

## **Minutes of the Meeting of Research, Academic Institutions and User Departments in the field of water held on Feb 20, 2019 at IIT Roorkee**

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### **PRESENT**

As per list attached.

Prof Ajit K Chaturvedi, Director, IIT Roorkee welcomed the representatives from different Research, Academic Institutions and User Departments. He, thereafter, asked Prof Arun Kumar, AHEC to present the agenda.

- **Session 1100 – 1230 Presentation by each academic and research institution**  
1100 – 1110 Welcome and address By Prof AK Chaturvedi, Director  
Presentation by IITR, NIH, GB pant environment institute, Pant University, HBN Garhwal university, IIRS, ICFRE and more (8 – 10 minutes each)
- **Session 1230 – 1330 Presentation by User departments on their water related problems and requirements**  
Irrigation Uttarakhand, Irrigation UP, UJVNL, UK Peyjal, UK Jal Sansthan, UK watershed, UP watershed, THDC, UK pollution council, UPJN, Bhagirathi Valley Authority

*1330 – 1430 Lunch (in KIH)*

- **Session 1430 – 1530 Breakout groups ( 4 parallel sessions)**  
**(Senate Hall, Committee room, Board room and DOSW Committee room)**

Each breakout session coordinators/groups shall come out with one or more project plan/idea/ expectation and partner and presented in the plenary session

1. **Irrigation/ river basin:** water resources assessment, irrigation efficiency, river training, flood protection, river morphology, sedimentation coordinated by Prof CSP Ojha / Prof SK Mishra/Prof Manoj Jain/Prof Z Ahmad
  2. **UPJN/ pollution:** water supply, treatment, wastewater treatment, sanitation, pollution assessment coordinated by Prof AA Kazmi / Prof Himanshu Joshi / Prof VC Srivastava
  3. **UJVNL/THDC:** forecasting of flows, flow modelling, flood estimation, hydropower, GHG assessment coordinated by Prof NK Goel/Prof MP Sharma
  4. **Watershed/ Rural supply:** spring rejuvenation, ground water recharging, carbon stock , GHG assessment coordinated by Prof Sumit Sen/Prof AS Maurya
- **Session 1530 – 1615 Concluding session**  
**In senate Hall (tea shall be served during session)**

**Presentation by each break out group with identified and outline of projects** (multi institutional – title, broad objectives and outcome, time frame and partner institutions)

**Suggestive Studies based on deliberation made during the meeting held on dated 20.02.2019  
at IIT Roorkee among the academic, research institutions and user organisations of  
Uttarakhand and Uttar Pradesh**

**1. River Basin/Irrigation group**

- **Assessment of surface water and subsurface water including Glacier**  
To explore the dynamic variation of groundwater and characterize the aquifer; to assess snow cover, snow melt and runoff
- **Irrigation Efficiency as a pilot project in Uttarakhand and Uttar Pradesh**  
Study of present irrigation practice, through conjunctive use, groundwater model to increase productivity, increase efficiency of the project and obtain optimal cropping pattern with optimal allocations of water resources and Soil salinity experimental work
- **Sedimentation in rivers and Reservoirs**  
Transport capacity of the rivers, sedimentation in rivers due to disposal of muck, catchment area treatment to control erosion.
- **River training & Morphology**  
Basin-wise identification of flooding area, Identification of critical reaches and aggradation area, Scour near hydraulic structures in gravel bed rivers, replenishment study, performance of hydraulic structures including river training works

**2. Watershed/Rural Supply group**

- Demystifying the science of spring systems and conversion of knowledge for sustainable decision support system.
  - Quantifying the impacts of LULC, climate change, road construction, etc.
  - To identify the recharge zone and flow path of drying/dried up springs using Stable Isotopes, Hydro-geochemical, Geomorphological, and Electrical Resistivity Tomography.
  - Identifying potential geomorphologically sustained locations and structures for harvesting rain water to rejuvenate the springs.
- Developing the capacity building of stakeholders towards the sustainable springshed management.

**3. UJVNL/THDC group**

- Redressal of silt related issues in power projects.
- Development of inflow forecasting system for power projects
- Modeling of flood flows of Alaknanda river better cooperation/ tie-up with various power developers.
- Sharing of data collected by different agencies of the state. (THDC, SDMA, IMD)
- GHG emission assessment and mitigation studies in reservoirs
- Silt removal from dams.
- Emergency Action plan studies for dams.

**Meeting to Discuss Enhancement for the Collaboration in the Area of Water at IIT Roorkee  
on Feb 20, 2019**

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**Meeting to discuss enhancement for the collaboration in the area of Water  
IIT Roorkee on Feb 20, 2019**

**Programme (Senate Hall)**

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