



Capacity Building and Knowledge Transfer Programme at the BIPM

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The global metrology system, coordinated by the International Bureau of Weights and Measures (BIPM), provides the basis for the recognition of measurement standards and measurements results world-wide. It underpins industry and global trade, as well as being a key enabler for science and innovation. In consequence, the participation in the activities of the BIPM has expanded in recent years. All the nations where metrology has a high level of development already participate, and the number of Member States and Economies with emerging metrology systems joining the BIPM increases. The BIPM started focusing more effectively on the particular needs of countries and economies with emerging metrology systems, and established a structure for capacity building and knowledge transfer. This BIPM CB&KT programme [1] aims at increasing the effectiveness with which Member States and Associates engage in the world-wide coordinated metrology system.

The CB&KT programme is operated allowing sponsors, in consultation with the BIPM, to decide which actions they wish to support, or which particular region, and the timing. Training opportunities are of various types; supporting new or inexperienced institutes to aid their engagement in the international system, to improve their participation in comparisons, to enhance their leadership capacities.

The Time Department of the BIPM proposed technical training to help institutes to enhance their contributions to Coordinated Universal Time (UTC) [2], and in particular to decrease the uncertainty of their link to UTC improving the quality of the clock comparison using GNSS observations. Staff from some laboratories contributing to UTC or preparing their contributions was selected for receiving information on good time laboratory practices, monitoring of equipment, data submission, and procedures for calibration of GNSS equipment [3]. The course “Effective participation to Coordinated Universal Time (UTC)” has been sponsored by the Swiss Federal Institute for Metrology (METAS), and supported by professionals from various metrology institutes and receiver manufacturers. In view of the success of this first experience, similar training will be organized in the future.

1. Bureau International des Poids et Mesures, Capacity Building and Knowledge Transfer Programme, <https://www.bipm.org/en/cbkt/>.

2. BIPM *Circular T*, monthly, <https://www.bipm.org/en/bipm-services/timescales/time-ftp/Circular-T.html>.

3. Bureau International des Poids et Mesures, <https://www.bipm.org/jsp/en/TimeCalibrations.jsp>.