

## Curriculum Vitae

### **Dr. RAJESH KUMAR**

Professor

Structural Engineering Division

Department of Civil Engineering,

Indian Institute of Technology (Banaras Hindu University), Varanasi- 221005, U.P., INDIA

Email: [rkumar.civ@itbhu.ac.in](mailto:rkumar.civ@itbhu.ac.in), [rajesh8223@yahoo.co.in](mailto:rajesh8223@yahoo.co.in), Mob. No. +91-9453788219

**DATE OF BIRTH** 15 - 01 - 1968

### **AREAS OF RESEARCH**

Soil Structure Interaction (SSI) (Effect of SSI and Cluster of Buildings on Structure)

Structural Optimization (Industrial Structure and Pipe network design)

Non-Linear Structural Analysis (Large Deflection Problems)

Finite Element Analysis

### **PUBLICATION**

**Total Research Publications** = 49 (Journals + Conferences Proceedings)

### **RESEARCH GUIDANCE**

M.Tech. Dissertation - **Total = 51 (43 no. completed + 8 no. ongoing)**

Ph.D Students Guided-Total: **04 (2 no. thesis submitted + 2 no. ongoing)**

### **EDUCATION**

2004 **Ph.D – Structural Engineering: “Efficient Numerical Solution of Large Deflection Problems in Non-Linear Structural Mechanics”**

Department of Civil Engineering, Indian Institute of Technology, Kharagpur, India

1998 **M.E. – Structural Engineering**

Department of Civil Engineering, National Institute of Technology, Rourkela, India

1991 **B.E. – Civil Engineering**

Bihar Institute of Technology, Sindri, Dhanbad, India

### **EXPERIENCE**

**Total – 17 years (Teaching-12 years, Industrial/Field-5 years)**

### **EMPLOYMENT (Teaching)**

**October 2010 to till date - Associate Professor**

Department of Civil Engineering, Indian Institute of Technology  
Banaras Hindu University 221005

**October 2007 to October 2010 - Reader**

Department of Civil Engineering, Institute of Technology  
Banaras Hindu University 221005

**June 2004 to October 2007 - Lecturer**

Department of Civil Engineering, Institute of Technology  
Banaras Hindu University 221005

**August 2003 to June 2004 – Lecturer**

Department of Civil Engineering, Birla Institute of Technology, Mesra, India

## **MAJOUR COURSES TAUGHT (in last 3 Years):**

Finite Element method  
Stability of Structure (Stability of Beam/Column and Plate)  
Structural Mechanics II (Indeterminate Structures)

## **Ph.D. THESIS SUPERVISION**

1. Optimization of Pipe Network Design Using Genetic Algorithms for Newtonian and Non-Newtonian Fluid, by Mr. Sanjay Kumar\*, Status- Ph.D. Thesis has been submitted on 22 of August 2015.
2. Shear Lag Phenomenon in High Rise Structure, by Mr. Gyani Jail Singh\* Status- Pre-Submission Seminar has been Completed on 16<sup>th</sup> of July, 2015 and submitted on 6<sup>th</sup> of November 2015.
3. Efficient Numerical Solution for Non-Linear Structural Mechanics, by Mr. Sashi Kumar, Status-Course work has been completed.
4. An Experimental Investigation on Effect of Superplasticizer and Coating on Carbonation in PPC Concrete, by Mr. Alok Ranjan, Status- Course work has been completed.

**\*Joint Supervision**

## **SPONSORED PROJECTS**

1. “Development of E-Content on Concrete Technology”, (March 2005 to 2006)), Sponsored by UGC, New Delhi, Financial Assistance: Rs.102000/-(Rupees on lakh two thousand only), Status-Completed.
2. “Low Cost Housing Technique and Creation of Building Centre at IIT-BHU, Varanasi”, sponsored by HUDCO, New Delhi, Financial Assistance: Rs.5,00000/-(Rupees five lakh only), Status—Continuing.
3. Sprouting Grant Project on “Study of Cluster effect on Dynamic Soil-Foundation-Structure Interaction” sponsored (2014-15) by IIT(BHU), Varanasi, Amount Sanctioned: Rs. 400000/- Ref.No. IIT(BHU)/Dev./2013-14/5121/L, dated: March 25, 2014, PI&Co-PI- Dr. Rajesh Kumar, Dr. S. Mandal, Status Continuing.
4. “Reduction in Pollution Load of the River ganga through Treatment of Municipal Sewage of IIT (BHU), Varanasi, Sponsored by Project Proposal on Green Cities and Ganga under Varanasi Project, Govt. of India, Financial Assistance: Rs. 9.6 Crore, October 2014-Continuing, Working as a Co-PI.

## **MAJOR CONSULTANCY PROJECTS**

1. Structural Design of 300 KLD STP, at IIT (BHU), Varanasi, based on SBT, Vision Earth Care (VEC), SINE, IIT, Bombay, 2015.
2. Vetting of ROB at Sultanpur, U.P., National Highway Authority of India, 2015
3. Vetting of Structural Design of Multistoried Flates for Group Housing at Mauza Khajuri, Varanasi, B.V.N. Infra Developers, Varanasi, 2015
4. Vetting of Design of Institute of Environmental Science Building, BHU, Varanasi, 2014-15
5. Vetting of Analysis and design of Culvert Bridges at Assi, Varanasi, VDA, Varanasi, 2012-13
6. Vetting of Analysis and design of Bridges at National highway (Six laning of Varanasi-Aurangabad Section of NH-2) near Varanasi, National Highway Authority of India, 2012-13
7. Residence of High Court Judge, at Allahabad, Hon’ble High Court, Allahabad, 2011-12
8. Analysis and Design of Industrial Buildings of BHEL at Jagdishpur, U.P., Chittoor, A.P., Bhopal, M.P., BHEL-Jagdishpur, Chittor, Bhopal, 2010-11
9. Analysis and Design of Guest House for High Court Judges, Samne Ghat, Varanasi, Govt. of U.P., India, 2006
10. Analysis and Design of Hospital Building, UP Health Systems Development Program, Govt. Of U.P., India (under MOU between U.P. Govt. and IT-BHU), 2005

## PUBLICATIONS

**Total Research Publications** = 49 (Journals+Conferences)

### (i) Selected International Journals:

1. Kumar Rajesh, Ramchandra, L.S. and Roy, D., (2004), "Techniques Based on Genetic Algorithms for Large Deflection Analysis of Beams", International Journal, Sadhana, Springer, Vol. 29, pp 589-604. (Impact factor-0.393)
2. Roy, D. and Kumar Rajesh, (2005), "A-Multi-Step Transversal Linearization (MTL) Method in Non-Linear Structural Dynamics", Journal of Sound and Vibration, Elsevier, Vol. 287, Issues 1-2, pp 203 -226. (Impact factor-1.893)
3. Kumar Rajesh, Roy, D., and Ramchandra, L.S., (2006), "A Multi – Step Linearization Technique for a Class of boundary Value Problems in Non-linear Mechanics", Computational Mechanics, Springer, Vol. 39, Issue 1, pp 73-81. (Impact Factor-2.432)
4. Kumar Rajesh, (2012), "Non-Linear Transient Vibration Analysis of Plates using Modified Linearization Technique", International journal, I'mangers, Journal of Structural Engineering, Vol. 1, No. 2, June-August 2012 (Global Impact Factor-0.588).
5. Patra B.K., Kumar Rajesh and Kumar V., (2013), "Analysis of Skew deck slab bridge by Analytical methods", International journal, I'mangers, Journal of Structural Engineering, Vol. 1, No.4, December 12-February 13 (Global Impact Factor-0.588).
6. Sanjay Kumar Srivastava, Rajesh Kumar and Prabhat Kumar Singh Dikshit, (2015) "Optimization of Pipeline Flow of Fine Particles Slurry Using Genetic Algorithms International journal, I'mangers, Journal of Civil Engineering, Vol 3, No.4, December14-February 15 . (Global Impact Factor-0.562)
7. Sanjay Kumar Srivastava, Rajesh Kumar and Prabhat Kumar Singh Dikshit, (2015) "Optimization of Pipe Network Design using Genetic Algorithm, International journal, I'mangers, Journal of Civil Engineering, Vol 3, No.4, December14-February 15 (Global Impact Factor-0.562).
8. Kotha Rajeev Rathan Kumar, Veerendra Kumar and Rajesh Kumar, (2015), "Plastic Analysis of R.C. Annular Slabs Supported at both Edges", Journal of Structural Engineering, Vol. 42, June-July 2015, pp. 176-183 (Global Impact Factor-0.588).
9. Karan Modi, Shreya Thusoo, Rajesh Kumar and Hitesh Madaha., (2015), "Structural Response of Buildings due to Dynamic Soil-Structure Interaction", International journal, I'mangers, Journal of Structural Engineering, Vol 3, No.4, December14-February 15 (Global Impact Factor-0.588).
10. Karan Modi, Rajesh Kumar, Jyoti Katiyar and Shreya Thusoo, (2015), "Analysis of Plates with Varying Rigidities Using Finite Element Method", International Journal of Mechanical, Aerospace, Industrial and Mechatronics Engineering, Vol:9, No:4, 2015, World Academy of Science, Engineering and Technology.
11. Shreya Thusoo, Karan Modi, Rajesh Kumar, Hitesh Madahar, (2015), "Response of Buildings with Soil-Structure Interaction with Varying Soil Types", International Journal of Mechanical, Aerospace, Industrial and Mechatronics Engineering, Vol:9, No:4, 2015, World Academy of Science, Engineering and Technology.
12. G.J. Singh, S. Mandal and Rajesh Kumar (2015), "Effect of Relative Stiffness of Beam and Column on the Shear Lag Phenomenon in tubular Buildings", International journal, I'mangers, Journal of Structural Engineering, Vol.4, No.1, March-May 2015 (Global Impact Factor-0.588) .
13. Akshat Sinha, Ankit Kumar Jha and Rajesh Kumar (2015), "Soil-Structure Interaction in Cluster of Buildings" , Computers and Geotechnics, Elsevier (Communicated)

**(ii) International and National Conferences and Proceedings:**

1. Kumar, R., Roy, D. and Ramachandra, L.S., (2001), "Post buckling analysis of beams using genetic algorithms", presented in International Conference on Recent Advances in Mathematical Sciences, December 20-22, 2000, Indian Institute of Technology, Kharagpur, India.
2. Kumar, R., Roy, D. and Ramachandra, L.S., (2002), "Transient Response of plates using Multiply Transversal Linearization Technique", Published and Presented in Second International Conference on Vibration Engineering and Technology of Machinery, December 16-18, 2002, Bhabha Atomic Research Centre, Mumbai, India.
3. Kumar, R., Ramachandra, L.S. and Roy, D., (2003), "A Genetic Algorithms in Large Deflection Problems in Beam", Published and Presented in International Conference meet on ISTAM, BIT, Mesra, Ranchi, India.
4. Roy, D. and Kumar, R., (2003), "A Multi-Step Transversal Linearization Method for a Class of Non-linear Initial Value Problems in Structural Mechanics", Published and Presented in Structural Engineering Convention- An International Meet, IIT Kharagpur, December 12-14, 2003.
5. Rajesh, Sharad V. Oberoi and Gaurav, (2004), "Assessment of Strength of Heritage Structure with Inputs from Ultrasonic Pulse Velocity Measurement", Ninth International Conference on Structural Studies Repairs and Maintenance of Heritage Architecture (Accepted for publication and presentation), STREMAH – 2005, June Malta, Sponsored by Wessex Institute of Technology, U.K.
6. Kumar, V., Kumar, R., Mandal, S. and Sinha, A.N., (2005), "Use of Admixtures in Concrete: An Indian Scenario", International Pre – conference Workshop, Our World in Concrete & Structures", 22<sup>nd</sup> August 2005, SINGAPORE.
7. Kumar, V., Kumar, R., Mandal, S. and Sinha, A.N., (2005), "Admixtures for Underwater Concreting for Repair of Cracks in the Structure", 30<sup>th</sup> Conference on Our World in Concrete & Structures", 23-24 August 2005, SINGAPORE (published and presented).
8. Kumar Rajesh, Pandey K.K. and Kumar V., (2013), "Direct Approach to Numerical Simulation of Soil Interaction in Homogeneous Building Cluster, International Proceeding of the International Conference on Future Trends in Structural, Civil, Environmental and Mechanical Engineering-FTSCEM 2013, ISBN:978-981-07-7021-1, doi 10.3850/978-981-07-7021-1\_64", Bangkok, Thailand, 13-15 July, 2013.
9. Singh G.J., Mandal S. And Kumar R., (2013) "Effect of Column Location on Plan of Multi-Story Building on Shear Lag Phenomenon", The Eight Asia-Pacific Conference on Wind Engineering (APCWE-VIII), December 10-14, 2013, Chennai, India.
10. Rajesh Kumar, V.Kumar, Alok Kumar and Shivang D. Agrawal, (2014), "Yield Line Analysis of Rectangular Slabs by Finite Element Method", Proc. of the second International Conference on Advances in Civil, Structural and Environmental Engineering-ACSEE 2014, Zurich, Switzerland, 25-26 October, 2014, ISBN-978-1-63248-030-9 doi: 10.15224/978-1-63248-030-9-24.
11. Ankit Kumar Jha, Kumar Utkarsh and Rajesh Kumar, (2015), "Effects of Soil-Structure Interaction on Multi Storey Buildings on Mat Foundation", Springer India 2015, V.Matsagar (ed.), Advances in Structural Engineering, DOI 10.1007/978-81-322-2190-6\_56.
12. Kumar, R.,(2001-2002), "Genetic Algorithms in the solution of nonlinear problems", Proceedings, in Annual Journal of Civil Engineering Society in Golden jubilee issue, 2001-2002, Indian Institute of Technology, Kharagpur, India.
13. Kumar, R., (2003), "A Multi-Step Transversal Linearization Technique to Large Deflection Problems in Beam", Published and Presented in National Conference on role of Civil Engineers to alleviate the poverty, organized by Institution of Engineers, Ranchi, India, Nov.-Dec. (2003).

14. Kumar Rajesh, Sharad V. Oberoi and Gaurav, (2004), “ Land Cover / Land use Classification and Monitoring of Mountainous Terrain using Remote Sensing Data and GIS”, Seven Annual ESRI India User Conference (UC 2004), Noida, U.P., India.
15. Kumar Rajesh, (2004), “ Application of Genetic Algorithm in Non-Linear Structural Problems”, Presented and Published in Proceedings of the all Indian Seminar on Innovations in Design and Construction of the Concrete Structures, October 2-3, 2004, Organized by the Institution of Engineers (India), I.T., B.H.U., Varanasi and Indian Concrete Institute, U.P., Varanasi & Allahabad Centre.
16. Kumar, R., (2004), “Cross Drainage Structures in Rural Roads under PMGSY”, Published and Presented in Training Programme on Construction and Maintenance of Rural Roads under PMGSY for REO Engineers, Jharkhand, BIT, Mesra, Ranchi, India.
17. Gaurav, Mandal, S., Kumar, R. and Kumar, V., (2005), “Linear Deflection Analysis of Beam Using Genetic Algorithms”, October 22, 2005, Indian Concrete Institute, U.P., Varanasi Centre, Institute of Technology, Banaras Hindu University, Varanasi, India, pp 54 – 64.
18. Saha R., Kumar, R., Mandal, S. and Kumar, V., (2005), “Cracks: Cure and Prevention”, October 22, 2005, Indian Concrete Institute, U.P., Varanasi Centre, Institute of Technology, Banaras Hindu University, Varanasi, India, pp 65 – 88..
19. Kumar Rajesh (2005) “An Efficient Numerical Technique for a Non-linear Initial Value Problems in Structural Mechanics”, Published and presented in National Conference on Earthquake Resistant Analysis, Design and Retrofitting of Structure, Institute of Technology, Banaras Hindu University, Varanasi, February 18-19, 2006.
20. Kumar V., Kumar Rajesh and Mandal, S., (2005) “Retrofitting of Underwater Structures”, Published and Presented in National Conference on Earthquake Resistant Analysis, Design and Retrofitting of Structure, Institute of Technology, Banaras Hindu University, Varanasi, February 18-19, 2006.
21. Kumar Rajesh (2007), “Action and Analysis of Confined Brick Masonry Construction”, Published and Presented in National Workshop on Design and Construction of Confined Brick Masonry Buildings(WDCCBMB), Institute of Technology, Banaras Hindu University, Varanasi, February 03-04, 2007.
22. Kumar Rajesh, Kumar V. and Mandal S., (2007), “Cause of Cracks and Prevention”, Published and Presented in workshop on Engineers’ Meet 2007, Institute of Technology, Banaras Hindu University, Varanasi, May 18, 2007.
23. Kumar V., Mandal S. and Kumar Rajesh, (2007), “Effect of Constituent-Characteristics on Concrete Durability”, Published in workshop on Engineers’ Meet 2007, Institute of Technology, Banaras Hindu University, Varanasi, May 18, 2007.
24. Kumar Rajesh (2007), “Constructional Details”, Presented in National Workshop on Design and Construction of Confined Brick Masonry Buildings(WDCCBMB), Institute of Technology, Banaras Hindu University, Varanasi, February 03-04, 2007.
25. Kumar Rajesh, Kumar V. and Mandal S., (2007), “Cracks: Cure and Prevention”, Published and Presented in workshop on Engineers’ Meet 2007, Institute of Technology, Banaras Hindu University, Varanasi, May 18, 2007.
26. Kumar V., Mandal S. and Kumar Rajesh, (2007), “Effect of Constituent-Characteristics on Concrete Durability”, Published in workshop on Engineers’ Meet 2007, Institute of Technology, Banaras Hindu University, Varanasi, May 18, 2007.
27. Kumar Rajesh (2010), “Provisions of Different IS Codes and National Building Codes in Brick Masonry Buildings”, Published and Presented in Workshop on Earthquake Resistant Design and Construction of Confined Brick Masonry Buildings (WERDCCBMB), Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, February, 2010.
28. Kumar Rajesh (2010), “Provisions of Different IS Codes and National Building Codes in Brick Masonry Buildings”, Published and Presented in Workshop on Earthquake Resistant Design and Construction of Confined Brick Masonry Buildings (WERDCCBMB), Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, February, 2010.

29. Kumar Rajesh (2011), "Quality Concerns of Ground Water for Concrete", Publish in Proceeding of the National Conference on Groundwater for Drinking: Issues and Options, February 11-13, 2011
30. Kumar Rajesh, Gaurav Jain and Pandey K.K., (2011) "Cost Optimization of Industrial Steel Building using Genetic Algorithm", Publish in National Conference on Mathematical Modeling and Computer Simulation (MMCS-2011), Department of Applied Mathematics, Institute of Technology, Banaras Hindu University, March 25-27, 2011.
31. Kumar Rajesh, Johri Ashish and Kumar V., (2011) "Linear and Non Linear Analysis of Square Plate". Publish in Proceeding of National Conference on Recent Advances in Civil Engineering (RACE-2011), Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, October, 2011.
32. Vashisth Anirudh., Singla Vineet and Kumar Rajesh, (2011) "Analysis and Construction of a Low Cost Foldable Dome". Publish in Proceeding of National Conference on Recent Advances in Civil Engineering (RACE-2011), Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, October, 2011.
33. Patra B. Keshree., Kumar Rajesh and Kumar V., (2011) "Analysis of Skew Slab Deck Using Analytical Methods". Publish in Proceeding of National Conference on Recent Advances in Civil Engineering (RACE-2011), Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, October, 2011.
34. Kumar Rajesh, Jain Harshit and Dwivedi S.B., (2011), "Channel and Cored Unit for Roofing/Flooring for Low Cost Housing: A Review.", Publish in Proceeding of National Conference on Recent Advances in Civil Engineering (RACE-2011), Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, October, 2011.
35. Kumar Rajesh and Vashisth Anirudh (2012), "Finite Element Modeling for Sinter Powder Metallurgy", National Seminar on "Design and Development of Materials for Advanced Technologies", Department of Metallurgical Engineering, Indian Institute of Technology (BHU), Varanasi.

## **ADMINISTRATIVE EXPERIENCE**

### **Institute Level (Member/Admin. Warden/Warden/Chairman)**

2015 Vice Chairman for JEE (Advanced) -2016, IIT (BHU)

2011-2015 Administrative Warden- Vivekanand Hostel, IIT (BHU)

2014-2015 Member- Institute Works Department

2015 Member- Institute Repository Committee

2013 –2015 Member- Teaching Learning Cell

2014-2015 Mentor-Human Values Course

2015 Member of Shortlisting Committee for the selection of the post of A.E., J.E. (Civil Engineering)

2014 –2015 Member- Institute Works Committee

2013-2015 Member- Anti Ragging Committee

2014-2015 Member- Scrutiny Committee of Varanasi Project

2013 Chairman of the committee for making Rules & Regulation of the IIT (BHU) Hostels

2013 Chairman for allotment committee for allotment of hostels in summer

2012-13 Member of the Hospital Open Tender Committee (HOTC), Sir Sunderlal Hospital, IMS-BHU

2009-2013 Member- Degree Distribution Committee

2007-13 Member- Committee for purchasing of furniture, UWD, BHU

2010-11 Administrative Warden-Vishwakarma Hostel, IIT (BHU)

2007-10 Warden-Rajputana Hostel, IIT (BHU)

2009 Member- Committee of Super Computing Facility, GARUNA

2007 Tour-Incharge- Students Educational Tour

2006-07 Vice-Chairman of Cultural Wing, IIT-GYMKHANA

2006-07 Member-Workshop Committees, IT-BHU

2006-07 Member-IT-Cafeteria, IT-BHU

2005 -06 Member- Monitoring Committee for quality construction, UWD, BHU

## Departmental Level

2014 –2015 Member- Undergraduate Committee (DUGC)  
2014 -15 Member- Purchase Committee of the Department  
2013-2015 Convener- Computational and Web Committee  
2012-2015 Professor-in-charge of Structural Engineering laboratory  
2014-2015 Professor-in-Charge of Training and Placement of the Department  
2013 - 2015 Convener/Member- M.Tech. & Ph.D. Admission

2013 -14 Member- Departmental Post Graduate Committee (DPGC)  
2013 Chairman for making Perspective plan of the Department  
2006-12 Professor-in-charge-Civil Engineering Computer laboratory  
2006-11 Professor-in-charge of Library/Reading Room of the department  
2007-08 Professor-in-charge for making Departmental Website  
XI Plan- Professor-in-Charge for making department proposal of XI plan

## SERVICE OUTSIDE OF IIT (BHU)

**Monitoring (as a third party) of execution of quality construction of following works:**

- High Court Building at Gomtinagar, Lucknow (2013-Continueing)
- Medical College at Ambedkarnagar and Azamgarh, U.P (2012-13)
- Sewage Treatment Plant at Allhabad, U.P. (2012-13)
- Checking of stability and durability of foundation of Turbo-generator of Mahan Power Project (HIDALCO), Sasan Power Project (RELIANCE) at Sigrauli, M.P. (2012-13)
- Culvert Bridge at Assi Ghat, Varanasi (2012-13)
- Checking of stability and durability of the foundation of existing transmission line towers at HINDALCO, Renuagar, U.P. (2011-12)
- Non-destructive test of piers of the flyover bridge at Varanasi (Near Cant, 2012)
- Cross drainage works, Canal etc. at Bansagar, U.P. (2011)

## SEMINAR/SYMPOSIA/WORKSHOP/SHORT TERM TRAINING PROGRAM ORGANISED

1. National Conference on Recent Advances in Civil Engineering (RACE-2011), October 2011, IT-BHU, Varanasi
2. Engineers' Meet 2007, May 2007, IT-BHU, Varanasi
3. Technical Supervisors and Masons' Meet 2006, May 2006, IT-BHU, Varanasi
4. Short Term Training Program (STTP) on Structural Steel Design, Sponsored by INSDAG-Kolkata, Min. of steel (GOI), Tata Steel, SAIL, 06-11, June 2005, IT-BHU, Varanasi
5. Masons' Meet 2005, under Building Centre, IT-BHU, Varanasi, April, IT-BHU, Varanasi

## SOME IMPORTANT LECTURES/PAPER PRESENTED/INVITED TALKS

- Yield Line Analysis of Rectangular Slabs by Finite Element Method, Second International Conference on Advances In Civil, Structural and Environmental Engineering- ACSEE 2014, 25-26 October, 2014 at **Zurich City-West, Switzerland.**
- Direct Approach to Numerical Simulation of Soil Interaction in Homogeneous Building Cluster, International Conference on Future Trends in Structural, Civil, Environmental and Mechanical Engineering-FTSCEM 2013, **Bangkok, Thailand, 13-15July, 2013.**
- Admixtures for Underwater for Repair of Cracks in the Structure, International Conference on Our World in Concrete & Structures (OWICS) (2005)", August 2005, Orchard Plaza, **SINGAPORE.**
- A Genetic Algorithms in Large Deflection Problems in Beam, International Conferences meet on **ISTAM (2003)**, BIT, Mesra, Ranchi, India.

### **EDITED (Books/Chapter/Proceedings):**

- (1) Proceeding of National Conference on Recent Advances in Civil Engineering (RACE-2011, **ISBN: 978-81- 921121-0-7**).
- (2) Pollution Abatement and Control “Properties of Recycled Aggregate Concentrate with Micro-silica as Partial Cement Replacement”(V.Kumar,R.Kumar,C.Ashish& N.Kumar) Publishid by Daya Publishing House (**A Division of Astral International Pvt.Ltd.**) **ISBN 9789351242840**.

### **TEACHING LABORATORIES DESIGN**

- Renovated and Design of Computer Lab of the Department
- Renovated Structure & Concrete lab of the Department

### **OTHER INFORMATIONS**

- Reviewrs of Journals: I’managers, Journal of Structural Engineering, International Journal of Scientific Engineering and Technology
- Developed Lab manual of Dynamics Lab of the Department of Civil Engineering
- Delivered lectures on “Design of Load Bearing Structure” to graduate trainee Engineer at Anpara, U.P. (2011)
- Membership of professional Bodies: (i)Indian Society of Technical Education (ISTE)  
(ii)Indian Concrete Institute (ICI)

Rajesh Kumar