



Dr. P V TIMBADIYA

Assistant Professor

Department of Civil Engineering,
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EDUCATION

Ph.D. (2012) Civil Engineering, SVNIT-Surat, Gujarat.

Thesis Title: "Development of 1D-2D integrated Hydrodynamic model for River Flood Prediction in Coastal Urban Flood Plain" Under supervision of Dr. P. L. Patel and Dr. P. D. Porey

M.E. (2004) Civil Engineering with specialization in Water Resources Engineering, SVNIT-Surat, Gujarat.

Project Title: Streamflow forecasting using Deterministic, Stochastic and Neural Network Approaches, under supervision of Dr. R.I. Patel.

B.E. (2002) Civil Engineering, Sardar Vallabhbhai Regional Engineering College (now SVNIT), Surat, Gujarat

RESEARCH INTEREST

Surface Water Hydrology

River Analysis System

Hydrodynamic Modeling

Climate Change Impact Assessment

Storm Water and Sewerage Network Design

TEACHING/OUTREACH

Total Teaching Experience: 13 years

List of courses taught

Postgraduate:

- Hydrology

- Advanced Hydraulic Structures
- Free Surface Flow
- Stochastic Hydrology
- Basics of Climate Change Studies
- Water Supply Distribution Systems Analysis

Undergraduate:

- Water Resources Engineering
- Computational Fluid Dynamics
- Hydrology
- Fluid Mechanics
- Basics of Civil Engineering and Environmental Science
- Engineering Drawing
- Hydraulic and Hydraulic Machines
- Mechanics of Solids and Fluid

Conference / Workshop / Seminar / Symposium / STTPs organized

1. One day workshop on “Morphological Study of Tapi River using Remote Sensing Technique” July 21, 2017 sponsored by Central Water Commission, New Delhi, Govt. of India.
2. 2nd self-financed one week STTP on “Design of Storm Water Network for Smart City: Theory and Practice”, January 2-6, 2017.
3. Self-financed one week STTP on “Design of Storm Water Network for Smart City: Theory and Practice”, December 28, 2015-January 1, 2016.
4. National conference on “Water Resources and Flood Management” WRFM-2016, with special reference to Flood Modelling, under the aegis of India Society for Hydraulics (ISH), Pune, October 14-15, 2016
5. 1st self-financed one week STTP on “Design of Storm Water Network for Smart City: Theory and Practice”, December 28, 2015 – January 2, 2016.
6. COE (TEQIP-II) sponsored one week STTP on ‘Modelling Impact Climate Change on Water Resources’, Dec. 8-12, 2014.
7. MoES sponsored one day workshop on “Avenues for Research in the areas of Hydrology, Water Resources and Climate Change” at SVNIT-Surat, July 14, 2014.
8. COE (TEQIP-II) sponsored one day workshop on ‘River Hydraulics and Management of Indian Rivers’, March 22, 2014.
9. TEQIP-II sponsored Finishing school on “Computational Hydraulics”, September 28-29, 2013.
10. TEQIP-II sponsored STTP on “Hydraulic and Hydrologic Modelling: Concepts and Applications”, July 01-05, 2013.
11. AICTE sponsored SDP on “Effective Teaching; Cooperative Learning; Effective Faculty Development, Outcomes based Education”, December 14-18, 2009

Expert lectures delivered

- **“Design of Water Distribution Network-Theory”**, Department of Civil Engineering, Birla Vishwakarma Mahavidyalaya, Vallabh-Vidyanagar, Anand under TEQIP-II on March 20, 2017.
- **“Design of Water Distribution Network-Practice”**, Department of Civil Engineering, Birla Vishwakarma Mahavidyalaya, Vallabh-Vidyanagar, Anand, under TEQIP-II on March 20, 2017.

- **“1D, 2D and 1D-2D Coupled Hydrodynamic models in flood forecasting: Need, International Practices and Recent Advancements”** in one week STTP on Recent Development in Civil Engineering, organized by Shatilal Shah Engineering College, Bhavnagar under TEQIP-II on January, 18, 2017.
- **“Impact of Non-stationarity on Network Design”** in one week STTP on Recent Development in Civil Engineering, organized by Shatilal Shah Engineering College, Bhavnagar under TEQIP-II on January, 18, 2017.
- **“Design of Storm Water Network for the Smart City”** in one week STTP on Recent Development in Civil Engineering, organized by Shatilal Shah Engineering College, Bhavnagar under TEQIP-II on January, 18, 2017.
- **‘Trend Analysis-I and II’** Second self finance STTP on ‘Modelling Impact Climate Change on Water Resources’, SVNIT-Surat, Dec. 8-12, 2014.
- **‘Design Flood Estimation in India-I’** Second self finance STTP on ‘Design of Storm Water Network for Smart City: Theory and Practice’, SVNIT-Surat, Jan 2-6, 2017
- **‘Climate Change Impact on Urban Floods’** Second self finance STTP on ‘Design of Storm Water Network for Smart City: Theory and Practice’, SVNIT-Surat, Jan 2-6, 2017
- **‘Design Flood Estimation in India-I’** Second self finance STTP on ‘Design of Storm Water Network for Smart City: Theory and Practice’, SVNIT-Surat, Jan 2-6, 2017
- **‘Design Flood Estimation in India-II’** Second self finance STTP on ‘Design of Storm Water Network for Smart City: Theory and Practice’, SVNIT-Surat, Jan 2-6, 2017
- **‘Utilization of software in Storm Water Network-I’** Second self finance STTP on ‘Design of Storm Water Network for Smart City: Theory and Practice’, SVNIT-Surat, Jan 2-6, 2017.
- **‘Utilization of software in Storm Water Network-II’** Second self finance STTP on ‘Design of Storm Water Network for Smart City: Theory and Practice’, SVNIT-Surat, Jan 2-6, 2017
- **‘Availability of Rainfall data in India’** Second self-finance STTP on ‘Design of Storm Water Network for Smart City: Theory and Practice’, SVNIT-Surat, Jan 2-6, 2017.
- **“Detection of Climate Variability in Hydrological Records”** in Model Training Course on Water Security and Challenges in the Arena of Climate Change organized by COE on Soil and Water Management, Junagadh Agricultural University, Junagadh on December 20, 2016
- **“Impact of Non-stationarity on Urban Floods”** in Model Training Course on Water Security and Challenges in the Arena of Climate Change organized by COE on Soil and Water Management, Junagadh Agricultural University, Junagadh on December 20, 2016
- **“Availability/Generation of Future Period Rainfall data through Downscaling”** in Model Training Course on Water Security and Challenges in the Arena of Climate Change organized by COE on Soil and Water Management, Junagadh Agricultural University, Junagadh on December 20, 2016
- **‘Design Flood Estimation in India-I’** Self finance STTP on ‘Design of Storm Water Network for Smart City: Theory and Practice’, SVNIT-Surat, Dec. 28, 2015- Jan 1, 2016
- **‘Climate Change Impact on Urban Floods’** Self finance STTP on ‘Design of Storm Water Network for Smart City: Theory and Practice’, SVNIT-Surat, Dec. 28, 2015- Jan 1, 2016
- **‘Design Flood Estimation in India-I’** Self finance STTP on ‘Design of Storm Water Network for Smart City: Theory and Practice’, SVNIT-Surat, Dec. 28, 2015- Jan 1, 2016

- **‘Design Flood Estimation in India-II’** Self finance STTP on ‘Design of Storm Water Network for Smart City: Theory and Practice’, SVNIT-Surat, Dec. 28, 2015- Jan 1, 2016
- **‘Utilization of software in Storm Water Network-I’** Self finance STTP on ‘Design of Storm Water Network for Smart City: Theory and Practice’, SVNIT-Surat, Dec. 28, 2015- Jan 1, 2016
- **‘Utilization of software in Storm Water Network-II’** Self finance STTP on ‘Design of Storm Water Network for Smart City: Theory and Practice’, SVNIT-Surat, Dec. 28, 2015- Jan 1, 2016
- **“Application of Modelling Tools & Techniques in Water Resources Engineering”**, Department of Civil Engineering, Vadodara Institute of Engineering, November 30, 2016.
- **‘Hydro-Climatic Extremes and its Trend Analysis: Theory and Assumptions’** in Winter School on Implication of Climate Change on Pedagogical Issues of Water Resources Management jointly organized by Junagadh Agricultural University, International Water Management Institute, Anand, International Institute of Semi-arid Tropics, Hyderabad and Central Ground Water Board, Ahmedabad at Junagadh on October 5, 2015.
- **‘Climate Change Modelling: Needs, Models and Scenarios’** in Winter School on Implication of Climate Change on Pedagogical Issues of Water Resources Management jointly organized by Junagadh Agricultural University, International Water Management Institute, Anand, International Institute of Semi-arid Tropics, Hyderabad and Central Ground Water Board, Ahmedabad at Junagadh on October 6, 2015.
- **‘Statistical Downscaling of Multisite Daily Precipitation for Assessment of Climate Change on Hydrology’** in Winter School on Implication of Climate Change on Pedagogical Issues of Water Resources Management jointly organized by Junagadh Agricultural University, International Water Management Institute, Anand, International Institute of Semi-arid Tropics, Hyderabad and Central Ground Water Board, Ahmedabad at Junagadh on October 6, 2015.
- **‘River Hydraulics and Water Resource Management’** Faculty of Engineering and Technology-Bardoli, Gujarat for two hours on July 31, 2015.
- **‘Water Infrastructure for smart City near Coastal Plain’** delivered as Guest Speaker in ‘Geo-Water Seminar’ by M/s Bentley Systems Pvt. Ltd., Gandhinagar on July 23, 2015.
- **‘Multisite High Resolution Statistical Downscaling of Precipitation’** STTP on ‘Modelling Impact Climate Change on Water Resources’, SVNIT-Surat, Dec. 8-12, 2014.
- **‘Implication of Climate Change on Storm water Deign’** STTP on ‘Modelling Impact Climate Change on Water Resources’, SVNIT-Surat, Dec. 8-12, 2014.
- **‘Trend Analysis-I and II’** STTP on ‘Modelling Impact Climate Change on Water Resources’, SVNIT-Surat, Dec. 8-12, 2014.
- **‘Trend Analysis: Applications and Research’**, STTP on Computational and Statistical Methods Applied in Engineering for faculty members at CED, Government Collage of Engineering, Jalgoan on 11-07-2014.
- **‘Trend Analysis: Theory and Assumptions’**, STTP on Computational and Statistical Methods Applied in Engineering for faculty members at CED, Government Collage of Engineering, Jalgoan on 11-07-2014.
- **‘Trend Analysis: Applications and Research’**, STTP on Statistical Techniques for Data Analysis in Research for faculty members at CED, Government Collage of Engineering, Aurangabad on 13-06-2014.

- **‘Trend Analysis: Theory and Assumptions’**, STTP on Statistical Techniques for Data Analysis in Research for faculty members at CED, Government Collage of Engineering, Aurangabad on 13-06-2014.
- **‘Programme Objective, Expectation and Analysis’**, STTP on “Disaster Management & Administration” for faculty members at CED, Government Polytechnic, Ahmedabad on 27-01-2014.
- **‘Various type of Natural and Artificial Disaster’**, STTP on “Disaster Management & Administration” for faculty members at CED, Government Polytechnic, Ahmedabad on 27-01-2014.
- **‘Solution of Simultaneous Linear and Non-linear Algebraic Equations-I’**, Finishing School on “Computational Hydraulics” for UG, PG and PhD scholar at CED, SVNIT-Surat on October 25-26, 2013
- **‘Solution of Simultaneous Linear and Non-linear Algebraic Equations-II’**, Finishing School on “Computational Hydraulics” for UG, PG and PhD scholar at CED, SVNIT-Surat on October 25-26, 2013
- **‘Stable Channel Design: Concepts and Methods’**, Marwadi College of Engineering and Technology, Rajkot, 21/10/2013
- **‘Fluid Kinematics’**, B H Gardi College of Engineering and Technology, Rajkot, 19/10/2013
- **‘Flood Estimation’**, Marwadi College of Engineering and Technology, Rajkot, 19/10/2013.
- **‘Hydrologic Modelling Software: Concepts and Demonstration’**, National Seminar on “Advances in Hydrology and Water Resource Engineering” Sankalchand Patel College of Engineering, Visnagar on 18/10/2013.
- **‘Precipitation, Evaporation and Evapotranspiration: Mechanism and Measurement’**, STTP on “Hydrologic and Hydraulic Modelling: Concepts and Applications” at CED, SVNIT-Surat on July 01, 2013
- **‘Hydrological Statistics and Flood Frequency Analysis’**, STTP on “Hydrologic and Hydraulic Modelling: Concepts and Applications” at CED, SVNIT-Surat on July 02, 2013
- **‘River flow simulation in HEC-RAS’**, STTP on “Hydrologic and Hydraulic Modelling: Concepts and Applications” at CED, SVNIT-Surat on July 03, 2013
- **‘River flow simulation in MIKE 11’**, STTP on “Hydrologic and Hydraulic Modelling: Concepts and Applications” at CED, SVNIT-Surat on July 03, 2013
- **‘Advanced Fluid Mechanics’**, Marwadi College of Engineering and Technology, Rajkot 09/02/2013.
- **‘Application of Hydrology and Water Resources Engineering’**, Marwadi College of Engineering and Technology, Rajkot, 29/09/2012
- **‘Learning Style’**, AICTE sponsored SDP on “Effective Teaching; Cooperative Learning; Effective Faculty Development, Outcomes based Education” Civil Engineering department, S.V. National Institute of Technology-Surat, on Dec 15, 2009
- **‘Storm Water System Analysis’**, BVM sponsored workshop on “Storm Drain Designing and modeling” during Jan 7-9, 2011 (9/01/2011), at Civil Engineering Department, S.V. National Institute of Technology-Surat
- **‘Application of MIKE-11 in Rainfall-Runoff Modeling’**, SDP on “Advances in Water Resources Engineering” at CED, SVNIT-Surat on Dec, 23, 2008

THESES GUIDANCE

Ph.D:

- **Resmi S.R. (ongoing)** (Jointly guiding with Dr. P.L.Patel): Morphological study of Tapi River using Remote Sensing technique.
- **P Laxminarayana (ongoing)** (Jointly guiding with Dr. P.L.Patel): Aggradation study on mobile boundary channel.
- **Nishant Sourabh (ongoing)** (Jointly guiding with Dr. P. L. Patel): Real time monitoring and efficient design of sewerage network.

M.Tech:

- **Saurabh Tanpure (ongoing)**: Study of the hydraulic of the proposed Bhadbhut barrage using 2D hydrodynamic model.
- **Shubham Jibhakate (ongoing)**: Dam break study using 2D hydrodynamic model
- **Navya Chandu (ongoing)**: Statistical downscaling of the daily precipitation for Tapi basin and study of impact of climate change on water resources of Upper Girna Basin.
- **Sahana V Reddy (2017)**: Impact of Climate Change on Water Resources of Upper Girna Basin, India
- **Prachi M Patel (2017) (Student of MSU-Baroda, as a co-guide)** Study on Morphological Parameters of lower Tapi River.
- **Shah Bijal Upendrabhai (2017) (Student of CEPT University-Ahmedbad, as a co-guide)**: Design of basic utility services in Sachin for 2047.
- **Kavya Rajendran (2016)**: Morphological study of lower Tapi River using GIS and remote sensing technique
- **Libu K Thomas (2016)**: Development of semi distributed rainfall-runoff model for Girna River basin using SWAT with ArcGIS interface.
- **Nishant Saurabh (2015)**: Condition Assessment of Existing sewerage Network in SVNIT campus for present and future scenarios.
- **Apoorv Tripathi (Jointly guided with Dr. P.L.Patel) (2015)**: Development of 2D Hydrodynamic Model and Flood Hazard Maps of Surat City, India.
- **P. Laximananarayana (Jointly guided with Dr. P.L.Patel) (2015)**: Analytical and experimental investigation on bed level variation of alluvial channel due to overloading.
- **Ankit Patel (2014)**: Storm Water Network for Coastal Urban City: Concept and Design
- **Sadhana Singh (Jointly guided with Dr. S Kannan, CWPRS-Pune) (2014)**: Impact of Climate Change on Fine Resolution Precipitation in Tapi River Basin.
- **Rahul Kumar (Jointly guided with Dr. V L Manekar) (2014)**: Statistical Downscaling of Temperature and Detection of Trends for Tapi River Basin.
- **Malkhan Singh Jatav (2013)**: Development of rainfall-runoff model using an artificial neural network for Panjakra River in Tapi Basin.
- **Ketan Sutariya (2012)**: River stage prediction by MLR and ANN in Tapi River at Surat city, India.
- **Apurva Suthar (2011)**: Validation of Hydrodynamic Flow Simulation for Physical model Observation in Open Channel.
- **Nishi Bhuvandas (Jointly guided with Dr. P.L.Patel) (2010)**: Application of Linear Programming model for optimization of irrigation benefits of Ukai reservoir.

PUBLICATIONS

Refereed Journal

1. Sadhana Singh, S.Kannan, **P.V.Timbadiya** (2016): Statistical Downscaling of multi-site daily precipitation for Tapi River basin using Kernel Regression model, Current Science, 110 (8) (SCI Journal with IF=0.93).
2. **P.V.Timbadiya**, P.L.Patel, P.D.Porey (2015): A 1D-2D coupled hydrodynamic model for river flood prediction in coastal urban floodplain, Journal of Hydrologic Engineering, ASCE. Vol. 20(2), pp. 05014017-(1-18), Feb. 2015 (SCI Journal with IF=1.58)
3. **P.V.Timbadiya**, P.L.Patel, P.D.Porey (2013): One-dimensional Hydrodynamic Modelling of Flood and Stage Hydrographs in the Lower Tapi River, India, Current Science, Vol.106 No.5, pp. 1-9,2014 (SCI Journal with IF=0.93).
4. **P. V. Timbadiya**, A. B. Mirajkar, P. L. Patel, P. D.Porey (2013): Identification of trend and probability distribution for time series of annual peak flow in Tapi Basin, India, ISH Journal of Hydraulic Engineering, Vol.19:1, pp.11-20, 2013 (Scopus database Journal).
5. **Prafulkumar V. Timbadiya**, Prem Lal Patel, Prakash D Porey (2012): Calibration of HEC-RAS model on prediction of flood for Lower Tapi River, India, Journal of Water Resources and Protection, Vol: 3 (11):805-811.
6. **P.V.Timbadiya**, P.L.Patel, P.D.Porey (2012): Application of Innovative Trend Analysis Methodology and Distribution Fitting: Study on Annual Peak Inflow into Ukai dam, Gujarat, India, Water and Energy International published by Central Board of Irrigation & Power (CBIP), New Delhi Vol. 69, No. 9 September-2012, pp.40-44, ISSN: 0974-4711.
7. **P. V. Timbadiya**, A. B. Mirajkar, P. L. Patel (2012): Recent Trend Analysis for Annual Peak flow in Tapi Basin, Water and Energy International published by Central Board of Irrigation & Power (CBIP), New Delhi (in press).
8. **P. V. Timbadiya**, P. L. Patel, P. D. Porey (2011): HEC-RAS Based Hydrodynamic Model in Prediction of Stages of Lower Tapi River, ISH Journal of Hydraulic Engineering, 17(2):110-117 (Scopus database Journal).
9. **P. V. Timbadiya**, P. L. Patel, P. D. Porey: Flood forecasting in Tapi basin: A Scope for Improvement, Journal of Applied Hydrology (AH-India), Vol. XXIII, NO. 3v& 4. Jul. & Sep. 2010, pp. 44-52.

Book Chapter

1. **Priyank J Sharma, S.V. Chetan, P. V. Timbadiya**, P. L. Patel Chapter III Hydraulic Structures on Identification of Causes of Downstream Block Protection for Singapore Weir-cum-Causeway, Surat In Development of Water Resources in India Edited by Vikas Garg, V.P.Singh, Vijay Raj by Water Science and Technology Library, Springer. ISBN 978-3-319-55124-1. DOI: 10.1007/978-3-319-55125-8

Conference Proceedings

1. Resmi S.R., P.L.Patel, P.V.Timbadiya (2016): Morphological Study of Upper Tapi Sub basin using Remote Sensing and GIS techniques, Proceeding of 21th International Conference on Hydraulics, Water Resources and Coastal Engineering (HYDRO-2016 International) at CWPRS-Pune, during Dec. 8-10, 2016.
2. P. Laxminarayana, **P.V.Timbadiya**, P.L.Patel (2016): Aggradation in mobile boundary channel due to overloading of sediments, 20th Congress of the Asia Pacific Division of the International Association of Hydro-Environment Engineering & Research (IAHR-APD-2016) at Colombo, Sri Lanka, during August 29-31, 2016.

3. Kavisha D Panchal, Priyank J Sharma, V. D. Loliyana, **P. V. Timbadiya** (2016): Assessment of Reference Evapotranspiration methods for Purna River basin, India. Proceedings of 1st National Conference on Water Resources & Flood Management (WRFM-2016) with special reference to Flood Modelling, under the aegis of India Society for Hydraulics (ISH), Pune, October 14-15, 2016.
4. Maurya D Vinay, Priyank J Sharma, **P. V. Timbadiya**, P. L. Patel (2016): Analysis of Rainfall Variability for Middle Tapi River basin, India. Proceedings of 1st National Conference on Water Resources & Flood Management (WRFM-2016) with special reference to Flood Modelling, under the aegis of India Society for Hydraulics (ISH), Pune, October 14-15, 2016.
5. Libu K Thomas, **P. V. Timbadiya** (2016): Semi Distributed Rainfall-Runoff model for Girna River Basin, India. Proceedings of 1st National Conference on Water Resources & Flood Management (WRFM-2016) with special reference to Flood Modelling, under the aegis of India Society for Hydraulics (ISH), Pune, October 14-15, 2016.
6. R. P. Vachhani, Y. J. Lathiya, **P. V. Timbadiya**, P. L. Patel (2016): Trend Analysis of Water Quality Parameters in Tapi Basin, India. Proceedings of 1st National Conference on Water Resources & Flood Management (WRFM-2016) with special reference to Flood Modelling, under the aegis of India Society for Hydraulics (ISH), Pune, October 14-15, 2016.
7. Niradesh Shah, Priyank J Sharma, V. D. Loliyana, **P. V. Timbadiya**, P. L. Patel (2016): Spatio-Temporal Analysis of Changes in Rainfall pattern over Gujarat state, India. Proceedings of 1st National Conference on Water Resources & Flood Management (WRFM-2016) with special reference to Flood Modelling, under the aegis of India Society for Hydraulics (ISH), Pune, October 14-15, 2016.
8. Vikash V. Sharma, V. D. Loliyana, **P. V. Timbadiya**, P. L. Patel (2016): Investigation of trends in extreme Rainfall and rainy days over Middle Tapi River, India. Proceedings of 1st National Conference on Water Resources & Flood Management (WRFM-2016) with special reference to Flood Modelling, under the aegis of India Society for Hydraulics (ISH), Pune, October 14-15, 2016.
9. P. Laxminarayana, **P. V. Timbadiya**, P. L. Patel (2016): Influence of Turbulence in aggraded alluvial bed in mobile boundary channels. Proceedings of 1st National Conference on Water Resources & Flood Management (WRFM-2016) with special reference to Flood Modelling, under the aegis of India Society for Hydraulics (ISH), Pune, October 14-15, 2016.
10. Resmi S. R., **P. V. Timbadiya**, P. L. Patel (2016): Quantification of Bank erosion and bankline migration in Upper Tapi River, India. Proceedings of 1st National Conference on Water Resources & Flood Management (WRFM-2016) with special reference to Flood Modelling, under the aegis of India Society for Hydraulics (ISH), Pune, October 14-15, 2016.
11. Akshay S Rajak, **P. V. Timbadiya**, P. L. Patel (2016): Characterization of Erosion and behaviour of Middle Tapi River, India. Proceedings of 1st National Conference on Water Resources & Flood Management (WRFM-2016) with special reference to Flood Modelling, under the aegis of India Society for Hydraulics (ISH), Pune, October 14-15, 2016.
12. Kavya Rajendran, P. L. Patel, **P. V. Timbadiya** (2016): Morphological analysis of Lower Tapi River using remote sensing and GIS technique. Proceedings of 1st National Conference on Water Resources & Flood Management (WRFM-2016) with special reference to Flood Modelling, under the aegis of India Society for Hydraulics (ISH), Pune, October 14-15, 2016.
13. Libu K Thomas, Meenal Dave, V. D. Loliyana, **P. V. Timbadiya** (2016): Investigation of Morphological parameters for Upper Girna River sub-catchment: A remote sensing and GIS

- perspective. Proceedings of 1st National Conference on Water Resources & Flood Management (WRFM-2016) with special reference to Flood Modelling, under the aegis of India Society for Hydraulics (ISH), Pune, October 14-15, 2016.
14. Chethan S. V., Apoorv A Tripathi, **P.V. Timbadiya**, P. L. Patel (2016): Flood Hazard mapping of Surat city for different return period floods. Proceedings of 1st National Conference on Water Resources & Flood Management (WRFM-2016) with special reference to Flood Modelling, under the aegis of India Society for Hydraulics (ISH), Pune, October 14-15, 2016.
 15. Nishant Sourabh, **P. V. Timbadiya** (2015): Evaluation of sewerage network through simulation, Proceedings of 20th International Conference on Hydraulics, Water Resources and River Engineering, HYDRO-2015, IIT Roorkee, India, 17-19 December, 2015
 16. Ankit Patel, **P.V. Timbadiya**, P. L. Patel (2015): Development of IDF curve under non-stationary meteorological condition, Proceedings of 36th IAHR World Congress-2015, The Hague, The Netherlands, organized by IAHR and IHE-UNESCO during June 28-July 3, 2015.
 17. Dhvani Patwa, P. L. Patel, **P.V. Timbadiya** (2015): Experimental investigation of turbulent bursting events in weakly mobile channel bed. Proceeding of 36th IAHR World Congress-2015, The Hague, The Netherlands, organized by IAHR and IHE-UNESCO during June 28-July 3, 2015.
 18. **P.V. Timbadiya**, P. L. Patel, P.D.Porey (2015): Flood Inundation Mapping of Surat City using 1D-2D coupled hydrodynamic model. Proceeding of India Water Week-2015 at New Delhi by Ministry of Water Resources, River Development and Ganga Rejuvenation, Government of India during January 13-17, 2015.
 19. Priyank J Sharma, V.D.Loliyana, Garima Nagpal, Resmi S.R., Apoorv Tripathi, **P.V. Timbadiya**, Prem Lal Patel (2015): Investigation of long term trend and temporal variability of rainfall in Surat district, Gujarat. Proceeding of India Water Week-2015 at New Delhi by Ministry of Water Resources, River Development and Ganga Rejuvenation, Government of India during January 13-17, 2015.
 20. Nishi Bhuvandas, **P. V. Timbadiya**, P. L. Patel, P.D.Porey (2014): Review of Downscaling Methods in Climate Change and Their Role in Hydrological Studies Proceeding of International conference on Environmental, Ecological, Geological and Mining Engineering World Academy of Science, Engineering and Technology, held at Dubai, 2014.
 21. Ankit P. Patel, **P.V. Timbadiya**, P.L.Patel (2014): Development of IDF curve: a study for Dholera region of Gujarat, India. Proceeding of HYDRO 2014 International at MANIT-Bhopal organized by MANIT-Bhopal and ISH. December 18-20, 2014
 22. Sadhana Singh, S.Kannan, **P.V. Timbadiya** (2014): Fine Resolution Precipitation Projection for Tapi River Basin. Proceeding of HYDRO 2014 International at MANIT-Bhopal organized by MANIT-Bhopal and ISH. December 18-20, 2014
 23. Dhvani Y. Patwa, P.L.Patel, **P.V. Timbadiya** (2014): Characterization of Turbulence in Mobile Boundary Channels. Proceeding of HYDRO 2014 International at MANIT-Bhopal organized by MANIT-Bhopal and ISH. December 18-20, 2014
 24. Nishi Bhuvandas, **P. V. Timbadiya**, P. L. Patel, P.D.Porey (2014): Trend Detection and Forecasting of Annual Precipitation in Tapi Basin, India using Singular Spectrum Analysis. Proceeding of HYDRO 2014 International at MANIT-Bhopal organized by MANIT-Bhopal and ISH. December 18-20, 2014
 25. **P V Timbadiya**, A B Mirajkar, P. L. Patel (2013): Ukai Reservoir Operation Simulation using HEC-ResSim. Proceeding of HYDRO 2013 International at IIT-Madras organized by IIT-Madras and ISH. December 6-7, 2013

26. Nishi Bhuvandas, **P.V. Timbadiya**, P. L. Patel, P. D. Porey (2013): Analysis of Trends and Variability in Time series of extreme daily rainfall in Tapi Basin, India., Proceeding of 35th IAHR World Congress-2013, Chengdu, China organized by IAHR and Ministry of Water Resources, China during September 8-13, 2013
27. **P. V. Timbadiya**, P. L. Patel, P. D. Porey (2012): Calibration of channel and flood plain roughness using 1D/2D integrated hydrodynamic model : A study of Surat city on lower Tapi River, International Conference on Hydro-system and Engineering-2012, Orlando, USA at University of Central Florida (UOCF), Orlando, USA organized by UOCF in Association with EWRI-ASCE, IAHR, IIHR etc. November 4-7.
28. **P. V. Timbadiya**, P. L. Patel, P. D. Porey (2012): Geomorphic effectiveness of flood on lower Tapi River, India using 1D hydrodynamic model, International Conference on Hydro-system and Engineering-2012, Orlando, USA at University of Central Florida (UOCF), Orlando, USA organised by UOCF in association with EWRI-ASCE, IAHR, IIHR etc. November 4-7.
29. **P.V.Timbadiya**, P.L.Patel, P.D.Porey (2012) : Comparative Prediction of Rating curves using 1D and 1D-2D coupled Hydrodynamic Models, "HYDRO-2012", Jointly organized by IIT-Bombay and ISH-Pune, December 7-8, 2012
30. **P. V. Timbadiya**, P. L. Patel, P. D.Porey (2012) : Application of innovative trend analysis methodology and distribution fitting: Study on annual peak inflow into Ukai dam, Gujarat, India, Proceeding of India Water Week-2012, organised by Ministry of water resources, Government of India, April 10-14.
31. **P. V. Timbadiya**, A. B. Mirajkar, P. L. Patel (2012): Recent trend analysis for annual peak flow in Tapi basin Proceeding of India Water Week-2012, organised by Ministry of water resources, Government of India, April 10-14.
32. A. B. Mirajkar, Nishi Bhuvandas, **P. V. Timbadiya**, P. L. Patel, P. D. Porey (2012): Monthly inflow trend analysis of Ukai reservoir using an Innovative methodology, AICTE sponsored National Conference on "River Hydraulics", Mullana, March 22-23.
33. Viraj D. Loliyana, P. L. Patel, **P. V. Timbadiya**, M. Khan, K. L. Dave (2011): HEC-RAS Model in Prediction of Levees along Lower Tapi River, national Conference on Hydraulic and Water Resources "HYDRO-2011" at SVNIT-Surat, Dec 29-30. ISBN:81-88901-47-0.
34. **P. V. Timbadiya**, P. L. Patel, P. D.Porey (2011): One dimensional model in prediction of stage-discharge curves in natural channels, national Conference on Hydraulic and Water Resources "HYDRO-2011" at SVNIT-Surat, Dec 29-30. ISBN:81-88901-47-0.
35. **P. V. Timbadiya**, Apurva Suthar, P. L. Patel (2011): Hydrodynamic simulation of open channel flow using MIKE 11 and its validation; A case study, national Conference on Hydraulic and Water Resources "HYDRO-2011" at SVNIT-Surat, Dec 29-30. ISBN:81-88901-47-0.
36. **P. V. Timbadiya**, P. L. Patel, P. D.Porey (2010): Simulation of Stages using Hydrodynamic Model MIKE 11: A Case Study of Lower Tapi River, 14th National Symposium on Hydrology at MNIT-Jaipur, December 21-22.
37. Nishi Bhuvandas, A. B. Mirajkar, **P. V. Timbadiya**, P L Patel (2010):Optimization of Irrigation area of Ukai Right Bank Main Canal-A Linear Programming Approach, International Conference on Methods and Models in Science and Technology, Chandigarh, published by American Institute of Physics, Vol.1324,Pg 127-129, ISBN No 978-0-7354-0879-1.
38. Nishi Bhuvandas, A. B. Mirajkar, **P. V. Timbadiya**, P. L. Patel (2010): Optimal Cropping pattern in Command Area Kakrapar Right Bank Main Canal, National Conference on Sustainable Development of Urban Infrastructure, VNIT, Nagpur, Pg 408-413, June 2010. ISBN No 978-81-7192-064-8.

39. Nishi Bhuvandas, **P. V. Timbadiya**, P. L. Patel (2010): Application of Linear Programming for optimal operation at Ukai reservoir, National Conference on Hydraulics, Water Resources, Coastal and Environmental Engineering-HYDRO, Ambala, Pg 734-739, December, 2010.
40. **P. V. Timbadiya**, P. L. Patel, P. D.Porey (2009): Simulation of Unsteady flow in Natural channel: A case study of Tapi river using MIKE-11, Civil Engineering Conference-Innovation Without Limits (CEC-09) at NIT-Hamirpur, September 18-19.
41. **P. V. Timbadiya**, Jaimin Trivedi, Niket R. Shah, P. L. Patel (2009): Simulation of flow in Tapi river between Ukai Dam and Kakrapar weir using HEC-RAS, Civil Engineering Conference-Innovation Without Limits (CEC-09) at NIT-Hamirpur, September 18-19.
42. **P. V. Timbadiya**, P. L. Patel, P. D.Porey (2009): Flood Forecasting in Tapi Basin : A Scope for Improvement, National Seminar on recent advances in Hydrology for Water Resources Development and Management & xxvii Annual Convention of AHI 21st & 22nd January, Vadodara.
43. **P. V. Timbadiya**, P. L. Patel, P. D.Porey (2009): Riverstage Simulation using HEC-RAS, Proceeding of 3rd International Congress on Computational Mechanics and Simulation 2009, at IIT- Bombay, 1-5 December.
44. **P. V. Timbadiya**, P. L. Patel, P. D.Porey (2008): Stream flow forecasting using ANN approach for Sabarmati River Basin, National Conference HYDRO-2008, Dec. 15 -16, MNIT Jaipur, pp.254-263.
45. **P. V. Timbadiya**, A.D. Ghare, P. L. Patel, P. D.Porey (2008): Stream flow forecasting using Deterministic approach for Sabarmati River Basin, 13th National Seminar symposium on Hydrology with focal theme on “flow forecasting during Extremes”, 28-29, August, IIT-Delhi

RESEARCH PROJECTS & CONSULTANCY

Research Projects:

Sr. No.	Name of Projects	Funding agency	Name of Faculty Involved	Duration	Amount (Rs.)	Status
1	Design of Water Distribution Network for SVNIT-Surat with revised demand	SVNIT-Surat	Dr. P. L.Patel, Dr. V. L. Manekar & Dr. P. V. Timbadiya	9 months	-	Completed
2	NCP on “Development of water resources and flood management centre at SVNIT-Surat”	AICTE	As member Under the Chief coordinatorship of Dr. P L Patel, Professor, CED.	3 years	35,00,000/-	Completed
3	Impact of Climate Change on Water Resources of Tapi basin	Ministry of Water Resources (MoWR) under Water Mission	As Co-investigator Under Principal Investigator Dr. P L Patel, Professor, Civil Engineering Department	2 years	1,35,00,000/-	Sanctioned (Invited)
4	Future Trend Identification In daily precipitation in Tapi basin using Statistical downscaling	SVNIT-Surat	Dr. P V Timbadiya	2 years	9,99,885/-	Ongoing
5	Development of course through ICT on “HYDROLOGY and FLOOD CONTROL”	MHRD	Dr. P L Patel, Principal Developer & Dr. P V Timbadiya Co-Developer	1.5 year	7,00,000/-	Completed
6	Centre of Excellence in “Water Resources and Flood Management”	TEQIP-II, MHRD	Dr. P L Patel, Principal Co-ordinator & Dr. P V Timbadiya, Member	3 years	5,00,00,000/-	Completed

Consultancy:			
Sr. No.	Name of Party	Type of consultancy/TPI/testing	Status
1	Envirocare Engineers and Consultant (M/s WAPCOS)	Measurement of Discharge from different outfalls to Tapi River.	Completed
2	Surat Municipal Corporation	TPI on Storm water pipe drain	Completed
3	Surat Municipal Corporation	TPI on Storm water box drain	Completed
4	Design Point Vision India Consult Pvt. Ltd	Preliminary design of different utilities of TP2E at DSIR	Completed
5	Surat Municipal Corporation	TPI P & L Drainage network at Variav Gamtal	Completed
6	Design Point Vision India Consult Pvt. Ltd	Preliminary design of different utilities of part of TP4E at DSIR, Dholera	Completed
7	Narmada, Water Resources Water Supply and Kaplsar Department (NWRWS&KD), Govt. of Gujarat.	Design of lining of Vinzol Vhela passing through VATVA, GIDC, Ahmedabad and its estimation	Completed
8	Central Water Commission, MoWRRDGR, Govt. of India.	Morphological Study of Tapi River using Remote Sensing Technique	Ongoing
9	Surat Municipal Corporation	Safety assessment of Singanpore weir-cum- Causeway.	Completed
10	IL&FS Transportation Networks Ltd. (ITNL	Proof Checking of Hydraulics of MJB at Km 12+187.5 of Z Morh Tunnel Section of NH 1 in the State of Jammu & Kashmir	Completed
11	Ashoka Buildcon Ltd., Nashik	Study of Hydraulic Impact of Existing bridge on proposed bridge on Barakar River in Govindpur-Tundi-Giridih Road Project in Jharkhand	Completed
12	Surat Municipal Corporation	Providing consultancy services for comprehensive design of rigid, and flexible pavement on both side of existing canal, storm water drainage network etc. and allied works from BRTS Panas to Breadliner Circle-Soham circle upto Bhimrad village	Ongoing
13	JV of Laxmi Construction Pvt Limited & OASIS	Vetting of Hydraulics of Sewerage Network for Zone-A and Zone-B of Anupshahar under ground drainage project	Ongoing
14	Narmada, Water Resources Water Supply and Kaplsar Department (NWRWS&KD), Govt. of Gujarat. Ambica Division	Hydraulic Assessment of Box Culvert on Ubharat branch Canal at Ch. 31307 m.	Completed

15	Director, Light house and Light Ship, Government of India, Mumbai	Sea Protection Work at Luhara Light house, Dahej	Ongoing
16	Surat Municipal Corporation	Planning-Engineering design of Rigid and flexible pavements on both side of existing canal, R.C.C conduit for existing canal section etc and allied works from Pal R T O Junction to Amroli-Sayan road (up to outer ring road) via linear park	Ongoing

COURSES ATTENDED (Trainings/schools/workshop/conferences)

1. Two day training programme on “Operation and Maintenance of SRRA station” conducted by C-WET, MNRE, GOI and MGIRI-Wardha, Wardha on June 23-24, 2014.
2. One-day workshop on “Design of Suitable Pedagogical Methods for Various Classes of Intellectual Calibres & Research in E-Learning” conducted by IIT-Kharagpur at SVNIT-Surat on August 28, 2013.
3. QIP sponsored one week Short term training school on “Soft Computing Technique in Hydrologic Time Series Modelling” at IIT-BOMBAY, 11-15 Nov., 2013
4. QIP sponsored one week Short term training school on “Advance Hydrologic Modelling for Climate Change Impact Assessment”, IIT-BOMBAY, 18-22 Feb., 2013
5. Computational Fluid Dynamics by Prof. Ramesh Agrawal, University of Washington, USA, IUCEE & SVNIT-SURAT, 5-9 July, 2010.
6. Geo-technology for Infrastructure Development, SVNIT-SURAT, 4-8 January, 2010
7. Soft Computing Technique in Hydrology and Water Resources Engineering, IIT-BOMBAY, 2-6 November, 2009.
8. Geotechnical Investigations, Interpretations and Improvements, SVNIT-SURAT, 10-14 August, 2009.
9. Pedagogy and Research Methodology, SVNIT-SURAT, 3-7 August, 2009.
10. Water and Waste Water Management Techniques, SVNIT-SURAT, 27-31 July, 2009.
11. Advances in Water Resources Engineering, SVNIT-SURAT, 22-26 December, 2008.
12. Advanced Engineering Optimization through Intelligent Techniques, SVNIT-SURAT, June 30-July 4, 2008.
13. Soft Computing Technique in Water Resources Management, IIT Bombay, 19-23 November, 2007.
14. Fuzzy set Theory and Fuzzy logic application in CIVIL and ENVIRONMENTAL Engineering, SVNIT-SURAT, 8-13 January, 2007.
15. Structural Steel Design for University Faculty, SVNIT-SURAT, 4-9 December, 2006.
16. Two days Indo-Italian workshop on Advances in Fluvial Hydraulics and Advances in Water Resources Development and Management during Sept 15-16, 2011 at Central Water and Power Research Station, Pune.
17. One day awareness programme on Tapi Pollution by Idols: A step towards Eco-friendly Ganesh Utsav organized by Civil Engineering Department and Applied Mechanic Department on August 27, 2011 at SVNIT-Surat.
18. Two days national workshop on Ecological Sanitation organized by Civil Engineering Department of SVNIT-Surat during October 21-22, 2011 at SVNIT-Surat.

19. Attended “11th Annual ISTE Gujarat State Convention” on “Challenges of GATS (General Agreement on Trade in Services) before domestic-public & Private-technical education providers in India organized by ISTE chapter, C. U. Shah College of Engg. & Tech., Wadhawan City (Surendranagar) on November 25, 2006.
20. Participated in two days national workshop on “Recent Trends in Earth resources Mapping (Remote sensing, GIS and GPS)” organized by Department of Civil Engineering, M. A. National Institute of Technology-Bhopal, during 29-30 June, 2004.

Specialized Training Attended

1. 4-days training on Water Gems , Storm Gems and Storm CAD Select Series 4 version by Karthik Sundaresan at SVNIT-Surat, June 16-19, 2014.
2. 1-days training on MIKE-URBAN (Urban Flooding Monitoring Software) by at SVNIT-Surat on 19 May-2014.
3. 2-days training on MIKE-SHE (Hydrologic modeling software) at SVNIT-Surat by Dr. Fahim of DHI-New Delhi on April 25-2014.
4. 3-days training on “Management Capacity Development for future Institutional Manager (Faculty) by EQUATE at New Delhi during Jan, 30, 2014 to Feb. 01, 2014
5. 2-days training on MIKE-Flood (Urban Flooding Monitoring Software +MIKE21) by Mr. Martin Runge (Head-MIKE-21 Projects-DHI-Denmark) at DHI, New Delhi on 2-3 February-2009.
6. 5-days training on MIKE-11 (River Modeling Software) by Mr. Mott McDonald (DHI-Denmark) at SVNIT-Surat in May-2007.
7. 5-days training on WATER GEMS, STORM GEMS and STORM CAD by Mr. Vivekanandam D P K (Senior Consultant, Bentley Softwares, USA) at SVNIT-Surat on May 3-7, 2010.

HONORARY WORK/DISTINCTIONS/RECOGNITIONS

- Paper entitled “A 1D-2D Coupled Hydrodynamic model for River Flood Prediction in a Coastal Urban Floodplain” by P V Timbadiya, P L Patel and P D Porey published in Journal of Hydrologic Engineering, ASCE selected for ‘**the 2016 Best Case Study Award**’ and to be presented during the World Environmental & Water Resources Congress 2016 in West Palm Beach, Florida, USA, May 22-25, 2016.
- The Institution of Engineers (India) ‘**Young Engineer Award 2015**’ in Civil Engineering Discipline
- The paper titled “Flood Hazard mapping of Surat city for different return period floods” received **First best paper award** in the theme “Flood Modelling and Management” in National Conference on Water Resources & Flood Management (WRFM-2016) with special reference to Flood Modelling, under the aegis of India Society for Hydraulics (ISH), Pune, at SVNIT-Surat during October 14-15, 2016. The paper was presented by our Research Scholar Mr. Chethan S.V.
- The paper titled “Influence of Turbulence in aggraded alluvial bed in mobile boundary channels” received **Second best paper award** in the theme “Morphodynamics of Alluvial Rivers” in National Conference on Water Resources & Flood Management (WRFM-2016) with special reference to Flood Modelling, under the aegis of India Society for Hydraulics (ISH), Pune, at SVNIT-Surat during October 14-15, 2016. The paper was presented by our Research Scholar Mr. P. Laxminarayana.

- Reviewed technical paper for Journal of Hydrologic Engineering, ASCE in 2015, 2016, 2017
- In-charge, Institute guest house & Sardar Vallabhbhai Bhavan, SVNIT-Surat (2013-2017)
- Chairman of committee to grant Children Education Allowance to the Employees of SVNIT-Surat (2013-2017).
- **Book reviewer** for Engineering Hydrology by K Subramanaya, Mc Graw Hill Companies
- Book reviewer for New title on Groundwater Hydrology, Mc Graw Hill Companies
- Member Secretary of Non-teaching position recruitment of SVNIT-Surat (2012-2013)
- Member Secretary of Furniture Committee for Newly Constructed Guest House (2012-2013)
- Member Institute level Computer Purchase Committee (2011-2012-2013)
- Member Institute level Training and Placement Committee (2013)
- Acted as I/C Deputy Registrar (Account) in year 2011 (two time)
- Member of **International Association for Hydro-Environment Engineering & Research (IAHR)**
- Associate Member, **The Institution of Engineers (India)**
- Member of **Indian Society for Hydraulics**
- Member of **Indian Association of Hydrologists**
- Member of **Association of Hydrologist of India**
- Member of **Indian Water Resources Society**
- Member of **Indian Society for Technical Education**
- Member of **Association of Agrometeorologists**

Countries Visited

- The Netherlands (The Hague, Rotterdam, Amsterdam).
- Germany (Frankfurt)
- Belgium (Antwerp, Brussels)
- China (Chengdu)
- Sri Lanka (Colombo)
- Malaysia (Kuala Lumpur)
- Singapore