

CV: Dr. Pratap M. Raval



Contact details

Prof. Dr Pratap Manohar Raval
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Born: 1 st June 1964, Pune, India

Qualifications:

B.E. (Civil), University of Pune)
M.E. (Civil) (Town & Country Planning) (Govt. College Of Engineering, University of Pune)
PhD, Multi-criteria Decision Making for Sustainable Infrastructure Systems, 2002(Newcastle University, United Kingdom)

Professional Associations:

- Life member of Indian Meteorological Society, Pune
- Fellow of Institute of Engineer, Calcutta , India(F-111849-4)
- Fellow of Institute of Town Planners, India (FITP 1994-048)
- Member of Indian Institute of Public Administration, New Delhi
- Life member of Ferrocement Society, Pune
- Life Member of Indian Society of Technical Education (ISTE), India
- Life Member of Indian Society for Construction Materials and Structures (ISCMS), New Delhi, India

Member of All India Board of Town and Country Planning Education, AICTE 2013-2015

Member of All India Board of Architecture Education, AICTE 2016-2018

Member of All India Board of Town and Country Planning Education, AICTE 2020-2022

Technical Advisor for Pune Metropolitan Region Development Authority(PMRDA)

Technical Advisor for Smart City Mission to Pimpri Chinchwad Municipal Corporation (PCMC)

Member of Board of Studies of Civil Engineering, Govt. College of Engineering, Jalgaon

Research Projects

Research Project Dim-Sum (January 2005-December2009)

1.The three year research project has been undertaken under my co-ordination as case study in collaboration with universities from Europe and Asia on sustainable wastewater management. The title of project is “**Innovative decision making for a sustainable management of water (dim-sum)**”. The lead coordinator for the project is University of Natural resources and Applied Life Sciences (BOKU), Vienna. European Union funds the project under six Framework program.

2. Norwegian University of Science and Technology(NTNU) -School of Planning and Architecture (SPA) Delhi - School of Planning and Architecture (SPA) Bhopal , -**College of Engineering, Pune COEP** Joint Studio on "Smart Sustainable City Regions" September 2017-December 2017). Similar studio for Academic year 2018-19.

3. Two year research project under SPARC: "Smart design for uncatered: Making smart cities inclusive through design" under Scheme for Promotion of Academic and Research Collaboration(SPARC), Ministry of Human Recourse Development, Govt. Of India, Total Budget approved : Rs. 48,59,373/-

4. MOU with National Institute of Urban Affair, New Delhi for academic engagement for Sanitation Capacity Building Program (SCBC)- Activities a) running of elective course on Decentralized liquid waste management , b) Winter School on Decentralized liquid waste management , c) Faculty Development Programon Decentralized liquid waste management (Total grant-Rs 14,66,800)

Appointments:

- February 2008 to date Professor of Civil Engineering(Town Planning), College of Engineering, Pune
- 2003 till to date: Assistant Professor, Department of Civil Engineering, College Engineering Pune, India
- 1992 to 2000: Lecturer in Civil Engineering, Department of Civil Engineering, College Engineering Pune, India
- 1991 to 1992: Lecturer in Civil Engineering, Department of Civil Engineering, Government Polytechnic Pune, India
- 1988 to 1989: Site Engineer, Vijay Construction Company, Pune

Key Experiences and award:

- Award of DUO-India International Professor Fellowship 2020 for visiting Norwegian University of Science and Technology (NTNU) Norway.
- Award of Visiting Research fellowship for research at Newcastle University, UK under UKIERI programme from British Council May 2007.
- Research in urban development issues from 1998 to 1999 at Institute for Housing and Urban Development Studies, (IHS), The Netherlands.
- Research in Multi-criteria decision making for Sustainable Wastewater System from 1999 to 2002 at University of Newcastle upon Tyne (UK)

- National Overseas Scholarship from Ministry of Welfare, Govt. of India for doing PhD at abroad university
- Invited for delivering lecture on management techniques at Maharashtra State Road Transport Corporation central Training Institute, Pune (1993)
- Invited for delivering lecture on Sustainable Development at Institution of Engineers, Pune (2003) 26 March 2003
- Invited as guest lecturer in International Water management Course organised by Swiss Federal Institute of Environmental Science and Technology (EAWAG) September 28 to October 1, 2004 at Dubendorf, Switzerland.
- Training to NGOs working in the field of rural water supply and sanitation project implementation in Maharashtra state under foreign aid programme

National and International Participation:

- Keynote speaker at Institute of Town Planners, Nagpur Regional Chapter, on “Challenges in Planning Education and Profession, Nagpur 7 December 2014.
- Key speaker in National seminar on “*Immortal Cities: Past and Future Concepts, Changing Morphology and Sustainability*” at Institute of Spatial Planning and Environment Research India, Panchkula, Haryana on 22-23 April 2014.
- Key speaker in National seminar on “Urban sustainable architecture and Planning” at Vidya Pratistan’s School of Architecture, Baramati on 11 February 2014
- Member of education Standing Committee, 2012-13, 2013-14, Institute of Town Planners, India, New Delhi
- Convenor and Secretary of Institute of Town Planners, India Pune centre from its inception.
- Member of Planning committee to hear suggestion and objections of Draft Development Plan of Bhor Town.
- Participation in UK delegation for UK-India workshop on Research and Innovation collaboration opportunities in “Future Cities”, 24-25 February 2014, New Delhi
- Guest lecturer on “The Sustainable City - Technologies and Systems for Sustainable Development” at Cochin University of Science and Technology, December 10-12, 2008, organized by Network for Indian-Swedish Cooperation on Technical research and Education (INSTEC)
- Lecture delivered on ‘Sustainable Energy Systems Environmental aspects’ at TEQIP Short Term on Sustainable Energy and environmental Issues, 4-6 December 2006 in Vishwakarma Institute of Technology, Pune.
- Invited for delivering lecture on “City Urban Infrastructure Development-Water and wastewater Infrastructure in Pune City” at Institute of Engineers, Pune, 2nd January 2006
- *Effective Energy Systems for Sustainable Development*, Hotel Madhuban, Deharadun, AOTS, Japan & IIT Roorkee, November 2-5, 2005.
- QIP summer school on Water and Soil Pollution (2004) organised by Department of Civil Engineering, Indian Institute of Sciences, Bangalore, India.
- Invited to participate in preparatory workshop/meeting of research project **SUM-WATER INCO DEV** European Union research project by University of Natural Resources and Applied Sciences, Vienna, Austria 2003.

- Invited to participate in **MIKA**-workshop on Methodologies for integration of knowledge areas (2002) organised under Swedish Sustainable Urban Water management Research Programme at Chalmers University of Technology, Gothenburg, Sweden
- EURO Summer School on DESAR Decentralized sanitation and reuse (2000) organised by Environmental Technology Department, Wageningen University, Wageningen, The Netherlands
- Participation in the training programme on Urban Development Project Preparation (1995) organised by the Centre for Research Documentation and Training, Institute of Town Planners, India at New Delhi
- ISTE Summer School on Environmental Management of Urban Areas (1995) organised by Civil Engineering department, Malaviya Regional Engineering College, Jaipur, India

Teaching:

- For postgraduate student for subject Town and Country Planning, Infrastructure development, , sustainable construction, development planning
- Tutor for final year undergraduate student for project work on various topics

Research interest:

Sustainable urban development, Sustainable infrastructure development, Decision making for sustainable built environment, Sustainable urban planning, interactions between water, environment and urban development

PhD supervision

Four students completed research. Three under supervision

Organisation of Seminar, Conferences and Workshop

1. Global Initiative of Academic Network (GIAN) program on " 24 x 7 WATER SUPPLY SYSTEMS WITH ADVANCE TRANSPORT AND DISTRIBUTION MODELLING IN URBAN WATER SYSTEM" by Dr. Nemanja Trifunovic, UNESCO-IHE, the Netherlands, 4-9 February 2019.

2. Global Initiative of Academic Network (GIAN) program on " Smart Smart City ,Governance and Data analytics" by Dr. Amitrajit Sarkar , Senior academic staff member in Software engineering, Information systems and database management systems, Ara institute of Canterbury, New Zealand, 28 September-3 rd October 2020.

3.Co-convener for National Workshop on " Techno-Legal and Financial Aspects of Arbitration and Valuation" between 11-12 September 2004 at PIET, Pune.

4. Convener for One day National Workshop on "Environment, Pollution and Development Issues: Challenges for Sustainability (EPDS 2004)" on September 24, 2004 at PIET, Pune.

Key note speaker

1. Invited as Chief Guest for National Conference on “Urban Issues and Architectural Interventions” of Sinhgad College of Architecture, Pune on 18-19 February 2015

2. Invited as Panel member and mentor in panel session in four day Common Purpose Students Frontrunner program at COEP on 14-17 March 2015 organised by Common Purpose organisation, London.
3. Key speaker in UGC sponsored national seminar on “Changing Spectrum of Human Settlements and Planning Education” Guru Ramdas School Of Planning, Guru Nanak Dev University Amritsar, 20-21 March 2014.
4. Key Speaker in National seminar on “Urban Sustainable Architecture and Planning” Vidypratisthan’s College of Architecture, Baramati, 11-12 February 2014.
5. National seminar on “Urbanisation Kerala-2031” , Town and Country Planning Dept., Govt. of Kerala, Thiruvananthapuram, 23 rd March 2012.
6. Challenges for Planning of Urban Land, Training on Urban Reforms 30 January 2012 at YASHADA, Pune
7. Panel speaker “Challenges for Sustainable Mobility” at 10-12 January CONSTRO 2012, Pune
8. Raval P.M.(2012) “Can strategic approach to to planning strengthen urban and regional planning process” 60th National Town and Country Planners Congress, 6-8 January, 2012, Myasore, Karnataka
9. Raval P.M.(2011) Sustainability Implementation, Sustainability -Technology and Management Two days IET workshop- 15 &16 April 2011 at Hotel Rodas Hiranandani Gardens, Powai, Mumbai
10. Lecture on “**Urban Transportation**” in Seminar on **Issues in Urbanisation** Organised by Department of Communication and Journalism and Academy of Political and Social Studies, Pune March 30, 2011
11. Raval P.M. (2011). “India’s Challenges for Sustainable Development and Planning of Urban Land” 59th National Town and Country Planners Congress, 10-12 February, 2011, Panchkula, Hariyana
12. Raval P.M. and Deshpande A (2011) “Achieving Sustainability through Urban water management” State level Conference on “Teaching building services in Architecture and Planning” 25-26 February 2011, BKPS’s College of Architecture, Pune
13. Raval P.M.(2010) “Integrated Townships are really integrated” Two day symposium on Integrated Township development 21-22 December 2010, Maharashtra Institute of Technology, Pune
14. Raval P.M. (2010). “Reinventing Planning: A new Institutional paradigm for inclusive planning” Proceedings of 58th National Town and Country Planners Congress on Inclusive Planning. Nagpur, Maharashtra State, January 4-6, 2010.
15. Sustainable Development Challenges for 21st Century, Yashawantrao College of Law and Commerce, Pune, 27 September 2008.

Conference Paper:

1. Raval, P.M.and Shukla, Rahul(2018), Impact of E-Commerce on Urban Freight (June 15, 2018). International Conference on Urban Sustainability: Emerging Trends, Themes, Concepts & Practices (ICUS) 2018. <http://dx.doi.org/10.2139/ssrn.3258392>

2. Raval P.M. and Isha Panse (2016) Competition for Urban Space: Analysis of Spatial Aspect of Street Vending in Pune City, . *Cities, People and Places* (pp. 119-129). Colombo, Sri Lanka: Department of Architecture, University of Moratuwa. ISSN No. 2345-9530
3. Raval Pratap and Et.al. (2015) Reuse of foundry sand as sustainable material for concrete (UCC-15-362 Serial No. 42) UKIERI Concrete Congress, Concrete Research Driving Profit and Sustainability, 2 – 5 November 2015 Jalandhar India
4. Raval P.M. (2014) Urban Planning and Infrastructure: Connection and Disconnection, National Seminar on “Changing Spectrum of Human Settlements and Planning Education” 20-21 March 2014, Guru Nanak Dev University Amritsar
5. Raval P.M. and Gogate N.G.(2012) "Sustainable Stormwater Management in Developing and Developed Countries: A Review" published in the proceedings of an International Conference "Advances in Design and Construction of Structures ADCS 2012" organized by the Association of Civil & Environmental Engineers (ACEE) at Bangalore in Oct. 2012.
- 2 Raval P.M.(2012) “Can strategic approach to planning strengthen urban and regional planning process” 60th National Town and Country Planners Congress, 6- 8 January, 2012, Mysore, Karnataka
- 3 Raval P.M.(2011) Sustainability Implementation, Sustainability -Technology and Management Two days IET workshop- 15 &16 April 2011 at Hotel Rodas Hiranandani Gardens, Powai, Mumbai
- 4 Raval P.M. (2011). “India’s Challenges for Sustainable Development and Planning of Urban Land” 59th National Town and Country Planners Congress, 10-12 February, 2011, Panchkula, Haryana
- 5 Raval P.M. and Deshpande A (2011) “Achieving Sustainability through Urban water management” State level Conference on “Teaching building services in Architecture and Planning” 25-26 February 2011, BKPS’s College of Architecture, Pune
- 6 Raval P.M.(2010) “Integrated Townships are really integrated” Two day symposium on Integrated Township development 21-22 December 2010, Maharashtra Institute of Technology, Pune
- 7 Raval P.M. (2010). “Reinventing Planning: A new Institutional paradigm for inclusive planning” Proceedings of 58th National Town and Country Planners Congress on Inclusive Planning. Nagpur, Maharashtra State, January 4-6, 2010.
- 8 Raval P. M. and Chitale B.(2010) Challenges of integrating metro rail in limited space- case study of Pune, National seminar on Sustainable Lifelines: Transportation planning and Management, Guru Ramdas School of Planning, Guru Nanak Dev University, Amritsar, March 12-13, 2010
- 9 Raval P.M. and Sallies P.(2009). “Evaluating the water treatment effectiveness of low cost Ceramic Pot Filter made from locally sourced clay in Pune, India” International Ceramic Pot filter Workshop, Disinfection 2009, Water Environment Federation International conference, Feb 28- March 3, 2009, Atlanta, USA.

- 10 Raval P.M., Thurton D.A. and Sabnis, G.M. (2008). "Performance of Non-engineered structures under wind load", 33rd Conference on Our World in Concrete and Structures, 25-27 August, Singapore.
- 11 Raval P.M. and Desai Vidya (2008), "SUSTAINABLE ROAD ASSET MANAGEMENT PLAN" International Conference on "Best Practices to relieve Congestion on Mixed Traffic Urban Streets in Developing Countries" Indian Institute of Technology, Madras, September 12-14, 2008, Chennai 600036, India
- 12 Raval P. M, Sameer Shastri and Dr. S. V .Mapuskar (2007).Low Cost "On Site Integrated Waste Management Systems for Management of Domestic Wastes" NATIONAL CONFERENCE ON SUSTAINABLE TECHNOLOGIES FOR BETTER TOMORROW "Together we create cleaner world" December 19-20, 2007, Vellore Institute of Technology, Tamil Nadu, India
- 13 RAVAL P. (2007) Reinventing Planning in the era of Liberalisation, Proceedings of 55th National Town and Country Planners Congress on Reforms in Town and Country Planning Legislations. Kochi, Kerala, January 9-11, 2007.
- 14 Sameer Shastri, Pratap Raval, Suhas Mapuskar, (2007) "Low Cost On-Site Integrated Waste Management systems for Management of Domestic Wastes" VIT Vellore, December 2007.
- 15 RAVAL P. and DONNELLY, T. (2006). "Sustainability assessment for wastewater management systems: An operational framework", *Environmental and water Resources Institute of American Society of Civil Engineers EWRI 2006 conference on Water Resources Planning and Management*, December, 2006, New Delhi
- 16 Pipalikal S.S., Kharat A.G., Raval P.M. and Dharadhikari N.P.(2006). "Accident caused by geopathic stress-Case study and research finding" World congress on Design and Construction INCITE/ITCSED 2006 organized by CIDC (India)-Glasgow Caledonian University (GCO) UK, Nov. 2006
- 17 RAVAL P., and DALVI R. (2004). " Sustainable Geo-synthetics materials for Construction", National Conference on Material and Their Application in Civil Engineering (MACE-2004), August 26-27, 2004 organised by National Institute of Technology, Hamirpur, Himachal Pradesh, India.
- 18 RAVAL P.(2003).Building Blocks for Sustainable Development of River Catchments, National Conference on Hydraulics and Water Resources, HYDRO 2003, Central Water and Power Research Station, Dec. 26-27, 2003, Pune, India.
- 19 RAVAL P. and DONNELLY, T. (2002). Multi-criteria decision making model for sustainable wastewater systems using sustainability as criterion *Environmental and water Resources Institute of American Society of Civil Engineers EWRI 2002 conference on Water Resources Planning and Management*, May 19-22, 2002, Roanoke, Virginia, USA.
- 20 RAVAL P. and DONNELLY, T. (2001). Decision making for sustainable water and wastewater management in urban areas: Investigation of decentralised management options, *International Water Association's (IWA) 2 nd World Water Congress* October 15-18, Berlin, Germany.
- 21 RAVAL P. and DONNELLY, T. (2000). New perspective of urban water systems: Meeting the sustainability challenges, *International Conference Integrated Water Resource Management for sustainable development*, University of Roorkee, December 19-20, 2000, Roorkee (UP), India.
- 22 RAVAL P. (1997). Interprofessionalism and planning education for built environment, *46 th Town and Country Planer's Congress*, December 29-31,1997, Mysore, India.
- 23 RAVAL P.(1997). Techno-economic aspects of underground bandharas (dam) and its use for ground water recharge in watershed management, *Conference on Emerging Trends in the Development of Sustainable Ground Water Resources*, J.N.T. University, Hyderabad, India.

- 24 RAVAL P. (1997). Implication of sustainable development for physical planning urban economy and environmental management, *International Conference on Civil Engineering for Sustainable Development*, Department of Civil Engineering, University of Roorkee, Roorkee, India.
- 25 RAVAL P. (1996). Energy efficient building in future to response to the environmental challenges, *National Conference on New Paradigms in Civil Engineering Practices*, Anjuman Engineering College, Bhatkal, India.
- 26 RAVAL P. (1996). Environmental priorities and integrated approach for environmental management, *3rd International Conference on Environmental Planning and Management*, V.R.C.E., Nagpur, India.

Papers in Journal and magazines:

1. RAVAL P., PIMPALIKAR S.S., KHARAT A.G. and DHARMADHIKARI N.P.(2006) Detection of Geopathic Stresses Using Light Interference Techniques, *New Building Material and Construction World*, Vol.11, Issue-9, pp-102-107, March 2006.
2. STARKL, M., GRASSINI, L., RAVAL P., GRANDI, S., AND DONNELLY, T. (2003). Challenges towards sustainable urban water management in developing countries, *Water 21*, June 2003, magazine of the International Water Association (IWA), London.

International Journal

1. Nivedita G. Gogate^a, Pradip P. Kalbar^b, Pratap M. Raval^c(2016) Assessment of stormwater management options in urban contexts using Multiple Attribute Decision-Making, *Journal of Cleaner Production* **1-(14)**
2. Raval P.M. and Gogate Nivedita, (2015) Identifying objectives for sustainable storm water management in urban Indian perspective: a case study, *Journal of Environmental Engineering*, Vol 7, No.2, 2015
3. Pratap Raval and Sameer Shastri, , (2012) “Recycle and Reuse of Treated Sewage Within Polluter’s Boundary for Sustainable Wastewater Management – Case Study Pune City”; *Journal of Environmental Research and Development* Vol 07, Number – 01 A, July – September 2012; pp 245 – 256; (ISSN 0973 – 6921)
4. P. M. Raval and Sameer Shastri, (2011) “Decision Making for Sustainable Wastewater Management for Pune City, *International Journal of Civil, Structural, Environmental and Infrastructure Engineering Research and Development (IJCSEIERD)*, Vol 1, Issue 2, December 2011, pp 16-30”. (ISSN(Print):2249-6866)
5. Raval P.M., Shastri Sameer and Mapuskar (2011) Review of Sustainable Wastewater treatment option for urban sanitation facilities in developing countries, case study: Upper Bhima basin, India. *International journal of Applied Science in Environmental Sanitation*, Vol. 5, No. 4 Jan 2010 (ISBN 01262807)
6. Dharmadhikari N.P., S.S.Pimplikar , A.G.Kharat , Dr.P.M.Raval (2008) Empirical Studies on Detection of Geopathic Stress Zone, *The American Dowser* Vol.48, issue no.4, FALL 2008
7. STARKL, M., GRASSINI, L., RAVAL P., GRANDI, S., AND DONNELLY, T. (2003). Challenges towards sustainable urban water management in developing countries, *Water 21*, June 2003, Journal of the International Water Association (IWA), London.

National journal

- 1 Raval P.M. (2018) Addressing Urban Flood through Spatial Distribution of Potential Storm water Recharge Zones in Development Plan, Institute of Town Planners, India *Journal* Volume 15, No. 2 April June 2018

- 2 Raval P and Poulamee Ghosh (2019) Does Benefits of Mixed Land Uses match up to People's Expectation from their Living Environments? Institute of Town Planners, India Journal Volume 16, No. 2 April June 2019
- 3 RAVAL P., PIMPALIKAR S.S., KHARAT A.G. and DHARMADHIKARI N.P.(2006) Detection of Geopathic Stresses Using Light Interference Techniques, New Building Material and Construction World, Vol.11, Issue-9, pp-102-107, March 2006.
- 4 Pipalikal S.S., Kharat A.G., Raval P.M. and Dharadhikari N.P.(2008). "Effect of Geopathics Stresses on the performance of Roadways" Research Journal of Road Congress, Vol.1,No.1, December 2008
- 5 RAVAL P., and Kornatak S (2005) "Wood- bamboo concrete composite structure" Pune Construction Research Foundation, Pune publication.
- 6 Pipalikal S.S., Kharat A.G., Raval P.M. and Dharadhikari N.P.(2008). "Effect of Geopathic stress on the performance of roadways" Highway research Journal, Highway Research Board, Indian Road Congress, Vol.1, No.1, pp 31-41.

Training attended

"Faculty Development Program in Geoinformatics" Center for Development of Advance Computing (C-DAC) Pune , 4 June 2012 -23 June 2012

"Planning and Design of Sustainable Urban settlements" IIT Roorkee, 7/3/2011 to 11/3/2011

Training on Leadership Skills for Excellence at Management Development Institute, Gurgaon, May 8-14, 2006

Summer school on "Planning and design with water" arranged by Delft University of Technology, Delft, The Netherlands on 12 to 22 July 2016

Consultancy assignments

1. Preparation of Integrated District Development Plan (IDDP) of Idukki District, Kerala state
2. Tourism based carrying capacity study of Mahabaleshwar-Pachgani region, Satara District
3. Development plan of Malwan and Sawantwadi town as studio exercise.
4. Preparation of Existing Land use map of Pune city for Pune Municipal Corporation.
5. Preparation of Traffic Diversion plan for Pune Metro for NCC Ltd and HCC-ALFAARA Ltd and Shaporji Palonji Engineering and Construction Ltd. (2018-2019)
6. Preparation of Heritage list for Pimpri Chichwad Municipal Corporation area.