

**Sudhirkumar V Barai** PhD  
**Indian Institute of Technology. Kharagpur, India**



**Present Position**

**Dean, Undergraduate studies** and  
**Professor**, Structural Engineering  
Department of Civil Engineering  
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**Google Scholar** <https://scholar.google.co.in/citations?user=T2t0d1wAAAAJ>

**Educational Qualifications**

- Bachelor of Engineering 1987 Civil Engineering MS University, Baroda, India
- Master of Engineering 1989 Civil Engineering, MS University, Baroda, India
- Ph.D. 1995 Civil Engineering, Indian Institute of Science, Bangalore

**Professional Activity**

Professor	Teaching, Research	IIT, Kharagpur, India	June 10- Till date
Associate Professor	Teaching, Research	IIT, Kharagpur, India	Aug 04- June 10
Erskine Visiting Fellow	Teaching, Research	University of Canterbury, NZ	May 08-June 08
Assistant Professor	Teaching, Research	IIT, Kharagpur, India	May 99- Aug 04
Visiting Scientist	Research	NUS, Singapore CMU,	May 03- July 03
BOYSCAST Fellow	Research	Pittsburgh, USA	May 00- Nov 00
Visiting Faculty	Teaching, Research	IIT, Kharagpur, India	Sept 98-May 99
Post-doctoral Fellow	Research	Tel Aviv Uni., Tel Aviv, Israel	Feb 97-July 98
Senior Research Analyst	R&D, Consultancy	EMRC, Bangalore, India	May 94-Feb 97
Research Scholar	Research	IISc, Bangalore, India	Feb 89- May94

**Research Areas**

- Recycled Construction Materials
- Fracture in Concrete
- Structural Health Monitoring
- Data analytics and Soft Computing Applications

**Specialties**

- **Engineering Fields:** Green Technology, Recycled Construction Materials, Computational Techniques, Fracture Mechanics, Sensitivity Analysis, Damage Assessment Methodologies, MEMS applications
- **Interdisciplinary Fields:** Computer Aided Engineering, Artificial Intelligence; Knowledge Based Expert Systems, Fuzzy Logic and Neural Networks, Internet based applications in Engineering Problems.

## Positions of Responsibility

- **Dean, Undergraduate Studies**, IIT Kharagpur (August 2016- Onwards)
- **Chairman**, Career Development Centre, IIT Kharagpur (January 2014 –December 2015)
- **Prof-in-charge**, Training and Placement office (April 2012 – January 2014)
- **Prof-in-charge**, Intellectual Property Rights and Industrial Relations (August 2011 – October 2013)
- **Chairman**, GATE 2011 – 1 year
- **Vice Chairman**, GATE 2008 (Organizing Institute: JMET 2008), GATE 2009, GATE 2010 – 3 years
- **Chairman, Kshitij 2010, 2012** and **Co-chairman, Kshitij 2007** - Techno-management Festival

## Professional Society Memberships

- Fellow, IEI (India)
- Fellow, Association of Consulting Civil Engineers (India)
- Senior Member: RILEM
- Professional Member: Association for Computing Machinery (ACM)
- Member: International Association for Life-Cycle Civil Engineering (IALCCE)
- Life Member: Institute of Smart Structures and Systems (ISSS)
- Member: International Association of Engineers (IAENG)
- Life Member: Indian Concrete Institute (ICI), Chennai
- Member: International Association for Bridge Maintenance and Safety (IABMS)
- Member: Young Researchers Committee, World Federation for Soft Computing (WFSC)
- Life Member: The Indian Science Congress Association (ISCA)
- Associate Member: The International Society of Structure and Multidisciplinary Optimization (ISSMO)
- Life Member: Indian Roads Congress (IRC)
- Life Member: Indian Association for Structural Engineering (IASE)
- Life Member: Indian Association for Computational Mechanics (IACM)
- Life Member: The Indian Society for Technical Education (ISTE)
- Life Member: American Society for Civil Engineers India Section (ASCE IS)
- Life Member: Indian Society for Construction Material and Structures (ISCMS)
- Member - Integrating Advanced Structural Analysis with Structural Reliability Analysis (ASRANet) - EPSRC Fund Network
- Member - Working Group of Soft Computing in Image Processing (SCIP)
- Corresponding member, Bridge Maintenance and Rehabilitation (B-9), Committee, Indians Roads Congress 2003-2005
- Member: EURO Working Group on Stochastic Modelling, <http://www.math.vu.nl/euro/index.php>
- Member - Technical Committee RAC - Structural behaviour and innovation of recycled aggregate concrete, RILEM (2015)
- Member - Technical Committee TDK - Testing methods for determination of double-K criterion for crack propagation in concrete, RILEM (2011)

## Publications

He has published more than **200+ papers** in leading international journals and conferences in his research fields. He has co-authored three books- **(1) Concrete Fracture Models and Applications (2) Shear Strengthening of T-beam with GFRP: A Systematic Approach and (3) Systematic Approach of Characterisation and Behaviour of Recycled Aggregate Concrete**, which have been published by **Springer**.

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Updated on August 29, 2018