# **Curriculum Vitae**

Name: Dr. Virendra Kumar

Father's Name: Late Taro Prasad

**Present Position:** Associate Professor

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**DATE OF BIRTH: 18.01.1969** 

Present Address: Deptt. of Civil Engg.,

National Institute of Technology Jamshedpur,

Jamshedpur-831 014, Jharkhand.

## **EDUCATIONAL QUALIFICATION:**

S.No.	Certificate /	<b>Board / Institute</b>	Year of	Class / Division
	Degree		Passing	
1.	Ph.D.	I.I.T.,Roorkee.	2013	-
2.	M.E. (Structural Engg.)	N.I.T. Rourkela	1995	74.15%
3.	B.Sc.,Engg. (Civil Engg.)	N.I.T. Jamshedpur	1993	74.53%

Ph.D. Thesis Topic: Fire Performance of Earthquake Damaged Reinforced Concrete Structures

M. Tech Thesis Topic: Studies on Some Properties of High Volume Fly Ash Concrete

#### **Research Interests:**

- Fire resistance of reinforced concrete structures
- Structural dynamics
- Earthquake resistant structures
- Structural health monitoring of structures
- Retrofitting & Strengthening of RCC Structures
- Concrete technology
- Development of new cementitious materials
- Utilization of waste material
- Durability of structures



#### RESEARCH AWARDS/FELLOWSHIPS RECEIVED:

- i) S.J.Jindal Scholarship in B.Sc. Engg. (Civil Engg.), at N.I.T. Jamshedpur
- ii) GATE Scholarship in ME, N.I.T. Rourkela
- iii) Q.I.P. Scholarship in Ph.D., I.I.T. Roorkee

### **RESEARCH PUBLICATIONS (With Full Deatiails):**

#### INTERNATIONAL REFERRED SCI/SCOPOUS JOURNALS:

### I. <u>International Journals</u>:10

### (i) SCI: 6

- 1. õFull-scale testing of a damaged reinforced concrete frame in fireö, Umesh Kumar Sharma, Pradeep Bhargava, Bhupinder Singh, Yogendra Singh Virendra Kumar, Praveen Kamath,, , Asif Usmani, Jose Torero, Martin Gillie, Pankaj Pankaj, Ian May& Jian Zhang, Ice Proceedings: Structures and buildings, V. 165 Issue-SB7,pg. 335-346, July 2012.
- 2. õFull-scale fire test on an earthquake-damaged reinforced concrete frameö, Praveen Kamath, Umesh Kumar Sharma, Virendra Kumar, Pradeep Bhargava, Asif Usmanic, Bhupinder Singh, Yogendra Singh, JoseTorero Martin Gilli Pankaj Pankaj, Fire Safety Journal, V. 73, pg. 1-19 (2015)
- 3. õTesting of Full-scale RC Frame under Simulated Fire Following Earthquakeö Umesh Kumar Sharma, Virendra Kumar, Praveen Kamath, Bhupinder Singh, Pradeep Bhargava1, Yogendra Singh1, Asif Usmani, Jose Torero, Martin Gillie and Pankaj Pankaj, Journal of Structural Fire Engineering, V. 5, No. 3, pg. 215-228 (2014)
- 4. õEffect of temperature on mechanical properties of pre-damaged steel reinforcing barsö. Virendra Kumar, Umesh Kumar Sharma, Bhupinder Singh, Pradeep Bhargava, Construction and Building Materials, V. 46, pg. 19-27 (2013).
- 5. õEffective of inhibition on rebar corrosion in simulated concrete" Shailesh kumar Prasad, "monalisa kundu, virendra kumar, International journal for scientific Research &Development, feb 2016, 4, 2321-0613
- 6. õLESSONS FROM A FULL-SCALE RC FRAME SUBJECTED TO EARTHQUAKE TRIGGERED FIREÖ, U. K. Sharma, P. Bhargava, B. Singh, P. Kamath, V. Kumar, A. Usmani, and M. Gillie, Journal of Structural in Fire Engineering, 2012
- 7. õBehaviour of Earthquake Damaged RC Structures in Fireö, P. Kamath, P. Bhargava, N.M. Bhandari, U.K. Sharma and V. Kumar, Journal of Structural in Fire Engineering, 2013

### (ii) Scopus: 4

- 1. õUtilization of ferrochrome slag in Concrete as a Replacement to Fine Aggregateö, Virendra Kumar, Dileep Barnwal, ISBN 978-81-904760-9-6, 2017
- 2. õSeismic response reduction of RC framed structure using soft storey at top as tuned mass damperö, Virendra Kumar, M.S yuvaraj, International journal of science and innovative Engg. & technology 2, 2017, ISBN 978-81-904760-9-6
- 3. õA Review on Green inhibitors of reinforcement concrete corrosionö Monalisa kundu, Shailesh kumar Prasad, virendra kumar , International journal of emerging research in management & technology 5, 2278-9359, pg. 42-46
- 4. õCorrosion protection of steel reinforcement in simulated concrete pore solution in the presence of inhibitorsö, Monalisa kundu, Shailesh kumar Prasad, Virendra Kumar

#### II. National Journals: 01

#### INTERNATIONAL/NATIONAL CONFERENCES:

#### i) International Conferences: 37

- 1. õTesting of full-scale RC Frame under simulated fire following Earthquakeö, Umesh Kumar Sharma, Virendra Kumar, Bhupinder Singh, Pradeep Bhargava, Yogendra Singh, Praveen Kamath, Asif Usmani, Jose Torero, Martin Gillie, Pankaj Pankaj, 7th International Conference on Structures in Fire June 6-8, 2012, DOI:10.3929/ethz-a-007050197ö
- 2. õUtilization of ferrochrome slag as fine aggregateö, V. Kumar, B.K Prasad, and D Barnwal, 15th NCB International seminar on cement, concrete and building materials, 05-08 December 2017 pg.164
- 3. õPerformance of ground granulated blast furnace slag as binder with non silicate based activatorö, V. Kumar, B.K Prasad, A.Kumar, and N. Ramkumar, 15th NCB International seminar on cement, concrete and building materials, 05-08 December 2017, pg. 126
- 4. õStrength assessment of concrete with silica fumeö, Virendra Kumar, 14th NCB international seminar on cement and building material, Vol. 2, pg 416-418, 01-04 December 2015, NewDelhi.
- 5. õModelling and influence of infill walls on multistorey reinforce concrete structuresö, Virendra Kumar, Veeresh, 2015
- 6. õBehaviour of Full-Scale Reinforced Concrete Frame Under Simulated Post-Earthquake Fire, V. Kumar, U.K. Sharma, B. Singh, P. Bhargava, Y. Singh & P. Kamath, 15th (WCEE) world conference on earthquake engineering 2012, Pg.1062.
- 7. õAn Overview of organic corrosion inhibitors for steel in concreteö, Mamata Bal, Virendra Kumar, M.M. Prasad, V. 3-in-1, National conferenceøGEPSIDø heldat Ludhiana(Punjab), October 11-12,2014.
- 8. õDevelopment of flash over in a compartment fire for full scale testing of concrete framesö Virendra Kumar Umesh K. Sharma Bhupinder Singh Yogendra. Singh Pradeep Bhargava
- 9. õUtilization of ferrochrome slag in Concrete as a Replacement to Fine Aggregateö Virendra Kumar, Dileep Barnwal, International Conference on Contemporary Engineering and Technology. 2017 March 31 1 April 2017, ISBN 978-81-904760-9-6
- 10. õMoment Curvature Relationship for fire damaged Reinforced Concrete Sectionö DMS Pani Prasad, V. kumar, U.K Sharma and Bhargava, 6<sup>th</sup> International conference on Structures in Fire, ISBN 978-1-60595-027-3
- 11. õModelling and influence of infill walls on multistorey reinforce concrete structuresö, Virendra Kumar, Veeresh, Recent innovation in earthquake resistant techniques, pg. 121-129, 9-10 November, 2015, RVS Ccllege of Engineering, Jamshedpur.
- 12. õCorrosion inhibitors for rebar in concreteö Virendra kumar, Shailesh kumar Prasad, Monalisa Kundu, pg. 281, International UKIERI concrete congress, 2-5 November, NIT Jalandhar, India.
- 13. õPerformance of high rise reinforce concrete structure with and without infill wallö, International UKIERI concrete congress, 2-5 November, NIT Jalandhar, India.
- 14. õResidual behaviour of pre-damaged steel rebars exposed to elevated temperaturesö, Virendra Kumar, Umesh Kumar Sharma, Bhupinder Singh, Pradeep Bhargava, Innovation in concrete construction, 5-8 march ,2013, Paper ID: UCC522
- 15. õResidual Post-Fire Behaviour of Pre-Damaged Confined Concreteö V. Kumar, U. K. Sharma, B. Singh, P. Bhargava, 15th (WCEE) world conference on earthquake engineering 2012, Paper no-3981
- 16. Virendra Kumar & Bimlesh kumar õBehaviour of Standard Concrete with Different Types of Coarse Aggregatesö ICI-Innovative World of Concrete õ08, 4th International Conference & Exhibition + Silver Jubilee Celebrationsö India Expo Centre, New Delhi, India, 11-14 December 2008.

- 17. Virendra Kumar & Suresh Kumar õInfluence of Silica Fume on Strength Development of Standard Concreteö ICI-Innovative World of Concrete õ08, 4th International Conference & Exhibition + Silver Jubilee Celebrationsö India Expo Centre, New Delhi, India, 11-14 December 2008.
- 18. Virendra Kumar & Jitendra kumar õExperimental Investigation on Strength of Fly Ash Silica Fume Concreteö ICI-Innovative World of Concrete õ08, 4th International Conference & Exhibition + Silver Jubilee Celebrationsö India Expo Centre, New Delhi, India, 11-14 December 2008.
- 19. Virendra Kumar ó õInfluence of High Volume Fly Ash in Concreteö Proc. in International Coal Ash Technology Conf. on õAshTech 2006, Birmingham, West Midlands, U K, 14-17 May 2006.
- 20. Virendra Kumar õCompressive Strength of Steel Fiber Reinforced Concreteö Proc. of International Conference of 10th East Asia Pacific Conference on Structural Engineering & Construction (EASEC-10), School of Civil Engineering, Asian Institute of Technology (AIT), Bankok, Thailand, 3-5 August, 2006.
- 21. Virendra Kumar ó õHigh Volume Fly Ash Utilisation in Concreteö Proc. in International Congress on õFly Ash India 2005ö at Fly Ash Utilisation (FAUP), TIFAC, DST., New Delhi, India, 4-7 December 2005, pp. VI33.1 to VI33.11.
- 22. Kumar, Virendra and Prasad, M.M. õDetailing of Reinforced Concrete Structural Membersö Proc. of International Conference on õConcrete and Reinforced Concrete ó Development Trendsö Moscow, 5-9 September 2005.
- 23. Kumar, Virendra and Prasad, M.M..- õStatic Flexural Strength of Steel Fiber Concreteö Proc. of International Conference on õConcrete and Reinforced Concrete ó Development Trendsö Moscow, 5-9 September 2005.
- 24. Kumar Virendra, Sinha, A.K. and Prasad, M.M. õStatic Modulus of Elasticity of Steel Fiber Reinforced Concreteö Proc. of 6th International Congress on õGlobal Construction: Ultimate Concrete Opportunitiesö Dundee, Scotland, U.K., 5-7 July 2005 Thomas Telford Pub. London, ISBN: 0-7277-3401-6, pp. 527-536.
- 25. Kumar, Virendra, Sinha, A.K. and Prasad, M.M. õFly ash Bricks An Alternative Construction Materialsö, Proc. of 1st International conference and Exhibition on õBuilding Materials and Construction Technologiesö, Pragati Maidan, New Delhi, India, 12-15 Feb. 2004, pp. 99-105.
- 26. Kumar, Virendra, Sinha, A.K. Prasad, M.M. õFlexural and Split Tensile Strength of Steel Fiber Reinforced Concreteö, Proc. Of International Conference on õFiber Composites, High Performance Concretes and Smart Materialsö & Workshops on õHigh- Volume Flyash Concreteö, ICFRC, Chennai, India, Allied Publishers Pvt. Ltd., 8-10 Jan. 2004, Vol.-I, pp.177-188,.
- 27. Kumar, Virendra and Prasad, M.M. õEffect of Flyash and Silica Fume on Flexural and Split-Tensile Strength of Concrete Mixö, Proc. of International conference on õEmerging Technology (ICET 2003)ö, K.I.I.T., Bhubneshwar, Orissa, India, 19-21 Dec. 2003, pp. 86.
- 28. Kumar Virendra, Kumar Sanjay and Prasad, M.M. õEffect of Coating on Compressive Strength of Concreteö, Proc. of International conference on õEmerging Technology (ICET 2003)ö, K.I.I.T., Bhubneshwar, Orissa, India, 19-21 Dec. 2003, pp. 84-85.
- 29. Kumar, Virendra, Sinha, A.K. Prasad, M.M. õStudies on Steel Fiber Reinforced Concrete for Compressive Strengthö, Proc. of 8th NCB International Seminar on õCement and Building Materialsö, NCB, New Delhi, India, Rakmo Press (P) Ltd, 18-21Nov. 2003, Vol.-4, pp. XI 74-81.
- 30. Kumar, Virendra and Prasad, M.M. õEffect of Flyash and Silica Fume on Compressive Strength of Concreteö Proc. of International Symposia on õInnovative World of Concreteö, Indian Concrete Institute, Pune, India, 19-21 Sept. 2003.
- 31. Kumar, Virendra and Prasad, M.M. õFlexural and Split-Tensile Strength of Flyash-Silica Fume Concreteö, Proc. of International Conference on õRecent Trends in Concrete Technology and Structures (INCONTEST 2003)ö, Dept. of Civil Engg., Kumaraguru College of Technology, Coimbatore, India, 10-12 Sept. 2003, Vol. óII, pp. 217-223.
- 32. Kumar, Virendra and Prasad, M.M. ó õEffect of Flyash and Silica Fume on Static Modulus of Elasticity in Concrete Mixö Proc. of International Symposia on õCelebrating Concrete: People and Practiceö, University of Dundee, Scotland, U.K., 3-4 Sept. 2003, Thomas Telford Pub., London, ISBN: 0-7277-3246-3, pp. 203-211.

- 33. Kumar, Virendra and Prasad, M.M. ó õStatic Modulus of Elasticity of Flyash-Silica Fume Concreteö Proc. of International Workshop and Conf. on õConstruction Management and Materials (CONMAT-2003)ö Dept. of Civil Engg., I.I.T., Kharagpur, India, Phoenix Publishing House Pvt. Ltd., New Delhi, 9-11 Jan. 2003, pp. 549-558.
- 34. Jha, Shailesh; Kumar, Virendra and Prasad, M.M.- õConstruction Process ó An Integrated Approachö Proc. of International Workshop and Conf. on õConstruction Management and Materials (CONMAT-2003)ö Dept. of Civil Engg., I.I.T., Kharagpur, India, Phoenix Publishing House Pvt. Ltd., New Delhi, 9-11 Jan. 2003, pp. 192-197.
- 35. Kumar, Virendra; Prasad, M.M., and Jain. K.K. õAn Investigation on Surface Drying Shrinkage of High Volume Flyash Concreteö Proc. of 6th International Conf. on õConcrete Technology for Developing Countriesö, Jordan, Amman, 21-23 Oct. 2002.
- 36. Prasad, M.M.; Kumar, Virendra and Kumar, Sanjay õEarthquake and Disaster Management ó An Overviewö Proc. of International Conf. and Exhibition on õRemote Sensing GIS, and GPS in Human Settlement Planningö, Dept. of Architecture and Planning, N.I.T., Bhopal M.P., India, 16-19 Jan. 2002.
- 37. Kumar, Virendra; Prasad, M.M. and Jain. K.K. õUltrasonic Pulse Velocity for High Volume Flyash Concreteö Proc. of International Conf. on õAdvances in Civil Engg.ö, I.I.T. Kharagpur, India, Allied Publisher Ltd, New Delhi, Jan. 3-5, 2002, pp 1444-1450 vol.-II

#### ii) National Conferences/Seminars: 38

- 1. õProtective coating of Zn-Al Alloy on TMT rebar for concrete applicationö ,Monalisa Kundu, S.K Prasad, Virendra Kumar, V.3-in-1, pg. 40 National conference@GEPSIDø heldat Ludhiana(Punjab), October 11-12,2014.
- 2. õPerformance of Reinforced Concrete Buildings by pushover analysisö, Virendra kumar, Gopinath, Veeresh B Somnath, V. 3-in 1 Volume, pg 44, National conferenceøGEPSIDø heldat Ludhiana(Punjab), October 11-12,2014.
- 3. õAn Overview of organic corrosion inhibitors for steel in concreteö, Mamata Bal, Virendra Kumar, M.M. Prasad, V. 3-in Volume 3, pg.47, National conferenceøGEPSIDø heldat Ludhiana(Punjab), October 11-12,2014.
- 4. Virendra Kumar & S.R. Pandit- õExperimental Investigation on Strength Development of Volume Fly Ash Concrete With Silica Fumeö in the Proc. of National Conference õElement of Green Cities in Indian Context (Green Summit 2008)ö at Agra, India, 01-02 March 2008.
- 5. Kumar Sanjay, Kumar, Virendra, and Prasad, M.M. õSome Mechanical Properties of Recron 3S Fibre Concreteö, Proc. of National conference on õAdvances in Concrete Technology (ACT 2004)ö, T.I.E.T., Patiala, India, 26-27 Feb. 2004.
- 6. Kumar, Virendra, Sinha, A.K. and Prasad, M.M. õHigh Volume Utilisation of Fly ash in Bricksö, Proc. of National conference on õAdvances in Concrete Technology (ACT 2004)ö, T.I.E.T., Patiala, India, 26-27 Feb. 2004.
- 7. Kumar, Virendra and Prasad, M.M. õStrength Assessment of High Volume Fly Ash Concreteö, Proc. of seminar on õRecent Trends in Building Materials (RTBM-04)ö, Regional Research Laboratory, Bhopal, M.P., India, 26-27 Feb., 2004.
- 8. Kumar, Virendra and Prasad, M.M. õStrength and Stability of Steel Columnö, Proc. of All India Seminar on õStructural Steel for Construction Industry (SSCI-2004)ö, N.I.T., Rourkela, India, Aarbee Printers, 24-25 Jan. 2004, pp.192-200.
- 9. Kumar, Virendra and Prasad, M.M. õEffect of Sulphate Environment on Compressive Strength of Concreteö, Proc. of National conference on õMaterials and Structures (MAST)ö, N.I.T., Warangal, India, 23-24 Jan. 2004.
- 10. Kumar, Virendra, and. Prasad, M.M. õIndustrial Waste in Road Construction ó An Overviewö, Proc. of National Conference on õModern Cement Concrete and Bituminous Roadsö, G.T.A.M., Visakhapatnam, India, 18-20 Dec. 2003.

- 11. Kumar, Virendra and Prasad, M.M. õLow-Rise Reinforced Concrete Buildings in Earthquake Conditionsö, Proc. of 2nd conference on õDisaster Management Case Historiesö, B.I.T., Pilani, Rajasthan, India, 14-16 Nov. 2003.
- 12. Kumar, Virendra Sinha, A.K. Prasad, M.M. and Jha Shailesh õConstruction Industry and Carnot Cycle ó An Analogous Approachö, Proc. Of 6st National conference on õGlobal Challenges in Project ó Design and Construction Managementö, India Habitat Centre, New Delhi, India, 11-12 Nov. 2003, pp. 63-71, Session-I.
- 13. Kumar, Virendra; Prasad, M.M. and Jain K.K. ó õ Performance of High Volume Flyash Concreteö Proc. in Nat. Sem. onö Smart Materials, Intelligent Structures & Systems in Civil Engineeringö, ACCE, Bangalore, India, 19-21st June 2003.
- 14. Sinha, A.K.; Kumar, Virendra and Prasad, M.M. ó õRecent Techniques in Transportation Systemö Proc. of Nat. Conf. on õACEDFCö H.B.T.I., Kanpur, India, 15-16 Feb 2003.
- 15. Kumar, Sanjay; Kumar, Virendra and Prasad, M.M. ó õEarthquake Resistant Building ó An Overviewö Proc. of Nat. Conf. on õEmerging Trends in Concrete Construction (NC-ETCC)ö Dept. of Civil Engg., Chaitanya Bharthi Institute of Technology, Hyderabad, India, 22-24 Jan 2003.
- 16. Prasad, M.M., Kumar Virendra and Sinha A.K. ó õIndustrial Waste, Energy, Environment and Management in Infrastructure Developmentö, Proc. of Global Summit on Infrastructure Development of Jharkhand, N.I.T., Jamshedpur, India, 11-12 Jan. 2003, pp. 68-75.
- 17. Kumar, Sanjay; Kumar, Virendra and Prasad, M.M. ó õManagement in Construction ó A Perfect Approachö Proc. of Nat. Sem. on õInfrastructure Development Retrospect & Prospectsö The Institution of Engineers (I), Bihar State Centre, Patna, XVII Indian Engineering Congress, Digital Printers, Patna, India, 19-22 Dec. 2002, pp. 189-193.
- 18. Virendra Kumar; A.K. Sinha and Dr. M.M. Prasad ó õRole of Structural Engineer in Infrastructure Developmentö Proc. of Nat. Sem. in õInfrastructure Development Retrospect and Prospectsö. The Institution of Engineers (I), Patna, India, XVII Indian Engineering Congress, Digital Printers, Patna, (India) 19-22 Dec 2002, pp. 35-43.
- 19. Kumar, Sanjay; Prasad, M.M. and Kumar, Virendra ó õMaterial Characteristics of High Performance Concrete ó An Overviewö Proc. of Nat. Sem. on õAdvances in Concrete and Concrete Structuresö. The Institution of Engineers (I), Local Centre, Belgaum, Karnataka, India, 25-26 Oct. 2002, pp. 23-27.
- 20. Kumar, Sanjay; Kumar, Virendra and Prasad M.M. õIndustrial Waste ó A Cost Effective and Environmental Friendly Building Materialö Proc. of õCivil Engineering Strategies in the Making of India ó A Global Giant (CESMIGG)ö Dept. of Civil Engg., Crescent Engg. College, Chennai, India, 3-4 Oct. 2002, pp.73-77
- 21. A.K. Sinha, Virendra Kumar and Dr. M.M. Prasad ó õNecessity of Road Transport for Infrastructure and Economic Development in Indiaö Proc. of Nat. Sem. on õCivil Engineering Strategies in the Making of India ó A Global Giant (CESMIGG)ö Dept. of Civil Engg., Crescent Engg. College, Chennai, India, 3-4 Oct. 2002, pp. 1-4.
- 22. Sanjay Kumar; Virendra Kumar and M.M. Prasad ó õFeasibility of Concrete Pavement in Jharkhandö Proc. of All India Seminar on õDevelopment of Road Infrastructure in Jharkhandö The Institution of Engineers (I), Dhanbad Local Centre, India, 29-30 June 2002, pp. 161-167.
- 23. Prasad, M.M; Kumar, Virendra and Sinha, A.K. ó õUtilisation of Steel Industry Waste by-productö Proc. of All India Seminar on õDevelopment of Road Infrastructure in Jharkhandö The Institution of Engineers (I), Dhanbad Local Centre, India, 29-30 June 2002, pp. 278-284.
- 24. Kumar, Virendra; Sinha, A.K. and Prasad, M.M. õBehaviour of Low Cost Building under Earthquake Conditionsö Proc. of Nat. Sem. on õRecent Challenges in Civil Engg. (RCCE-2002)ö Association of Consulting Civil Engineers (India), Hyderabad Centre, 21-22 June 2002, pp. 5-10, vol. II.
- 25. Kumar, Sanjay; Kumar, Virendra and Prasad, M.M. õLow Cost Perfabricated Building Elementsö Proc. of All India Sem. on õMechanisation and Prefabrication in Buildingö. The Institution of Engineers (I), Indore Local Centre and S.G.S.I.T. and Sc. Indore, M.P., India, April 2002.

- 26. Kumar, Virendra; Kumar, Sanjay and Prasad M.M. õStudy of Flexural and Split Tensile Strength of Flyash-Silica Fume Concreteö Proc. of Nat. Conf. on õAdvances in Construction Materialö Dept of Civil Engg., N.I.T., Hamirpur, India, 8-9 April 2002.
- 27. Kumar, Virendra; Prasad, M.M. and Kumar, Sanjay ó õEffect of Wind Load on Multistoreyed Residential Buildingsö Proc. of Nat. Sem. on õWind Engineering (NCWE-02)ö, Dept. of Civil Engg., I.I.T., Roorkee, India, Phoenix Publishing House Pvt. Ltd., New Delhi, 4-6 April 2002, pp. 215-227.
- 28. Sinha, A.K.; Kumar, Virendra and Prasad, M.M. ó õUtilisation of Flyash in Road Constructionö Proc. of National Seminar on õRecent Trends in Civil Engg.ö Dept. of Civil Engg., MBM College, Jodhpur, India, 22-23 Feb. 2002.
- 29. Kumar, Virendra and Prasad, M.M. ó õBehaviour of Composite Beams of Steel and Concrete in Buildingö Proc. of All India Seminar on õModern Trends in Steel Structuresö Association of Consulting Civil Engineers, Nagpur Centre and the Institution of Engineers (I), India, 8-9 Feb 2002.
- 30. A.K. Sinha, Virendra Kumar and Dr. M.M. Prasad ó õFinance and Management of Road Networkö Proc. of National Seminar on õFinancing, Design, Construction and Operation of Highwaysö Dept. of Civil Engg. Govt. College of Engg. Aurangabad, India, 7-8 Feb 2002, pp. 175.
- 31. Kumar, Virendra and Prasad, M.M.- õBehaviour of Reinforced Concrete Building During Earthquakeö Proc. of Nat. Workshop on õAdvances in Structural Engg.ö, Dept. of Civil Engg., Venkateswara University, Tirupati, India, 21-22 Dec. 2001, pp. 249-256.
- 32. Kumar, Sanjay; Kumar, Virendra and Prasad, M.M. õCorrosion of Reinforced Concrete and its protectionö Proc. of Nat. Sem. on õCorrosion and its Protectionö, N.M.L., Jamshedpur, India, 11-12 Dec. 2001, pp 51-56.
- 33. Prasad, M.M; Sinha, A.K. and Kumar, Virendra õSocio-Economic Development and Rural Road Construction Technologyö Proc. of Sem. on õRural Development for a Health Rural-Urban Interfaceö, I.I.T. Kharagpur, India, XVI Indian Engineering Congress, 1- 4 Dec. 2001, pp. 76-81
- 34. Kumar, Sanjay; Kumar, Virendra and Prasad, M.M. õFlyash Concrete-A Good Building Materialö Proc. of Nat. Conf. on õUtilisation of Flyash in New Millenniumø, Andhra Univ., Visakhapatanam, 23 Oct. 2001 pp. 103-107.
- 35. Kumar, Virendra; Kumar, Sanjay and Prasad, M.M. õFlyash-Silica Fume Concrete-A New Construction Materialö Proc. of Sem. on õConcrete in the Service for Adaptability and Durabilityö, MNREC, Allahabad, 7 Sept. 2001 pp. III 36-42
- 36. Kumar, Virendra; Sinha, B.P. and Prasad, M.M. õA New Technique for Widening of Old Arch Bridgeö Proc. of Sem. on õFast Track Construction of Bridges and Structuresö, Patna, India, 2-3 Feb. 2001.
- 37. Kumar, Virendra; Khan, A.K. and Sinha, A.K. õAn Experimental Investigation of Flyash Concreteö Proc. of Nat. Sem. on õAdvances in Cement and Concrete (ACC-2000)ö, Bundelkhand Institute of Engg. & Technology, Jhansi, India 10-11 March, 2000.
- 38. Kumar, Virendra and Jain, K.K. ó őUtilisation of Flyash ó A Challenge of Concrete Technologyö, Proc. of Nat. Symp. on őRecent Trends in Concrete Technologyö, K.I.T., Coimbator, India May 7-8, 1999, pp. 125-148.

### **RESEARCH PROJECTS/CONSULTANCY PROJECTS:**

### i) Sponsored Research Projects

- Research Project on Feasibility Study for Use of Ferrochrome Slag in Construction/Road sponsored by R
  D Division, Tata Steel Ltd. Jamshedpur, Aug. 2016 to Nov. 2017, (13.39 Lacs)
- Research Project on Feasibility studies on LD Salg as Coarse, Fine Aggregates and Cementitious Materials in Construction sponsored by R & D Division, Tata Steel Ltd. Jamshedpur, Dec. 2017 to Dec. 2018, (26.51 Lacs)
- Research Project on Comprehensive Study on Effect of High Temperature on Concrete Structure Related to the Lining of Curved Structure such as Tunnel sponsored by DRDO Delhi 20.7.2017 to 20 7 2019, (8.2 Lacs)

### ii) Industrial Projects/ Consultancy

- Mix Design of Concrete M10, M15, M20 & M25 for construction of Jalasay Yojana in Sararikela-Kharsawan District, M/s Executive Engg., Jalpath Pramandal, Chaibasa, Jharkhand
- Mix Design of Concrete M15 & M25, M/s Punj Lioyd Ltd, Koderma
- Mix Design of Concrete, M/s Assistant Engg NIT, Project Sub-Division III, CPWD JSR
- Mix Design of Concrete, M/s N.B.C.C.Ltd
- NDT Testing for RCC Foundation of Pellet Plant, Head Mechnical, Maintenance, Pellet Plant, Tata Steel Ltd.
- Proof Checking of the Design for three spans open web girder bridges in Koderma-Barkakana Section, M/s Modi Project Ltd, Ranchi
- Proof Checking of Bridge No. 21 at Bardarha, District-Champa, Chhatisgarh, M/s D.B.Power Ltd, Raigarh, Chhatisgarh
- NDT Testing of Ball Mill#1 RCC foundation in Pellet Plant at Tata Steel Ltd., M/s Kishore Behra, Head of Maintenance, Pellet Plant, Tata Steel Ltd
- Proof checking of the Design & Drawing of Box Bridge no 73 at KM 350.910 on DEO Nala in Between KNPS-MNKA Block section of Third line between RKSN-DPS, M/s Managing Director Emak Consulting Pvt. Ltd, Ranchi
- Proof checking of the Design & Drawing of PieröP12ö & P õP13ö of span 1x30M of ROB at Km 416/13-15 in sector 9-STI Chowk in lieu of LC No. 211 between Rourkela óPanposh stations, M/s Managing Director Emak Consulting Pvt. Ltd, Ranchi
- Proof checking of ROB at Ranchi, M/s Jharkhand Infrastructure Implementation Co. Ltd. Ranchi.
- Proof checking of Rail Bridge at KM 8.796 in between Matakhar Sarasa Jamalpur station in connection with new Rail line Project, M/S Shamvwi Consultant, 314, Jagat, Patna
- Review of Design & Drawing of 180 M long Barricating Wall of height 17.5 above the RCC Column, M/s J. Majumdar & Associates, Kolkata
- Proof checking of ROB no 209 at ch 91/330 in connection with Koderma ó Giridih new rail line project,
  M/S Emak Consulting Engineers Pvt Ltd., Ranchi
- Proof checking of ROB at Ranchi, M/s Project Director, JUIDCO Ltd
- Proof checking of Railway Bridge, M/S Emak Consulting Engineers Pvt Ltd., Ranchi
- Improvement works of Chaibasa-Kandra-Chowka Road in Jharkhand for Core conducting of Structures, M/s GKC Project Ltd, HITEC City, Hyderabad
- Vetting of Design and drawing of WWTP for Tata Steel Jamshedpur, M/s Bhagwat Engineering, New Kalimati, JSR
- Consulting for proof-checking of design of 2-Lane via-duct and reinforced earth work at chakradharpur, Jharkhand, M/s Mr. Surana, Triveni Enterprises, 3/6, H.S.Tower, Bistupur, Jamshedpur
- Proof checking of the design & drawing of Bridges works of Bhimsen Jhansi (206 Kms) route of Jhansi Division of NCR in UP, M/s Skylark, Designer & Engineers Pvt.
- Proof checking of Railway Bridges, M/S Emak Consulting Engineers Pvt Ltd., Ranchi
- Proof checking of Rail substructure(Pier & abutment), M/S Shamvwi Consultant, 314, Jagat, Patna
- Proof checking of HPCL Building at Barauni, M/s Ram Kripal Singh Construction Pvt., Ranchi

- NDT Testing of Ball Mill#1 RCC foundation in Pellet Plant at Tata Steel Ltd., Head of Maintenance, Pellet Plant, Tata Steel Ltd
- Proof checking of ROB, M/S Emak Consulting Engineers Pvt Ltd., Ranchi
- Proof checking of Railway substructure(Pier & abutment), M/S Shamvwi Consultant, 314, Jagat, Patna
- NDT Testing of Ball Mill#1 RCC foundation in Pellet Plant at Tata Steel Ltd., Head of Maintenance, Pellet Plant, Tata Steel Ltd
- Mix Design of Concrete M10, M15, M20, M25 & M30 for construction of Gajiaya Barrage, M/s L & T Construction
- Mix Design of Concrete for construction works, M/s N.B.C.C. Ltd
- NDT for assessment of the strength of the strength of floor slab & intake well for khunti water supply scheme , D.K.Singh, Project Director (Technical), JUIDCO Ltd, Ranchi
- Mix Design of Concrete M25 & M30 for GLMC project of Barrage Division , S.K.Sahu, Sew Infrastructure Ltd., Jharkhand
- Proof checking of the Design & drawing of i)construction of a bridge on approach road Of NTPC Prroject, Sudhir Kumar, Director, M/s Sparsh Engineering Company(P) Ltd.
- Assessment of R & D Building condition through NDT & Scanning of RCC roof slab at Tata steel, Jamshedpur, Chief, R & D Scientific Services, R & D Building, Tata Steel, Jamshedpur
- NDT of Board Head Quarter Building Ranchi, Jharkhand, Chief Engineer, State Housing Board, Jharkhand, Ranchi.
- Concrete Core Testing for Tata Project Ltd., Capstone Consultants Pvt. Ltd, Mumbai
- NDT for Swtchyard RCC Road at 220 KV at 400/220KV Chaibasa Sub station Jharkhand, Mr. D. Pandey, Sr. Electrical Engineer, 400/220KV Chaibasa Sub station, Jharkhand
- Ranchi Urban Water Supply Scheme under JNNURM-Estimate of reinforcement through scanning work of RCC beams and columns, M/s L & T Ltd, Water & Effluent Treatment, Ranchi.
- Proof checking of the Design & Drawing of 20 nos Major Bridge (Br. No 26,29,31,32,40, 63, 64,,66,92,97,100,104,123,140,146,165,166,167,168,169) in connect in with the proposed doubling of existing railway line between Kiul-Gaya 124.304 km long of East Central Railway, M/S Emak Consulting Engineers Pvt Ltd., Ranchi
- Proof checking of the Design & Drawing of 162 nos Minor Bridges in connection with the proposed doubling of existing railway line between Kiul-Gaya 124.304 km long of East Central Railway, M/S Emak Consulting Engineers Pvt Ltd., Ranchi
- Vetting of Foundation design, D.K.Singh, Project Director (Technical), JUIDCO Ltd, Ranchi
- IVA Work for Chhota Govindpur & Baghbera Piped Water Supply Schemes (MVS) Executive Engineer-cum-Member Secretary Neer Nirmal Pariyojana, D.W. & S. Division Jamshedpur, DPMU, East Singhbhum

### **CONFERENCE/WORKSHOP ORGANISED:**

- Course Coordinator, Sponsored by TEQIP-II, Short Term course on õRecent Advances in Civil Engineering (RACE-2017), NIT Jamshedpur, March 2 ó March 4, 2017, Number of participants ó 81.
- GIAN Course Coordinator, Sponsored by MHRD, GIAN course on õAnalysis and Design of Structures in Fire(ADSF-2017), NIT Jamshedpur, October 9 ó October 13, 2017, Number of participants ó 58.

#### **TEACHING EXPERIENCE:**

Designation	Employer Period	
Associate Professor	N.I.T. Jamshedpur	28-03-2011 to continuing
Lecturer(Selection Grade)	N.I.T. Jamshedpur	28-03-2008 to 27-03-2011
Lecturer (Senior Scale)	N.I.T. Jamshedpur	28-03-2003 to 27-03-2008
Lecturer	N.I.T. Jamshedpur	27-03-1998 to 27-03-2003

#### **AWARDS, HONOURS & RECOGNITIONS:**

Best Paper Award in UKIERI Concrete Congress, 2-5 Nov. 2015, at N.I,T. Jalandhar, Panjab, India.

#### MEMBER OF PROFESSIONAL ACADEMIC BODIES:

The Institution of Engineers (India): Fellow (F-119675-4)

The Institution of Engineers (India): Chartered Engineer (India) (F-119675

Indian Concrete Institute: Life Memmber-7974

Institute for Steel Development & Growth: Individual Life Member-IINDVM-L-027

Indian Council of Chemists: Life Fellow-LF/1723

#### **INVITED TALKS/SEMINARS GIVEN:**

- Lecture on the Topic in the workshop on Parralel Flange Sections in Workshop on õParrallel Flange Beams: An offering from JSPLö on 8<sup>th</sup> October, 2014 at Ramada Hostel, Bistupur, Jamshedpur
- Seminar/Lecture on õEffect of Fire Following Earthquake on Reinforced Concrete Structuresö as a part GIAN Course July 11-22, 2016 at GIAN Course on õStructural Behaviour and Design in Extreme Thermal Conditions including Fire Effects
- Lecture delivered in One Day Workshop on the theme "Basics of Building Materials And Construction" in One Day Workshop on the theme "Basics of Building Materials And Construction" on 26<sup>th</sup> August, 2015, The Institution of Engineers, Jamshedpur Local Centre, Jamshedpur.
- Invited Lecture on õUse of Flyash in Concreteö on 16<sup>th</sup> January 2014 in Annual Conference on õEfficient Utilisation of Coal based Thermal Power Plant Ash in Wset Bengal during 16-17 January 2014 at West Bengal Pollution Control Board, Kolkata-98.

### **Any Other Information:**

### i) Visits Abroad (Foreign Universities):

- University of Dundee, Scotland, U.K. during 5-7 July 2005 to attend and present research paper in 6<sup>th</sup> International Congress at University.
- NCREE Laboratory at Tiawan (ROC) during 20-24 October, 2008 to attend International Training Program for Seismic Design of Structures 2008 hosted by National Center for Research on Earthquake Engineering sponsored by National Science Council.

• ETH, Zurich University, Switzerland during 6-8 June 2012 to attend and present research paper in 7<sup>th</sup> International Conference on Structures in Fire-SIFø2012.

### ii) STC/Training Programme attended:

- Training Programme on õAdvances in Concrete Technology covering use of Admixture, Self Compacting, Concrete and High Performance Concrete ö, 23 ó 25 May 2017
- Nation workshop on õ NBC 2016 & Recently Revised Seismic Codes ó Impact on Structural Design, Construction &Safety of Buildingsö, 27 ó 28 June 2017, New Delhi
- Short Term GIAN course on õ Structural Behaviour and Design in Extreme Thermal Conditions Including Fire Effectsö, 11 ó 22 July 2016, IIT Hyderabad
- Training Programme on õUnderstanding Earthquake Behaviour of Buildingsö, 21 -26 May 2016, VNIT Nagpur
- Training Programme on õBehaviour Buildings Characterization and Testing ö, 1-5 June 2015, MNIT Jaipur
- Short Term course on õInternational Training Program for Seismic Design of Structures 2008ö, October 20-24, 2008, Tiawan, Republic of China.
- Short Term course on õApplied Numerical Methodsö, 07.7.2008- 11.7.2008, I.I.T., Roorkke
- Training Programme on ABAQUS Software, 19-23 May 2008, New Delhi
- Short Term course on õSeismic Reliability and Life Assessment of Structuresö, 12 Mar 2007, I.I.T. Kharagpur,
- Short Term course on õProgramming and Data Structuresö, 02 Jan 08 Jan 2007, N.I.T., Jamshedpur
- Short Term course on õNumerical Methodsö, 26 Dec 31 Dec 2006, N.I.T., Jamshedpur
- Short Term course on õStructural Dynamics-Applications to Earthquake Engineeringö, 03 July 14 July 2006, I.I.T., Bombay
- Short Term course on õSeismic Design of Reinforced Concrete Buildingsö, 16 May 21 May 2005, I.I.T., Roorkee,
- Short Course on õSeismic Design of Bridgesö, 22 Nov 26 Nov 2004, I.I.T., Kanpur
- Short Course on õSeismic Design of steel Structuresö, 27 Sept. 2004 01Oct. 2004, I.I.T., Kanpur
- Short Term Training Course õSeismic Retrofit of Multistoreyed Reinforced Concrete Buildingsö, 28
  June 3 July 2004, I.I.T. Madras
- Short Term Training Course õSeismic Resistance of Masonry Structuresö, 21 June 26 June 2004, I.I.T. Madras
- Short Term Training Course õStructural Dynamics & Seismic Designö, 14 June 19 June 2004, I.I.T. Madras
- Short Course on õSeismic Design of Reinforced Concrete Buildingsö, 28May to 1 June, 2001, I.I.T., Kanpur
- Short Term course on õTeacherøs Role in Engineering Educationö, 25 Dec 13 Jan 2001, R.I.T. Jamshedpur
- Short Term course on õRecent Advantage in Chemical, Electrochemical and Nuclear Energy Systemö, 21 Oct 31 Oct 1999, PES College of Engg. Mandya, Karnataka
- Short Term course on õRecent Advantage in Industrial Managementö, 28 Dec 8 Jan 1999,N.I.T., Jalandhar