

The referee report on the project

“Open information and educational environment for supporting fundamental and applied multidisciplinary research at JINR” (theme 1139), 2021-2023

Project leader: Yu.A. Panebrattsev

The project “Open information and educational environment for supporting fundamental and applied multidisciplinary research at JINR” is implemented within theme 1139 and is an important continuation of the work started in 2017 intending to create new educational and information resources related to the topics of JINR scientific research. The present review is based on the report/questionnaire provided by the project leader Yu.A. Panebrattsev. The project has just started in 2021, therefore, the results reported include also activities and achievements during 2017-2020.

The leading role of JINR in fundamental and applied science is closely intertwined with its equally important role as a source of brainpower. Therefore, the development of a modern, attractive and competitive educational environment is of the highest priority and is addressed in the present project using recent achievements in information and communication technologies and modern approaches in the field of e-learning.

The project is being implemented based on the hardware located at the JINR UC, and the information is provided to interested clients and the community through several web portals. While the JINR group is the main responsible and coordinator, the project involves a well-established collaboration with five JINR Member States and three Associate Members. The project team has strong experience in the creation of project-relevant content.

Several main results of the project during 2017-2020 can be identified and are highly appreciated:

- The JINR open educational portal is available with about 10 online courses and interactive multimedia educational resources targeting the university and school students. A significant amount (about 50) of courses developed in collaboration with other project participants is available at the international educational platforms such as Coursera and edX. Thus, the open format of the courses makes them available to universities and research centers worldwide.
- The project provided support in the form of multimedia educational resources for the websites of several JINR laboratories as FLNP, Polish group, IBR-2 User Club, NICA megaproject and NRV Open Web Oriented Platform.
- Creation of multimedia content related to JINR subject matter for exhibitions.
- Creation of the topic-oriented resources “Virtual Laboratory of Nuclear Physics”.
- Creation of educational materials (video lectures and text-books) for teachers and students.

Several bright events have been already implemented at the beginning of the year 2021: the interactive exhibition "JINR Basic Facilities" devoted to the 65th anniversary of the Institute has been launched, the JINR Information Center in Egypt has been opened and the textbook “Physics. Grade 7” has been published.

It is important that along with the high-quality content creation, the activities for its

dissemination and awareness about it are performed in parallel in the form of numerous reports at international conferences and different events such as schools, symposia and exhibitions.

The project has clear and ambitious plans for the period till 2023, which reflects all aspects of JINR activities: attraction of talented youth to JINR, integration of the research results obtained at JINR to the education process, collaboration with leading research centers in the creation of educational resources, promotion of research at JINR to a wide audience, an improvement of the quality of the educational and exhibition content. The expected results have been identified, are relevant and have all the possibilities to significantly impact the educational process at JINR Member States and Associate Members.

I think that the project “Open information and educational environment for supporting fundamental and applied multidisciplinary research at JINR” makes a remarkable contribution to the visibility and attractiveness of JINR as well as its educational programmes. Its results can be evaluated as “Excellent”. Therefore, I would recommend its implementation in 2021–2023 with ranking A.



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