ESC2016-462, 2016
35th General Assembly of the European Seismological Commission

35th General Assembly of the European Seismological Commission
4–10 September 2016
Trieste

Development of the Romanian Educational Seismic Network

Bogdan Zaharia, Dragos Tataru, Bogdan Grecu, and Cristian Neagoe
National Institute of Earth Physics, Magurele, Romania (bzaharia@infp.ro)

The Romanian Educational Seismic Network project is the first educational initiative in Romania that proposes to introduce seismological education in schools. An important step of the project was to familiarize students and teachers with scientific instruments like seismographs (SEP or Slinky seismometers) and experimental methods (seismic data analysis) that are usually restricted to research laboratories. The educational network started in 2012 with nine SEP seismometers installed in high-schools from the most important seismic areas, vulnerable cities or high populated places. The increased interest of the schools to participate in the project activities made us to expand educational seismic network by installing new Slinky seismometers in schools and adding near real-time data from 10 broadband seismic stations from National Seismic Network operated by the National Institute for Earth Physics. Based on the data recorded by the educational seismic network different types of practical activities using educational seismometer were designed by researchers for students and teachers. A result of the corroborative work of researchers, students and teachers was a Slinky seismometer built with cheap components and its digitizer using Arduino board and analog-to-digital converter ADS1115 Adafruit 16-Bit ADC - 4 Channel with Programmable Gain Amplifier. The system (built seismometer and the Arduino digitizer) proved its capabilities through earthquakes records.