



“APSU Conference for Dam Safety”

13 November 2021, 15:00-17:00 pm

Venue: - **Babylon Hall / Mosul Dam Camp - Iraq**

Technical Session 3: -

Monitoring and inspection for ensuring dam safety and analyzing potential failures mode

Moderator: - Dr. Ameena Ahmad Khalil (Mosul University)

Monitoring programs and visual inspection provide dam owners with knowledge that a dam is performing as expected (USSD). Therefore, a good dam safety program should be a key part of every dam owner’s risk management program. Monitoring and Inspections are intended to identify an emergency condition or a dam failure at early stage. Therefore, it is very important to minimize potential threats to life of population living downstream; and reduce damages to infrastructure, properties, public utilities and environment. Potential failure modes can be considered to control the risk estimate. A failure mode is a unique set of conditions of events that could result in failure. Failure is characterized by sudden, rapid and uncontrolled release of impounded (FEMA). So, the benefits expected from the monitoring and inspection should be achievable.

Session’s Goals: -

1. Improving the risk estimating regarding the life loss and economic consequences downstream of the dam based on the probability of failure.
2. Short and long- term remediation should be implemented to reduce the risks.
3. Finding the most likely mechanisms or more of these failure modes occur at the dam.
4. Careful, frequent and continued monitoring and visual inspection are need for implementing risk reduction measures.
5. Varying physical inspection times allows you to examine the dam under different reservoir loading conditions.
6. Updating Dam safety inspection programme.



Session details and Key Speaker is as follow: -

	Title	Author Name	Organization	Participation mood
1	Geophysical Investigations for Dam Safety Rapid & Cost-Effective Investigations & Monitoring of Dams	Dr. Sanjay Rana	AF Academy INDIA	Online
2	Management of sedimentation flushing in dam reservoirs Mosul dam as a case study	Dr Thair Altaiee	Mosul University	Physical
3	Possibilities of Dam Failure: Consequences and Solutions	Nadhir Al-Ansari ¹ and Nasrat Adamo ²	¹ Professor, Lulea University of Technology, Sweden ² Consultant Engineer, Sweden	Online
4	Water harvesting techniques and their role in securing flood risks in the eastern part of Iraq.	Dr. Ibrahim Mahdi Al-Salman – Dr. Zainab Khudhair Al-Hasnawi	Al-Nahrain Center for Strategic Studies	Physical
5	Secretary General of Arab Countries Water Users Association ACWUA	Eng. Khaldon Khashman	ACWUA	Physical
6	GIS Applications in the Mosul Dam Safety	Marwan Abdulelah Mahmood	SCODAR	Physical

