



EuroSpaceHub – Ukraine

(preparation of stage 2 – 2023)

Educational and Scientific Complex 'Institute for Applied System Analysis' of the
National Technical University of Ukraine 'Igor Sikorsky Kyiv Polytechnic Institute'

1. New content module implementation to the educational course

Specialty 173 Avionics

Bachelor

Educational disciplines:

1. "Information and measurement devices. Part 1. Theory and calculation methods" (3rd course)
2. "Theory of automatic control. Part 1. General course" (3rd course)
3. "Microcontroller computers of air and space vehicles" (3rd course)
4. "On-board equipment of aircraft and satellites" (4th course)
5. "Testing of avionics systems" (4th course)

Master's degree

Educational disciplines:

6. "Control systems of air and space aircraft" (1st course)
7. "Piloting and navigation complexes of aircraft" (1st course)
8. "Pattern recognition systems" (1st course)

Phd

Educational disciplines:

9. "Organization of scientific and innovative activities in avionics. Part 2. Innovations in avionics" (PhD 1st course)

2. New course creation with a strong access to the space technology ecosystem

Master's degree

Educational discipline:

"Information technologies of aerospace systems"

- development - 2023;
- approval - 2023-2024.

Content

- use of aerospace information databases;
- access to the results of the activities of the Center for Aerospace Earth Sensing of the Academy of Sciences of Ukraine;
- use of modern packages of aerospace data processing application programs;
- monitoring of problems of the public management system of Ukraine that can be solved using aerospace technologies;
- examples of solving topical thematic problems of remote sensing of the Earth;
- possibilities of using modern satellite communication and navigation technologies

3. Developing young researchers' abilities to apply their knowledge

1. **Preparation and selection of student innovative projects** on space topics for participation in competitions.

2. **Planning and conducting joint events with partner organizations:**

- the National Center for Aerospace Education of Youth of Ukraine;
- Ukrainian association of high-tech enterprises and organizations "Kosmos";
- "Space Inform" information center;
- Small Academy of Sciences of Ukraine.

3. **Career guidance activities and work of groups**

- Conceptualization of career guidance activities: development and implementation of a systematic approach to early career guidance activities (preschool-school-extracurricular education-university) and development of creative thinking (scientific, engineering, innovative, entrepreneurial);
- Creation and organization of activities of circles
 - "Kyiv Space Club named after Leonid Kadenyuk"
 - "EuroSpaceHub-Avionics-109"
 - "Young Space Explorers"

4. **Organization of publishing activity**

- Preparation and publication of articles in areas related to the subject of the EuroSpaceHub project in indexed publications (Scopus, WoS) together with students
- Participation in conferences with the publication of abstracts of speeches (infra-university, inter-university, regional, national, international)
- Preparation for the publication of monographs, manuals, textbooks, dictionaries, encyclopedias, analytical reviews, etc. and their publication

4. Connection and experiencing events aimed at attracting students

1. Participation in partnership activities in the EuroSpaceHub project.
2. Holding of the international conference "Intelligence. Integration. Reliability".
3. Preparation and holding of a round table for the Day of Cosmonautics with wide participation of experts in the space industry and students.
4. Maintenance of the website of the EuroSpaceHub – Ukraine project.

5. Distribution in Ukraine of the international competition for the manufacture and launch of small-scale CanSat satellites

1. Participation in the preparation of an inter-university memorandum on the implementation of the CanSat international competition in Ukraine.
2. Establishing and maintaining relations with partners of the CanSat competition.
3. Advertisement of the CanSat competition in Ukraine.
4. Preparation of launching means - unmanned aerial vehicle (missile).
5. Purchase of components and production of CanSat satellites.
6. Preparation for competitions after the end of the war.

Contribution

Contribution to be mainly attributed to KPI 8.1
of training with trainings for student
academic and non academic staff



KPI - Student Art Space "Tower"



Together - Through the thorns to the stars!

Thank you for attention!