

**Minutes No. 1 of the meeting of the Advisory Board of
the Kyrgyz National Research Node in GIT (Kyrgyz NRN-GIT)**

March 25, 2022, Kyrgyz State University of Construction, Transport and Architecture
(KSUCTA), Bishkek

Participants:

1. Prof. A. Abdykalykov, Rector of KSUCTA;
2. Dr. N. Madanbekov, First Vice Rector of KSUCTA;
3. Ms. G. Chokusheva, Coordinator of the NEO in Kyrgyzstan;
4. Dr. Maralbaev, Rector of KSMU;
5. Prof. Luis Ruiz Fernández, Coordinator of the E+ GeoTAK Project, UPV, Spain;
6. Dr. Huaan Fan, KTH, Sweden;
7. Mr. Jesús Torralba Pérez, UPV, Spain;

Members of the Advisory Board of the Kyrgyz NRN-GIT:

8. Mr. Narynbek Isabekov - Director of the State Cartographic-Geodetic Service at the Kyrgyz State Agency for Land Resources under Government of the Kyrgyz Republic (Goscartography)
9. Dr. Akylbek Chymyrov - Kyrgyz State University of Construction, Transport and Architecture (KSUCTA), Head of the Geodesy and Geoinformatics Department
10. Ms. Nurganym Baitukenova - Docent, Head of the Department «Geology of mineral resources», Kyrgyz state mining university named after Academician U. Asanaliev
11. Dr. Dogdurbek Chontoev - Director of the Institute of Water Problems and Hydro Energy, National Academy of Sciences of Kyrgyzstan
12. Dr. Kanatbek Abdrakhmatov - Director of the Institute of Seismology, National Academy of Sciences of Kyrgyzstan
13. Dr. Bolotbek Moldobekov - Co-director of the Central Asian Institute of Applied Geosciences (CAIAG)
14. Dr. Abdurashit Nizamiev - Osh State University, Dean of Natural Geography Faculty (online)
15. Dr. Ulan Chortombaev - Head of the Geodesy and Cartography Department, Kyrgyz National Agrarian University
16. Dr. Zheenbek Kulenbekov - American University of Central Asia (AUCA), Chair of Environmental Sustainability and Climate Science Department
17. Dr. Shairbek Saidamatov - Osh Technological University, Dean of Cybernetics and Information Technology Faculty (online)
18. Mr. Almaz Abdiev - State enterprise "Cadastre" at the Kyrgyz State Agency for Land Resources under Government of the Kyrgyz Republic
19. Mr. Marat Anarbaev - Director of the Urban Cadaster and Geoinformatics Department, Municipal Enterprise "Bishkekglavarchitektura"
20. Mr. Muradil Murzaliev - Chief Specialist of Osh branch of Kyrgyz Engineering Researches, Head Institute, oshgiiz@rambler.ru, +996 772 649596
21. Mr. Zheenbek Mambetov - Director of the "Land and Real Estate" LLC, mambetov60@mail.ru, +996550325705
22. Mr. Nurbek Chymbyldaev - Deputy Director of the "KyrgyzGeoTech" LLC

GeoTAK team members from Armenia and Europe:

23. Prof. Anka Liseč, University of Ljubljana, Slovenia;
24. Dr. Gurgen Eghiazaryan, Armenian National Agrarian University (ANAU), Armenia;
25. Dr. Ruzan Ghazinjan, Armenian National Agrarian University (ANAU);
26. Dr. Naira Aloyan, Armenian National Agrarian University (ANAU);

27. Garegin (Armine) Hambardzumyan, Armenian National Agrarian University (ANAU);
28. Dr. Artak Piloyan, Yerevan State University (YSU), Armenia;
29. Ms. Naira Gyurjyan (Barseghyan), National University of Architecture and Construction of Armenia (NUACA), Armenia.

Agenda:

1. Opening ceremony of the renovated GIT Lab of KSUCTA
2. Meeting of the Advisory Board of the Kyrgyz National Research Node in GIT (Kyrgyz NRN-GIT)
3. Election of the Kyrgyz NRN-GIT Chair, Deputy Chair and Secretary
4. Presentation and discussions.

1. OPENING CEREMONY OF THE RENOVATED GIT LAB OF KSUCTA

Speakers:

Rector A.A. Abdykalykov made a welcoming speech, he briefly spoke about international projects at the university: KSUCTA has implemented a large number of projects with the support of the European Union within the framework of the TEMPUS, Erasmus Mundus and Erasmus + programs. During the implementation of the TEMPUS project, coordinated by Professor Huaan Fan, the Department of "Geodesy and Geoinformatics" was created and educational programs of undergraduate and graduate programs in the areas of "Geodesy and Remote Sensing" and "Cartography and Geoinformatics" are successfully operating. Distance learning in English for undergraduates in geoinformatics is also being successfully implemented jointly with the University of Salzburg in Austria. We have been cooperating with our honorary professor Huaan Fan since 2004. In 2022, a state license was obtained to start training PhD doctors in the field of Geodesy and Remote Sensing. We are grateful to our European partners who are actively cooperating with our university. The new laboratory will contribute to the implementation of interdisciplinary programs for teaching students, undergraduates and doctoral students, gaining skills on modern equipment, improve the pace of implementation and development of advanced educational technologies in the interests of our country.

The renovated laboratory of Geoinformation Technologies was opened by the rector A.A. Abdykalykov and Prof. Luis Ruiz, solemnly cutting the red ribbon.

Specialized laboratory GIT of the department "Geodesy and geoinformatics" ISIT KSUCTA in room 3-114 is upgraded with equipment purchased under the ERASMUS+ GeoTAK project.

Congratulatory speeches were made by Ms. G. Chokusheva - Coordinator of the NEO in Kyrgyzstan; Mr. Narynbek Isabekov - Director of Goscartography; Dr. Bolotbek Moldobekov - Co-director of the Central Asian Institute of Applied Geosciences (CAIAG); Dr. D.T. Chontoev - Director of the Institute of Water Problems and Hydropower of the National Academy of Sciences of the Kyrgyz Republic; Dr. A.O. Maralbaev - Rector of KSMU; Mr. Almaz Abdiev - Director of the State Institution "Kyrgyzgiprozem"; Dr. Zheenbek Kulenbekov - American University of Central Asia (AUCA), Chair of Environmental Sustainability and Climate Science Department etc.

GeoTAK project coordinator Professor of the Polytechnic University of Valencia (Spain) Luis Ruiz thanked everyone and noted the relevance and importance of this project. He briefly outlined the purpose and objectives of the project, the development of postgraduate programs in the field of geoinformation technologies (GIT) and the strengthening of research and innovation links between higher education institutions, industry and administrations in Armenia and

Kyrgyzstan. Despite the fact that we are all from different fields, from universities and the manufacturing sector, we are all united by geoinformation technologies and what are the opportunities for its development in Kyrgyzstan and Armenia, funded by the European Union's ERASMUS + program in 2021-2024 and consists of 18 members of the Consortium.

Members of the Project Consortium:

EU Partners:

1. Polytechnic University of Valencia - UPV, Spain (Coordinator)
2. Royal Institute of Technology – KTH, Sweden
3. University of Ljubljana - UL, Slovenia
4. Free University of Brussels - VUB, Belgium

Armenian Partners:

5. Armenian National Agrarian University – ANAU, Armenia
6. National University of Architecture and Construction of Armenia - NUACA, Armenia
7. Yerevan State University - YSU, Armenia
8. Cadastre Committee of the Republic of Armenia - CCRA, Armenia
9. Ministry of Education, Science, Culture and Sport of the Republic of Armenia - MESCS, Armenia

Kyrgyz partners:

10. Kyrgyz State University of Construction, Transport and Architecture - KSUCTA, Kyrgyzstan
11. Kyrgyz State University of Geology, Mining and Natural Resources Development – KSMU, Kyrgyzstan
12. Ministry of Education and Science of the Kyrgyz Republic – MoES, Kyrgyzstan
13. Osh Technological University - OshTU, Kyrgyzstan
14. State Cartographic-Geodetic Service of the Kyrgyz Republic – Goscartography, Kyrgyzstan.

- *Speech by the Project Coordinator for Kyrgyzstan Dr. Akylbek Chymyrov, KSUCTA, Associate Professor and Head of Department of Geodesy and Geoinformatics,:*

Prof. Chymyrov A.U. spoke in more detail about the project “Development of interdisciplinary postgraduate programs and strengthening of research networks in the field of geoinformation technologies in Armenia and Kyrgyzstan”. He noted that the project is very important both for universities and also for industry, which will allow harmonization and cooperation between them. Briefly acquainted with the results of the survey, 47 managers and specialists from 34 institutions, private companies, NGOs and also government agencies and organizations working with geoinformation technologies were interviewed. The analysis showed that the majority of institutions are in great need of improving geoinformation education, 30% noted that they were satisfied with the state and 10% were not satisfied. 2% noted that they have no experience and interest. Familiarized with the software that is available in universities and in the manufacturing sectors. He noted the main barriers: the lack of professionals in this area, the lack of educational programs at various levels, the high cost of equipment and software, and the lack of geospatial data is also important. He thanked the production and institutions for obtaining practical skills. 94% of all stakeholders would like to participate in the implementation of this project, and 6% of them abstained. He noted the state and needs of Universities.

2. MEETING OF THE ADVISORY BOARD OF THE KYRGYZ NATIONAL RESEARCH NODE IN GIT (KYRGYZ NRN-GIT)

The invited guests got acquainted with the exhibition layouts, projects and information stands reflecting the achievements and successes of the university.

March 25, 2022 the first meeting of the Advisory Board of the National Research Nodes in Geoinformation Technologies (NRN-GIT) in the Kyrgyz Republic, created within the framework of this project, took place.

The first meeting of the NRN-GIT Advisory Board was held in the educational building No. 1 (room 209) of KSUCTA. During the meeting for a significant contribution to the development of education and science in the field of geodesy and geoinformatics in Kyrgyzstan and in honor of the 30th anniversary of KSUCTA named after N.Isanova Honorary diplomas of the university were awarded to: Prof. Luis Ruiz Fernández, Coordinator of the E+ GeoTAK Project; Dr. Huaan Fan, KTH, Sweden; Ms. G. Chokusheva - Coordinator of the NEO in Kyrgyzstan; Mr. Narynbek Isabekov - Director of Goscartography.

Reference: The Advisory Board of the National Research Node in Geoinformation Technologies (NRN-GIT) in the Kyrgyz Republic consists of 18 members, heads of institutions and leading experts in the field of geoinformation technologies. It was created as part of the GeoTAK project funded by the European Union's ERASMUS+ program to promote and harmonize innovative projects and joint research work in the Kyrgyz Republic in the field of geoinformation technologies.

3. PRESENTATIONS AND DISCUSSIONS

At the meeting of the Advisory Board, the structure of the National Research Node in Geoinformation Technologies (NRN-GIT) in the Kyrgyz Republic was proposed as an informal association of specialists, scientists, organizations and institutions interested in developing cooperation in the field of geoinformation technologies, remote sensing, geodesy and cadastre. The main goals and objectives of the National Research Nodes in Geoinformation Technologies in the Kyrgyz Republic were discussed. It was noted that it is necessary to create an Advisory Board to coordinate and develop the activities of the National Node. Candidates for 18 leaders, specialists and scientists to the NRN-GIT Advisory Board in the Kyrgyz Republic were proposed.

Speakers:

- Moldobekov B.D. - PhD, co-director of the Central Asian Institute of Applied Geosciences. He also noted the main problems of geoinformation technologies, that there are not enough qualified personnel in the ministries who can negotiate technical tasks and successfully complete them. He noted the importance of teamwork of specialists from different fields, such as GIS specialists, remote sensing specialists and geologists, etc. Different ministries and organizations do not have a database and specialists who could promptly manage, update and share with other organizations. In this regard, he noted the need to create a National Research Node in Geoinformation Technologies.

- Chokusheva G.R. - National Erasmus+ Office Coordinator in the Kyrgyz Republic; She noted that the introduction of PhD programs is a new issue for Kyrgyzstan, the law was adopted only two years ago. She noted that obtaining a license for PhD recruitment is a big step. What diploma of the European or Kyrgyz sample will the doctoral students receive? Will doctoral students be able to obtain sufficient recognition status? After the completion of the project, how will the work in this direction continue?

- Chymyrov A.U. – Graduates of PhD programs will receive diplomas from Kyrgyz universities. PhD status will be recognized in Kyrgyzstan. Partners of the GeoTAK project are ready to support Kyrgyz universities after the completion of the project too.

- Dyldaev M.M. - Doctor of Geographical Sciences, Professor of the Department of Geodesy and Geoinformatics, KSUCTA; He noted that the creation of a national hub would make a significant contribution to the development of methodology and training of highly qualified personnel in the field of geoinformation technologies.

- Mr. Narynbek Isabekov - Director of Goscartography; He noted that generally accepted standards and coordinate systems should be prepared for all ministries and organizations using geoinformation technologies.

- Chontoev D.T. - Doctor of Geographical Sciences, Professor, Director of the Institute of Water Problems and Hydropower of the National Academy of Sciences of the Kyrgyz Republic proposed Mr. Narynbek Isabekov as Chairman of the Advisory Board, the candidacy of Akylbek Chymyrov for the position of his deputy and the candidacy of N.O. Baitukenova as secretary of the Advisory Board. In an open vote, their candidacies were supported unanimously.

Decided:

- Create the National Research Node in Geoinformation Technologies (NRN-GIT) in the Kyrgyz Republic as an informal association of specialists, scientists, organizations and institutions interested in the development of education and science in the field of geoinformation technologies, remote sensing of the Earth, geodesy and cadastre without forming a legal entity.
- Approve the composition of the Advisory Board of the National Node for Research on Geoinformation Technologies in the Kyrgyz Republic in the amount of 18 people.
- Elect Mr. Narynbek Isabekov as Chairman of the Advisory Board of the National Node for Research on Geoinformation Technologies in the Kyrgyz Republic, Chymyrov A.U. as his deputy, and N.O. Baitukenova as secretary of the Advisory Board.

Chairman of the Advisory Board

Narynbek Isabekov

Secretary of the Advisory Board

Nurganym Baitukenova

GeoTAK team members from Armenia and Europe:

23. Prof. Anta Lisee, University of Ljubljana, Slovenia

24. Dr. Gurgen Eghiazaryan, Armenian National Agrarian University (ANAU), Armenia

25. Dr. Ruzan Ghazizjan, Armenian National Agrarian University (ANAU)

26. Dr. Naira Aloyan, Armenian National Agrarian University (ANAU)