

## **IAEA FELLOWSHIP TRAINING ON MINERAL CHARACTERISTIC AND ORE PROCESSING**

*By*

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The exploration and processing of radioactive minerals in Indonesia has been carried out by Badan Tenaga Nuklir Nasional (BATAN) since the 1960s. Several potential locations of radioactive mineral availability throughout Indonesia and the mineral processing technology have been mastered. With its superiority over other countries in Southeast Asia makes BATAN selected by the IAEA as the host for fellowship training in the field of radioactive minerals.

From 1 to 28 February 2017, a month's fellowship training program on Mineral Characteristic and Ore Processing was held at Center for Nuclear Minerals Technology (PTBGN) in the Pasar Jumat Nuclear Complex, Jakarta Selatan with the aim to exchange knowledge and experiences in radioactive minerals exploration and ores processing activities. The participants of the training included two Malaysian's fellows, Khaironie Mohamed Takip (Malaysian Nuclear Agency) and Vui Chung Wong (Mineral and Geoscience Department Malaysia), and the employees of Center for Nuclear Minerals Technology.

The opening ceremony was officiated by Head of PTBGN-BATAN, Ir. Agus Sumaryanto. Generally, the training program was divided into two parts, mineral characteristic and ore processing. Both parts of training included lectures, discussions and 'hands-on' basic skills training. The program began with presentations on exploration and radioactive mineral processing activities in Indonesia. This was followed by presentations on similar activities conducted in Malaysia from Malaysian fellowship participants. Others presentations were on mineral resources and rare earth provinces in Indonesia, petrographic analysis, heavy mineral analysis, ore analysis using Induced Couple Plasma (ICP) and X-Ray Fluorescent (XRF), advanced analysis using X-Ray Diffraction (XRD), Scanning Electron Microscope (SEM) and Raman Spectroscopy. All those activities were carried out at PTBGN-BATAN's facilities in Pasar Jumat Nuclear Complex. In addition to that, fellowship participants were also brought to visit Center for Science and Technology of Advance Materials (PSTBM)-BATAN's laboratory facilities in Serpong Nuclear Complex and Center for Accelerator Science and Technology (PSTA)-BATAN's rare-earth pilot plant facility in Yogyakarta Nuclear Complex too.



The training was very educational where participants manage to grasp a better insight on subjects related to exploration methodologies, analysis and research works on radioactive minerals based on BATAN experiences. This training was sufficed to give participants some basic knowledge and information on related subjects. Most importantly, a closer tie between the fellowship participants and the host institution (BATAN) was fostered through this training.