GTK Academy for the maintenance of high-grade professional geological survey

P. Sarala\textsuperscript{1}, S. Tervonen\textsuperscript{2} and A.-L. Tolonen\textsuperscript{2}

\textsuperscript{1}Geological Survey of Finland, P.O. Box 77, 96101, Rovaniemi, FINLAND (correspondent: pertti.sarala@gtk.fi)
\textsuperscript{2}Geological Survey of Finland, P.O. Box 96, 02151, Espoo, FINLAND

GTK Academy is an in-house, geo-expertise Continuing Education programme for researchers and experts in the Geological Survey of Finland. Its objectives are to:

- broadening, deepening and updating of geo-expertise
- get the best and common practices, as well as the latest know-how for the entire organization

Within the framework of the GTK Academy training has been organized since 2011. The training is focused on the themes addressed the GTK’s core areas. Determining the GTK academy’s themes, development needs of skills are mapped in GTK widely. The selections have been made on the basis of their priority and extent of need. Training modules have different scopes and working methods such as lectures, workshops, exercises and excursions. Each module has a responsible person from substance and training program was coordinated by the Human Resources Unit. The trainers are mainly GTK's own researchers, if necessary, with external experts are used. Training is organized by the employer, and named delegates are obliged to participate in training. The training is held during working hours and participants will receive a certificate of satisfactory completion of the training.

One of the GTK academy’s training programmes was focusing on geochemistry. Geochemistry is an essential part of all geological research but insufficiently considered in the syllabuses of universities. Particularly, the applied geochemistry and good practises are not brought up in teaching. Furthermore, recent development in geochemical methods has been huge and highlights the importance of training. The programme was carried out in 2015 including basic and advanced sections, of which the first part was directed to large audience (about 65 people) and the latter for a specific group of advanced researchers (18). During a six-days-section in the spring, the whole gamut of geochemical survey from planning, sampling, analysis, data processing and interpretation to databases and sample storage with applications and practices was covered in the basic section. In the advanced part, the focus was in the basic and advanced methods for the statistical analysis of geochemical data using a free software R.