

### **“AREAL” new synchrotron accelerator opened in Yerevan**

New accelerator center “AREAL” opened at the “CANDLE” Synchrotron Research Institute in Yerevan. AREAL (Advanced Research Electron Accelerator Laboratory) is a laser-driven linear accelerator for generation of relativistic ultra-short electron beams for advanced experimental research in the fields of accelerator technologies, new radiation sources and the dynamics of ultrafast processes at the atomic and molecular level.

AREAL accelerator has been designed and built at the “CANDLE” Synchrotron Research Institute during 2011-2013 as the first phase of the third generation synchrotron light source project in Armenia. The project incorporates advanced technologies in the field of laser physics, high-frequency technology, ultra vacuum equipment, high precision diagnostic systems, control and synchronization of different processes.

The first beam of the new accelerator was obtained on 20th December 2013. In May 2014 the commissioning of the new facility has been completed and the results presented at the International Particle Accelerator Conference in Dresden.

AREAL accelerator opens up new opportunities for Armenian and foreign scientists in the field of ultrafast processes in a wide range of natural sciences, including physics, biology, chemistry and materials science, development of bio- and nanotechnology. The project was conducted in close cooperation with the German Accelerator Center DESY and the Paul Scherrer Institute in Switzerland.

Among the invitees of the ceremony are members of the RA Government, ambassadors and diplomats accredited to Armenia, heads of leading research and educational institutions, as well as leading scientists and experts.

The aim of the upcoming event is the presentation of the new scientific facility in Armenia and strengthening the international scientific cooperations in the fields of natural sciences and advanced technologies.