



Personal webpage: (<https://sites.google.com/view/premlalpatel1966/home>)

1.0	<b>Name, Designation</b>	Dr. P L Patel, Professor (HAG)
	<b>Date of joining</b>	Sep.17, 2019 to Sept. 16, 2022 as Dy Director of the Institute June 15, 2019 as Professor (HAG) July 03, 2007 as Professor in the Department of Civil Engineering of the Institute
2.0	<b>Age as on date</b>	March 20, 1966 (58 years)
3.0	<b>Name of the Institution</b>	Sardar Vallabhbhai National Institute of Technology, Surat
4.0	<b>Department</b>	Civil Engineering
5.0	<b>Field of Specialization</b>	Hydraulics and Water Resources Engineering
6.0	<b>Technical Qualifications</b>	B E (Civil) Hons., Government Engineering College, Rewa, Awadhesh Pratap Singh University Rewa (M P) M E (Civil) Hons., University of Roorkee PhD (University of Roorkee, Now IIT Roorkee)
7.0	<b>Previous Work Experiences</b>	a) Joined Border Roads organization as Assistant Executive Engineer through Indian Engineering Services (Sep.1995-June 99) b) Served Delhi College of Engineering (Now DTU) from July 99 to June 2007 as Associate Professor in Department of Civil Engineering
8.0	<b>Awards / Prizes/ Certificates etc.</b>	(a) Recipient of <b>Visiting International Fellowship (VIF-2017) 2017</b> for attending <b>ASCE EWRI Congress-2017</b> at Sacramento, California, USA, <b>May 21-25, 2017.</b>  (b) ‘A 1D-2D coupled Hydrodynamic model for river flood prediction in a coastal urban flood plain’, <b>Journal of Hydrologic Engineering (ASCE)</b> , Vol. 20(2), pp. 05014017-(1-18), Feb. 2015. <b>BEST CASE STUDY – for year 2015</b> by <b>ASCE EWRI congress – May 2016, Florida, USA.</b>  (c) Leadership for Academicians Programme ( <b>LEAP</b> ) of Ministry of Education (GOI): at Indian Institute of

		<p>Technology BHU and Penn State University, USA during February 25, 2019 to March 15, 2019.</p> <p>(d) <b>Invited for the talk</b> on ‘Impact of climate change on fluvial processes’ in International workshop on ‘Impacts of global warming from hydrological and hydraulic issues, March 16, 2010, Uji campus, <b>Kyoto University, Japan.</b></p> <p>(e) <b>G M Nawathe Best Paper Puruskar(s) in HYDRO Conferences:</b></p> <p>i) "Assessing the Impact of Hathnur Reservoir on Hydrological Regime of Tapi River, India", presented in HYDRO 2017 held at LDCE, Ahmedabad, India.</p> <p>ii) ‘Sustainable Irrigation Planning using two phase Multi- Objective Fuzzy linear programming approach’ presented in HYDRO-2012 at IIT Bombay.</p> <p>iii) ‘Incipient motion conditions of non-uniform sediments’ presented in HYDRO-2003 at CWPRS Pune.</p> <p>(f) <b>Professor U C Kothiyari Best PhD Thesis award of Indian Society for Hydraulics</b></p> <p>(i) <b>‘Incipient Motion and Bed Load Transport Characteristics of Unimodal and Bimodal Sediments’</b> by (DS08 CE 106) Shaileshkumar B Patel, for year 2012-2013 in HYDRO-2013 at IIT Madras, India</p> <p>(ii) <b>‘Integrated Assessment of Hydroclimatic Variability including Stream Flow Modelling of a Climatic Heterogeneous basin in India’</b> in HYDRO 2020 held at NIT Rourkela, India.</p> <p>(g) <b>The Research project ‘Erosion of non-uniform and bimodal sediments’</b> sponsored by Department of Science and Technology (DST) was rated under <b>‘Excellent’</b> grading during the review and after final project completion (2014).</p>
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## 9.0 Administrative responsibilities during the services

Sr. No.	Name of the Assignment	Duration	Name of responsibility shared/ service offered
<b>SVNIT Surat</b>			
(a)	Dy. Director	Sept. 17, 2019 Sept. 16, 2022	a) Active involvement in administrative affairs including academics, planning and development, budgeting, implementation of online modules, ranking and accreditation of the Institute.
(b)	Dean Academics	Nov.27, 2015 to Dec.31, 2017.	a) Smooth and efficient conduct of Academic Programs as per the Academic regulations approved by the Institute Senate. b) Conduct of Institute Academic Advisory Committee (IAAC), Senate meetings, and Convocations c) Conduct of Examinations and classes as per the Academic Calendar d) Accreditation of UG and PG Programs
(c)	Head, Department of Civil Engineering	July 05, 2013 -July 06, 2015	a) Administrative Head of the department b) Smooth conduct of UG/ PG/ PhD courses in the Department c) Handling the admissions of PG/ PhD students at the Department level d) Taking care of laboratory and class infrastructure of the department e) Looking after administrative needs of faculty, staff and students f) All four eligible PG programmes got Tier I accreditation from National Board of Accreditation (NBA) New Delhi g) The SAR for Accreditation of UG program has been submitted to NBA for accreditation h) The concept of single subject with single teacher, where ever applicable, was introduced first time in the department for ensuring responsibility-oriented teaching i) The data base of ongoing consultancy, has been developed first time in the department for better monitoring of the projects j) Organized Departmental Academic Advisory Committee (DAAC) meets time to time to address the academic issues of the department, and bringing the same at Institute Academic Advisory committee (IAAC) and Senate levels for discussions
(d)	Dean (Research and Consultancy)	i) Aug. 01, 2016 – Jan. 31, 2017	(a) Revised syllabi for different PG courses were put up to the Institute Senate through BPGS&R (b) Administered smooth admission process of PG and PhD programs.

Sr. No.	Name of the Assignment	Duration	Name of responsibility shared/ service offered
		ii) May 09, 2009-Oct. 16, 2010	(c) Meetings of BPGS&R were initiated and conducted for discussing the policy matters amongst the members and putting the same to the Institute Senate. (d) MoUs were initiated for collaboration between the SVNIT and Industries; and academic Institutions at National and International level
(e)	Dean (PG)	July 16, 2007-May 09, 2009	(a) Modified the existing scheme of M Tech (RESEARCH) through a committee and submitted to Senate for their approval through BPGS&R. (b) The SIX PG Programmes were accredited. (c) Admission process of PG Admissions were conducted at the Institute level (d) Revised syllabi for different PG courses and put up to the Institute Senate through BPGS&R (e) Routine administrative components of PG programs
(f)	Sectional Head (Water Resources Engg.)	Aug.2017 to Aug.16, 2019	Looking after the activities of PG Section of Water Resources Engineering
(g)	Director-in-charge SVNIT Surat	Apr. 23, 2009-June, 17 2011	The duty of Director-in-charge was assigned as and when regular Director was on official duties/leaves in aforesaid duration.

### 10.0 Establishment of Centre of Excellence (CoE): Coordinator

Name of Centre	Funding Source	Expenditure	Activities
<b>Water Resources and Flood Management</b>	TEQIP II, World Bank	Rs.415 Lakhs	Established new 'Computational Hydraulics Lab' and 'Advanced Hydraulics Lab'; Development of Early warning system for Surat city; Guidance of PG and PhD Theses; Conducting training programmes for Industries and College Teachers: and fetching high values research project on the thematic area of the CoE.

### 11.0 Contribution as Chairman for growth of the Institute

S. No.	Activities	Duration	Activities
(a)	Institute Canteen Committee	July 2012 – June 2013	Advising the Institute authority for better management of the Institute canteen

(b)	Scrutiny Committee for staff selection at the Institute level	Apr. 2012	List of eligible administrative officer/ Technical officer (Non-Technical posts) were handed over to the Institute administration. Selection process is over.
(c)	Member of Central Counselling Board CCB-2009	2009	Conducted admission process of B. Tech students in the Institute through AIEEE-2009
(d)	Chairman, 14 <sup>th</sup> Convocation of SVNIT Surat	Jan. 22, 2017	Smooth and efficient conduct of 14th Convocation of the Institute
(e)	Chairman 15 <sup>th</sup> Convocation of SVNIT Surat		Smooth and efficient conduct of 15th Convocation of the Institute

## 12 Research projects completed/ongoing as Chief Coordinator:

- **Completed: 06**
- **Ongoing: 02**

Sr. No.	Name of the funding agency	Name of the Scheme	Programme Title	Year of Funding	Duration	Amount Sanctioned (Rs.)	Status: Completed/ Ongoing
(a)	DST	<b>SERB</b>	Local scouring around Tandem and staggered piers on non-uniform mobile bed	2022	3 years	58.75 Lakhs	<b>Ongoing</b>
(b)	INCCC	<b>MoWRE, RD&amp;GR (PI)</b>	Impact of Climate change on Water resources of Tapi basin	2018	3 years	88.26 Lakhs	Completed
(c)	INCCC	<b>MoWRE, RD&amp;GR (Co-PI)</b>	Impact of Climate change on Water resources of Sabarmati basin	2018	3 years	23.36 Lakhs	Completed
(d)	DST	<b>FIST (Co-PI)</b>	Recirculating Sediment Transport Flume	2015	2 years	1.75 Crores	<b>Ongoing</b>
(e)	TEQIP-II	<b>World Bank and MHRD (PI)</b>	Centre for excellence on Water Resources and Flood Management	2013	4 years	4.15 Crores	Completed

(f)	MHRD, New Delhi	<b>ICT (PI)</b>	Development of course on “Hydrology and Flood Control”	2014	1.5 Year	7 Lakhs	Completed
(g)	DST	<b>SERC (PI)</b>	Erosion of Non Uniform Unimodal and Bimodal Sediments	2009	Four years	31.89 Lakhs	Completed
(h)	AICTE	<b>NCP (PI)</b>	Development of Water Resources & Flood Management Centre	2009	Four Years	35 Lakhs	Completed

### 13.0 Publications (Peer Reviewed Journals and Magazine/Conference Proceedings)

<b>Book Chapter:</b>	<b>19</b>
<b>International Journal :</b>	<b>71</b>
<b>National Journal :</b>	<b>02</b>
<b>International Magazine Articles:</b>	<b>02</b>
<b>International Conference :</b>	<b>104</b>
<b>National Conference:</b>	<b>62</b>
<b>Total:</b>	<b>260</b>

#### (A) BOOK CHAPTERS:

Sr. No.	Title of Book Chapter	Author(s)	Name of Book with Year
1	Identification of Causes of Failure of Downstream Block Protection for Singanpore Weir-Cum-Causeway, Surat	Sharma, P. J. Chethan, S. V. Timbadiya, P. V. <b>Patel, P. L.</b>	<i>Development of Water Resources in India</i> , Eds: Vikas Garg, Vijay P Singh and Vijay Raj, Springer, Cham publisher, 2017, pp. 355-362.
2	Flood Forecasting and Mitigation	<b>P L Patel</b>	<i>Sustainable Holistic Water Resource Management in a changing Climate</i> , Eds: K. Srinivasa Raju and A Vasan, Jain Brothers, New Delhi, 2017, pp. 18-22
3	Hydroclimatic variability across Tapi basin, India: Issues and implications.	<b>Patel, P. L.</b> and Sharma, P. J.	<i>Climate-Change Sensitive Water Resources Management</i> , Eds: Teegavarapu, R. S. V., Kolokytha, E., de Oliveira Galvão, C. CRC Press, London. pp. 45-64.
4	Changes in monthly hydro-climatic indices for middle Tapi basin, India	Sharma, P. J., <b>Patel, P. L.</b> , and Jothipraksh, V.	<i>Climate Change Impacts on Water Resources</i> . EDs: Jha R., Singh V. P., Singh V., Roy L. B., Thendiyath R.. Springer, Cham., pp. 423-433

5	Integrated Hydrological and Hydraulic Model for Prediction of Inflows into Hathnur Reservoir	Kachhwaha V., <b>Patel P.L.</b>	<i>Hydrological Modeling. Water Science and Technology Library</i> , vol 109. (Eds) Jha R., Singh V.P., Singh V., Roy L.B., Thendiyath R. Springer, Cham. <a href="https://doi.org/10.1007/978-3-030-81358-1_33">https://doi.org/10.1007/978-3-030-81358-1_33</a>
6	Development of Hydraulic Geometry Equations for Middle Tapi River, India	Choudhary S., <b>Patel P.L.</b>	<i>River Hydraulics. Water Science and Technology Library</i> , vol 110. (Eds) Jha R., Singh V.P., Singh V., Roy L.B., Thendiyath R. Springer, Cham. <a href="https://doi.org/10.1007/978-3-030-81768-8_27">https://doi.org/10.1007/978-3-030-81768-8_27</a>
7	Characterization of Flow Turbulence around bridge pier on rigid bed channel	P. Laxmi Narayana, P.V. Timbadiya & <b>P. L. Patel</b>	<i>River Hydraulics. Water Science and Technology Library</i> , vol 110. (Eds) Jha R., Singh V.P., Singh V., Roy L.B., Thendiyath R. Springer, Cham. <a href="https://doi.org/10.1007/978-3-030-81768_23">https://doi.org/10.1007/978-3-030-81768_23</a>
8	Changes in monthly hydro-climatic indices for middle Tapi basin, India	Sharma, P. J., <b>Patel, P. L.</b> , and Jothiprakash, V.	<i>Climate Change Impacts on Water Resources</i> . (Eds) Jha R., Singh V.P., Singh V., Roy L.B., Thendiyath R. Springer, Cham. pp. 423-433.
9	Dam Break Analysis for Ukai Dam in Lower Tapi Basin, India	Jibhakate S. M., Timbadiya, P. V., and <b>Patel P. L.</b>	<i>River Hydraulics: Hydraulics, Water Resources and Coastal Engineering Vol. 2) Springer Nature (ISBN- 978-3-030-81767-1)</i>
10	Assessment of Sediment Hazards by Bed Level Variations Around the Bridge Pier	Laxmi Narayana Pasupuleti, Prafulkumar Vasharambhai Timbadiya, <b>Prem Lal Patel</b>	<i>River Dynamics and Flood Hazards</i> (Editors: Manish Pandey, Hazi Azamathulla, Jaan H. Pu ) pp 283–294 DOI: 10.1007/978-981-19-7100-6_15 (Book Chapter) Springer Nature
11	Investigation of Crop Evapotranspiration and Irrigation Water Requirement in the Ukai-Kakrapar Command Area, India	Kalpesh Baldaniya, <b>P L Patel</b> , and P V Timbadiya	<i>Hydrology and Hydrological Modelling</i> (Editors: P V Timbadiya, P L Patel, V P Singh, Priyank Sharma) pp 387-396 DOI: <a href="https://doi.org/10.1007/978-981-19-9147-9">https://doi.org/10.1007/978-981-19-9147-9</a>
12	Estimation of Crop Evapotranspiration and Irrigation Water Requirement for Dharoi Command Area, India	Payal B. Bhujbal, Kalpesh Baldaniya, <b>P L Patel</b> , and P V Timbadiya	<i>Hydrology and Hydrological Modelling</i> (Editors: P V Timbadiya, P L Patel, V P Singh, Priyank Sharma) pp 387-396 DOI: <a href="https://doi.org/10.1007/978-981-19-9147-9">https://doi.org/10.1007/978-981-19-9147-9</a>

13	Assessment of Kernel Regression Based Statistically Downscaled Rainfall Over Tapi River Basin, India in the book titled Climate Change Impact on Water Resources	Lalit Kumar Gehlot, <b>P L Patel</b> , and P V Timbadiya	<i>Climate Change Impact on Water Resources</i> (Editors: P V Timbadiya, V P Singh, Priyank Sharma) pp 39-50 DOI: <a href="https://doi.org/10.1007/978-981-19-8524-9_4">https://doi.org/10.1007/978-981-19-8524-9_4</a> (Book Chapter) Springer Nature
14	Quantification of Wake Vortices Around Tandem Piers on Rigid Bed Channel	Laxmi Narayana, P., Timbadiya P. V., & <b>Patel, P. L.</b>	<i>Fluid Mechanics and Hydraulics</i> (Editors: P V Timbadiya, P L Patel, V P Singh and Bandita Barman) pp 27-36 DOI: <a href="https://doi.org/10.1007/978-981-19-9151-6_3">https://doi.org/10.1007/978-981-19-9151-6_3</a> (Book Chapter) Springer Nature
15	Assessment of vertical accuracy of freely available Global Digital Elevation Models for Heterogeneous terrains in India	Vineela Nandam, <b>Patel, P. L.</b>	Nandam, V., Patel, P.L. (2023). Assessment of Vertical Accuracy of Freely Available Global Digital Elevation Models for Heterogeneous Terrains in India. In: Timbadiya, P.V., Patel, P.L., Singh, V.P., Mirajkar, A.B. (eds) <i>Geospatial and Soft Computing Techniques. HYDRO 2021. Lecture Notes in Civil Engineering</i> , vol 339. Springer, Singapore. <a href="https://doi.org/10.1007/978-981-99-1901-7_15">https://doi.org/10.1007/978-981-99-1901-7_15</a>
16	The role of objective functions in assessment of water balance components using SUFI-2 algorithm in semi-arid basin	Alka Sharma, <b>P. L. Patel</b> , and Priyank J Sharma	Sharma, A., Patel, P.L., Sharma, P.J. (2023). The Role of Objective Functions in Assessment of Water Balance Components Using SUFI-2 Algorithm in Semi-arid Basin. In: Timbadiya, P.V., Patel, P.L., Singh, V.P., Sharma, P.J. (eds) <i>Hydrology and Hydrologic Modelling. HYDRO 2021. Lecture Notes in Civil Engineering</i> , vol 312. Springer, Singapore. <a href="https://doi.org/10.1007/978-981-19-9147-9_7">https://doi.org/10.1007/978-981-19-9147-9_7</a>
17	Computation of Socio-economic Vulnerability for Densely Populated Surat City, India	Jibhakate S. M., Timbadiya P.V., and <b>Patel P. L.</b>	Jibhakate, S.M., Timbadiya, P.V., Patel, P.L. (2024). Computation of Socio-Economic Vulnerability for Densely Populated Surat City, India. In: Timbadiya, P.V., Patel, P.L., Singh, V.P., Manekar, V.L. (eds) <i>Flood Forecasting and Hydraulic Structures. HYDRO 2021. Lecture Notes in Civil Engineering</i> , vol 340. Springer, Singapore. <a href="https://doi.org/10.1007/978-981-99-1890-4_11">https://doi.org/10.1007/978-981-99-1890-4_11</a>
18	Meteorological Drought analysis of Sabarmati Basin, India	Sai Priya J., Madhu Priya A., Theertha Ravi, <b>P. L. Patel</b> , and Alka Sharma	Priya, J.S., Aedla, M.P., Ravi, T., Patel, P.L., Sharma, A. (2023). Meteorological Drought Analysis of Sabarmati Basin, India. In: Timbadiya, P.V., Patel, P.L., Singh, V.P., Sharma, P.J. (eds) <i>Hydrology and Hydrologic Modelling. HYDRO 2021. Lecture Notes in Civil Engineering</i> , vol 312. Springer, Singapore. <a href="https://doi.org/10.1007/978-981-19-9147-9_28">https://doi.org/10.1007/978-981-19-9147-9_28</a>



19	Model Performance Evaluation using streamflow and potential evapotranspiration of Middle Tapi Basin, India	Prabhat Dwivedi, Lalit Kumar Gehlot, <b>P. L. Patel.</b>	<i>Dwivedi, P., Gehlot, L.K., Patel, P.L. (2023). Model Performance Evaluation using Streamflow and Potential Evapotranspiration over Middle Tapi Basin, India. In: Timbadiya, P.V., Patel, P.L., Singh, V.P., Sharma, P.J. (eds) Hydrology and Hydrologic Modelling. HYDRO 2021. Lecture Notes in Civil Engineering, vol 312. Springer, Singapore.</i> <a href="https://doi.org/10.1007/978-981-19-9147-9_2">https://doi.org/10.1007/978-981-19-9147-9_2</a>
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**(B) INTERNATIONAL JOURNAL:**

<b>Sr. No.</b>	<b>Title of Research Paper</b>	<b>Author(s)</b>	<b>Name &amp; Vol. of Journal with Year</b>
1	Fraction wise calculation of bed load transport	P. L. Patel Ranga Raju, K. G.	Journal of Hydraulic Research, IAHR, Vol.34, No.3.pp 363-379, 1996.
2	Critical tractive stress of non-uniform sediments	P. L. Patel Ranga Raju, K. G.	Journal of Hydraulic Research, IAHR, Vol. 37, No.1, pp 39-58, 1999.
3	Critical tractive stress of non-uniform and bimodal sediments	P. L. Patel Pati, D. R.	ISH Journal of Hydraulic Engineering, Taylor and Francis publisher, UK, Vol. 12(1). pp 39-51, 2006.
4	Bed load transport of bimodal sediments	P. L. Patel Jain Mayank	ISH Journal of Hydraulic Engineering, Taylor and Francis publisher, UK, Vol. 15(1), pp.14-23, 2009.
5	Critical tractive stress of representative sizes in non-uniform sediments	P. L. Patel, P. D. Porey, S. B. Patel	ISH Journal of Hydraulic Engineering, Taylor and Francis publisher, UK, Vol. 15(3), pp. 41-50, 2009.
6	Entrainment characteristics of non-uniform unimodal and bimodal sediments	P. L. Patel P. D. Porey A. D. Ghare S. B. Patel	Korean Society of Civil Engineering (KSCE), Springer, Journal of Civil Engineering, Vol. 13, No. 3, pp. 189-194, Feb.2009.
7	Computation of critical tractive stress of scaling sizes in non-uniform sediment	P. L. Patel, P. D. Porey Shaileshkumar B. Patel	Journal of Hydraulic Research, IAHR, Vol.48 (4), pp. 531-537, 2010.
8	HEC-RAS based hydrodynamic model in prediction of stages of lower Tapi River	P V Timbadiya P. L. Patel P. D. Porey	ISH Journal of Hydraulic Engineering, Taylor and Francis publisher, UK, Vol.17, No.2, pp.110-117, 2011.
9	A fuzzy based optimal irrigation planning for Kakrapar right bank canal command area, Gujarat, India.	A B Mirajkar P L Patel	ISH Journal of Hydraulic Engineering, Taylor and Francis publisher, UK, Vol.17 (1), No.3, pp. 43-50, January 2011.

<b>Sr. No.</b>	<b>Title of Research Paper</b>	<b>Author(s)</b>	<b>Name &amp; Vol. of Journal with Year</b>
10	Calibration of HEC-RAS model on prediction of flood for lower Tapi River	P V Timbadiya P. L. Patel P. D. Porey	Journal of Water Resources and Protection, Scientific Research, Vol. 3, pp. 805-811, 2011.
11	Application of innovative trend analysis methodology and distribution fitting: Study on annual peak inflow into Ukai Dam, Gujarat, India.	P V Timbadiya P L Patel P D Porey	Water & Energy International, CBIP, Vol.69, No.9, pp.40-43, Sep.2012.
12	Prediction of missing rainfall data using conventional and artificial neural network.	U C Roman P L Patel P D Porey	ISH Journal of Hydraulic Engineering, Taylor and Francis publisher, Volume 18(3), pp. 224-231, September 2012.
13	Optimal irrigation planning of Kakrapar right bank canal using two phase fuzzy multi-objective linear programming model	A B Mirajkar P L Patel	ISH Journal of Hydraulic Engineering, Taylor and Francis publisher, UK, Vol.18 (3), pp. 232- 240, Sep. 2012.
14	Effect of silt erosion on Francis Turbine: A case study of Maneri Bhali Stage-II, Uttarakhand	Mandeep Singh J Banerjee P L Patel Himanshu Tiwari	ISH Journal of Hydraulic Engineering, Taylor and Francis publisher, UK; Vol. 19(1), pp. 1-10, March 2013.
15	Identification of trend and probability distribution for time series of annual peak flow in Tapi basin	P V Timbadiya A B Mirajkar P L Patel P D Porey	ISH Journal of Hydraulic Engineering, Taylor and Francis publisher, UK, Vol. 19 (1), pp. 11-20, March 2013.
16	Threshold for initiation of motion of unimodal and bimodal sediments	S B Patel P L Patel P D Porey	International Journal of Sediment Research (IJSR), Elsevier, Vol. 28(1), pp. 24-33, March 2013
17	Prediction of friction factor and stage-discharge relationship in alluvial streams	B.R. Andharia, P.L. Patel V.L. Manekar P.D. Porey	ISH Journal of Hydraulic Engineering, Taylor and Francis publisher, UK, Vol. 19(1), pp. 49-54, March 2013.
18	Reply to the discussion on the paper: Prediction of	U C Roman P L Patel P D Porey	ISH Journal of Hydraulic Engineering, Taylor and Francis publisher, UK, Vol. 19(2), pp. 78-79, June 2013.

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	missing rainfall data using conventional and artificial neural network techniques by ISH Journal of Hydraulic Engineering, 18 (3), 224-231, Sept. 2012		
19	Development of sustainable irrigation planning with multiobjective fuzzy linear programming for Ukai – Kakrapar Irrigation Project, Gujarat, India	A B Mirajkar P L Patel	Canadian Journal of Civil Engineering, Vol.40, No.7, pp.663-673, May 2013.
20	Estimation of fractional critical tractive stress from fractional bed load transport measurements of unimodal and bimodal sediments	S B Patel P L Patel P D Porey	Measurement, Elsevier, Vol. 47, pp. 393-400, January 2014.
21	One-dimensional hydrodynamic modelling of flooding and stage hydrographs in the lower Tapi River in India	P. V. Timbadiya P. L. Patel P. D. Porey	Current Science, Vol. 106(5), pp. 708-716, 10 March 2014.
22	Reply to discussion on paper: Prediction of friction factor and stage–discharge relationship in alluvial streams in ISH journal of hydraulic engineering, 19 (1), 49–54, Feb. 2013.	B.R. Andharia, P. L. Patel V. L. Manekar P. D. Porey	ISH Journal of Hydraulic Engineering, Taylor and Francis publisher, UK, Vol. 20(2), pp.188-191, May 2014.
23	Development of two-layered model for compound	J Sinha S K Das P L Patel B K Samtani	ISH Journal of Hydraulic Engineering, Taylor and Francis publisher, UK, Vol. 20 (3), pp. 250-262, Sep. 2014.

<b>Sr. No.</b>	<b>Title of Research Paper</b>	<b>Author(s)</b>	<b>Name &amp; Vol. of Journal with Year</b>
	open- channel flow		
24	Estimation of sediment yield using SWAT model for Upper Tapi basin	Prabhat Chandra P L Patel P D Porey I D Gupta	ISH Journal of Hydraulic Engineering, Taylor and Francis publisher, UK, Vol. 20 (3), pp. 291-300, Sep. 2014.
25	A 1D-2D coupled hydrodynamic model for river flood prediction in a coastal urban flood plain	P V Timbadiya P L Patel P D Porey	Journal of Hydrologic Engineering (ASCE), Vol. 20(2), pp. 05014017- (1-18), Feb. 2015.
26	Fractional bed load transport model for unimodal and bimodal sediments	S B Patel P L Patel P D Porey	Journal of Hydro-Environment Research, Elsevier, Vol. 9, pp. 104-119, March 2015.
27	Characterization of flow turbulence in mobile boundary channels	Sudhanshu Dixit P L Patel	ISH Journal of Hydraulic Engineering, Taylor and Francis publisher, UK, Vol. 21(2), pp. 179-192, 2015.
28	Lumped conceptual hydrologic model for Purna river basin, India	V D Loliyana P L Patel	Sadhana Journal, Springer, Vol. 40(8), pp. 2411-2428, Dec. 2015.
29	Prediction of sediment erosion pattern in Upper Tapi basin	Prabhat Chandra P L Patel P D Porey	Current Science, Vol. 110(6), pp. 1038-1049, March 2016.
30	Multi-objective two-phase fuzzy compromised approaches in integrated management of water resources	A B Mirajkar P L Patel	Journal of Water Resources and Planning Management, ASCE, Vol. 122 (11), pp. 04016046- 1-16, November 2016.
31	Efficient discretization of state variables in stochastic dynamic programming model of Ukai reservoir, India	Priyank J. Sharma P L Patel V Jothiprakash	ISH Journal of Hydraulic Engineering, Taylor and Francis publisher, UK, Vol. 22(3), pp. 293-304, 2016.
32	Morphological study of Upper Tapi river using remote sensing and GIS techniques	Resmi S R P L Patel P V Timbadiya	ISH Journal of Hydraulic Engineering, Taylor and Francis, 1-9, 2017. <b>DOI:</b> 10.1080/09715010.2017.140989

<b>Sr. No.</b>	<b>Title of Research Paper</b>	<b>Author(s)</b>	<b>Name &amp; Vol. of Journal with Year</b>
33	Spatiotemporal trends in extreme rainfall and temperature indices over Upper Tapi Basin, India	Priyank J. Sharma V D Loliyana Resmi S R P V Timbadiya P L Patel	Theoretical and Applied Climatology, Springer, 1-26, 2017. <b>DOI:</b> 10.1007/s00704-017-2343-y
34	Assessment of variability in runoff coefficients and their linkages with physiographic and climatic characteristics of two contrasting catchments	Priyank J. Sharma P L Patel V Jothiprakash	Journal of Water and Climate Change, IWA Publishing, 2018. <b>DOI:</b> 10.2166/wcc.2018.139
35	Numerical and experimental investigations in prediction of bed levels of aggrading channels	B R Andharia, P L Patel V L Manekar P D Porey	Current Science, 114(8), 1697-1708, 2018.
36	Prediction of bed level variations in non-uniform sediment bed channel	B R Andharia P L Patel V L Manekar P D Porey	Sādhanā, 43(4), 55, 2018.
37	Stochastic nature of turbulence over mobile bed channels	Sudhanshu Dixit P L Patel	ISH Journal of Hydraulic Engineering, Taylor and Francis, 1-8, 2018. <b>DOI:</b> 10.1080/09715010.2018.1460628
38	Performance evaluation and parameter sensitivity of a distributed hydrological model for a semi-arid catchment in India	V D Loliyana P L Patel	Journal of Earth System Science, Springer, 1-26, 2018 <b>DOI:</b> 117 (01-26).
39	Assessment and prioritization of flood protection levees along Lower Tapi River, India	Anav Vora Priyank J. Sharma V D Loliyana P L Patel P V Timbadiya	Natural Hazards Review, 19(4), 05018009. <b>DOI:</b> 10.1061/(ASCE)NH.1527-6996.0000310
40	Evaluation of soil moisture prediction for Gopalkheda sub-catchment, India.	Loliyana, V. D., & <b>Patel, P. L.</b>	ISH Journal of Hydraulic Engineering, Taylor and Francis, 1-10, 2019 <b>DOI:</b> 10.1080/09715010.2019.1574617
41	Impact assessment of Hathnur reservoir on	Sharma, P. J., <b>Patel, P. L.</b> , & Jothiprakash, V.	ISH Journal of Hydraulic Engineering, Taylor and Francis, 1-13, 2019 <b>DOI:</b> 10.1080/09715010.2019.1574616

Sr. No.	Title of Research Paper	Author(s)	Name & Vol. of Journal with Year
	hydrological regimes of Tapi River, India.		
42	Impact of Rainfall Variability and Anthropogenic Activities on Streamflow Changes and Water Stress Conditions across Tapi Basin in India.	Sharma, P. J., <b>Patel, P. L.</b> , & Jothiprakash, V.	Science of the Total Environment, Elsevier, 885-897,2019 <b>DOI:</b> 10.1016/j.scitotenv.2019.06.097
43	Hydrodynamic Modelling of Radionuclide Effluent in Moticher Lake, Kakrapar Atomic Power Station, India	S. D. Bid, <b>P. L. Patel</b> , R. A. Christian, & A. K. Patra.	Journal of Hazardous, Toxic, and Radioactive Waste, 24 (1), 2019 <b>DOI:</b> <a href="https://doi.org/10.1061/%28asce%29hz.2153-5515.0000471">https://doi.org/10.1061/%28asce%29hz.2153-5515.0000471</a>
44	Hydroclimatic teleconnections of large-scale oceanic-atmospheric circulations on hydrometeorological extremes of Tapi Basin, India.	Sharma, P. J., <b>Patel, P. L.</b> , & Jothiprakash, V.	Atmospheric Research, Elsevier, 235,2020 <b>DOI:</b> <a href="https://doi.org/10.1016/j.atmosres.2019.104791">https://doi.org/10.1016/j.atmosres.2019.104791</a>
45	Spatio-Temporal Variability of Rainfall Indices and their Teleconnections with El Nino-Southern Oscillation for Tapi Basin, India	Lalit Kumar Gehlot, Shubham M. Jibhakte, Priyank J. Sharma, <b>P. L. Patel</b> & P. V. Timbadiya	Asia-Pacific Journal of Atmospheric Sciences, Springer <b>DOI:</b> <a href="https://doi.org/10.1007/s13143-020-00179-1">https://doi.org/10.1007/s13143-020-00179-1</a>
46	Bed level variations around submerged tandem bridge piers in sand beds	P. Laxmi Narayana, P. V. Timbadiya & <b>P. L. Patel</b>	ISH Journal of Hydraulic Engineering, Taylor and Francis <b>DOI:</b> <a href="https://doi.org/10.1080/09715010.2020.1723138">https://doi.org/10.1080/09715010.2020.1723138</a>
47	A physics based distributed integrated hydrological model in water balance of a semi-arid catchment in India.	Loliyana, V. D., & <b>Patel, P. L.</b>	Environmental Modelling and Software, Elsevier <b>DOI:</b> <a href="https://doi.org/10.1016/j.envsoft.2020.104677">https://doi.org/10.1016/j.envsoft.2020.104677</a>

Sr. No.	Title of Research Paper	Author(s)	Name & Vol. of Journal with Year
48	An approach to model radionuclide concentration in lake environment under scarce data.	S. D. Bid, R. A. Christian, <b>P. L. Patel</b> , & A. K. Patra.	ISH Journal of Hydraulic Engineering, Taylor and Francis DOI: <a href="https://doi.org/10.1080/09715010.2020.1753121">https://doi.org/10.1080/09715010.2020.1753121</a> ]
49	Intuitionistic fuzzy approach in multi-objective optimization for KRBMC irrigation system, India	Pawar, S. V., <b>Patel, P. L.</b> , & Mirajkar, A. B.	ISH Journal of Hydraulic Engineering, Taylor and Francis <a href="https://doi.org/10.1080/09715010.2020.1781700">https://doi.org/10.1080/09715010.2020.1781700</a>
50	Impact of Land Use-Land Cover and Climatic Pattern on Sediment Yield of Two Contrasting Sub-Catchments in Upper Tapi Basin, India.	Resmi S R <b>P L Patel</b> P V Timbadiya	Journal of Geological Society of India, Springer DOI: <a href="https://doi.org/10.1007/s12594-020-1545-6">https://doi.org/10.1007/s12594-020-1545-6</a>
51	Data-driven modelling framework for streamflow prediction in a physio-climatically heterogenous river basin.	Sharma, P. J., <b>Patel, P. L.</b> , & Jothiprakash, V.	Soft Computing, Springer DOI: <a href="https://doi.org/10.1007/s00500-021-05585-9">https://doi.org/10.1007/s00500-021-05585-9</a>
52	A novel hybrid approach using SVM and spectral indices for enhanced land use land cover mapping of coastal urban floodplains	V. Nandam & <b>P. L. Patel</b>	Geocarto International, Taylor and Francis DOI: <a href="https://doi.org/10.1080/10106049.2021.1899300">https://doi.org/10.1080/10106049.2021.1899300</a>
53	Key morphological changes and their linkages with stream-power and Land-use changes in the Upper Tapi River Basin, India	Resmi, S.R., <b>Patel, P.L.</b> & Timbadiya, P.V.	International Journal of Sediment Research. DOI: <a href="https://doi.org/10.1016/j.ijsrc.2021.03.003">https://doi.org/10.1016/j.ijsrc.2021.03.003</a>
54	Vorticity fields around a pier on rigid and mobile bed channels	P. Laxmi Narayana, P.V. Timbadiya & <b>P. L. Patel</b>	ISH Journal of Hydraulic Engineering. DOI: <a href="https://doi.org/10.1080/09715010.2021.1927209">https://doi.org/10.1080/09715010.2021.1927209</a>
55	Flow field measurements around isolated, staggered, and Tandem piers on a rigid bed channel	P. Laxmi Narayana, P. V. Timbadiya & <b>P. L. Patel</b>	International Journal of Civil Engineering. Springer. DOI: <a href="https://doi.org/10.1007/s40999-021-00678-w">https://doi.org/10.1007/s40999-021-00678-w</a>

Sr. No.	Title of Research Paper	Author(s)	Name & Vol. of Journal with Year
56	Frequency-based performance measure for hydrologic model evaluation.	Teegavarapu, R. S. V., Sharma, P. J., and <b>Patel, P. L.</b>	Journal of Hydrology. In Press] [IF – 5.722] <a href="https://doi.org/10.1016/j.jhydrol.2022.127583">https://doi.org/10.1016/j.jhydrol.2022.127583</a>
57	Intuitionistic fuzzy optimization approach in optimal irrigation planning of Ukai-Kakrapar irrigation project, India	Sangita Pawar, <b>Prem Lal Patel</b> & A.B. Mirajkar	ISH Journal of Hydraulic Engineering, DOI: 10.1080/09715010.2022.2052988
58	Influence of climate and land-use changes on the sensitivity of SWAT model parameters and water availability in a semi-arid river basin	Alka Sharma P L Patel Priyank J Sharma	CATENA, <a href="https://doi.org/10.1016/j.catena.2022.106298">https://doi.org/10.1016/j.catena.2022.106298</a> . ( <a href="https://www.sciencedirect.com/science/article/pii/S0341816222002843">https://www.sciencedirect.com/science/article/pii/S0341816222002843</a> ) Volume 215, 2022, 106298, ISSN 0341-8162.
59	Flow fields around tandem and staggered piers on a mobile bed	P. Laxmi Narayana, P. V. Timbadiya & <b>P. L. Patel</b>	<b>International Journal of Sediment Research</b> , <a href="https://doi.org/10.1016/j.ijsrc.2022.05.004">https://doi.org/10.1016/j.ijsrc.2022.05.004</a>
60	Flood Hazard Assessment for the Coastal Urban Floodplain using 1D/2D Coupled Hydrodynamic Model	Jibhakate, S.M., Timbadiya, P.V. & <b>Patel, P.L.</b>	<i>Natural Hazards</i> , <a href="https://doi.org/10.1007/s11069-022-05728-7">https://doi.org/10.1007/s11069-022-05728-7</a>
61	Multiobjective Intuitionistic Fuzzy Optimization Approach in Optimal Irrigation Planning and Operation of Reservoir	Sangita Pawar, <b>Prem Lal Patel</b> & A.B. Mirajkar	<b>International Journal, Water Resources Management</b> , <a href="https://doi.org/10.1007/s11269-022-03406-8">https://doi.org/10.1007/s11269-022-03406-8</a>
62	Leak detection in water distribution network using machine learning techniques	Nishant Sourabh, Timbadiya, P.V., <b>Patel, P.L.</b>	<b>ISH Journal of Hydraulic Engineering</b> <a href="https://doi.org/10.1080/09715010.2023.2198988">https://doi.org/10.1080/09715010.2023.2198988</a>
63	Spatiotemporal Variability of Extreme Temperature Indices and their Implications over the heterogeneous River basin, India	Jibhakate, S.M., Gehlot L.K., Timbadiya, P.V. & <b>Patel, P.L.</b>	<b>Environmental Monitoring and Assessment</b> , <a href="https://doi.org/10.1007/s10661-023-11196-8">https://doi.org/10.1007/s10661-023-11196-8</a>



Sr. No.	Title of Research Paper	Author(s)	Name & Vol. of Journal with Year
64	Multiparameter Flood Hazard, Socioeconomic Vulnerability and Flood Risk Assessment for Densely Populated Coastal City	Jibhakate, S.M., Timbadiya, P.V. & <b>Patel, P. L.</b>	<b>Journal of Environmental Management</b> , <a href="https://doi.org/10.1016/j.jenvman.2023.118405">https://doi.org/10.1016/j.jenvman.2023.118405</a>
65	Spatial varying and co-occurring future climate changes over a heterogeneous river basin: a multivariate approach.	Gehlot, L. K., <b>Patel, P. L.</b> , & Timbadiya, P. V.	<i>Journal of Water and Climate Change</i> , jwc2023206. <a href="https://doi.org/10.2166/wcc.2023.206">https://doi.org/10.2166/wcc.2023.206</a>
66	Blue and green water accounting for climate change adaptation in a water scarce river basin	Sharma, A., <b>Patel, P. L.</b> , & Sharma, P. J.	<i>Journal of Cleaner Production</i> , 139206. <a href="https://doi.org/10.1016/j.jclepro.2023.139206">https://doi.org/10.1016/j.jclepro.2023.139206</a>
67	Climate change impact on crop stress and food security in a semi-arid river basin.	Alka Sharma, <b>Prem Lal Patel</b> , Priyank J. Sharma	<i>AQUA - Water Infrastructure, Ecosystems and Society 1 December 2023</i> ; 72 (12): 2313–2330. doi: <a href="https://doi.org/10.2166/aqua.2023.168">https://doi.org/10.2166/aqua.2023.168</a>
68	Integrated hydrological modelling of two contrasting watersheds with a terminal reservoir in the Upper Tapi River basin, India	Priyamitra Munoth, Lalit Kumar Gehlot, <b>P. L. Patel</b> , Sumit Khandelwal, P. V. Timbadiya, Rohit Goyal	<i>Water Supply 1 December 2023</i> ; 23 (12): 4891–4907. doi: <a href="https://doi.org/10.2166/ws.2023.314">https://doi.org/10.2166/ws.2023.314</a>
69	Space-time dynamics of local scour around submerged tandem and staggered piers in sand beds	Pasupuleti, L. N.; Timbadiya, P. V.; Patel, P. L	<i>Current Science (00113891)</i> , 2023, Vol 125, Issue 11, p1227; DOI: 10.18520/cs/v125/i11/1227-1234
70	A framework to assess suitability of global digital elevation models for hydrodynamic modelling in data scarce regions	V. Nandam & <b>P. L. Patel</b>	<i>Journal of Hydrology 630 (2024):130654</i> ; DOI: <a href="https://doi.org/10.1016/j.jhydrol.2024.130654">https://doi.org/10.1016/j.jhydrol.2024.130654</a>
71	Relevance of Intuitionistic Fuzzy Optimization Approach in Planning of a Multi-Objective Water Resource System.	Sangita Pawar, <b>Prem Lal Patel</b> & A.B. Mirajkar	<i>Water Resources Management (2024): 1-25</i> . DOI: <a href="https://doi.org/10.1007/s11269-024-03799-8">https://doi.org/10.1007/s11269-024-03799-8</a>

**14.0 Consultancy Projects:**

- No. of consultancy projects completed: 18
- No. of consultancy projects ongoing: 09

Sr. No.	Sponsoring Authority	Type of Work	Sanctioned Amount (Rs.)	Present Status
1	Iron Triangle Limited, Ahmedabad	Proof consultancy services for Construction of Sewerage System of Bhubaneswar Sewerage District-I on EPC Mode	16.20	Completed (2018)
2	Laxmi Construction, Ahmedabad	Proof consultancy services for Construction of Sewerage System of Bhubaneswar Sewerage District-II on EPC Mode	9.00	Completed (2018)
3	Ashoka Buildcon Limited, Nashik	Study of Hydraulic Impact of Existing Bridge on proposed bridge on Barak River at Govindpur-Tundi-Girdih Road, Project in Jharkhand state	2.00 Lakhs	Completed (2017)
4	Central Water Commission, New Delhi	Morphological study on Tapi River using Remote sensing technique	72.86 Lakhs	Completed 2018
5	Tehri Hydro Development India Corporation Limited (THDACL)-Rishikesh Uttarakhand	CFD Simulations of Hydro Turbines including Tail Race of Koteshwar Hydro Power Project	15.00 Lakhs	Completed 2016
6	Surat Municipal Corporation, Surat	Safety assessment of Singanpore weir-cum- Causeway	15.00 Lakhs	Completed 2016
7	Design Point Consultant Pvt. Ltd. Surat	Design of storm drainage, water supply, sewerage and waste water recycling work of TP4E of DSIR	4.50 Lakhs	Completed 2016
8	Design Point Consultant Pvt. Ltd. Surat	Design of storm drainage, water supply, sewerage and waste water recycling work of TP2E of DSIR	25.00 Lakhs	Completed 2016
9	Narmada, Water Resources Water Supply and Kalpsar Department (NWRWS&KD), Govt. of Gujarat	Design of lining of Vinzol vhela passing through Vatva, GIDC, Ahmedabad and its estimation	10.00 Lakhs	Completed 2015
10	Tehri Hydro Development India Corporation Limited (THDACL)-Rishikesh Uttarakhand	Conducting CFD Simulations of River Pocket in front of Tail Race Tunnels (TR1 and TR2) of Tehri HPP CFD	7.75 Lakhs	Completed 2012-13
11	Uttaranchal Jal Vidyut Nigam Limited-Dehradun	Analysis of Maneri Bhali Stage II (Part I&II)	13.40 Lakhs	Completed 2010-11
12	SVNIT-Surat	Design of Water Distribution Network for SVNIT Surat with Revised Demand	Services were provided free of cost being Institute project	Completed 2010
13	Surat Municipal Corporation, Surat	Safety of Weir-cum- Causeway (Singanpur) due to flooding	0.30 Lakhs	Completed

Sr. No.	Sponsoring Authority	Type of Work	Sanctioned Amount (Rs.)	Present Status
				2007
14	Gujarat Water Resources Water Supply and Kalpsar Department	'Damaged Aqueduct at Chainage 7350 m on the Daman-Ganga,	1.12 Lakhs	Completed 2007
15	Design Point Consultant Pvt. Ltd., Surat	Drainage Plan for Vaghrech Recharge Project, Tal. Gandevi, Navsari, Gujarat	13.50 Lakhs	Completed
16	Uttaranchal Jal Vidhyut Nigam Ltd.	CFD Simulation of Flow through Turbine units including tail race channel of Maneri Bhari-I Hydro-electric project for finalization of outfall gates in tail-race	14.90 Lakhs	Completed
17	Reliance Gas Pipeline Limited	Determining the safe distance for sand mining from the laid Oil and Gas pipeline crossing the Son river bed	3.50 Lakhs	Completed
18	Multimedia Consultant Pvt. Limited	Review/ Proof checking of Hydrological and Hydraulics analyses included in Detailed Project Report of Boundary wall at Reliance Jamnagar.	12.00 Lakhs	Completed
19	Surat Municipal Corporation, Surat	Providing consultancy services for verify and certify the preliminary work Part-A of tender for Survey, Investigation, Planning and Construction of Conventional Type of Barrage Project for water purpose across river Tapi near Village Rundh – Bhatha with adjoining Fly-over bridge at left bank of River Tapi	12.70 Lakhs	Ongoing
20	Unique Construction, Surat	Study and Preparation of lower Tapi River Morphology (Erosion and Deposition) Bank Line shifting for the work of Survey, Investigation, Planning & Construction of Conventional Barrage for Water Purpose across River Tapi, near Village Rundh-Bhatha & Fly Over Bridge on the left Bank of River Tapi on Item Rate Basis including 10 (Ten) year O & M Work under Surat Municipal Corporation, Surat	12.00 Lakhs	Ongoing
21	Unique Construction, Surat	Tapi River Estuary Study with Survey of India Map and Latest Satellite Data for the work of Survey, Investigation, Planning & Construction of Conventional Barrage for Water Purpose across River Tapi, near Village Rundh-Bhatha & Fly Over Bridge on the left Bank of River Tapi on Item Rate Basis including 10 (Ten) year O & M Work under Surat Municipal Corporation, Surat	20.00 Lakhs	Ongoing
22	Unique Construction, Surat	Ukai Dam break study for the work of Survey, Investigation, Planning & Construction of Conventional Barrage	72.25 Lakhs	Ongoing

Sr. No.	Sponsoring Authority	Type of Work	Sanctioned Amount (Rs.)	Present Status
		for Water Purpose across River Tapi, near Village Rundh-Bhatha & Fly Over Bridge on the left Bank of River Tapi on Item Rate Basis including 10 (Ten) year O & M Work under Surat Municipal Corporation, Surat		
23	Unique Construction, Surat	Surat flood Inundation study for 2006 flood using hydrodynamics model for the work of Survey, Investigation, Planning & Construction of Conventional Barrage for Water Purpose across River Tapi, near Village Rundh-Bhatha & Fly Over Bridge on the left Bank of River Tapi on Item Rate Basis including 10 (Ten) year O & M Work under Surat Municipal Corporation, Surat	42.50 Lakhs	Ongoing
24	Unique Construction, Surat	Study of flood risk analysis of Surat City with bathymetry and topographic data and properties of all zones of Surat City and outskirt area for the work of Survey, Investigation, Planning & Construction of Conventional Barrage for Water Purpose across River Tapi, near Village Rundh-Bhatha & Fly Over Bridge on the left Bank of River Tapi on Item Rate Basis including 10 (Ten) year O & M Work under Surat Municipal Corporation, Surat	110.00 Lakhs	Ongoing
25	Unique Construction, Surat	River and Reservoir Modelling for the work of Survey, Investigation, Planning & Construction of Conventional Barrage for Water Purpose across River Tapi, near Village Rundh-Bhatha & Fly Over Bridge on the left Bank of River Tapi on Item Rate Basis including 10 (Ten) year O & M Work under Surat Municipal Corporation, Surat	153.00 Lakhs	Ongoing
26	Unique Construction, Surat	Survey, Investigation, Planning and Construction of Conventional Type of Barrage Project for water purpose across River Tapi near Village Rundh-Bhatha & Fly-over bridge a left bank of River Tapi on item-rate – contract basis and 10 (Ten)Year O & M work under Surat Municipal Corporation, Surat	14.00 Lakhs	Ongoing
29	Central Design Organization, Narmada Water Resources Water Supply & Kalpasar Department Government of Gujarat	Preliminary Assessment of Water Availability and Water Utilization in various River Basins of Gujarat State	170 Lakhs	Ongoing

### 15.0 List of Completed/ Ongoing Ph.D. Theses

- Completed – 14, Ongoing – 10

Sr. No.	Name of Students	Title of Thesis	Ph.D. Supervisors	Date of Joining Ph.D.	Status
1	Praful V. Timbadiya	Development of 1D-2D Integrated Hydrodynamic Model for River Flood Prediction in Coastal Urban Flood Plain	Dr. P L Patel Dr. P D Porey	20/07/2007	Completed August 2012
2	Shailesh B. Patel	Incipient Motion and Bed Load Transport Characteristics of Unimodal and Bimodal Sediments	Dr. P L Patel Dr. P D Porey	27/01/2009	Completed June 2013
3	Ashwini B. Mirajkar	Multiobjective Fuzzy Linear Programming Approaches in Integrated Management of Water Resource System	Dr. P L Patel	01/01/2010	Completed March 2014
4	Uday C. Roman	Estimation of Missing Rainfall and Prediction of Runoff in Upper Catchment of Tapi Basin	Dr. P L Patel Dr. P D Porey	27/01/2008	Completed May 2015
5	Prabhat Chandra	Prediction of Sediment Yield and Identification of Erosion Prone Areas for Soil Conservation Measures in Upper Tapi Basin, India	Dr. P L Patel Dr. P D Porey	27/01/2009	Completed May 2016
6	Bhoomi R. Andharia	Prediction of Bed Level Variation in Alluvial Streams	Dr. V L Manekar Dr. P L Patel Dr. P D Porey	23/07/2009	Completed December 2016
7	Jiveswar Sinha	Development of 2-Layered 2-D Model for Compound Open Channel Flow	Dr. P L Patel Dr. B K Samtani Dr. S K Das	20/07/2009	Completed December 2016
8	Viraj D. Loliyana	Development of a Physics Based Distributed Integrated Hydrological Model for Prediction of Water Availability in a Semi-Arid Region in India	Dr. P L Patel	15/07/2011	Completed May 2018
9	Priyank J. Sharma <i>DST Inspire Fellow</i>	Integrated Assessment of Hydroclimatic variability including streamflow modelling of a Climatically heterogeneous basin in India	Dr. P L Patel Dr. V Jothiprakash (IIT Bombay)	31/07/2014	Completed January 2020
10	Soumita Bid	Numerical modeling of environmental flows in Hydraulics	Dr. P L Patel Dr. R A Christian	26/07/2013	Completed February 2021
11	Resmi S. R.	Morphological study of Tapi river using Remote sensing Technique	Dr. P L Patel Dr. P V Timbadiya	17/07/2015	Completed August 2021

<b>Sr. No.</b>	<b>Name of Students</b>	<b>Title of Thesis</b>	<b>Ph.D. Supervisors</b>	<b>Date of Joining Ph.D.</b>	<b>Status</b>
12	P. Laxmi Narayana	Experimental investigation of bridge pier scouring in mobile boundary channels	Dr. P V Timbadiya Dr. P L Patel	17/07/2015	Completed May 2022
13	Sangita Pawar	Intuitionistic fuzzy optimization approach in multiobjective optimization of water resources systems	<b>Dr. P L Patel</b>	17/07/2015	Completed May 2023
14	Shubham M. Jibhakhate	Impact of climate change on water resources of Lower Tapi basin	Dr. P V Timbadiya <b>Dr. P L Patel</b>	16/07/2018	Completed October 2023
15	Nishant Sourabh	Leak detection in water distribution systems	Dr. P V Timbadiya <b>Dr. P L Patel</b>	21/12/2016	Ongoing
16	Alka Sharma	Impact of climate change on water resources of Sabarmati basin	<b>Dr. P L Patel</b>	15/07/2017	Pre-synopsis presented
17	Lalit Kumar Gehlot	Impact of climate change on water resources of Purna basin	<b>Dr. P L Patel</b> Dr. P V Timbadiya	16/07/2018	Pre-synopsis presented
18	Vineela Nandam <i>DST Inspire Fellow</i>	Morphological study of Lower Tapi River with special reference to coastal-urban flood plain	<b>Dr. P L Patel</b>	16/07/2018	Pre-synopsis presented
19	B L Meena	Rainfall Runoff Modelling	<b>Dr. P L Patel</b>	22/07/2019	Ongoing
20	Kalpesh Baldaniya	Reservoir Optimization using Metaheuristic technique	<b>Dr. P L Patel</b> Dr. P V Timbadiya	08/2020	Ongoing
21	Sudhanshu Dixit	Assessment of water resources including climate change impact over Narmada Basin	<b>Dr. P L Patel</b>	01/2021	Ongoing
22	Mukul Anand <i>Junior Research Fellow</i>	Local scouring around Tandem and staggered piers on non-uniform mobile bed	Dr. P V Timbadiya <b>Dr. P L Patel</b>	08/2021	Ongoing
23	Sandip Rajput	Hydrodynamic modelling	<b>Dr. P L Patel</b>	12/2022	Ongoing
24	Anant Nagar	Groundwater modelling	<b>Dr. P L Patel</b>	08/2023	Course work

**16. M. Tech Dissertations**

- **Completed – 49, Ongoing – 01**

**17. B. Tech. Projects**

- **Completed – 29**

## 18.0 List of Summer Internships

- Completed – 05      Ongoing – 02

## 19.0 Conference/ Workshop/ Seminar/ Symposium/ STTPs organized

### SHORT TERM TRAINING PROGRAMME (STTP) ORGANISED:

Sr. No.	Name of Short Term Training Programme Course	Duration	Funding Agency	Venue
1	Design of Storm Water Network for Smart City: Theory and Practice - II (Co-Coordinator)	Jan. 2-7, 2017	Self-Financed	Dept. of Civil Engineering, SVNIT Surat
2	Computational Mechanics and Modelling (CMM 2016) (Co-Coordinator)	Dec. 26-30, 2016	Self-Financed	Dept. of Civil Engineering, SVNIT Surat
3	Fundamentals of Advanced Fluid Mechanics (FAFM 2016) (Co-Coordinator)	Jan. 4-8, 2016	TEQIP-II	Dept. of Civil Engineering, SVNIT Surat
4	Design of Storm Water Network for Smart City: Theory and Practice - I (Coordinator)	Dec. 28, 2015- Jan. 01, 2016	Self-Financed	Dept. of Civil Engineering, SVNIT Surat
5	Modeling Impact of Climate Change on Water Resources (Co-Coordinator)	Dec. 08-12, 2014	Centre of Excellence (CoE), TEQIP-II	Dept. of Civil Engineering, SVNIT Surat
6	Hydraulic and Hydrologic Modeling: Concepts and Applications (Coordinator)	July 01-05, 2013	TEQIP-II	Dept. of Civil Engineering, SVNIT Surat
7	Effective Teaching; Cooperative Learning; Effective faculty Development, Outcome based education (Coordinator)	Dec.14-18, 2009	AICTE	Dept. of Civil Engineering, SVNIT Surat
8	Advances in Water Resources (Co-Coordinator)	Dec.22-26, 2008	AICTE	Dept. of Civil Engineering, SVNIT Surat
9	Hydrological Modelling using SWAT including Parametric Uncertainty and Sensitivity Analysis	Feb. 08-09, 2019	INCCC	Dept. of Civil Engineering, SVNIT Surat

10	Hydraulic and Hydrologic modelling: concepts and applications	Sep. 30 – 04. Oct, 2019	TEQIP-III	Dept. of Civil Engineering, SVNIT Surat
11	Design of Water Related Infrastructures for Smart City	July 27 – 31, 2020	TEQIP-III	Dept. of Civil Engineering, SVNIT Surat
12	Design of Storm Water Drainage Systems as per CPHEEO-2019	March 15 – 19, 2021	TEQIP-III	Dept. of Civil Engineering, SVNIT Surat

**CONFERENCES/WORKSHOP/ SEMINAR ORGANIZED:**

<b>Sr. No.</b>	<b>Name of Conference/ Workshop/ Seminar</b>	<b>Duration</b>	<b>Funding Agency</b>	<b>Venue</b>
1	Workshop on “Morphological study of Tapi river using remote sensing technique (Coordinator)	July. 21, 2017	Centre Water Commission (CWC), Govt. of India	Dept. of Civil Engineering, SVNIT Surat
2	National conference on “Water Resources and Flood Management (WRFM) – 2016” with special reference to Flood modeling (Coordinator)	Oct. 14-15, 2016	Centre of Excellence (CoE), TEQIP-II	Dept. of Civil Engineering, SVNIT Surat
3	Project Appraisal Monitoring Committee (PAMC) meet of Ministry of Earth Sciences (Coordinator)	July 15, 2014	Ministry of Earth Sciences (MoES), Govt. of India	Dept. of Civil Engineering, SVNIT Surat
4	Workshop on “Avenues for Research in the areas of Hydrology, Water Resources and Climate Change Impacts” (Coordinator)	July 14, 2014	Ministry of Earth Sciences (MoES), Govt. of India	Dept. of Civil Engineering, SVNIT Surat
5	Workshop on “River Hydraulics and Management of Indian Rivers” (Coordinator)	March 22, 2014	Centre of Excellence (CoE), TEQIP-II	Dept. of Civil Engineering, SVNIT Surat
6	Workshop “Objective and Outcome Based Education” (Coordinator)	Dec. 21-22, 2013	TEQIP-II	Dept. of Civil Engineering, SVNIT Surat
7	National Seminar on “Climate Change Impacts on Water Resources Systems” (Co-Coordinator)	Nov. 27-29, 2013	Centre of Excellence (CoE), TEQIP-II	Dept. of Civil Engg., Parul Institute of Technology & Engg., Vadodara



<b>Sr. No.</b>	<b>Name of Conference/ Workshop/ Seminar</b>	<b>Duration</b>	<b>Funding Agency</b>	<b>Venue</b>
8	Workshop on 'Preparing action plan for study of effect of climate change on water resources of Tapi Basin'	April 28, 2013	AICTE (NCP Project)	Dept. of Civil Engineering, SVNIT Surat
9	National Conference on 'Hydraulics and Water Resources', HYDRO-2011 (Coordinator)	Dec.29-30, 2011	ISH, DST, CSIR, DRDO, MNIT Jaipur, NWRWS&KD	Dept. of Civil Engineering, SVNIT Surat
10	National Workshop on 'Flood forecasting and protection measures' - FFPM-2010 (Coordinator)	Aug.28, 2010	NCP (AICTE) Project	Dept. of Civil Engineering, SVNIT Surat
11	Dean (Academics) meet of all NITs for foster further academic and research collaborations among the NIT systems (Coordinator)	Jan. 29, 2010	SVNIT Surat	Dept. of Civil Engineering, SVNIT Surat
12	Workshop on Course Curriculum for up gradation of PG syllabi of 'Water Resources Engineering' (Coordinator)	June 14, 2008	SVNIT Surat	Dept. of Civil Engineering, SVNIT Surat
13	National Conference on 'Hydraulics and Water Resources', HYDRO-2007, (Convener; Editorial Committee)	Dec. 21-22, 2007	ISH, SVNIT Surat	Dept. of Civil Engineering, SVNIT Surat
14	National Workshop on 'Vision India: Construction industry and Disaster management (Coordinator)	Nov.19, 2005	Delhi College of Engineering	Dept. of Civil Engg Delhi College of Engineering
15	Awareness Workshop on "Intelligent Transportation Systems" (Coordinator)	April, 05,2005	Delhi College of Engineering	Dept. of Civil Engg Delhi College of Engineering
16	National conference on "Innovative Approaches in the Management of Environment" (Joint Secretary)	Oct.17-18, 2003	Delhi College of Engineering	Dept. of Civil Engg Delhi College of Engineering
17	Workshop on "Impact of Climate Change on Water Resources of Tapi Basin"	May 21, 2022	INCCC, DoWR, RD & GR, Ministry of Jal Shakti, Govt. of India	Dept. of Civil Engineering, SVNIT Surat

**SOFTWARE TRAINING PROGRAMME ORGANIZED:**

<b>Sr. No.</b>	<b>Name of Software Training Programme</b>	<b>Duration</b>	<b>Funding Agency</b>	<b>Venue</b>
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1	Bentley Water GEMS, Sewer GEMS, Storm CAD	June 16-19, 2014	Annual Planned Grant, SVNIT Surat	Dept. of Civil Engineering, SVNIT Surat
2	MIKE URBAN	May 19, 2014	Centre of Excellence (CoE), TEQIP-II	Dept. of Civil Engineering, SVNIT Surat
3	MIKE SHE	Apr. 25, 2014	Centre of Excellence (CoE), TEQIP-II	Dept. of Civil Engineering, SVNIT Surat
4	MIKE 21 – Flood	Nov. 2, 2010	NCP project, AICTE	Dept. of Civil Engineering, SVNIT Surat
5	ERDAS Imagine	Oct. 29-30, 2010	NCP project, AICTE	Dept. of Civil Engineering, SVNIT Surat
6	Bentley Water GEMS, Sewer GEMS, Storm CAD	May 11-15, 2010	Annual Plan Grant, SVNIT Surat	Dept. of Civil Engineering, SVNIT Surat
7	Arc GIS	Feb. 25-26, 2010	NCP project, AICTE	Dept. of Civil Engineering, SVNIT Surat
8	MIKE 11	May 5-10, 2008	Annual Planned Grant, SVNIT Surat	Dept. of Civil Engineering, SVNIT Surat
9	MIKE 21 C	May 05 – 06, 2022	Annual Planned Grant, SVNIT Surat	Dept. of Civil Engineering, SVNIT Surat
10	Trimble Business Centre	April 25 – 26, 2022, June 01 – 03, 2022	Annual Planned Grant, SVNIT Surat	Dept. of Civil Engineering, SVNIT Surat

**SUMMER / WINTER SCHOOLS:**

<b>Sr. No.</b>	<b>Name of Summer/ Winter Schools</b>	<b>Duration</b>	<b>Funding Agency</b>	<b>Venue</b>
1	Hydraulics of Mobile Boundary Channel (Coordinator)	Apr. 18-19, 2014	TEQIP-II	Dept. of Civil Engineering, SVNIT Surat
2	Computational Hydraulics (Coordinator)	Oct. 25-26, 2013	TEQIP-II	Dept. of Civil Engineering, SVNIT Surat

**EXPERT LECTURES ORGANIZED:**

<b>Sr. No.</b>	<b>Name of Resource Person and Topic of Expert Lecture</b>	<b>Duration</b>	<b>Funding Agency</b>	<b>Venue</b>
1	Expert Lecture by Dr. P. P. Mujumdar, Prof., IISc Bangalore, on 'Hydroclimatic extremes under climate change'	January 22, 2020	Ministry of Jal Shakti, DoWR, RD & GR	Dept. of Civil Engineering, SVNIT Surat
2	Expert Lecture by Dr. P. P. Mujumdar, Prof., IISc Bangalore, on 'Impact of climate change on urban flooding' (Coordinator)	July 19, 2017	SVNIT Surat	Dept. of Civil Engineering, SVNIT Surat
3	Expert Lecture by Dr. Vishnu Prasad, Prof., NIT Bhopal, on 'Selection of Pumps: Performance and Testing' (Coordinator)	August 24, 2016	Centre of Excellence (CoE), TEQIP-II	Dept. of Civil Engineering, SVNIT Surat
4	Expert Lecture by Dr. Vivekanand Singh, Prof., NIT Patna, on 'Numerical modeling for soil moisture prediction in the catchment' (Coordinator)	August 09, 2016	Centre of Excellence (CoE), TEQIP-II	Dept. of Civil Engineering, SVNIT Surat
5	Expert Lecture by Dr. S K Jain, Scientists G, NIH Roorkee, on 'Environmental flows' (Coordinator)	May 11, 2016	Centre of Excellence (CoE), TEQIP-II	Dept. of Civil Engineering, SVNIT Surat
6	Expert Lecture by Dr. M L Kansal, Prof., IIT Roorkee, on 'Issues on River Health Monitoring' (Coordinator)	March 21, 2016	Centre of Excellence (CoE), TEQIP-II	Dept. of Civil Engineering, SVNIT Surat
7	Expert Lecture by Dr. K G Ranga Raju, Emeritus Prof., IIT Roorkee, on 'Rivers and River Control structures' (Coordinator)	Jan. 06, 2016	Centre of Excellence (CoE), TEQIP-II	Dept. of Civil Engineering, SVNIT Surat
8	Expert Lecture by Dr. Rakesh Mishra, Professor, University of Huddersfield, UK on 'Industrial Applications of Computation Fluid Dynamics' (Coordinator)	Aug. 12, 2015	Centre of Excellence (CoE), TEQIP-II	Dept. of Mechanical Engineering, SVNIT Surat
9	Expert Lecture by Dr. B. S. Pani, Emeritus Prof., IIT Bombay, on "Boundary Layer Theory and Turbulent Flow: Concepts" (Coordinator)	Oct. 31- Nov. 1, 2014	Centre of Excellence (CoE), TEQIP-II	Dept. of Civil Engineering, SVNIT Surat

Sr. No.	Name of Resource Person and Topic of Expert Lecture	Duration	Funding Agency	Venue
10	Expert Lecture by Dr. B. S. Pani, Emeritus Prof., IIT Bombay, on “Concepts of open channel flow hydraulics and Resistance to flow in mobile boundary channels” (Coordinator)	Mar. 19-20, 2014	Centre of Excellence (CoE), TEQIP-II	Dept. of Civil Engineering, SVNIT Surat
11	Expert Lecture by Dr. B S Mazumder, Emeritus Prof., ISI Kolkata, ‘Turbulence its measurement and analyses in rigid and mobile boundary channels’ (Coordinator)	Mar. 21-22, 2013	TEQIP-II	Dept. of Civil Engineering, SVNIT Surat
12	Expert Lecture by Dr. K G Ranga Raju, Emeritus Prof., IIT Roorkee, on ‘Rivers and River Control structures’ and ‘The Baglihar Dam and the Indus Waters Treaty’ (Coordinator)	Aug. 19, 2011	TEQIP-II	Dept. of Civil Engineering, SVNIT Surat
13	Coordinated Expert Lectures on (a) Stability analysis of gravity dams and (b) Criteria for design of Energy dissipators in Dams	May 12, 2006	Delhi College of Engineering	Dept. of Civil Engineering, Delhi College of Engineering
14	Entropy theory and its applications in hydrologic engineering	November 16, 2022	Full Bright program in India	Dept. of Civil Engineering, SVNIT Surat
15	Kinematic wave theory of overland flow	November 12, 2022	Full Bright program in India	Dept. of Civil Engineering, SVNIT Surat

## 20.0 Expert Lecture/Talk Delivered in CEP/ QIP/STTP/ Special Lectures:

Sr. No.	Title of the Invited Talk	Name of the Program in which the Talk is Delivered	Date of Talk	Organizer and Venue
1	Impact of Climate variability on stream flows of Tapi Basin	International Conference on Water and Environment – (ICWE) 2021	March 22, 2021	Department of Civil Engineering, MANIT-Bhopal
2	Impact of climate variability on water security of Tapi basin	25 <sup>th</sup> International Conference on Hydraulics, Water Resources and Coastal Engineering (HYDRO 2020)	March 26, 2021	Online, hosted by NIT Rourkela

Sr. No.	Title of the Invited Talk	Name of the Program in which the Talk is Delivered	Date of Talk	Organizer and Venue
3	Impact of climate variability and anthropogenic changes on availability of stream flows of Tapi basin, India	International e-Conference on Water Source Sustainability being organized by IWRS and DWRDM	June 19, 2021	Online, Indian Institute of Technology Roorkee, India
4	Impact of climate variability on water security of Tapi basin in India	STTP on “Advanced Technologies in Water Resources Management (ATWARM-2020)”	November 27, 2020	Online mode
5	Measurement of rainfall and post processing of data	TEQIP-III sponsored “Design of Water Related Infrastructures for Smart City”	July 27, 2020	Department of Civil Engineering, SVNIT, Surat. (Online mode)
6	Development of IDF curves	TEQIP-III sponsored “Design of Water Related Infrastructures for Smart City”	July 27, 2020	Department of Civil Engineering, SVNIT, Surat. (Online mode)
7	Basic concepts of Storm Water Flows	TEQIP-III sponsored “Design of Water Related Infrastructures for Smart City”	July 28, 2020	Department of Civil Engineering, SVNIT, Surat. (Online mode)
8	Morphological Studies- A case study on Tapi river	31 <sup>st</sup> Induction Training Program at National Water Academy, Pune	Sept. 16 2019	GOI, CWC, NWA, Pune
9	Significance of sedimentation studies in DPR	Training on investigation and for preparation of DPR	Oct. 21, 2019	WRD, Govt. of Gujarat. Gandhinagar
10	Hydrological routing of Floods in reservoirs and channels	Short term training Program on ‘Basic Hydrology’ for Water Resources Engineers of Rajasthan state	May 14-18. 2019	MNIT Jaipur
11	Experimental Investigation on bed load transport of unimodal and bimodal sediments	23 <sup>rd</sup> International conference on Hydraulics and Water Resources HYDRO-2018	Dec. 18-21, 2018	NIT, Patna
12	Measurement and Quantification of Flow Turbulence in Mobile Boundary Channels	National conference on Recent Trends in Mathematics	Nov. 09-13, 2018	University of Lucknow
13	Hydrologic and Hydraulic Aspects of Storm network Drainage Design	Technologies in Water Infrastructure Design (TWID-2018)	17-20, September 2018	IIT RAM, Ahmedabad
14	Development of mathematical and physical models for river engineering problems in Civil Engineering	Designing of Mathematical Modelling in different fields of Engineering (DMMDFE-2018) at Department of Applied Science & Humanities	March 22, 2018	GIDC Degree Engineering College Abrama, Navsari
15	Pattern of sediment yield and their linkages with land-use land-cover of upper Tapi basin	Training Program on “River Morphology & Sediment Management”	January 29, 2018	National Water Academy (NWA), Central Water Commission, Pune
16	Morphological studies of Tapi River: Morphological issues and		January 29, 2018	

Sr. No.	Title of the Invited Talk	Name of the Program in which the Talk is Delivered	Date of Talk	Organizer and Venue
	their studies using GIS & remote sensing			
17	Description of Tapi basin including key morphological issues in Tapi river	CWC sponsored Workshop on “Morphological study of Tapi river using remote sensing technique”	July 21, 2017	SVNIT Surat
18	Morphological study of Tapi river using remote sensing: Objectives and detailed scope of work			
19	Trend of climate and land use-land cover parameters in the basin including pattern of runoff and sediment yield, and flood frequency analyses			
20	Tools and Techniques for effective teaching and Research	2 <sup>nd</sup> self-financed STTP on Tools and Techniques for Effective Teaching and Research at Dept. of Mechanical Engg.	Feb. 13-17, 2017	SVNIT Surat
21	Measurement of rainfall and post processing of data	Self-financed STTP on “Design of Storm Water Network for Smart City: Theory and Practice-II”	Jan. 2-7, 2017	SVNIT Surat
22	Development of IDF curve – I & II			
23	Basic concepts of storm water flow – I & II			
24	Estimation of design flood for storm water design			
25	Hydraulic design of storm water network using spreadsheet			
26	Discretization methods	TEQIP-II sponsored STTP on “Computational Mechanics and Modelling (CMM 2016)”, at Dept. of Civil Engg.	Dec. 26-30, 2016	SVNIT Surat
27	Impact of Climate Variability on Water Security of Tapi Basin	Keynote lecture in HYDRO 2020 International conference	March 27, 2021	Online mode (hosted by NIT Rourkela)
29	Flow characteristics and turbulence statistics in alluvial channels	ATAL scheme of GOI	October 2021	L. D. Engineering College, Ahmedabad.
30	Big data analytics and its applications on Ground Water Management	Online training program on Bigdata applications in Water Resources and Hydroinformatics	Jan. 19, 2022	National Water Academy, CWC Pune
31	Fuzzy approach in multi-objective optimization of water resources	STTP on ‘Application of Optimization, Soft computing, Modeling with GIS in Engineering and Technology’	09 March 2022	Civil Engineering Department, L. D. College of Engineering, Ahmedabad.
32	Groundwater, making the invisible visible	Expert talk on account of the World Water Day 2022	22 March 2022	Water Resources Engineering and Management

Sr. No.	Title of the Invited Talk	Name of the Program in which the Talk is Delivered	Date of Talk	Organizer and Venue
				Institute(WREMI), MSU Baroda
33	Basics of climate change and its impact on water resources	32 <sup>nd</sup> Induction Training Program (ITP) for Newly Appointed Central Water Engineering Services (CWES) Group 'A' Officers	June 29, 2022	National Water Academy, Pune
34	Climate change impacts a case study of Tapi basin			
35	Center of Excellence activities	Recent Research Trends in Ocean Engineering, Science & Technology	September 24, 2022	IIT Bombay
36	Fluvial Hydraulics	HYDRO-2022 International Conference	23 December 2022	Punjab Engineering College, Chandigarh
37	Morphology associated risks to water infrastructure and its risk reduction strategies through RS & GIS	3-day training programme on "Disaster resistant water infrastructure"	February 01, 2023	Gujarat Institute of Disaster Management
38	Impact of Climate Variability on Water Security and flooding of Tapi Basin in India	ATAL FDP	December 14, 2023	GEC, Bharuch
39	Analysis of water stress conditions on basin scale: Causes and remedial measures	HYDRO-2023 International Conference	December 23, 2023	NIT Warangal
40	Flood risk assessment of lower Tapi coastal urban floodplain India	Roorkee Water Conclave 2024	March 03 – 06, 2024	IIT Roorkee
41	Spatial varying and cooccurring future climate changes over a heterogenous river basin: a multi variate approach	International Water conference for sustainable development goals	March 22 – 23, 2024	MANIT Bhopal
42	Incipient motion and bed load transport characteristics of unimodal and bimodal sediments	Five-day FDP cum workshop on Water Resources Management & Fluvial Hydraulics in steep mountain streams	March 27 – 31, 2024	Dr. B R Ambedkar National Institute of Technology, Jalandhar, Punjab

## 21.0 Membership of Technical Societies/Expert Committees:

- (1) Fellow Member of the Institution of Engineers, India (F-112817-1)
- (2) Fellow Member of Indian Society for Hydraulics (ISH) (F-389)
- (3) Fellow Member of Indian Water Resources Society (IWRS)
- (4) Member of International Association of Hydraulic Research (IAHR)
- (5) Life Member of Indian Society for Technical Education (ISTE) (IM-30011)
- (6) Life Member of Association of Hydrologist of India (AHI), 2009 (AHI-LM-411-703)

- (7) Member of Hydrological Data User Group (HDUG), State Water Data Centre (SWDC), Govt of Gujarat, 2008 onwards
- (8) Member of working group on climate change ‘**Fluvial Mechanism Component**’ of **International Association for Hydraulic Research (IAHR)**, 2008 onwards
- (9) Member of Interstate Committee on ‘Flood Management & Preparedness for Monsoon in Tapi Basin.
- (10) A member of working group of IAHR Working on effect of Climate change (Fluvial Mechanism)
- (11) Member, Technical Advisory Committee of Central Water & Power Research Station (CWPRS) Pune, Ministry of Water Resources, River Development & Ganga Rejuvenation, Government of India.
- (12) Member, Expert Committee on Assessment of Flood Situation in Rel River Bank and Dhanera Region of Banaskantha District due to Extreme Rainfall and Suggesting Remedial Measures under Narmada Water Resources, Water Supply and Kalpasar Department (NWRWS&KD), Government of Gujarat.
- (13) Life Member, International Commission on Irrigation and Drainage (ICID) (Membership No. DM/IND/3021/2021/Life)

## **21. International Visits:**

- Japan – 2010
- Italy – 2012,2018
- China – 2013
- Netherlands – 2015
- USA – 2012, 2016, 2017
- Dubai – 2024

<b>S. No.</b>	<b>Title of congress, Organisation/Institute</b>	<b>Subject/Presentation title/co-authored articles</b>	<b>Month &amp; Year of Visit</b>
1	International workshop on ‘Impacts of global warming from hydrological and hydraulic issues’, Disaster Prevention Research Institute (DPRI), Kyoto University, Uji, Kyoto	Keynote on Impact of climate change on fluvial processes	March, 2010
2	Indo-Italian workshop on ‘Advances in Fluvial Hydraulics and Water Resources Development & Management’, organised in collaboration with Italian Embassy and Indian Society for Hydraulics, Venice, Italy	Incipient motion of unimodal and bimodal sediments in mobile boundary channels	July, 2012
3	International Conference on Hydro-system and Engineering-2012, Orlando, USA Organised by University of Central Florida (UCF), Orlando, USA in association with EWRI- ASCE, IAHR, IIHR	(1) Geomorphic effectiveness of flood on lower Tapi River, India using 1D hydrodynamic model (2) Calibration of channel and flood plain roughness using 1D/2D integrated hydrodynamic model : A study of Surat city on lower Tapi River (3) Multi-objective fuzzy linear programming under uncertain resource parameters	November, 2012
4	35 <sup>th</sup> IAHR World Congress 2013 at Chengdu, China	Experimental study on	September, 2013



		(1) initiation of motion and bed load transport of unimodal and bimodal sediments (2) Analysis of trends and variability in time series of extreme daily rainfall in Tapi basin, India	
5	36 <sup>th</sup> IAHR World Congress 2015 at The Hague, Netherlands	(1) Trend analysis of climate variables and their impact on stream flow using NAM model (2) Experimental investigation of turbulent bursting events in weakly mobile channel bed (3) A simulation – optimization approach in development of operation policy of a multipurpose reservoir (4) Development of IDF curve under non-stationary meteorological condition	July , 2015
6	World Environment & Water Resources Congress, ASCE – EWRI, 2017 at Sacramento, California	(1) A 1D Numerical Model for Prediction of Bed Levels of Aggrading Channels	May, 2017
7	13 <sup>th</sup> International Conference on Hydroinformatics (HIC 2018) at Palermo, Italy	(1) Rainfall trends over the past century for tropical climatic region in western India	July, 2018
8	2nd International Conference Water Resources Management & Sustainability: Solutions for Arid Regions	(1) Distributed Manning’s Roughness Approach in Calibration and Validation of 1-D Hydrodynamic Model of Lower Tapi River, India	February 26 – 28, 2024

## 22. Other Administrative cum Academic activities

Sr. No.	Position	Duration	Nature of Activity
1	Water Resources Lab In-charge	Aug. 27,2008-Sep. 21, 2011	(a) Strengthened existing experimental and Computational Hydraulics Laboratory in the Department by procuring the new experimental and computational equipments as well as facilities, (b) Desired facilities for Hydraulics experiments were planned during the construction of new Advanced Hydraulics Laboratory in the Department (c) A new Sediment transport flume was procured as part of DST Project in the Advanced Hydraulics laboratory of the department
2	Departmental Coordinator of UG (accreditation)	March 2013 onwards	The team was formed; and SAR of UG accreditation is submitted to AICTE for accreditation
3	Member of Academic	2007 to Oct. 2010; July	For discussion of policies related to academic issues

	Performance Review Committee (APRC), SVNIT Surat	2013 onwards	
4	Member of Institute Academic Advisory Committee (IAAC), SVNIT Surat	2007 onwards	For discussion of policies related to academic issues
5	Chairman, Institute Canteen Committee	July 2012 – June 2013	Advising the Institute authority for better management of the Institute canteen
6	Chairman, Scrutiny Committee for staff selection at the Institute level	Apr. 2012	List of eligible Administrative officer/ Technical officer (Non-Technical posts) were handed over to the Institute administration. Selection process is over.
7	Member of Central Counselling Board CCB-2009	2009	Conducted admission process of B.Tech students in the Institute through AIEEE-2009
8	Member of Institute level scrutiny committee	April 2008- March 2009	Promotion of faculty members through CAS.
9	Mentor for the employees of Hazira LNG Private Limited, Surat	April 2008- March 2009	Mentor the pursuing their B Tech (Gas engineering) from their organization
10	Member Institute Disciplinary Committee	Jan 2008- Jan 2010	Advising the Institute administration and students in disciplinary actions at the Institute level
11	Member Institute Purchase Committee	Jan 2008- Jan 2009	Advising the Institute administration in purchases at the Institute level
<b>Delhi College of Engineering (DCE) (Now DTU)</b>			
1.	Lab-in-Charge Hydraulics Lab	July 1999- June 2007	a) Development of basic experimental facilities in Fluid Mechanics Lab, like Flow through Orifice, Discharge measurements through Venturimeter, Calibration of rectangular, triangular notches, minor losses, Metacentric height, free Vortex, forced Vortex etc. b) Developed new lab with provision of Under ground and Overhead Tanks
2.	Coordinator, Water Resources Engineering Section	June 01, 2004-2007	Coordinating the activities of Water Resources Section
3.	Time- Table In-charge,	Jan 2000 – Jan 2003	For implementing effective time table schedule according to teaching scheme at department level

	Department of Civil Engineering		
4.	Warden Bhaskaracharya Hostel, vide Admn. Letter no. HOO/02/2003/718-727	May 1, 2003 – Apr. 1, 2004	For conducting smooth working at Hostel
5.	Dy Incharge Consultancy cell		The consultancy activities were initiated in Department of Civil Engineering. The norms of Consultancy at the Institute level were finalized.