CONTENTS

.

	SESSION 1: ENVIRONMENTAL IMPACT ASSESSMENT	
1.	ENVIRONMENTAL IMPACT ASSESSMENT OF WATER RESOURCES PROJECTS IN ETHIOPIA	3
	Pande B.B. Lai and Belayneh Grima	
2.	AN APPROACH TOWARDS ENVIRONMENTAL IMPACT ASSESSMENT CASE STUDY S.B. Kulkarni, C. Ramesh, A.D. Bapat and S. Kannan	9
3.	ENVIRONMENTAL IMPACT OF RAMGANGA DAM P.S. Rajvanshi and H.K. Prabhakar	19
4.	WATER QUALITY STUDIES OF MAJOR RESERVOIRS IN ANDHRA PRADESH FOR IRRIGATION PURPOSES	22
	D. Chandrashekhar Reddy, T.V. Narasimha Rao and S. Ramakrishnalah	
5.	COMMAND AREA DEVELOPMENT AND MOTIVATING SETTLERS — ASPECTS OF SOCIAL AND ENVIRONMENTAL SUSTAINABILITY IN IGNP, RAJASTHAN	37
	Rakesh Hooja	
6.	ENVIRONMENTAL ASPECTS OF A LAGOON DRAINAGE SCHEME	49
	Danish Ahmed and M.A. Lone	
7.	THE ENDANGERMENT OF THE GROUND WATER FROM NATIONWIDE NITRATE INPUTS IN GERMANY— A REGIONALLY DIFFERENTIATING MODEL	54
	F. Wendland, R. Kunkel and M. Bach	
8.	THERMAL EFFECT ON RESERVOIR WATER — A CASE STUDY OF DURGAPUR RESERVOIR	64
	S.L. Mukherjee	
9.	DISPERSION OF AIR POLLUTANTS	74
	S. Guha	
	SESSION 2: METEOROLOGY AND HYDROLOGY	
1.	THE MOST SEVERE RAINSTORM OVER VIDARBHA R∟GION OF MAHARASHTRA STATE	85
	A.K. Kulkarni, B.N. Mandal and R.B. Sangam	
2.	EXTREME VALUE ANALYSIS OF RAINFALL OF KRISHNA-GODAVARI ZONE, ANDHRA PRADESH	96

M.S. Kulshrestha, A.M. Shekh, B. Bapujirao and U.J. Upadhyay

3.	STANDARD PROJECT STORM FOR MENDOZA (ARGENTINA) DETERMINED BY A DENSE HYDROMETEOROLOGIC TELEMETRIC NETWORK	102	
	Pedro Fernandez, L. Fornero, S. Rodriguez, D. Tarantola and D. Tripodi		
4.	A NEW METHOD FOR ESTIMATION OF SNOW RESERVOIR AND SPRING INFLOW E.M. Olaussen and G.L. Doorman	113	
5.	APPLICATION OF MODERN TECHNOLOGY FOR HYDROMET NETWORK IN NARMADA BASIN	123	
	S.A. Char and N.K. Bhandari		
6.	A PERFORMANCE STUDY OF FLOOD QUANTILE ESTIMATORS ON FLOOD-LIKE WAKEBY PARENTS	134	
	Satyabrata Banerjee and N.K. Goel		
7.	METHODS BASED ON STANDARDISED PROBABILITY WEIGHTED MOMENTS FOR ESTIMATION OF REGIONAL FLOOD FREQUENCY PARAMETERS — A CASE STUDY	150	
	M.A. Lone, N.K. Goel and B.S. Mathur		
8.	LINEAR REGRESSION EQUATIONS IN PREDICTING TANK STORAGE AND GROUNDWATER LEVELS FOR IRRIGATION IN TANK COMMAND AREAS	166	
	R. Jayakumar and N.V. Pundarikanthan		
9.	CRITICAL REVIEW OF THE FLOOD FORECASTING SYSTEM IN RESPECT OF THE RIVERS OF NORTH BIHAR	181	
	M.U. Ghani		
SESSION 3: RIVER BEHAVIOUR, MANAGEMENT AND TRAINING AND RIVER BASIN PLANNING			
1.	RIVER BEHAVIOUR MANAGEMENT AND TRAINING — SOME UNKNOWN AREAS AND RESEARCH NEEDS	191	
	S.V. Chitale		
2.	WATER RESOURCES OF MAURITIUS	197	
	H.R. Sharma		
З.	COMPARISION OF SCHEMES IN THE GRAND RIVER NORTH WEST BASIN, MAURITIUS	211	
	Virendra Proag		
4.	SOME MORPHOLOGICAL ASPECTS ON THE INSTABILITY OF ALLUVIAL CHANNELS UNDER VARYING DISCHARGE INTENSITIES	221	
	S.K. Ghosh, Abhijit Roy and Debasis Pradhan		
5.	LOW COST APPROACH TO BANK PROTECTION A CASE STUDY IN NORTH BENGAL RIVERS	232	
	Baidyanath Ghosh and N.R. Panda		

Vİ

6.	DEVELOPMENTS IN RIVER BASIN PLANNING — STRENGTHENING THE PLANNING CAPACITY AT ORISSA DEPARTMENT OF WATER RESOURCES (DOWR)	239
	R.J. Verhaeghe, W.N.M. van der Krogt, R.K. Patnaik and B.B. Singh Samant	
7.	SILTATION AT INTAKES — CASE STUDIES	253
	V.K. Kulkarni, D.V. Vaidankar, B.P. Shah and K. Malik	
8.	THE BASIC STRATEGIC PROJECTS FOR WATER RESOURCES UTILIZATION IN NEXT CENTURY	260
	Liu Zhaoyi and Guo Zonglou	
9.	HYDRAULIC DESIGN OF BRIDGES ACROSS ALLUVIAL RIVERS M.S. Shitole and P.B. Mehendale	272
10.	AN ACCURATE METHOD FOR THE MEASUREMENT OF BEDLOAD TRANSPORT RATE IN GRAVEL-BED RIVERS	284
	M.A Sohag	
	SESSION 4: SOILS AND MATERIALS	
1.	INCREASE THE EFFECTIVITY OF HYDRAULIC BLAST OF SUBSIDED LOOSE SOIL	307
	Nafi Abdel Rahman Yousef	
2.	FOUNDATION IN SOFT SOILS USING COLUMN TECHNIQUE — A COMPREHENSIVE CASE STUDY	316
	M.C. Sarma	
3.	UNDERWATER SOIL SAMPLING AND IN SITU TESTING - RESEARCH NEEDS	331
	Y. Babu Rao, G.T. Sreenivasulu, K. Satyanandam, Ameer Ali and V. Ganesh	
4.	MICROSTRUCTURE AND CONTACT FORCE DISTRIBUTION IN GRANULAR MEDIA DURING COMPACTION	345
	Sitharam G. Thallak and Mandar S. Nimbkar	
5.	A STUDY ON EFFECTIVENESS OF JOINTED CUTOFF WALLS BENEATH DAMS ON PERVIOUS SOIL FOUNDATIONS BY FINITE ELEMENT METHOD	356
	D. Chandrashekar Reddy, K. Ramesh and Mohammed Rafeeq	
6.	CENTRIFUGE MODEL TESTS ON REINFORCED COHESIVE SOIL WALLS	378
	J.N. Mandal and P. Kapoor	
7.	CLASSIFICATION—LATERITIC PROFILES AND ENGINEERING PROPERTIES OF LATERITIC SOILS OF SAHYADREE REGION	390
	T.D. Tandle	
8.	SOFT CLAY SUBGRADE STABILISATION USING GEOCELLS	407
	J.N. Mandal and S.Y. Mhaiskar	

9.	STRESS-STRAIN RESPONSE AND VOLUME CHANGES OF ROCKFILLS K.K. Gupta, T. Ramamurthy and K. Venkatachalam	416
10.	PETROGRAPHIC EVALUATION OF NATURAL AGGREGATES FROM NARMADA RIVER BASIN IN GUJARAT STATE	428
	A.D. Tamhankar, D.Y. Mehta, P.H. Vaidya and R.C. Patel	
11.	SELECTION OF PARAMETERS FOR DESIGN OF POWER HOUSE CAVERN OF NATHPA JHAKRI HYDROELECTRIC PROJECT	440
	Amod Gupta, Pavan Kohli and Vatsal Chopra	
12.	RELATION BETWEEN STRENGTH OF CONTROLLED SPECIMENS AND CORES FROM HARDENED CONCRETE	452
	U.D. Datir, N.L. Chauhan and R.S. Iyengar	
	SESSION 5: CONSTRUCTION PLANNING AND CONTRACT MANAGEMENT	
1.	CLOSURE OF SARDAR SAROVAR DAM CONSTRUCTION SLUICES	467
	D.G. Kadkade	
2.	DESILTING ARRANGEMENTS ON BEAS SUTLEJ LINK PROJECT-PERFORMANCE AND IMPROVEMENT	481
	R.S. Sachdeva, K.K. Khosia and S.K. Sagon	
3.	COMPACTION MOSTLY VIBRATORY FOR IMPROVING SOIL CHARACTERISTICS	493
	Jagman Singh	
4.	APPLICATION OF METHOD ENGINEERING PRINCIPLES FOR ERECTION OF PENSTOCK SHELLS USING ROPEWAY AND SQUARE THREADED CHORD JACK TECHNIQUE—A CASE STUDY ON MUKANE PROJECT, MAHARASHTRA, INDIA	506
	S.S. Patil, S.D. Mannikar and D.G. Wankhede	
5.	CUT-OFF WALLS CONSTRUCTION BY THE NEW GENERATION OF HARD ROCK SLURRY TRENCH CUTTERS IN SEALING STORAGE DAMS	520
	Manab Kumar Ghosh	
6.	INNOVATIVE BLASTING TECHNIQUES BEING USED FOR CONSTRUCTION OF UNDERGROUND POWER HOUSE OF NATHPA JHAKRI PROJECT	533
	D.G. Kadkade	
7.	CONSTRUCTION PLANNING AND MANAGEMENT — A CASE STUDY OF CONSTRUCTION OF NARMADA MAIN CANAL KM 21-50 OF SARDAR SAROVAR PROJECT	551
	P.Y. Khoche	
8.	CONSTRUCTION PLANT DESIGN FOR PLACEMENT OF CHILLED CONCRETE AT 12.8° C AT SARDAR SAROVAR DAM INVOLVING 68,20,000 M3 CONCRETE	562
	D.G. Kadkade and D.K. Nailwal	

9.	TUNNELLING WITH T.B.M. AN INDIAN EXPERIENCE	607
	C.R. Venkatesha and A.S. Walvekar	
10.	A SPECIAL DESIGN FOR INTAKES AT DULHASTI HYDRO PROJECT	634
	C.R. Venkatesha	
11.	SOME SPECIFIC FEATURES OF GROUTING WHEN ELIMINATING KARST CAVITIES IN PRESSURE TUNNELS	650
	V.A. Ashikhmen and L.E. Pronina	
12.	COST ESCALATION OF WATER RESOURCES PROJECTS — A CASE STUDY OF MAHARASHTRA	660
	D.N. Kulkarni	