

Establishment of Seismological Network of Sofia University (SNSU)

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The Virtual Seismological Network of Sofia University (VSNSU) was founded in 2015 with a project financed by the Scientific Research Funds of Sofia University. In the years up to 2021, data from various seismic stations located in the Balkan Peninsula, whose data are freely available in almost real time via the Internet, have been used. The main goal of the present project is to install the first real seismic station from the Seismic Network of Sofia University (SNSU). This will increase the capacity of researchers, PhD students and students in the field of seismology, enabling hands-on work with instrumentation and new seismic data. The first seismic station will be installed in the ground part of building V of the Faculty of Physics, as after the completion of the current renovation of the Astronomical Observatory of SU in Borisova Garden, the seismic station will be installed there. In this way, the density of seismic stations in the Sofia area (highly seismic region) will increase, contributing to the better localization of weak earthquakes in the area, which are usually only registered by the Vitosha station (VTS) of the Bulgarian National Seismic Network, operating at the National Institute in Geophysics, Geodesy and Geography - BAS. The first scientific tasks that will be performed are related to the calibration of the station for measuring local magnitudes, the study of the local structure under the station using the H/V method, as well as the correlation of seismic noise. The importance of the project is indisputable: it will increase the research potential of the "Geophysics" section of Sofia University, it will contribute to increasing the potential for locating weak earthquakes in the Sofia area, as well as the possibility of applying modern methods in the study of the Earth's structure.