BIPM Capacity Building & Knowledge Transfer Programme

2019 "Optimizing the CIPM MRA - the KCDB 2.0"

Programme highlights

Course Dates: 4-8 November, 2019  
Location: BIPM, Sèvres Cedex, France

Course content and dates of instruction may change marginally.

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| Day 1 | Introduction to the CIPM MRA and its mechanisms  | • CIPM MRA  
• Consultative Committees  
• Regional Metrology Organizations  
• Joint Committee of the Regional Metrology Organizations and the BIPM  
• CIPM Requirements and documentation  
• Supporting evidence:  
  − technical evidence and traceability  
  − Quality System  
• Outcomes of the CIPM MRA review | BIPM Participants  
Invited lecturers |
|       |                                                  | Case study: Sharing experiences on reducing workload  
Group work: What are the things you do to reduce the workload? |

Day 2  
Introduction to the KCDB (KCs, SCs, CMCs and statistics)

|       |                                                  | • KCDB 2.0 introduction  
• User manual  
• Account generation (WRITER, TC-CHAIR, REVIEWER, JCRB Exec. Sec., KCDB Office)  
• Intra-regional CMC review process  
• Inter-regional CMC review process  
• CCs’ specific guidelines for comparisons and CMCs (Fast Track and Risk-based approaches and representative CMCs) | BIPM Participants  
Invited lecturers |
|-------|--------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------|
|       |                                                  | Case study: Experiences in registration and user area  
Group work: First registration/ Practical exercise- developing of CMCs |

Day 3  
Calibration and measurement capabilities

|       |                                                  | • CIPM Requirements and documentation  
• CCs’ specific guidelines for comparisons and CMCs (Fast Track and Risk-based approaches and representative CMCs)  
• Roles and responsibilities in the CMC review process  
• WRITER:  
  − Preparing New CMCs, including supporting evidence  
  − Updating existing CMCs | BIPM Participants  
Invited lecturers |
### Case study: Challenges in CMC submission and review

#### Group work: Practical exercises - intra-RMO review of CMCs

**Day 4**
- **Measurement comparisons**
  - CIPM Requirements and documentation
  - Roles and responsibilities in the comparison process
  - CCs’ specific guidelines for comparisons and CMCs (Fast Track and Risk-based approaches and representative CMCs)
  - Planning and monitoring measurement comparisons
  - Calculation of reference values and associated uncertainties
  - Writing Comparison Reports
  - Common pitfalls from the practice

**Case study: Challenges in the registration and completion of comparisons**

#### Group work: Practical exercises:

1) inter-RMO review of CMCs and publication in the KCDB
2) submission of comparisons and publication in the KCDB

**Day 5**
- **KCDB 2.0 features**
  - KCDB Office role
  - JCRB role
  - Search facilities
  - Statistics

- **Quality management systems**
  - CIPM requirements and documentation on quality system
  - Certificates with the CIPM MRA logo and Statement

- **Brainstorming**
  - KCDB 2.0 User manual
  - How to explain to WRITERS