# Dr. INDRESH KUMAR PATERIYA

Professor in Civil Engineering,

Govt. College of Engineering, Aurangabad, Maharashtra

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An accomplished and competent Civil Engineering Professional with 32.5 years of enriching experience of administration, project management, research, academics and technical education while serving with National Rural Roads Development Agency (an Autonomous agency of Ministry of Rural Development), Govt. of India and Government College of Engineering, Aurangabad(an autonomous institution of Govt. of Maharashtra) with excellent track record of managing the flagship programme Pradhan Mantri Gram Sadak Yojana (PMGSY), Supervision of many Building and road projects, Technical Education Quality Improvement Programme, educating Engineering Students and motivating them for research and professional carrier, providing consultancy services and testing of materials for various infrastructure projects.

- Expert in providing technical and operational support in project processing and implementation
- Proven record of planning, project preparation, design, technical and cost scrutiny, preparation of relevant drawings optimum resources and material utilization and overall management of the programme.
- Proven track record of administration of projects and technical assistance (TA) projects, overall monitoring of the status and performance of the ADB and World Bank assisted projects in the transport sector including processing and analysis.
- Competent in testing and interpretation of strength of materials and use of alternate materials and technologies for engineering
- Expert in drafting of documents and guidelines for engineering items of works.
- Expert in reviewing projects, maintaining documentations and reports of progress and completion of projects.
- Prompt decision maker with the capability to wade through crisis situations with great objectivity.
- Objective is to lead growth of an organization operating in the project management / infrastructure development from a project management profile.

#### **COMPETENCY MATRIX**

- Project Estimation, costing and scheduling
- **Project Scrutiny and Approvals**
- Project Planning & Management
- Research Projects Coordination
- **Technical Documents and Guidelines**
- Training and Human Resource Development
- Technical Education academic planning

- Online DATA and Project Monitoring
- New Technologies and their application
- Technology Transfer from Lab to Land
- Quality Assurance/Compliance
- Client Management
- Laboratory Development/ Management
- Project evaluation

#### EXECUTIVE ACCOMPLISHMENTS AND PROFESSIONAL EXPERIENCE

Professor in Civil Engineering, Govt. College of Engineering, Aurangabad (Pay Band 37,400-67000 with Grade Pav Rs 10,000/-) (01.01.2009 till date)

Teaching Undergraduate classes, subjects of Disaster Management and Practical Classes of Estimating and Costing, Incharge of computer Laboratory of Civil Engineering Departent.

Director (Technical) & I/C Director (Projects) (On Deputation), National Rural Roads Development Agency, Govt. of India, New Delhi (Pay Band 37,400-67000 with Grade Pay Rs 10,000/-) (Professor, Civil Engineering, Govt. College of Engineering, Aurangabad (Pay Band IV, 37,400-67000 with Grade Pay 10,000/w.e.f. 01.01.2009) (15.10.2011 to 02.07.2018)

- Administering implementation of PMGSY project, Monitoring Progress of implementation in States, Analyzing reports, online monitoring of Physical and Financial progress through OMMAS Monitoring Contract Awards and release of funds, actively identifying issues and taking actions to address them.
- Coordination with State Technical Agencies of different states for scrutiny of DPRs of Pradhan Mantri Gram Sadak Yojana (PMGSY), random scrutiny of DPRs at NRRDA and Presentation of Proposals of States to Empowered Committee.
- Organised Scrutiny of Proposals, Presentation before the Empowered Committee and clearance from Ministry, for Proposals received from States, of more than Rs. 1,50,000 Crores, for more than 3,00,000 km and 2000 bridges, in last Six years

- Worked as a Project Director (ADB) for Pradhan Mantri Gram Sadak Yojana, Rural Roads Programme of Govt. of India, being implemented in the States of Assam, Chhattisgarh, Madhya Pradesh, Odisha and West Bengal with the assistance of ADB.
- Involved in the project implementation of the Multi-tranche Financing Facility of USD 800 M. This Facility is provided in the three Tranches. Loan No. 2881-IND (Tranche 1) for USD 252.00 M, Loan No. 3065-IND (Tranche 2) for USD 275.00 M and Loan No. 3306 –IND(Tranche-III) for USD 275.00M for the Rural Connectivity in the ADB States and also attending Tripartite Portfolio Review Meetings regularly organised by ADB and DEA.
- Overall Monitoring of 5 Rural Roads Network Management Units and 5 Rural Connectivity Training and Research Centers are being established in the States of Assam, Chhattisgarh, Madhya Pradesh, Odisha and West Bengal.
- Road Safety Audit is being conducted on rural roads under construction and completed roads. All the
  issues with the severity are being examined and recommendations are given to the States for
  implementation.
- Social safeguards and Environment safeguards reports prepared by the Consultant are being reviewed regularly. Rural Road projects are performing with high efficiency financed by ADB.
- Providing inputs to IRC in developing design guidelines and to States for preparation of Cost estimates.
- Organizing Review Meetings of PMGSY at regional level for reviewing the progress, resolving implementation related issues, and explaining PMGSY and IRC guidelines on Preparation of DPRs.
- Development and Enhancement of various modules on OMMAS for System checks in DATA entry of proposals, Master DATA, Core Network DATA, Analysis Module, progress monitoring, maintenance, Online generation of Brief for Empowered Committee, online Payments to STAs, Trainings and generation of MIS reports related to above.
- Coordination with Indian Roads Congress for development/updation of relevant guidelines such as Book of Specification, Standard DATA book etc and representing NRRDA in various committees of IRC.
- Providing support to ministry in preparation of background notes for planning, taking policy dialogue with the government for timely implementation and modifications in program.
- Participating in conferences, seminars, workshops related to transport sector.
- Participating in implementation of Technical Assistance under World Bank Project particularly coordinating Research and Development (R & D) works, Procurement of equipments, and Liasioning with the executing agencies, Citizen Monitoring, impact studies.
- Coordinating research Projects with STAs/PTAs and with States for implementation of New Materials and Technologies. Coordinated preparation and approval of Guidelines on New Technology initiatives in May 2013. Developed a module on OMMAS for online monitoring of such projects.
- Organizing programs for capacity building of Executing Agencies, including assessing and monitoring implementation capacity, identifying weaknesses and assessing training needs for effective program implementation.
- Convener of Standing Advisory Committee and R & D Cell of NRRDA, dealing with all technical, research and program implementation related issues.
- Publication of quarterly news magazine 'Grameen Sampark' of NRRDA including new developments and technical papers.
- Nodal officer for Social and Environmental aspects in World Bank / ADB assisted Projects. Coordinated publication of Environmental Code of Practice including social and environmental management framework.
- Coordinated the Preparation of following documents (2015):
  - 1. Report of the Expert Group on Measures for achieving Economy in Construction of Rural Roads under PMGSY.
  - 2. Do It Yourself, Rural Roads Construction using Fly Ash
  - 3. Do It Yourself, Construction of Cement Stabilized Sub-Base / Base
  - 4. Do It Yourself, Gabion Retaining Walls for Rural Roads
  - 5. Do It Yourself, Cell Filled Concrete Pavement

- 6. Standard Bidding Document
- Coordinated the development and shooting of following training films for NRRDA (2015):
  - 1. Bituminous plastic road.
  - 2. Use of Coir Geo Textile in Rural Roads construction.
  - 3. An Advocacy film on Routine Maintenance of Rural Roads
- Contributed in Preparing draft of following documents of Indian Roads Congress:
  - 1. Guidelines for Tree Plantation along Rural Roads (IRC:SP:103:2014)
  - 2. Guidelines for design of Flexible Pavements for Low Volume Roads (IRC:SP:72:2015)(Revised)
  - 3. Use of Cold Mix Technology in Construction and Maintenance of Roads Using Bitumen Emulsion (IRC:SP: 100 :2014)
  - 4. Guidelines for the use of Waste Plastic in Hot Bituminous Mixes (Dry Process) in Wearing Courses (IRC:SP:98:2014)
  - 5. Interim Guidelines for Warm Mix Asphalt (IRC:SP:101:2014)
  - 6. Code of Practice for Maintenance of Bituminous Road Surfaces(IRC:82:2015)
- Coordinated the activities as Convener of the following Committees of NRRDA:
- ➤ Re-casting the Standard Bidding Document for PMGSY Contracts.
- Member Secretary of the Committee for Maintenance norms for Rural Roads.
- Guidelines for Empanelment of Consultants for preparation of Detailed Project Reports.
- ➤ Guidelines for Performance Evaluation of State Technical Agencies.
- ➤ Guidelines for revision of the Core Network for Left Wing Extremism areas.

Deputy Director (Technical) (On Deputation), National Rural Roads Development Agency, Ministry of Rural Development, Govt. of India, New Delhi (Pay Band 37,400-67,000 with Grade Pay 9,000/-)

(27.05.2008 to 23.03.2009)

/ Joint Director (Technical) (On Deputation), National Rural Roads Development Agency, Govt. of India, New Delhi (Pay Band 37,400-67,000 with Grade Pay Rs 10,000/-) (23.03.2009 to 15.10.2011)

(Promoted as Professor, Civil Engineering, Govt. College of Engineering, Aurangabad (Pay Band IV, 37,400-67000 with Grade Pay 10,000/- w.e.f 01.01.2009)

- Assisted Director (Technical) in coordination with State Technical Agencies of different states for scrutiny of DPRs of Pradhan Mantri Gram Sadak Yojana (PMGSY), random scrutiny of DPRs at NRRDA, preparation of documents for presentation before the Empowered Committee.
- Organized ground verification of proposals with the help of National Quality Monitors.
- Development and enhancement of various modules on OMMAS for MIS reports related to proposals, progress monitoring.
- Monitoring of DATA updation of DRRP, Habitations, Core Network, uploading of Proposals in Proposal Module.
- Organized trainings and workshops for preparation of DPRs.
- Coordinated the cases of revision of core network by the States.
- Coordinated with ADB consultants for development of DPR template and score sheet.
- Scrutiny of Long Span Bridge Proposals.
- Payments of honorarium to STAs.
- Revision of proposals due to variations in scope of work during execution.

Associate Professor, Civil Engineering, Govt. College of Engineering, Aurangabad (Pay Band IV, 37,400-67000 with Grade Pay ,9000/-) (01.01.2006 to 25.05.2008)

- All responsibilities as detailed below in the capacity of Lecturer Civil Engineering.
- As Coordinator of State Technical Agency, Pradhan Mantri Gram Sadak Yojana (PMGSY) from 2005 to 2008, carried out Verification and approval of Core network maps of PMGSY from 8 districts, attached to Govt. College of Engineering Aurangabad,

- Carried out scrutiny of more than 2000 Detailed Project Reports of more than Rs. 800 Crores for approval from Ministry of Rural Development, Govt. of India.
- Provided guidance for preparation of DPRs, testing of materials, execution of works, quality of works and use of OMMAS website for data management as a MIS.
- Organized several training programs for PMGSY officers.
- Represented STA in State Level Standing Committee for PMGSY project approvals.
- Carried out Mix design of road construction Bituminous/ non bituminous materials, Benkelman Beam & MERLIN tests for deflection and surface condition assessment, for some projects of PWD and MSRDC.

# Assistant Professor, Civil Engineering, Govt. College of Engineering, Aurangabad (Pay Scale 12000-420-18300) (01.01.2001 to 31.12.2005)

- All responsibilities as detailed below in the capacity of Lecturer Civil Engineering.
- Responsible for third party supervision of large number of road, building and other civil works as a coordinator from 2000 to 2005. Supervision and quality certification of more than 200 works during the period.
- In-charge of third party supervision of large number of school buildings constructed in Jalgaon district under Sarva Siksha Abhiyaan (SSA) during 2002-2005, as a consultancy assignment.
- Design and supervision of many Multistoried Buildings as consultancy Projects.
- Coordinated the visit of National Board of Accreditation of AICTE for approval of Civil Engineering Program of the Institute.
- Responsible for Technical Education Quality improvement Programme (World Bank Assisted) of AICTE for Civil Engineering Department.
- Responsible for Management of Internet connectivity and Local Area Network for Civil Department.

# Lecturer in Civil Engg. (Selection Grade), Govt. College of Engg. Aurangabad (Pay Scale 12000-420-18300) (17.07.99 to 01.01.2001)

Lecturer, Civil Engg., (Senior Scale) Govt. College of Engg. Karad (Pay Scale 10000-15200)

(17.12.97 to 16.07.99)

Lecturer, Civil Engg., Govt. College of Engg. Aurangabad (Pay Scale 2200-4000)

(01.07.87 to 16.12.97)

Lecturer, Civil Engg., College of Engg. & Technology, Jalgaon (Pay Scale 700-1600)

(05.01.87 to 22.06.87)

- Development of Curriculum for undergraduate and post graduate students, delivering lectures, conducting examinations and assessment of performance of students.
- Development of Laboratory Manuals and imparting practical demonstrations related to Transportation and Geotechnical Engineering.
- Preparation of Proposals for Modernization of Laboratories, procurement, installation and testing of equipments.
- Testing of materials received from various organizations like PWD, Zilla Parishad, Municipal Corporation, Airport Authority, City and Industries Development Corporation etc with interpretation of results and preparation of test reports with recommendations about their suitability for the desired purpose.
- Carried out many Plate Load tests, Standard Penetration Tests for assessment of strata for design of buildings/ bridges involving students also for their professional development.
- Responsible for administration and management, as a warden of Boys Hostel of 300 students capacity, from 1991 to 1997.
- Responsible as a Center In-charge for conducting Engineering Entrance Examinations.
- Member of committees for verification and according permission to various self financed Engineering, Management and Pharmacy colleges.
- Incharge of Examination Centre for Engineering Examinations of Dr.Babasaheb Ambdkar Marathwada University Aurangabad and also for Shivaji Univ. Kolhapur, North Maharashtra University Jalgaon
- Expert for drafting question Papers for Maharashtra Public Service Commission examinations for

#### **EDUCATIONAL CREDENTIALS**

- **B.E. Civil,** Civil Engineering, Jiwaji University Gwalior in 1985.
- M.E. Civil (Structures), Dr. Babasaheb Ambedkar Marathwada University, Aurangabad in 1991.
- Ph.D.Civil (Structures) Dr. Babasaheb Ambedkar Marathwada University, Aurangabad September 2004
   Title of Ph.D.Thesis: Optimization of Reinforced Concrete Plane Frames through Inelastic Analysis

# **AFFILIATIONS**

- Life Member , Indian Roads Congress, Delhi (M-32494)
- Associate Member of Institution of Engineers (India) Calcutta (AMIE-074992/5)
- Life Member, Indian Society for Technical Education, Delhi (ISTE-024950)
- Council Member, Indian Roads Congress, New Delhi 2012 onwards
- Member, Highways Standard & Specifications Committee (HSS) of Indian Roads Congress, New Delhi (2012-14), (2015-16) & (2017-2020)
- Member, Identification, Monitoring and Research Application Committee (IMRA) of Indian Roads Congress, New Delhi (2011-2014)
- Member, Flexible Pavement Committee (H-2) of Indian Roads Congress, New Delhi (2012-14), (2015 17), (2017-20)
- Member, Rural Roads Committee (H-5) of Indian Roads Congress, New Delhi (2012- 14) & (2015- 17)
- Member, Road Safety and Design Committee (H-7) of Indian Roads Congress, Delhi (2012-14)
- Member, Accreditation Committee of Indian Roads Congress, New Delhi (2011- 14), (2015–17),(2017-20)
- Member, Asset Management and Road Maintenance Committee (H-6) of Indian Roads Congress, New Delhi (2012- 14),(2015 17)7 (2017-20)

#### RESEARCH AND TECHNOLOGY APPLICATION CONTRIBUTIONS

- Prepared draft of Guidelines on New Technology Initiatives in Rural Roads under Pradhan Mantri Gram Sadak Yojana (PMGSY) issued in May 2013. Guided Stats through Seminars, workshops and trainings for using various new technologies in different States. This includes application of Stabilization techniques with Cement Lime and other Stabilizers, Cold Mix Technology, Jute and Coir Technologies, Industrial wastes like flys ash, marble slurry, steel slags, Coir technology, Waste Plastic utilization in rural roads etc.
- Representing India in the Research Committee of Asia Community Access Project (ASCAP) of DFID, as a Regional Representative.
- Working as a Member of Research Council of Council of Scientific and Industrial Research-Central Road Research Institute (CSIR-CRRI), for a period of Three Years. (2017-2020)
- Coordinated Rural Roads Pavement Performance Study carried out by 15 State Technical Agencies / Principal Technical Agencies like IITs / NITs under PMGSY on more than 150 roads over a period of three years.
- Coordinated Traffic Volume Study carried out by 15 State Technical Agencies / Principal Technical Agencies like IITs / NITs under PMGSY on more than 200 roads over a period of two years.
- Coordinated preparation of Proposals of more than 7000 kms, processed and got sanctioned, and more than 3500 km length completed, using different new Technologies, in last three years.
- Coordinated Project of Mapping of Locally available materials in 4 districts with the States and CRRI.
- Coordinating a Project on use of fly Ash in construction of roads jointly sponsored by NRRDA and Department of Science and Technology, Govt. of India.
- A Project of Traffic Volume Study on Sixty Rural Roads over a period of two years.
- Coordinating the Research Projects funded by NRRDA for STAs/ PTAs/CRRI.
- Monitoring the progress all the Projects of New Technology Application in different States and also their performance evaluation for replication of successful technologies.

#### PAPER PUBLICATIONS

# Journal / Magazine Papers

- 1. 'Planning, Progress and Monitoring of Rural Roads under PMGSY in India', Civil Engineering and Construction Review, New Delhi, pp 48-56, Vol.30, November 2017.
- 2. 'Implementation Status and Some New Initiatives in PMGSY', Indian Highways, pp 33-40,Vol. 45, No.11, November 2017, Indian Roads Congress New Delhi.
- 3. 'Estimating Maintenance Cost of Rural Roads in Pradhan Mantri Gram Sadak Yojana', Indian Highways, pp 5-19,Vol. 42, No.8, August 2014, Indian Roads Congress New Delhi.
- 4. 'Strength Performance of Pond Ash Concrete', **International Journal of Earth Sciences and Engineering'** Vol. 5, No.1, February 2012, Maintenance of Vol. 5, No. 1, February 2012.
- 5. 'Development of Rural Roads in North Eastern Region under Pradhan Mantri Gram Sadak Yojana', Indian Highways, New Delhi, Special Publication at 72<sup>nd</sup> Annual Session. November 2011.
- 6. 'CBR Values of Fly Ash Stabilized with Sand', Civil Engineering and Construction Review, New Delhi, October 2011.
- 7. 'Life Cycle Cost Analysis of Cement Concrete Vs Bituminous Low Volume Rural Roads', Civil Engineering and Construction Review, New Delhi, Vol.23, March 2010.
- 8. 'Performance Evaluation of Glass Fibre Reinforced Concrete', Civil Engineering and Construction Review, Vol. 22, No. 10, October 2009.
- 9. 'Stabilization of Soil Sub-grade with Polypropylene Fibres, ' Grameen Sampark', Ministry of Rural Development, Govt. of India, New Delhi, January-March, 2009.
- 10. 'Use of Pond Ash as Fine Aggregates', Civil Engineering and Construction Review, Vol. 22, No. 1, January 2009.
- 11. 'A review of Innovative Soil Stabilization Techniques for Rural Road Construction', 'Grameen Sampark', Ministry of Rural Development, Govt. of India, New Delhi, January-June 2008.

# Papers in National/International Conferences/Seminars

- 1. 'Environment Friendly Cost Effective Sustainable Technologies in Perspective of Rural Roads', Souvenir, IRC Mid Term Council, Aizawal, Mizoram, May 4-5, 2018.
- 2. 'Measures Suggested for Achieving Economy in Construction of Rural Roads in PMGSY' in National Conference on '15 Years of PMGSY'at Indian Institute of Technology Roorkee, August 6-7, 2016.
- 3. 'Using Locally Available Materials in Road Construction- Problems and Possibilities' in National Conference on '15 Years of PMGSY'at Indian Institute of Technology Roorkee, August 6-7, 2016.
- 4. 'Planning, Progress and Monitoring of Rural Roads under Pradhan Mantri Gram Sadak Yojana (PMGSY) in India' in the IRF/ SARF Regional Conference on 'Better Roads, Moving Africa' in Pretoria, South Africa from 2-4 September, 2014.
- 5. 'Maintenance of Rural Roads under Pradhan Mantri Gram Sadak Yojana (PMGSY) in India' in the IRF/ SARF Regional Conference on 'Better Roads, Moving Africa' in Pretoria, South Africa from 2-4 September, 2014.
- 6. 'Environment Friendly Cold Mix Technology in perspective of Rural Roads', National Conference on Environmental Pollution and Management, Govt. College of Engineering Aurangabad, 28<sup>th</sup> 29<sup>th</sup> January, 2011.
- 7. 'Strength and Durability of Concrete with Pond Ash and Crushed Sand as Fine Aggregate', International Conference on World of Concrete, Govt. College of Engineering Aurangabad 25-27 December, 2010.

- 8. 'Utilization of Pond Ash and Crusher Stone Waste as Fine Aggregate in Eco-friendly Concrete', International Conference on World of Concrete, Bangkok, 9-10 October, 2009.
- 9. 'Life Cycle Cost Analysis of Cement Concrete Vs Bituminous Low Volume Rural Roads', National Seminar on Sustainable Concrete for Infrastructure Development, MNIT Jaipur, April 19-20, 2009.
- 10. 'Some Innovative Soil Stabilization Techniques', National Seminar on Technological Advances in Civil Engineering (BITCON 2008), Bhilai Institute of Technology, Durg, 7-8 November, 2008.
- 11. 'Utilization of Lime Sludge for Rural Roads Construction', National Conference and Exposition on Rural Roads, Vigyan Bhawan, New Delhi, 22-24 May, 2007.
- 12. 'Community participation in Development of Rural Roads', National Conference and Exposition on Rural Roads , Vigyan Bhawan, New Delhi, 22-24 May, 2007.
- 13. 'Rainfall Runoff Modelling using GIS Technique', National Conference at Govt. College of Engineering Amravati, 22-23 March, 2007.
- 14. 'Pradhan Mantri Gram Sadak Yojana for Total Connectivity', National Seminar at Rajaram Bapu College of Engineering Sakhrale, 9-10 March, 2007.
- 15. 'Study of Utilization of Flyash as Fill Material in Layers', National Seminar on Civil Engineering Meeting the Challenges of Tomorrow-06, organised by- Department of Civil Engineering, Guru Nanak Dev Engineering College, Ludhiana (Punjab) 24-25 November, 2006
- 16. 'Elimination of Pot-holes on Roads', National Seminar on Improvement, Rehabilitation and Maintenance of Roads, 22-23 August, 2003, Govt. College of Engineering Aurangabad.
- 17. 'Shear Strengthening of Reinforced Concrete Beams', National Seminar at Bundelkhand Engineering College, Jhansi, 11-12 March, 2000.
- 18. 'Effect of Polymer on Natural and Recycled aggregate Concrete', National Seminar at Bundelkhand Engineering College Jhansi, 12 March, 2000.
- 19. 'Use of Super plasticizers for improving workability with cost reduction of Concrete', National Seminar CEMENT 99, College of Engineering, Chandrapur, 26 February, 1999.
- 20. 'Characteristic of fly-ash blended concrete (A case study of Parli Vaijnath fly-ash)', National seminar CEMENT 99, College of Engineering Chandrapur, 26 February, 1999.
- 21. 'Effect of Super plasticizers on Cement Concrete' at National Workshop at Tirupati, 27 June, 1998.
- 22. 'Use of Geotextiles for increasing shear strength of Soil', International conference organized by International Society of Geotextiles in Association with Central board of Irrigation and power, Bangalore on 21-22 November, 1997.
- 23. 'Effect of heat cycles on polymer modified concrete', at National seminar on 'Role of Building chemicals in construction industry ' held at M.N.R.E.C. Allahabad, 18-19 July, 1997.
- 24. 'Use of Parli Vaijnath fly ash for making Lean Concrete' National seminar organized at J.N.T.U. Anantpur, 27 June, 1997.
- 25. 'Solid Waste Management of Aurangabad city' at National Seminar organized by M.I.T., Aurangabad in January 1997.
- 26. 'Alternate Building Materials', National Seminar on 'Alternate Materials of Construction', Regional Engineering College, Hamirpur (H.P.) on 10 December, 1996.
- 27. 'Low cost Locally available materials of Construction' at Regional Seminar on 'Low cost flood resistant, energy efficient houses', Madan Mohan Malviya Engineering College Gorakhpur, 13-14 March, 1996.
- 28. 'Reuse of Wastewater from metal coating industry-A case study of Amulate coating Private Limited, Aurangabad', 13th National convention of Environmental Engineers, at Government College of Engineering, Jabalpur (M.P.)
- 29. 'Moment Rotation laws for Reinforced Concrete Sections', at XI<sup>th</sup> National Convention of Civil Engineers held at M.N.R.E.C., Allahabad 14<sup>th</sup> -16<sup>th</sup> November, 1995.

# SEMINARS/CONFERENCES ORGANIZED

• A one day Workshop on 'New Materials/ Technologies' at Central Road Research Institute, New Delhi on

February 18th, 2012.

- A one day Workshop on 'Design of Flexible Pavements for Low Volume Roads' as per IRC 72: 2007, sponsored by Maharashtra State Rural Roads Development Association, Mumbai on February 24, 2008.
- A one Week Training Program on 'Procedures in Laboratory Testing' under Pradhan Mantri Gram Sadak Yojana', Sponsored by National Rural Roads Development Agency, New Delhi during May 6-12, 2007.
- A one Day Workshop on 'Preparation of DPR's for road works under Pradhan Mantri Gram Sadak Yojana',
   Govt. College of Engineering Aurangabad, 19th March, 2006.
- A one day 'National Level Paper Presentation and Model Competition STHAPATYA 2005', for under graduate and Post graduate Civil Engineering Students on 17th January 2005.
- A One day Workshop on 'Exposure to Practical Aspects of Geotechnical and Foundation Engineering', 17<sup>th</sup> September 2004 for Civil Engineers. (As Organizing Secretary)
- A One day Workshop on 'Investigation and Testing of Soil- ITOS 2004', on 8th August 2004 for working Civil Engineers. (As Organizing Secretary)
- A two days National Seminar sponsored by All India Council for Technical Education, on 'Improvement, Rehabilitation and Maintenance of Roads', on August 22-23, 2003. (As a Co-coordinator)
- A two days National Seminar sponsored by All India Council for Technical Education, on 'Financing, Design, Construction and Operation of Highways' on 7-8 February, 2002. (As a Co-coordinator)
- A two days National Seminar on 'Teacher Vacancies in Diploma and Degree Level Technical Institutions Causes and Possible Remedial Measures', sponsored by Indian Society for Technical Education, New Delhi on January 21-22,1998. (As a Co-coordinator)

# **Books Published**

- Elements of Civil Engineering, By Dr. I.K.Pateriya and Dr. K.A.Patil, Laxmi Publishers, Aurangabad.
- Basic Civil Engineering By K.A.Patil and I.K.Pateriya, Amrut Prakashan, Station Road, Aurangabad.

### EXPERT TALKS DELIVERED

- 'Use of Plastic Waste in Road Construction', India Sanitation INDOSAN 2016, National workshop at Vigyan Bhawan, New Delhi on 30<sup>th</sup> October 2016.
- 'Prime Ministers Rural Roads Development Programme (PMGSY), Planning, Design, Construction, Maintenance, Management and Quality Assurance Systems', India-Africa Forum Summit(IAFS) training, at Indian Academy of Highway Engineers (IAHE), on 9th April, 2015.
- 'Use of Fly Ash in Rural Roads construction' at Fly Ash meet, Thermal Power Plant, Sipat, Chhattisgarh on 11th February, 2015.
- 'Maintenance of Rural Roads under Pradhan Mantri Gram Sadak Yojana', at 75th Annual Session of Indian Roads Congress held at Bhubaneswar, Odisha, 21st January, 2015.
- 'Technology Initiatives under Pradhan Mantri Gram Sadak Yojana', at the workshop on 'Innovative Technologies for Low Volume Roads', 30<sup>th</sup> October, 2014 at National Institute of Technology, Warangal, Andhra Pradesh.
- 'Road Construction and Technology- Future Prospects' at the National Conference on Rural Roads-2014, organized by Indian Construction Equipment Manufacturers Association (iCEMA), on 26<sup>th</sup> August 2014, at new Delhi.
- 'Use of Non conventional materials and technologies in PMGSY Roads' at the workshop on Application of Non-Conventional Materials and Technologies in Rural Roads during 14<sup>th</sup> & 15<sup>th</sup> February, 2014 at Indian Institute of Technology, Bhubaneswar.
- 'Guidelines on Technology Initiatives under PMGSY' at 74th Annual Session of Indian Roads Congress held at Guwahati, Assam during 18th -22nd January, 2014.
- Indian Chamber of Commerce Conference on Accelerating Development of Rural and Urban Roads and Highways, on 12<sup>th</sup> September 2013, on Plans & Perspectives of NRRDA in Developing Rural Roads in Jharkhand.
- International Seminar, organized by International Road Federation on Road Safety in Urban and Rural Roads at New Delhi, on 1<sup>st</sup> November, 2012 on Traffic Mix in Rural Areas and Safety Concerns.
- Workshop on Planning Smart Green Infrastructure in Biodiversity-rich Landscapes from 13-14th August

- 2012 at India International Centre, New Delhi.
- 'Transparency in Pradhan Mantri Gram Sadak Yojana (PMGSY)', in Country Team workshop of Bangladesh on 'Enhancing Transparency and Accountability in the Bangladesh Program' on 2<sup>nd</sup> June, 2012.
- International Workshop on Towards Greening Rural Development in India: Lessons from International and National Experience, on 14th May 2012 on 'Rural Roads: Pradhan Mantri Gram Sadak Yojana.
- 5th India Roads Conference 2012: Connecting Rural with Urban India for Inclusive Growth, 16<sup>th</sup> February 2012, New Delhi on Efficient Technologies for Rural Roads.
- International Conference 'India Roads 2009', on 25th September 2009, at The Taj Mahal Hotel, Mansing Road, New Delhi, India.
- Presentation on Rural Roads Development in India-Future Vision, for delegation of Sri Lanka, at CRRI, New Delhi, 22<sup>nd</sup> December 2008.

### TRAINING PROGRAMS ATTENDED

- One day course on Introduction of E-Tools in Management of Construction Projects, 6th March, 2014 at Delhi organized by the World Bank.
- A Course on Preparation of DPRs for Rural Roads, sponsored by Asian Development Bank, 19th to 23rd December 2011, at Indian Academy of Highway Engineers, Noida, U.P.
- Workshop on 'Procurement for Consultants, RFP and other preparedness', organised by World Bank at Mussoorie, Uttarakhand, 25<sup>th</sup> & 26<sup>th</sup> September, 2011.
- National Workshop on 'Appropriate Development Strategies for effective implementation of Rural Development for IAP Districts' on 13th September, 2011.
- Short term Course on Campus wide networking, 11-16 December, 2006, Govt. College of Engineering, Aurangabad.
- Workshop on 'Implementing outcomes-based engineering curricula through networked Participatory Action Research', 9-10 September, 2006 at Govt. College of Engineering Aurangabad.
- Workshop on 'Designing Student Conducted Studies', 30th July, 2006 at Govt. College of Engineering Aurangabad.
- Short term course on 'Planning and Design of Bus Transportation Systems', during 29th May to 2nd June, 2006 at I.I.T. Delhi.
- One day workshop on Intellectual Property Rights, Vivekananda Institute of Technology, Pune, 21st April, 2006.
- One day program on 'Supervisory Development and Stress Management', Govt. College of Engineering Aurangabad, 1st April, 2006.
- Workshop on 'Rainwater harvesting and Watershed Development', 21stAugust, 2005 at Govt. College of Engineering Aurangabad.
- Short term Course on Environmental Pollution and Control, during 14<sup>th</sup> -25<sup>th</sup> July, 2003 at Government College of Engineering Aurangabad.
- An NPEEE sponsored course on Earthquake resistant design of structures, at I..I.T Chennai during 6<sup>th</sup> 12<sup>th</sup> July, 2003.
- Short term Course on Advanced Road Infrastructure Planning and Development at Indian Institute of Technology, Kharagpur from 17<sup>th</sup> 23<sup>rd</sup> July, 2002.
- Short term Course on Advanced course on Watershed management, at Govt. College of Engineering Aurangabad, 2<sup>nd</sup> -15<sup>th</sup> January, 2000.
- Short term Course on Alternate Building Materials and Cost Effective Technologies ,at S.A.T.I. Vidisha from 14<sup>th</sup> 28<sup>th</sup> February, 1994.
- One Day Course on Modular Coordination and Prefabrication, M.I.T. Aurangabad, 11<sup>th</sup> -12<sup>th</sup> October, 1991.

# REVIEWER FOR ENGINEERING JOURNALS

- Reviewed papers for the following publications.
  - Journal of Civil Engineering and Architecture, David Publishing Company, New York, NY 10034, USA.
  - Highway Engineering Journal published by Indian Roads Congress, New Delhi.
  - Working on the Advisory Board of Civil Engineering and Construction Review Journal

# POST GRADUATE / PhD RESEARCH CARRIED OUT UNDER MY GUIDANCE

#### No. of Ph.D. guided: 01

1. Strength and Durability Characteristics of Concrete with Pond Ash and Crushed Sand as Fine Aggregate

Ms Radha S. Bang 2012-13

#### No. of M. Tech Guided: 06

- 1. Performance Evaluation of Glass, Plastic and Composite fibers reinforced Concrete, B.B.Naik M.E.Civil(Structures), 2007-08
- 2. Utilization of Steel Industry Slag for Improving Characteristics of Black Cotton Soils V.S.Lathkar, M.E.Civil(Soil), 2006-07
- 3. Rainfall Runoff Modelling Using GIS Technique Ms. Ulka Joshi, M.E.Civil(Water Resources Engg), 2006-07
- 4. Analysis of Stresses in Retaining Walls Ms. Uma Pattiwar, M.E.Civil(Soil), 2005-06
- 5. Study of Zones of Stress induced Instability Around Circular Tunnel Cavities by using Finite Element Method

Anil S. Dhepe M.E.Civil(Soil) 2002-03

6. Influence of Submergence on Settlement of Footings on Sand S.S.Yelamkar, M.E.Civil(Soil) 1996-97

# **COMPUTER PROFICIENCY**

• Familiarity with Computer Languages / Softwares / Packages etc:

MS Office, Road Master, FORTRAN, C, SCADDS, Lotus, DBASE

• Computer Related additional Qualification

Maharashtra State Certificate Course in Information Technology (M.S.C.I.T)

#### PERSONAL SPECIFICS

Date of Birth: 04.08.1963

Languages known: English, Hindi, Marathi