Muskhelishvili Institute of Computational Mathematics of Georgian Technical University

Projects funded by foreign grants

№	Grant Name	Manager	Project start and end years	Total budget	Status completed/in progress	Grant code .
1	Georgian Artificial Intelligence Networking and Twinning Initiative (GAIN)	2022-2025	George Giorgobiani	1 319 250 Euro	Current	#101078950

Abstracts:

1. Concrete result

The partners of Muskelishvili Institute of Computational Mathematics (MICM) in the project are the leaders of European research in the field of Artificial Intelligence DFKI - German Artificial Intelligence Research Center (Germany) and INRIA - National Research Institute for Digital Science and Technology (France). Also, high-tech company EXOLAUNCH (Germany).
Within the framework of the project, it is planned to integrate Muskhelishvili Institute of Computational Mathematics into European studies in the direction of AI. In order to achieve the set goal, it is planned to: develop the mentioned field through the implementation of several sub-projects, with main accent on medical, namely psychiatry problems; creation of an AI laboratory and attracting young scientists, graduate students and doctoral students to it; Involvement of the institute in the international research projects, creation and strengthening of connections with the European research and innovation community, etc.
The following activities have been completed so far:
1. A kick-off meeting was held at MICM, which was attended by guests from European partner organizations, heads and employees of Stu and the institute, guests from other organizations (70 guests in total);
2. In the project, it is planned to obtain medical data and digital processing, as well as to create a Georgian-language medical corpus. The already performed task (Deliverable 1.1) is related to the compliance with the relevant ethics norms. (Deliverable 1.1). An ethics advisor has been selected, who

participates both in the creation of the "ethics protocol" and in the planned multidisciplinary studies. The ethics protocol was designed and approved (Deliverable 1.2).

3. Laboratory of artificial intelligence (MICM AI Lab) was created in the institute, which includes 25 researchers, most of them are representatives of the young generation. The laboratory will have scientific, infrastructural and financial support of the project for 3 years. For the future, it is planned to maintain and develop the scientific potential created in this direction with the support of the government.

4. Project researchers were divided into 3 sub-projects: AI Methods for Deep Speech Analysis in Health, AI Technologies for Human Behavior Understanding, Pilot Research Project at MICM based on Mephesto Project. Georgian, French and German scientists are united in each sub-project.

5. The joint MEPHESTO & GAIN meeting was held at INRIA, Nice, Sophia Antipolis on 19 & 20 January 2023. The meeting was attended by the representatives of partner organizations: DFKI, MICM and INRIA.

6. The first GAIN Summer School was held at INRIA, Sophia Antipolis, September 4 – 8, 2023. The event was a part of the 3rd INRIA-DFKI EUROPEAN SUMMER SCHOOL ON ARTIFICIAL INTELLIGENCE – IDESSAI 2023. MICM was represented by 10 young researchers and a coordinator of the project. September 5 was devoted to the presentations of Georgian partners. https://idessai.eu/

7. The Innovation training workshop for researchers and managers, organized by the project GAIN partner EXOLAUNCH was held at Technical University of Berlin, 21 – 25 August, 2023. The training was attended by 11 representatives of MICM, the members of EXO and other guests.

8. With the support of the project, 4 research articles were published, 1 article submitted, 2 papers are in the process of preparation. 4 conference talks were delivered.

9. A weekly scientific seminar is held at MICM, where the state of the art in the field, obtained results, and current issues of the project are discussed.

2. Recommendations

The project envisages making recommendations both in terms of research and organizational development. The recommendations are in the process of being formulated and will be finalized in the third year of project implementation, in 2025.