

**Hydrological, Geotechnical and Geological Investigations for Dams****22-26May, 2019****Central Water Commission, New Delhi****&****Department of Civil Engineering****Motilal Nehru National Institute of Technology Allahabad****Prayagraj-211004****PROGRAMME**

Wednesday 22 May, 2019		
Time	Topic	Resource Person
9:30 AM-10:30 AM	Registration of participants	---
10:30 AM-11:00 AM	Inauguration	---
11:00 AM-11:45AM	Tea	
11.45 AM- 1.15 PM	Key Note Lecture: Overview of Hydrological and Geotechnical Application for Dams/ Overview of Rehabilitation of Dams in India	Key Note Speaker
1:15 PM-3:00 PM	Lunch	---
3.00 PM-4.30 PM	Lecture 1: Petrogeological Investigations for Site Selection for Dams <ul style="list-style-type: none"> <li>➤ Petrography of Rocks including Texture and Minerals Composition</li> <li>➤ Physical Properties of Rocks</li> <li>➤ Correlation of Petrography with field outcrops.</li> </ul>	Dr. H. K. Pandey/ Prof. R. P. Singh, Civil Engineering Department, MNNIT Allahabad
4:30PM-5:30 PM	Group Discussion	---

**Hydrological, Geotechnical and Geological Investigations for Dams****22-26May, 2019****Central Water Commission, New Delhi****&****Department of Civil Engineering****Motilal Nehru National Institute of Technology Allahabad****Prayagraj-211004****Thursday 23 May, 2019**

<b>Time</b>	<b>Topic</b>	<b>Resource Person</b>
10:00 AM-11:30 AM	Lecture 2: Electrical Resistivity Survey <ul style="list-style-type: none"> <li>➤ Basic concept of Resistivity Survey</li> <li>➤ Demarcation of Overburden in and around the area of Dam/Reservoir</li> <li>➤ Demarcation of Ground water level in and around the area of Dam/Reservoir</li> <li>➤ Demarcation of Sub-surface discontinuities</li> </ul>	Prof. J. N. Tripathi, Department of Earth and Planetary Sciences, University of Allahabad
11:30 – 12:00 Noon	Tea	
12:00-1:30 PM	Lecture 3: Hydrological Investigation and Modeling for Hydrological Responses and Water Resources Assessment <ul style="list-style-type: none"> <li>➤ Hydrologic investigation</li> <li>➤ Watershed delineation</li> <li>➤ Land Uses/Land cover changes analysis</li> <li>➤ Hydrological Responses in terms of Runoff/Sediment Yield</li> <li>➤ Flow duration analysis for extreme events assessment and their possible effect on storage/reservoirs</li> <li>➤ General Outlook for overall water Resources Management</li> </ul>	Prof. R. M. Singh, Civil Engineering Department, MNNIT Allahabad
1:30 PM-3:00 PM	Lunch	
3:00-4:30 PM	Lecture 4: Geotechnical Investigations of Soil and Rock <ul style="list-style-type: none"> <li>➤ Advancement of Borehole in Soil and Rock</li> <li>➤ Various Tests on Soil and Rock</li> <li>➤ Soil Investigation Report</li> </ul>	Prof. R. P. Tiwari/ Dr. Vijay Kumar, Civil Engineering Department, MNNIT Allahabad
4:30-5:30 PM	Group Discussion	---

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Friday 24 May, 2019		
Time	Topic	Resource Person
10:00 AM-11:30 AM	Lecture 5: Engineering Application of Rock in Dam Construction <ul style="list-style-type: none"> <li>➤ For Intact Rock</li> <li>➤ For Jointed Rock</li> <li>➤ For Rock Masses</li> </ul>	Prof. Mahendra Singh, Department of Civil Engineering, IIT Roorkee
11:30 –12:00 Noon	Tea	
12:00-1:30 PM	Lecture 6: Geostructural Mapping <ul style="list-style-type: none"> <li>➤ Concept of Geostructural Discontinuities</li> <li>➤ Identification of Discontinuities in Field</li> <li>➤ Identification of weak Zones /Area Susceptible for Dam Failure</li> </ul>	Prof. Vaibhav Srivastava, Department of Geology, BHU Varanasi
1:30 PM-3:00 PM	Lunch	
3:00-4:30 PM	Lecture 7: Hydrological Investigations for Dam <ul style="list-style-type: none"> <li>➤ The Run-off Estimation</li> <li>➤ Estimation of Discharge in Catchment Area</li> <li>➤ Identification of Piping and Seepage</li> </ul>	Prof. K. K. Pandey, Department of Civil Engineering, IIT BHU Varanasi
4:30-5:30 PM	Valedictory Session	---

**Saturday 25 & Sunday 26 May, 2019**

Visit to Rihand Dam, Sonbhadra, Uttar Pradesh.