editor



Textbook “Deserts”

## Essence and objectives

The Space School educational initiative was founded by Dr. Stefan Stamenov, who is its main initiator, and Assoc. Prof. Dr. Vanya Stamenova.

The initiative started in December 2014 and after its initial development it has been supported firstly by Society for Conservation GIS (SCGIS) — Chapter Bulgaria, and later by the Space Research and Technology Institute at the Bulgarian Academy of Sciences and Bulgarian Astronautical Society. In the beginning of 2016 the initiative, proposed by Assist. Prof. Dr. Stefan Stamenov and Assoc. Prof. Dr. Vanya Stamenova expanded in thematic scope and the name “Space School” was given to it.

The educational goals of this initiative is to provide knowledge and skills about remote sensing technologies for Earth observation, GIS technologies and their applications in various fields of science, industry and business, as well as their practical role in the human life and society.

The initiative is accomplished through free public lectures presented on popular language on the following topics:

- ✚ Spaceflight as science and industry
- ✚ Earth observation from space – science and business
- ✚ Geographic information systems and their role in science, society, economy and business
- ✚ Space physics and its application in help of society
- ✚ Space biotechnologies – achievements in space and application
- ✚ Aircrafts for Earth observation – manned and unmanned