



ПРОФЕСИОНАЛНА ГИМНАЗИЯ ПО ЕЛЕКТРОТЕХНИКА И АВТОМАТИКА

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INNOVATIVE SCHOOL

Vocational High School of Electrical Engineering and Automation - Sofia - BULGARIA

PROFESIONALNA GIMNAZIJA PO ELEKTROTEHNIKA I AVTOMATIKA - PGEA

ERASMUS + KA121-SCH

Key Action 1: Mobility of students and staff members in school education

Project №: 2023-1-BG01-KA121-SCH-000125798

Perugia, ITALY

08 – 14.04. 2024



Финансирано от
Европейския съюз
NextGenerationEU



PROFESIONALNA GIMNAZIJA PO ELEKTROTEHNIKA I AVTOMATIKA - PGEA

VOCATIONAL HIGH SCHOOL OF ELECTRICAL ENGINEERING AND AUTOMATION



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INNOVATIVE SCHOOL



- ❑ **PGEA-Sofia has a 70-years history as a professional school.**
- ❑ **PGEA is one of the first **INNOVATIVE SCHOOLS** in Bulgaria with the **PROJECT FOR “ESTABLISHING A DISTANCE LEARNING SYSTEM”** and for the next 4 years – with **“PGEA-WEB - school electronic library”**.**



VOCATIONAL HIGH SCHOOL OF ELECTRICAL ENGINEERING AND AUTOMATION



The specialties under which pupils are trained are:

- **System Programming**
- **Applied Programming**
- **Computer Technology and Technologies**
- **Computer Networks**
- **Automation of continuous production – Robotics**
- **Manufacturing electrical equipment.**

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- ❑ **Students are 630 , ages 14 to 18, intensively studying English as well as Russian, German, Chinese.**
- ❑ **The school has laboratories, computer halls, equipped halls for conducting lessons in practice.**
- ❑ **In the last 5 years the school has won many prizes from international and national competitions.**
- ❑ **Several publicly significant projects have been carried out in the field of green energy and environmental protection.**
- ❑ **The teachers work to prepare the students to be competitive on the labor market not only in Bulgaria but also in Europe.**



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- The school maintains contacts with IT companies and companies such as Siemens, Most computers, Sofianet, Datecs, Teletek and others, where the students are trained in a real work environment.**
- The school team is working on national projects and various extracurricular activities are carried out in school clubs: sport, Robotics, Schematics, AutoCad, IT, Android; club "Europe" and others.**





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☐ Extracurricular activities:





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□ We study ... We play sports





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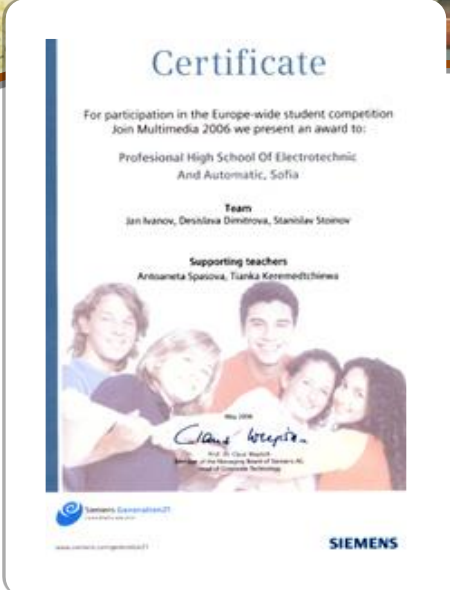
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Our students know, can and know how to win





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Projects:

- 1. "Smart house using green energy and sensory technologies" - winning a certificate from the Hanze Institute and Philips from the Netherlands, 2013;**
- 2. "The Playground of the Future Using Green Energy and Sensor Technologies" - won 2nd place in Europe by the Hanze Institute and Philips from the Netherlands, 2014; Gold Medal of the Fifth National Exhibition of the Union of Inventors in Bulgaria - ITI, 2014 and 1st place in the 2014 John Atanasov National Autumn Tournament;**
- 3. "Traveler in the Universe" - winner of the Golden Medal at NASA International Heath – International Space Apps Challenge, Sofia, 2015;**
- 5. "System for mapping and control of water resources" nominated by the President of the Republic of Bulgaria for the award "John Atanasov, 2016"; winner of the 8th National Smarter Plan, 2016. And a prize from "Youth Technical Creativity" - Gorna Oryahovitsa, 2016.**
- 6. "Planet Earth live" - participation with an international team and prize from NASA INTERNATIONAL SPACE APPS CHALLENGE, 2016**
- 7. "Ici cyborg" - participation with international team and prize from NASA INTERNATIONAL SPACE APPS CHALLENGE, 2016**
- 8. "Pastoralism Help" - participation with an international team and prize from NASA INTERNATIONAL SPACE APPS CHALLENGE, 2016.**



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Our students know, can and know how to win

We work under the Edinburgh Duke International Award.



For three consecutive years the school is a part of the European Parliament Ambassador School Programme.

Over the last 5-6 years students and teachers have been working on climate and environmental issues and the application of information technology to solve problems related to it.

Second Place for PGEA Team selection in the National Round of the Competition “Can and know how” in 2019.



Our students know, can and know how to win

Our Robotics Club is very active in the school, every year the students participate in national competitions and win prizes.

Robotics Club at PGEA was established in 2016. The team works in the following areas:

- **Line monitoring robots**
- **3D work**
- **Sumo works / zumo /**
- **Smart house**
- **Drones**
- **Creation of software for control of automated industrial robot Robko 01**
- **Creating software for managing a carrier platform**

☐ The 4th National Robo League, 2016 - Third Place

☐ First Place and Gold Medal in 2018.



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Our students know, can and know how to win

PGEA Robotics Club – the team....





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Projects:

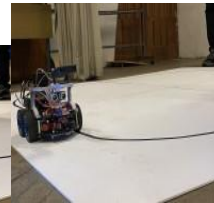
1. 2020 – 2023 “Network of ICT Robo Clubs”, № 2020-1-BG01-KA202-079200 (NITRO Clubs EU)

On the 23 of September 2021 the Nitro Robo Club-PGEA was officially opened in our school.



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NITRO ROBO Club PGEA –демонстрации



PROJECT NAME: Network of ICT Robo Clubs
PROJECT NUMBER: 2020-1-BG01-KA202-079200



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Projects:

HOLOGRAM
E U P R O J E C T



2. 2021 – 2023 Hands on Learning Online: Gaining Results through Advanced Methods - HOLOGRAM Project number: 2021-1-NO01-KA220-SCH-000024040

The objectives of this project are to investigate the current needs at each partner location and develop training material that will enhance the readiness of educators to perform online STEAM education using the most effective techniques available.

The HOLOGRAM (Hands on Learning Online: Gaining Results through Advanced Methods) project will help educators bridge the online and practical training gap, by providing tools and techniques to enable more efficient and more engaging instruction in STEAM subjects. Although focused on Robotics as a topic, we are addressing a wider need for understanding amongst teachers of how to deliver practical subjects online





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Projects:

**3. 2022 – 2025 Robo STEAM - Inclusive Technologies “ST(R)EAM IT” № KA 220-VET-62/
03.102022 36 Months, from 01.10.2022 to 30.09.2025**

The main result of the project will be the ST(R)EAM IT platform - a robot-bases tele-vision interactive complex system with ergonomic human-robot interface that will provide students and teachers with remote access and life distance interaction with experts all over EU.

This new digital capacity will be piloted by presenting museum exhibitions and artifacts, but it is not limited within the sphere of cultural heritage. It will provide students and teachers with life interactive access to any remote facility - cultural, industrial, educational, institutional, natural, etc, thus providing a powerful new tool for boosting the quality of the educational experience.





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Projects:

**4. 2022 – 2025 PROJECT: Future Integrity Leaders 2022-1-EL01-
KA220-SCH-000089640 - «Integrity in Education in 2040»**

4. 2023 – 2027 Project : KA121-SCH-56F260FB

Erasmus + KA121 – SCH



Erasmus Accreditation In School Education



Funded by
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THANK YOU FOR YOUR ATTENTION!

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PGEA-Sofia

Diana Vassileva,
Project team coordinator
PGEA-Sofia

