



Operation and Maintenance of Hydro tunnels

Nepal, 13th December 2018

Objective: To provide a global overview of all the main issues regarding operation, maintenance and repair of tunnels, shafts and caverns in an underground hydroelectric complex.

Session 1: Performance criteria of an underground hydro plant – Feedback from experience

09:00-09:15 Welcome and opening

09:15-10:00 Types of tunnel lining for hydro tunnels – advantages and disadvantages (F. Laigle)

10:00-10:45 Performance criteria of a hydro tunnel (P. Lazaro)

10:45-11:15 Coffee Break

11:15-12:00 Introduction to the main structural disorders and defaults in hydro tunnels (F. Laigle)

12:00-12:45 Lessons learnt from previous accidents during operation (P. Lazaro)

12:45-13:00 Discussion

13:00-14:00 Lunch

Session 2: Inspection and maintenance – Asset management

14:00-14:45 Case Study: Waterproofing membrane under high hydraulic head (Carpi – M. Bacchelli)

14:45-16:00 Round table about Inspection, maintenance and repair issues

- Introduction to the topic (F. Laigle – P. Lazaro)
- Exchange with the audience (with all experts)

16:00-16:30 Other case Study: (X – To be confirmed)

16:30-17:00 Discussion and closing