

Government of India Ministry of Jal Shakti Department of Water Resources, RD & GR National Hydrology Project (NHP)

File No X-56014/2/2017-NHP Section/03 - //

Dated: 26th August, 2019

Sub: Training Calendar under the National Hydrology Project for the 2nd, 3rd & 4th Qtr of FY 2019-20 and the 1st Qtr of the FY 2020-21- reg.

National Hydrology Project's objective includes Institutional Strengthening and Capacity Building of the Water Resource Professional working in the Central and State Implementing Agencies under NHP. To achieve this objective, and to get the maximum benefit of the resources, the National Training Calendar for the 2nd, 3rd & 4th Qtr of FY 2019-20 and the 1st Qtr of the FY 2020-21 is enclosed (Annexure-I) for advance planning and timely registration in the MIS portal of the NHP.

The Boarding & Lodging for participants of all such training shall be provided/borne by the concerned organising agencies and can be booked under the NHP Head. The remuneration and Airfare charges of the Guest faculty, wherever required (for non NHP members) will be borne by the host Implementing Agency and can charge to NHP Head. The responsibility of designing the course content and arrangement of faculty rests with the Organising Agency. However, NPMU, DoWR, RD & GR, Ministry of Jal Shakti may be consulted if considered necessary.

Apart from the courses mentioned in the Training Calendar, additional Training courses, In-House Training Programme by the IAs, Workshops, The World Bank's Missions, Mid Term Reviews, International Training Programme may be organised by DoWR, RD & GR, the World Bank, Other Multilateral agencies, Ministries/Departments of Government of India, which will be informed time to time. It is also to mention that the dates, venue and the organising agencies for some of the events are likely be Changed/Shifted. Kindly Check MIS Portal (or call) before arranging your Travel Plans.

Apart from the above, 6 international Training are also proposed for the current Financial year (Annexure-I), of which 2 are already Approved/Completed. The Circular for the remaining 4 International Training Programme will be sent separately and Nomination will be sought.

This issues with the approval of Competent Authority.

Encl: as above

To:

(Raja Ram Purohit)
Dy. Director (NHP)
rr.purohit@nic.in

 Principal Secretaries, Project Coordinator & Nodal Officer of the State Implementing Agencies.

2. Head of the Organisation of the Central Implementing Agencies.

Copy for information to:

- 1. PS to Joint Secretary (IC & GW), DoWR, RD & GR, Ministry of Jal Shakti, Rafi Marg, New Delhi
- 2. Training Coordinator (NHP), National Institute of Hydrology, Roorkee. U.K.
- 3. Chief Engineer, National Water Academy, CWC, Pune.
- 4. Director, National Ground Water Training and Research Institute, CGWB, Raipur.
- 5. Director, NERIWALM, Tejpur, Assam
- 6. Dr. Anju Gaur, Task Team Leader (NHP), the World Bank, H.T. Building, New Delhi.
- 7. Team Leader, TAMC (NHP), MTNL Building, 9, CGO Complex, New Delhi

Training Calendar, 2nd, 3r	d & 4th Qtr, 2019-20 and 1st Qtr 2020-21,	National Hydrology Project (NHP)
----------------------------	---	----------------------------------

Training Course gs: 1st Qtr (Apr to June, 2019) I Hydrology and introduction to the hydrological modelling ischarge Estimation Using Non-Contact Hydrometric ques g on River Basin Management and Planning using "MIKE Basin" Quality Assesment and Management ce learning- basic hydrology and sciences for Asian region es Sensing & GIS Technologies gs: 2nd Qtr (July to September, 2019) on of Digital elevation model (DEM) , Organization and Management of Water Quality Monitoring curement Procedures and Contract management and ion under NHP g course on Ground water issues of Punjab with special sis on Groundwater salinity Accounting including Phythan and Java Script ks GIS & RS application to water resources on of DEM Proposed	Area SW Hydrology Hydromet Instrumentation SW Modelling Water Quality SW Hydrology RS & GIS Survey Water Quality Procurement Water Quality Water Accounting	Month 25th April - 10 May, 2019 3rd June - 7th june 2019 6th - 8th June 2019 17 - 21 June, 2019 17th June - 2nd July 2019 24th - 28th June, 2019 9th - 12th July, 2019 15th - 19th July, 2019 16th - 18th July, 2019	Organiser Kerala SW NPMU Gujrat SW NIH Roorkee NWA NRSC SOI CPCB	Venue Trivandrum IIT Roorkee Gandhinagar NIH Roorke Pune Hydrabad Deheradun Bangalore Pune	Completed
I Hydrology and introduction to the hydrological modelling ischarge Estimation Using Non-Contact Hydrometric ques g on River Basin Management and Planning using "MIKE Basin" Quality Assesment and Management ce learning- basic hydrology and sciences for Asian region as Sensing & GIS Technologies gs: 2nd Qtr (July to September, 2019) on of Digital elevation model (DEM) , Organization and Management of Water Quality Monitoring curement Procedures and Contract management and ion under NHP g course on Ground water issues of Punjab with special sis on Groundwater salinity Accounting including Phythan and Java Script ks GIS & RS application to water resources	Hydromet Instrumentation SW Modelling Water Quality SW Hydrology RS & GIS Survey Water Quality Procurement Water Quality Water Accounting	3rd June - 7th june 2019 6th - 8th June 2019 17 - 21 June, 2019 17th June - 2nd July 2019 24th - 28th June, 2019 9th - 12th July 2019 10th - 12th July, 2019	NPMU Gujrat SW NIH Roorkee NWA NRSC SOI CPCB	Gandhinagar NIH Roorke Pune Hydrabad Deheradun Bangalore	Completed Completed Completed Completed Completed Completed Completed
I Hydrology and introduction to the hydrological modelling ischarge Estimation Using Non-Contact Hydrometric ques g on River Basin Management and Planning using "MIKE Basin" Quality Assesment and Management ce learning- basic hydrology and sciences for Asian region as Sensing & GIS Technologies gs: 2nd Qtr (July to September, 2019) on of Digital elevation model (DEM) , Organization and Management of Water Quality Monitoring curement Procedures and Contract management and ion under NHP g course on Ground water issues of Punjab with special sis on Groundwater salinity Accounting including Phythan and Java Script ks GIS & RS application to water resources	Hydromet Instrumentation SW Modelling Water Quality SW Hydrology RS & GIS Survey Water Quality Procurement Water Quality Water Accounting	3rd June - 7th june 2019 6th - 8th June 2019 17 - 21 June, 2019 17th June - 2nd July 2019 24th - 28th June, 2019 9th - 12th July 2019 10th - 12th July, 2019	NPMU Gujrat SW NIH Roorkee NWA NRSC SOI CPCB	Gandhinagar NIH Roorke Pune Hydrabad Deheradun Bangalore	Completed Completed Completed Completed Completed Completed Completed
ques g on River Basin Management and Planning using "MIKE Basin" Quality Assesment and Management ce learning- basic hydrology and sciences for Asian region e Sensing & GIS Technologies gs: 2nd Qtr (July to September, 2019) on of Digital elevation model (DEM) g, Organization and Management of Water Quality Monitoring curement Procedures and Contract management and ion under NHP g course on Ground water issues of Punjab with special sis on Groundwater salinity Accounting including Phythan and Java Script ks GIS & RS application to water resources	SW Modelling Water Quality SW Hydrology RS & GIS Survey Water Quality Procurement Water Quality Water Accounting	6th - 8th June 2019 17 - 21 June, 2019 17th June - 2nd July 2019 24th - 28th June, 2019 9th - 12th July 2019 10th - 12th July, 2019	Gujrat SW NIH Roorkee NWA NRSC SOI CPCB	Gandhinagar NIH Roorke Pune Hydrabad Deheradun Bangalore	Completed Completed Completed Completed Completed Completed
Pasin" Quality Assesment and Management ce learning- basic hydrology and sciences for Asian region ce Sensing & GIS Technologies gs: 2nd Qtr (July to September, 2019) on of Digital elevation model (DEM) Organization and Management of Water Quality Monitoring curement Procedures and Contract management and ion under NHP g course on Ground water issues of Punjab with special sis on Groundwater salinity Accounting including Phythan and Java Script ks GIS & RS application to water resources	Water Quality SW Hydrology RS & GIS Survey Water Quality Procurement Water Quality Water Accounting	17 - 21 June, 2019 17th June - 2nd July 2019 24th - 28th June, 2019 9th - 12th July 2019 10th - 12th July, 2019 15th - 19th July, 2019	NIH Roorkee NWA NRSC SOI CPCB	NIH Roorke Pune Hydrabad Deheradun Bangalore	Completed Completed Completed Completed Completed
ce learning- basic hydrology and sciences for Asian region a Sensing & GIS Technologies gs: 2nd Qtr (July to September, 2019) on of Digital elevation model (DEM) , Organization and Management of Water Quality Monitoring curement Procedures and Contract management and ion under NHP g course on Ground water issues of Punjab with special sis on Groundwater salinity Accounting including Phythan and Java Script ks GIS & RS application to water resources	SW Hydrology RS & GIS Survey Water Quality Procurement Water Quality Water Accounting	17th June - 2nd July 2019 24th - 28th June, 2019 9th - 12th July 2019 10th - 12th July, 2019 15th - 19th July, 2019	NWA NRSC SOI CPCB	Pune Hydrabad Deheradun Bangalore	Completed Completed Completed Completed
e Sensing & GIS Technologies gs: 2nd Qtr (July to September, 2019) on of Digital elevation model (DEM) , Organization and Management of Water Quality Monitoring curement Procedures and Contract management and ion under NHP g course on Ground water issues of Punjab with special sis on Groundwater salinity Accounting including Phythan and Java Script ks GIS & RS application to water resources	RS & GIS Survey Water Quality Procurement Water Quality Water Accounting	24th - 28th June, 2019 9th - 12th July 2019 10th - 12th July, 2019 15th - 19th July, 2019	NRSC SOI CPCB	Hydrabad Deheradun Bangalore	Completed Completed Completed
gs: 2nd Qtr (July to September, 2019) on of Digital elevation model (DEM) , Organization and Management of Water Quality Monitoring curement Procedures and Contract management and ion under NHP g course on Ground water issues of Punjab with special sis on Groundwater salinity Accounting including Phythan and Java Script ks GIS & RS application to water resources	Survey Water Quality Procurement Water Quality Water Accounting	9th - 12th July 2019 10th - 12th July, 2019 15th - 19th July, 2019	SOI CPCB	Deheradun Bangalore	Completed Completed
on of Digital elevation model (DEM) The property of Digital elevation model (DEM) The property of Digital elevation model (DEM) The property of Digital elevation and Contract management and Contr	Water Quality Procurement Water Quality Water Accounting	10th - 12th July, 2019	СРСВ	Bangalore	Completed
Organization and Management of Water Quality Monitoring curement Procedures and Contract management and son under NHP go course on Ground water issues of Punjab with special sis on Groundwater salinity Accounting including Phythan and Java Script ks GIS & RS application to water resources	Water Quality Procurement Water Quality Water Accounting	10th - 12th July, 2019	СРСВ	Bangalore	Completed
curement Procedures and Contract management and ion under NHP g course on Ground water issues of Punjab with special sis on Groundwater salinity Accounting including Phythan and Java Script ks GIS & RS application to water resources	Procurement Water Quality Water Accounting	15th - 19th July, 2019		_	-
on under NHP g course on Ground water issues of Punjab with special sis on Groundwater salinity Accounting including Phythan and Java Script ks GIS & RS application to water resources	Water Quality Water Accounting		NPMU	Pune	completed
sis on Groundwater salinity Accounting including Phythan and Java Script ks GIS & RS application to water resources	Water Accounting	16th - 18th July, 2019			Completed
ks GIS & RS application to water resources			NIH Roorkee	WRD department Punjab Mohali	completed
••		9th Sept, 2019 onwards	NWA	Pune	Proposed by NWA Pune
n of DEM Proposed	RS & GIS	19th-30th August, 2019	NRSC	Hyderabad	ongoing
in of DEM Floposeu	Survey	September, 2019	SOI	Hydrabad	Proposed
Fround Water for NE Region	GW Hydrology	25th -27th September, 2020	NPMU	Aizwal, Mizoram	Proposed
net Instrumentation including communications (Field ed)	Hydromet Instrumentation	23- 27 September, 2019	NPMU	Mithan , DVC West Bengal	Proposed By NPMU
+ Discharge Measurement Techniques& Instruments(WIMS)	Database Software	September, 2019	CWC/ Uttarakhand	Roorkee/Deheradun	Dates to be confirmed
Remote Sensing and GIS for Water Quality Data ement	Water Quality	24 - 26 Sept, 2019	СРСВ	IIPA, Delhi	Proposed
gs: 3rd Qtr (October to December, 2019)					
ted Reservoir operation using HEC Res-Sim or equivalent re	SW Modelling	October,2019	NWA	Pune	To be arranged with NIH
MS & HEC RAS Modelling	SW Modelling	14th - 18th October, 2019	NIH Roorkee	NERIWALM	To be arranged with NIH
RS and GIS	RS & GIS	14th - 18th October, 2019	NRSC	Hydrabad	To be arranged with NRSC
ogic Modelling	SW modelling	18th -29th Nov 2019	NIH Roorkee	Roorkee	Proposed By NIH
nformation and Analytics Generation using Free Online	SW Hydrology	18th -22 nd Nov 2019	NWA	Pune	From NWA Training schedule
cal Procedures for Water Quality Parameters - Uniform ol	Water Quality	26-28 Nov, 2019	СРСВ	IIPA, Delhi	Proposed
+ Discharge Measurement Techniques& Instruments(WIMS)	Database Software	November, 2019	cwc	Tamilnadu	Dates to be confirmed
draulics and Pumping Test Data Analysis	GW Hydrology	9th - 20th Dec 2019	CGWB/NPMU	Raipur	NGWTRI Calender
on Bench-marking	Irrigation benchmarking	December, 2019	NWA	Pune	Proposed (Dates to b confirmed by NWA)
ischarge Estimation Using Non-Contact Hydrometric ques	Hydromet Instrumentation	December, 2019	NPMU	IIT Roorkee	Proposed
Quality Management and Best Laboratory Practices	Water Quality	17-19 Dec, 2019	СРСВ	IIPA, Delhi	Proposed
natical modelling on GW system	GW modelling	Dcember, 2019		Lucknow /UP GW	to be decided with NIH
ce Water Modelling and Reservoir Simulation	SW Modelling	Dcember, 2020	NPMU	IIT Delhi	Dates and topics to be finalised
curement Procedures and Contract management and	Procurement	December, 2019	NPMU	NERIWALM	Proposed
emeegs: 3 ted tre MS 8 S an ogic Infor cal I + Di on B isch ques Qual matic	Reservoir operation using HEC Res-Sim or equivalent HEC RAS Modelling and GIS Modelling mation and Analytics Generation using Free Online Procedures for Water Quality Parameters - Uniform Escharge Measurement Techniques& Instruments(WIMS) ulics and Pumping Test Data Analysis ench-marking arge Estimation Using Non-Contact Hydrometric ity Management and Best Laboratory Practices cal modelling on GW system Fater Modelling and Reservoir Simulation	Reservoir operation using HEC Res-Sim or equivalent SW Modelling SW Modelling SW Modelling MGIS Modelling MGIS Modelling MGIS MODELLING MODELLIN	water Quality 24 - 26 Sept, 2019 Reservoir operation using HEC Res-Sim or equivalent SW Modelling 0ctober, 2019 LHEC RAS Modelling 14th - 18th October, 2019 Modelling 18th - 29th Nov 2019 Modelling SW modelling 18th - 29th Nov 2019 Modelling SW Hydrology 18th - 22 nd Nov 2019 Procedures for Water Quality Parameters - Uniform Water Quality 26-28 Nov, 2019 Isicharge Measurement Techniques& Instruments(WIMS) Database Software November, 2019 Julics and Pumping Test Data Analysis GW Hydrology 9th - 20th Dec 2019 Julics and Pumping Test Data Analysis GW Hydrology 9th - 20th Dec 2019 Jurigation benchmarking December, 2019 Jurigation Using Non-Contact Hydrometric Hydrometric Suty Management and Best Laboratory Practices Water Quality 17-19 Dec, 2019 Jurigation of Water Quality December, 2019 Jurigation of Water Quality 17-19 Dec, 2019 Jurigation of Water Quality December, 2019 Jurigation benchmarking December, 2019	Water Quality 24 - 26 Sept, 2019 CPCB Reservoir operation using HEC Res-Sim or equivalent SW Modelling October, 2019 NWA LHEC RAS Modelling SW Modelling 14th - 18th October, 2019 NIH Roorkee RS & GIS 14th - 18th October, 2019 NRSC Modelling 18th - 29th Nov 2019 NIH Roorkee Mation and Analytics Generation using Free Online SW Hydrology 18th - 22 nd Nov 2019 NWA Procedures for Water Quality Parameters - Uniform Water Quality 26-28 Nov, 2019 CPCB Isocharge Measurement Techniques& Instruments(WIMS) Database Software November, 2019 CWC Ulics and Pumping Test Data Analysis GW Hydrology 9th - 20th Dec 2019 CGWB/NPMU Irrigation benchmarking December, 2019 NWA arge Estimation Using Non-Contact Hydrometric Hydrometric Hydromet Instrumentation December, 2019 NPMU Sity Management and Best Laboratory Practices Water Quality 17-19 Dec, 2019 CPCB Cember, 2019 NIH Cetter Modelling and Reservoir Simulation SW Modelling Dcember, 2020 NPMU Procurement Procedures and Contract management and Procurement December, 2019 NPMU	water Quality 24 - 26 Sept, 2019 CPCB IIPA, Delni Product (October to December, 2019) Reservoir operation using HEC Res-Sim or equivalent SW Modelling 14th - 18th October, 2019 NWA Pune SW Modelling 14th - 18th October, 2019 NRSC Hydrabad Modelling SS 6.1S 14th - 18th October, 2019 NRSC Hydrabad Modelling SW modelling 18th - 29th Nov 2019 NIH Roorkee Roorkee Water Quality SW Hydrology 18th - 22 nd Nov 2019 NWA Pune Procedures for Water Quality Parameters - Uniform Water Quality 26-28 Nov, 2019 CPCB IIPA, Delhi Ischarge Measurement Techniques & Instruments (WIMS) Database Software November, 2019 CWC Tamilinadu Idics and Pumping Test Data Analysis GW Hydrology 9th - 20th Dec 2019 CGWB/NPMU Raipur Pench-marking Irrigation benchmarking December, 2019 NWA Pune ITR Roorkee Stity Management and Best Laboratory Practices Water Quality 17-19 Dec, 2019 CPCB IIPA, Delhi Interpretation Using Non-Contact Hydrometric Hydrometric Water Quality 17-19 Dec, 2019 CPCB IIPA, Delhi Itr Roorkee Stity Management and Best Laboratory Practices Water Quality 17-19 Dec, 2019 CPCB IIPA, Delhi Interpretation Using Non-Contact Hydrometric Water Quality 17-19 Dec, 2019 CPCB IIPA, Delhi Interpretation Using Non-Contact Mydrometric Water Quality 17-19 Dec, 2019 CPCB IIPA, Delhi Interpretation Using Non-Contact Mydrometric Water Quality 17-19 Dec, 2019 CPCB IIPA, Delhi Interpretation Using Non-Contact Mydrometric SW Modelling Deember, 2019 NPMU IIT Delhi Interpretation Using Non-Contact Mydrometric SW Modelling Deember, 2019 NPMU IIT Delhi Interpretation Using Non-Contact Management and Procurement December, 2019 NPMU IIT Delhi Interpretation Using Non-Contact Management and Procurement December, 2019 NPMU NPMU NPMU NPMU NPMU NPMU NPMU NPMU

S. No.		Area	Month	Organiser	Venue	status			
	Trainings: 4th Qtr (January to March, 2019)								
1	Hydro-met Instrumentation including communications (Field Oriented)	Hydromet Instrumentation	13th - 17 nd January , 2019	NPMU/CWPRS	Assam	Proposed By NPMU			
2	IWRM	Water Resources Planning and Management	20th - 24th Jan 2020	CGWB/NPMU	Raipur	From NGWTRI calender			
3	HEC HMS & HEC RAS Modelling	SW Modelling	20 - 24th January, 2020	NIH Roorkee/Bihar SW	Patna	for east zone .to be requested to NIH for eastern states			
4	Integrated Water Resources Management	Water Resources Planning and Management	3rd -7th February, 2020	NWA	Pune	NWA calender			
5	Sediment Yield & Reservoir Sedimentation	SW Hydrology	February, 2020	NPMU	IIT Delhi	to be requested as there are too many sedimentation study			
6	Water Resources using Geo informatics	RS & GIS	February, 2020	NRSC	Hydrabad	To be requested to NRSC			
7	Spring rejuvanation	GW Hydrology	February, 2020	NPMU/NIH	Dharamsala /Sikkim	Proposed			
8	E-SWIS + Discharge Measurement Techniques& Instruments(WIMS)By CWC and Irragation Management (MERIWALM)	Database Software	March, 2020	CWC/NERIWALM	NERIWALM	Proposed			
9	Design, Organization and Management of Water Quality Monitoring	Water Quality	March, 2020	СРСВ	RD, Bangaluru/ or Delhi / NE zone	To be arranged with CPCB			
	Trainings: 1st Qtr (April 2020 to June 2020)								
1	HEC HMS & HEC RAS Modelling	SW Modelling	April, 2020	NIH	Bangalore	Proposed			
2	Hydromet Instruments ,measurement and monitoring	Hydromet Instrumentation	May, 2020	NPMU	Bhopal /chattishgarh	Proposed			
3	Water Quality Assesment and Management	Water Quality	May, 2020	СРСВ	Delhi	Proposed			
4	Remote Sensing & GIS Technologies	RS & GIS	June, 2020	NRSC	Hydrabad	Proposed			
5	Ground Water Hydrology	SW Hydrology	June, 2020	NIH Roorkee	Raipur	Proposed			
6	Creation of Digital elevation model (DEM)	Survey	June, 2020	SOI	Deheradun	Proposed			
7	WB Procurement Procedures and Contract management and arbitation under NHP	Procurement	May, 2020	NPMU	Pune / WB Delhi	Proposed			
	Workshops / Seminar / Conference 2019-2020								
1 1	National Conference on Flood Early Warning for Disaster Risk	Workshop /seminar	30th - 31st May 2019	NPMU	Hyderabad	Completed			
2	Execution of Action Plan for Polluted River Stretches	Workshop /seminar	17th July, 2019	СРСВ	Bengaluru	Completed			
3	Modellers Meet	Workshop /seminar	23rd - 24th August 2019	NIH Roorkee	Roorkee	Postpone to a later date			
		Conference	6th - 8th November 2019	NPMU	Pune				
5	International Ground Water Conference (IGWC-2019)	Conference	21-24th October, 2019	NPMU	IIT Roorkee	NHP is Sponsering			
6	Automation & Emerging Skill requirement for efficient Water Resource Management	Workshop /seminar	29th August, 2019	Skill India	Vigyan Bhawan	NHP is Sponsering			
7	Execution of Action Plan for Polluted River Stretches-North East States	Workshop /seminar	14th Nov, 2019	СРСВ	Shillong				
8	Laboratory Accreditation-Procedure, Preparedness and Introduction to OSHAS	Workshop /seminar	27th Dec, 2019	СРСВ	Bhopal				
	International Training 2019-2020								
1	International Training in Capacity Development in Groundwater Management (MAR), ICE WaRM (AWP), Australia	GW Hydrology	12th to 26th Oct, 2019	NPMU	Australia	Already Approved with Final Selection			
2	Mathematical modelling on GW system at IHE Delft	GW Modelling	8th July to 2nd August, 2019	CGWB/NPMU	Delft, Netherland	Completed			
3	Water Budgeting tool for river basins using Google Earth Engine Application	Water Accounting	19th-23th August, 2019	NIH/WB/ IWMI	Roorkee	ongoing			
	International Training on RiverWare - Advanced River System Modeling at Colorado, USA	SW Modelling	4th to 15th November, 2019	NPMU	Colorado, USA	Proposal obtained from institutes			
5	Hydrology Data Analytics tools	Data Analyitics	November, 2019	NPMU	Carlton, Canada	Discussion with Institution			
	Advanced Modelling on HEC applications, including HEC-HMS, HEC- RAS, HEC-ResSIM via RTI	•	December, 2019	NPMU	Carolina, USA	Discussion with Institution			
6	Integrated Water Resource Management (IWRM) / Irrigation Bench	Water Resources Planning and Management	January, 2020	NPMU	Srilanka	Discussion with Institution			
Notes: Apa	Notes: Apart from the above, from time to time addition of events as per request of IAs & WB along with, In-House Training Programme by the States, WB Missions, MTR etc. All notifications will be available on the NHP website. Missions Dates & Venue may change/be shifted. Kindly check MIS (or call) before arranging travel plans.								