

Curriculum Vitae

Dr. Subrata Chakraborty

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Field of Interest: *Structural Engineering in general, Specific fields of research interests are:*

- Uncertainty quantification, reliability analysis and optimization under uncertainty
- Dynamic analysis under extreme events, seismic safety analysis
- Vibration control and structural health monitoring
- Special concrete and composite

Education

Sl. No.	Degree	University	Year	Subjects	Percent age
1.	B. E.	Calcutta University	1991	Civil Engineering	80.0
2	M.Tech.	I.I.T. Kharagpur	1992	Civil Engineering (Structure)	9.06/10
3	Ph.D.	I.I.T. Kharagpur	1997	Civil Engineering (Structure)	-

Experience

Teaching

- Professor (HAG), Department of Civil Engg, Indian Institute of Engineering Science and Technology, Shibpur (former Bengal Engineering and Science University) from 25.8.2021
- Professor, Department of Civil Engg, Indian Institute of Engineering Science and Technology, Shibpur (former Bengal Engineering and Science University) from 27.3.2008
- Assistant Professor, Department of Civil Engg, Bengal Engineering and Science University (BESU), Shibpur from 27.3.2000 to 26.3.2008.
- Lecturer, Department of Civil Engg, BESU, Shibpur from 01.08.1996 to 25.3.2000, Department of Applied Mechanics, BESU Shibpur from 02.05.1995 to 31.07.1996.

Post-Doctoral Studies

- Research Associate during March to Sept. 2003 to work on 'New unified technique for structural reliability assessment & optimal design under hybrid uncertain parameters', Department of Engineering at *Univ. of Cambridge, U.K.* Host: Prof. Robin Langley.
- Postdoctoral research during May to October, 2005 on 'Application of reliability methods towards Advanced Mechanical Design' in *BOYSCAST Fellowship* programme of DST, Govt. of India at *Univ. of Arizona, Tucson, U.S.A.* Host: Prof Achintya Haldar.

- Postdoctoral research during May to Nov 2009 and July to Sept. 2010 on ‘SVA of Complex Industrial Units by Multi-modal Displacement-based Analysis in the Framework of Numerical Simulation’ in connection with the *Humboldt Fellowship for Experienced Researcher* at RWTH Aachen Germany, Host: *Professor Konstantin Meskouris*.

Administrative:

1	Member of the Board of Governors (Senate Representative)	Feb 2017	Feb 2019
2	Member of the Finance committee	Feb 2017	Feb 2019
3	Member of the ACOFAR	Sept 2016	Feb. 2019
4	Member of the Senate Standing Committee	June 2018	June 2020
5	Member of the Institute Budget Committee	June 2018	Till date
6	Member of the then Court and Executive Council	Feb 2014	Nov. 2015
7	Coordinator of the Part time Post Graduate Programme	July 2007	July 2012
8	Chairman of the committee to assess manpower to run medical facilities	Sept 2011	-
9	Chairman of the committee to assess manpower of Institute security service	Aug 2011	-
	Member of the committee for the preparation of documents and steering the relevant activities for (i) Improvement of NIRF ranking of the Institute, (ii) accreditation by NBA and other accreditation bodies. Member of the TEQIP II Academic Committee. Member of the Court and Executive Committee and Faculty Council of erstwhile BESUS, from Feb. 2014 to till its existence		

Awards and Recognitions

Awards

- **Indian Society of Earthquake Technology (ISET) V. H. Joshi Award** for Significant Contributions in Structural Dynamics for the year 2014.
- **The Humboldt Research Fellowship for Experienced Researchers** by the Alexander von Humboldt foundation to pursue advance research in seismic vulnerability analysis at RWTH Aachen Germany during May to November 2009 and May to July 2010.
- **The BOYSACAST Fellowship** for the year 2004-2005 by DST, Govt. of India for conducting advance research on reliability methods towards advanced mechanical design at University of Arizona, USA.
- **The INAE Young Engineer Award** for the Year 2003 by the Indian National Academy of Engineering to recognize outstanding achievements /contributions made by Young Engineers in any branch of engineering within the age of not more than 35 years.
- **The Young Faculty Research Award** for the year 2004-05 by the BEC Alumni Association of Washington DC Metropolitan Area for excellence in research performance.
- **The Suchit Kumar Ghosh Memorial Award** in 2003 by the Institution of Engineers (India).

Fellowships, memberships of professional bodies

- Fellow of the Indian National Academy of Engineering.
- Fellow West Bengal Academy of Science and Technology
- Fellow of the Institution of Engineers (India) Div: CI F-115791-0
- Fellow, Council of Vibration Specialists
- Member of American Society of Civil Engineering (EM Division).
- Life Member of The Society for Reliability and Safety
- Life Member of The Indian Society of Technical Education

- Life Member of The Forum of Scientists, Engineers and Technologists
- Life Member of The Indian Society of Earthquake Technology

Professional Recognitions

- Member of the *Bridge Expert Committee* for monitoring and strengthening the execution of Bridges to ensure safety and stability under West Bengal State Rural Development Agency (WBSRDA), June 2022.
- Member of the *Advisory Committee on Bridges & Grade Separated Structures* for advising the Urban Development & Municipal Affairs Department, Govt of West Bengal, (Sept 2018-2022).
- Convenor Sectional Committee 1 (Civil Engg) of *INAE*, 2023
- *Research Advisor* of Nan Yang Academy of Science (Singapore), 2018
- Member of the Sectional Committee 1 (Civil Engg) of *INAE* 2016-2019, 2021-24.
- External Expert in Civil Eng. for *Building Works Committee*, ISI Kolkata, 2012-14, 2014-16.
- Member of *Building Works Committee*, Joint Entrance Board Got of West Bengal 2016.
- Member, the curriculum development committee of Sikkim Institute of Science & Technology, Sikkim.
- Member of The Structural Engineering and Structural Sections, CED: 7 (*Design code of steel structures IS 800, 2007*).
- *Section Editor (Civil Engg)*, *INAE Letter*, an Official Journal of the Indian National Academy of Engineering 2015-2018.
- Member, *executive body of the Indian Society of Earthquake Technology* for the Year 2005-2007)
- Zonal Coordinator, East Zone for *National Award competition for Civil/structural engineering students for best innovative structural steel design by INS DAG* for the Year 2017-18, 2018-19. Also, a jury member in the final round held at Kolkata for the Year 2017-2018 and 2018-2019.
- *Associate Editor* of the Journal of the Institution of Engineers (India): Series A, Civil, Architectural, Environmental and Agricultural Engineering, Springer (2011-16).
- *Managing Editor* of International Journal of Engineering under Uncertainty: Hazards, Assessment, and Mitigation during 2009-2012.
- *Guest editor* of SRESA Journal of Life Cycle Reliability and Safety Engineering, Vol. 1 Issue 3 and 4, 2012.
- Member of the *Editorial Board* of: (i) International J. of Control Engineering and Technology (IJCET) <http://www.ijcet.org>, (ii) J. of Structural Engineering and Management
- Member of *Expert committee* to investigate the feasibility of construction of underground car parking facility near High Court buildings and Bidhan Sabha Bhavan, 2014, PWD, Govt. of West Bengal.
- Member of *Expert committee* for faculty selection of Various State University, NITs, Private Engineering Colleges, Odisha Bigyan Academy, INAE Youth Engineer Award, INAE Youth Forum, Faculty promotion at the CE Department of Pabna University of Science and Technology, Pabna, Bangladesh, Technical Officers (Gazetted) CMERI Durgapur, Junior Surveyor, Engineers of CPWD for UPSC etc.

Keynote and Invited Lectures/Talks, session chair etc.

Keynote/Plenary Lectures

- Reliability analysis of structures by adaptive support vector regression model, The **69th Congress of the Indian Society of Theoretical and Applied Mechanics (ISTAM)** 19-21 Dec. 2024, CHRIST (Deemed University), Bangalore-560029, India
- ISM
- Nerula
- Model reduction Techniques in Finite Element Model Updating, 3rd Int Conf on “Advances in Concrete, Structural & Geotechnical Engg (ACSGE – 2024), Feb. 26-28, 2024, Department of Civil Engineering, **BITS Pilani**-Pilani campus.
- Tuned Liquid Dampers in Wave Vibration Control of Offshore Structures, Recent Trend in Applied Sciences, Jan. 04-05, 2024, Physics and Applied Mathematics Unit, **Indian Statistical Institute, Kolkata**
- Metamodeling Approach of Reliability Analysis of Underground Tunnel, **12th Structural Engineering Convention-An International Conference, MNIT Jaipur**, 19-22 Dec. 2022
- Keynote Address: Metamodeling Based Reliability Analysis of Structures Under Stochastic Dynamic Loads with Special Emphasis to Earthquake, **4th Int Conf on Reliability, Safety and Hazard-2019 (ICRESH 2019)**; Jan 10-13, 2019, IIT Madras, Chennai & Centre for Advanced Life Cycle Engineering, Univ. of Maryland, USA.
- Seismic fragility analysis of structures using support vector machine based metamodeling, **International Conference on “Advances in Concrete, Structural, & Geotechnical Engineering**, 26 - 28th Feb. 2018, BITS Pilani, India.
- *Application of Metamodeling Approach in Seismic Reliability Analysis of Structures*, **13th Int. Conf. on Vibration Problems (ICOVP-2017)**, 29th Nov - 2nd Dec, 2017 organize by IIT Guwahati, India and IŞIK University, Istanbul Turkey.
- Metamodeling Based Simulation for Efficient Seismic Reliability Analysis of Structures in the 3rd National Conference on Reliability and Safety Engineering (NCRS-2016), SSN College of Engineering, Chennai and the Chennai Chapter of Society for Reliability and Safety Engineering, Chennai 01-03, Dec, 2016
- *Analytical seismic vulnerability assessment of existing structures in the North-eastern region of India* in the **International Conference on RECENT TRENDS & CHALLENGES IN CIVIL ENGINEERING (RTCCE-2014)** at Motilal Nehru National Institute of Technology Allahabad during Dec. 12-14, 2014.
- Optimum design of liquid column dampers under uncertainty” and chaired a session in the **International Conference on Structural Engineering and Mechanics (ICSEM 2013)**, 20th - 22nd December 2013 at NIT Roukela, Odisha.
- Dr. K. L. Rao Memorial Lecture on “Seismic Vulnerability Assessment of Existing Buildings - Developments and Challenges”, at **29th National Convention of Civil Engineers**, 11th Nov. 2013, Shillong, Meghalya.
- Invited as guest of honour & delivered keynote address on Engineering Preparedness for Disaster Mitigation on the Engineers' Day celebration by **IEI, Qatar on Sept.30, 2011 at Doha, Qatar**.

Invited Lectures in Conferences, Seminars, workshops etc.

- Underground Tunnel Safety Analysis and Safety Assessment, Short term training program in **Digital Transformation & Sustainable Solutions in Civil Engineering**, 17th Dec. 2024, Dept of Civil Engg **Yeshwantrao Chavan College of Engg, Nagpur**
- Probabilistic Seismic Hazard Analysis for various locations in the Northeast Region of India, **ISET Kolkata Chapter**, 15th July, 2024
- Seismic Hazards and Risk Analysis, ATAL-AICTE FDP program on ‘Numerical Modelling & Analysis of Structures under Earthquake Loading’, January 8th to 13th, 2024, at **NITTTR Kolkata**.
- Non Destructive Testing of Concrete Structures - An Overview, Short term training program on Futuristic trends & advances in civil engineering for sustainable development, 4 to 9th Dec. 2023, Dept of Civil Engg **Yeshwantrao Chavan College of Engg, Nagpur**
- Adaptive support vector regression based metamodel for reliability analysis of structure’, 5th National Conf on Reliability & Safety, 10-12 March 2022, IIT Madras Centre of Excellence on Safety Critical Systems, SRESA Chennai Chapter in association with **CSIR-SERC, Chennai, Shiv Nadar University**, Chennai and Centre for Reliability, Chennai, IIRR
- Overview of Seismic Vulnerability Assessment of Structures: Special Emphasis to the Northeast India” in the workshop on **“Recent Advances in Infrastructure Technology (RAIT-2021)”** from March 2nd to 6th, 2021 at NIT Sikkim (Online mode).
- An overview of underground tunnel analysis and safety assessment” in the webinar **on Planning & Design of Sustainable Transportation Infrastructures**, March 8-12, 2021, CE Department, IIST Shibpur (Online mode).
- An overview of underground tunnel analysis and safety assessment” in the workshop on **Challenges and Opportunities in Civil Engineering Infrastructure** from 25-29th Jan, 2021 (online mode) under TEQIP-III by CE Dept, IGIT Sarang, Govt. of Odisha.
- Probabilistic Seismic Hazard Analysis and Generation of Ground Motions for different important locations of NE India in the **Int. Workshop on Developments in Structural Dynamics & Soil- Structure Interaction**, NIT Silchar Sept 11-15, 2020 (online)
- Probabilistic Seismic Hazard Analysis with Special Emphasis to the Northeast India and Performance Based Seismic Fragility Assessment of Structures with Special Emphasis to the Northeast India, workshop on **“Hazard Mitigation of Onshore and Offshore Structures”**, (**HMOOS2019**), 26th to 30nd April, 2019, Civil Engineering Dept, NIT Silchar.
- Invited Lecture on Metamodeling Based Reliability Analysis of Structures Under Stochastic Dynamic Loads: Application to Earthquake Load, **Workshop on “Computational Technology (CT-2018)”** Aug 16-20, 2018, Department of Mechanical Engineering, NIT Silchar.
- Invited Lecture on Probabilistic Seismic Hazard Analysis for Seismic Risk Assessment of Structures in the Northeast Region of India, **Workshop on Role of Geotechnical Investigation in Foundation Engineering & Mining** May 24- 25, 2018, organized by The Mining, Geological & Metallurgical Institute of India (MGMI) Calcutta, GSI & NIRM.
- Invited Lecture on *Numerical Analysis Based Seismic Fragility Analysis of Structures* in the 3-Weeks **UGC Sponsored Refresher Course on “Recent Advances in Civil Eng**, 13th Jan. 2018, Dept of Civil Eng, Jadavpur University 02-24th January, 2018.

- Invited Lecture on *Various metamodelling approaches for seismic fragility analysis of structures in the framework of Monte Carlo Simulation*, Dec 19, 2017 in the course titled "Risk-based seismic design of structures - a new paradigm" under **Global Initiative of Academic Network (GIAN) scheme**, organized at IIT Guwahati from 18th -27th Dec 2017.
- Invited Lecture on *Improved Super-elastic Isolation System using a Ferrous based Shape Memory Alloy (FNCATB)*, **Structural Engineering Convention 2016**, CSIR-SERC, Chennai Dec. 21-23, 2016.
- Invited Lecture on Equivalent Linearization Method for Nonlinear Stochastic Vibration Analysis: Application to some passive vibration control problem, One Week Workshop on "**Computational Mechanics and Modelling**" (**CMM-2016**) during November 12-16, 2016 at Mechanical Engineering Department, NIT Silchar.
- Invited Lecture on Reliability Analysis of Structures, National Workshop on Recent Advances in Civil Engg, Bankura Unnani Institute of Engineering, 26.10.2016
- Research Writing: PhD Thesis and Journal papers, Faculty Development Programme University of Engineering & Management, New Town, Kolkata, 1st July 2016.
- Overview of seismic vulnerability assessment of existing buildings towards seismic disaster risk reduction, *Seminar on "Seismic consciousness – recent scenario"*, 4TH July, 2015, IOE, Kolkata
- Analytical Seismic Vulnerability Assessment of Existing Buildings: Special Emphasis to NE Region, *Seminar on Current Trends in Infrastructure Development*, 21st June 2015 Aliah University, Kolkata.
- (i) Nonlinear Random Vibration: Statistical Linearization Application to some passive vibration control problem and (ii) Statistical Linearization: Application to SMA based Passive control System, *workshop on "Nonlinearities in Structural Engg and Mech: Concepts, Recent Developments and Applications (NSEM-2014)"* during Feb 8-22, 2014, NIT Durgapur
- Seismic Vulnerability Assessment of Existing Structures, *workshop on Emerging Trends in Civil Engineering fields*, 17-28 Feb 2014, Narula Institute of Technology, Kol-109
- Seismic Vulnerability Analysis of Structures at VNIT Nagpur, March 22-23, 2013.
- Robust Optimization of Structures under Uncertainty in Reactor Group Colloquium under *BARC Visiting Scientist Scheme, RRS Division, BARC Mumbai* Nov.1, 2012.
- Disaster Mitigation: A Paradigm Shifts from Relief and Response to Preparedness, *Baj Baj Inst. of Technology, Kolkata*, Oct.6, 2012.
- **Moment Frame and Braced frame for L&T Officers in short course organized By CED BESU** during May 2012.
- **"Earthquake resistance design of masonry structures" in the training under National Programme for Capacity building of Engineers in Earthquake Risk Management** at Jadavpur Univ., 2012.
- **Robust Optimization under uncertainty in the Induction Ceremony of newly elected Fellows during the Annual convention of INAE, Dec. 2011.**
- Research activities and needs in the field of structural reliability in the Topical Meeting at IIT Kharagpur, *Advanced Facility for Research in Reliability Engineering (AFRRE)*, Feb.7-8, 2011 and March 2012.
- **Probabilistic structural Analysis at LBB RWTH Aachen Germany, May 15th 2009.**

- **Earthquake resistance design of masonry structures in the training under *National Programme for Capacity building of Engineers in Earthquake Risk Management* 4th-8th Dec. 2006.**
- Robust Optimization under Uncertainty, “3rd *International Conference on Reliability, Safety and Hazard*, Mumbai December 1-3, 2005, organized by BARC, IIT, Mumbai and Society **for Reliability Engineering Quality and Operation Management.**
- Robust Optimization under Uncertainty in the department of Civil Engineering at *University of Arizona, U.S.A* Nov. 2005.
- Research work on computational stochastic mechanics at ECC Convention Centre, Larsen & Toubro, Chennai in the *2003 Annual function of INAE*, Dec 2003.

Research Review, Examination etc.

Review of Journal Manuscripts

- ***Elsevier Science:*** Computer Methods in Applied Mechanics & Engng, Structural Safety, Int J of Solids and Struct, Probab Engg Mech, Engg Struct, J. of Sound & Vibration, Finite Element in Analysis & Design, J. of Soil Dynamics, Int J. of Mechanical Sc, J. of Mechanics and Materials, J. of Nonlinear Mech, Reliability Engg & System Safety, Mathematics and Comp. Simulation, Applied Mathematical Modelling. J of Computational Physics, Ocean engg, , Computers and Structures
- ***ASCE:*** J. of Materials, J. of Bridge Engineering, J. of Engg. Mechanics
- ***John Wiley:*** International Journal for Numerical Methods in Engineering, Wind Energy
- ***Springer:*** Structural & Multidisciplinary Optimization, Acta Mechanica, Earthquake Eng & Eng Vibration
- ***Taylor and Francis:*** Struct and Infrastructure, Journal of Earthquake Eng.
- ***SAGE Publication:*** Structural Health Monitoring, J. of Vibration and Control
- ***Techno Press:*** Structural Engineering and Mechanics, Computer & Concrete, Earthquake & Structure, Steel Composite, Earthquake and Structures
- ***World Scientific Press:*** Int. J. Structural Satiability and Dynamics ***IOS Press:*** Shock and Vibration
- ***Taylor and Francis:*** Engg Optimization, Structure and Infrastructure Engg, Inverse Problems in Engg.
- ***Others:*** IEEE Transactions on Reliability, Int. J. of Acoustic and Vibration, J of Civil Engineering and Construction Technology, J. of Civil Engineering and Management, Bentham, Scientia Iranica.
- ***National Journals:*** Indian J of Engg & Materials Sciences, SADHNA (IISc Bangalore), J. of Struct Engg, SERC Chennai, J. of Institution of Engineers (India), CE division, J of Indian Society of earthquake Tech., SRESA J. of Life Cycle Reliability and Safety Engineering.

Review of Book Proposals

- Structural Design & Drawing (Reinforced Concrete & Steel) (IS: 456-2000, IS: 800-2007) (4th Edition) Univ. Press, 2018
- Probabilistic Finite Element Model Updating Using Bayesian Statistics, John Wiley 2015
- Risk Management of Non-Renewable Energy Systems for Springer UK, 2015

Review of Research Proposals

- ***BRNS, Mumbai*** for external funding on the project submitted on Grey-box model-based reliability analysis of graphite components, 2021.
- ***Scientific & Technological Research, Chile*** on Analysis, design & experimentation of solutions to mitigate the effects of impact forces on structures & equipment with 2D, 3-D seismic isolation systems.
- Review of MHRD Scheme on ***Global Initiative on Academic Network (GIAN)*** on Risk-based damage-tolerant seismic design of structures – a new paradigm, IIT Guwahati 2017.

- Evaluation of research proposal for a research project under the funding scheme for postdoctoral researchers “ONISILOS”, *University of Cyprus* research committee
- Evaluation of a project proposal on Robust design optimization with imprecise random variables, *Czech Technical University* in Prague, Faculty of Civil Engineering 2016
- *Austrian Science Fund* (FWF) on Optimal Packing Models for Concrete and Robust Design Optimization 2014
- *Israeli Ministry of Science*, Technology and Space on Using Optimal Control for Improving Earthquake Response of Structures
- *DST, Govt of India* SERB project on Seismic retrofitting of non-engineered earthen buildings in rural Tripura.
- *DST, Govt of India*, TSD Programme on Production of low-cost thermosetting plastics concrete with superior properties, on acoustic emission technique as NDT alternative.

PhD Thesis Examination

- Kalman Filter and Its Advanced Variants for Condition Assessment of Hysteretic Structural Systems, *IIT Guwahati*. 2021.
- Stochastic Service Life Prediction of RC Girders Subjected to Chloride Induced Corrosion – Shear Limit State, *RMIT Univ. Australia*, 2020.
- Time-Frequency based signal processing for modal parametric system identification, Department of Civil Engineering, *IIT Guwahati*. 2019
- Site response analysis and soil-structure interaction in a high seismic region, *Guwahati Univ*, 2017
- Seismic vulnerability assessment and prognostic damage scenario of conventional and traditional housing around urban centres of Assam, *Guwahati Univ*, 2016
- Vibration-based structural damage localization and characterization using output-only measurements, *IIT Kanpur*, 2015.
- Strain based nonlinear FEA of RCC beam-column joint with bond-slip behaviour, *JU*, 2015.
- Fuzzy probabilistic analysis of the comfort perceived by pedestrians exposed to traffic-induced vibrations on bridge structures, Dept of Civil Engg *Technical Univ of Bari, Italy*, 2013
- Reliability-based code calibration for nuclear pipe bends, *IIT Bombay*, 2013.
- Bending & vibration studies of bare & stiffened conoidal shell roofs using finite element, *JU*, 2011.

Master Thesis Examination:

ME and MTech. Thesis of various State and Central Universities, IITs and NITs.

Collaborative and Sponsored Research, Consultancy Projects

Details of Sponsored Research Projects

Sl. No.	Sponsoring Agency	Title of the Project(s)/ Patent(s)	Period	Amount (lacs)	Status	Indicate role as PI/CO-PI
1	CSIR, Extramural	Robust Optimum Design of Structures under Extreme Loading Considering Parameter Uncertainty	9.7.2018	9.0 lacs	Ongoing	Co-PI
2	DST, Govt. of India, TSD Programme	Seismic Vulnerability Assessment of Existing Building to Supplement Rehabilitation practices with special emphasis to North Eastern Region	June 2013- Dec. 2016	63.44	Completed	PI
3	DST	Passive control of seismically excited short period structures by the compliant liquid column damper	Aug. 2012 Dec. 2015	32.0	Completed	Co-PI
4	CP-STIO, DST	Development of a Novel Non-destructive Robust Structural Health Assessment	Dec 2009 Jan 2012	6.24	Completed	PI (Indian)

		Technique with Minimum Noise Contaminated Information.				
5	CSIR, Extramural	Probabilistic Robust Structural Optimization with Stochastic Parameters	July 2004 Jan. 2008	5.68	Completed	PI
6	UGC Major Research,	Structural Health Assessment Methodology Based on Free Vibration Response	June 2002 June 2005	4.67	Completed	PI
7	FTP Young Sc. scheme of DST	Reliability Evaluation of Structures with Stochastic Parameter Subjected to Random Earthquake.	Nov 2000 Nov 2003	3.42	Completed	PI
8	CSIR, Extramural	Reliability Analysis of Earth Slopes with General Slip Surfaces.	July 2003 to 2007	7.5	Completed	Co-PI

Collaborative Research

- **In CP-STIO Program of DST**
- A project on “Development of a Novel Nondestructive Robust Structural Health Assessment Technique with Minimum Noise Contaminated Information” in Collaborative Projects with Scientists & Technologists of Indian Origin Abroad (CP-STIO) Program of DST has been completed (2009-12). The US collaborator was Prof. Achintya Haldar and Indian collaborator was Dr. Manish Shrikhande, Dept. of Earthquake Engineering, IIT, Roorkee.
- **Indo-Italian Cultural Exchange Programme of UGC**
- In Indo-Italian Cultural Exchange Programme of UGC, I have visited *Politecnico di Bari*, Italy in October, 2006 for collaborative research and setting out University co-operation. The research areas of mutual interest for collaboration are identified as: seismic vulnerability assessment, multi-objective stochastic design, and reliability-based optimization, experimental and theoretical study on coastal structures with special emphasis on tsunami studies. The scientists involved at Politecnico di Bari are: Dr. Giuseppe Carlo Marano and Prof. Francesco Trentadue. The investigation is in progress to define a standard approach for analysis of existing structures to be used in simplified analytical model.

Important Consultancy Projects

<i>Sl No</i>	<i>Name of the Funding Agency</i>	<i>Title of the Project(s)</i>	<i>Period</i>	<i>Amount (lacs)</i>
1	M/s Mani Square Limited	Proof checking of structural design and structural stability certification of Swarnamani Tower, a 35 storied building	2019 March	10.384
2	PWD Kolkata Health Circle	Structural condition assessment of UNB building within NRS Medical College and Hospital, Kolkata	April 2019	1.18
3	M/s D R. Agarwal Infracon Pvt Ltd	Health check-up of Bansbaria ROB and Saraswati Minor Bridge	Nov. 2018	1.18
4	DCPL Kolkata	Technical advisory service for a nuclear facility (Away from Reactor Spent Fuel Facility) at the Kudankulam Nuclear Power Project I & II, under Nuclear Power Corporation of India Ltd.	Aug 2017 March 2018	10.75
5	Eastern Metec (P), Ltd.	Vetting of Design & Structural drawing for Indirect Fume Extraction job at Rail Wheel Factory, Yelahanka, Bangalore	2017	1.38
6	M/sPanchadep Construction	Vetting of Design and Structural drawing of State Hut building at Dhakuria	July-Dec. 2016	2.5
7	Kolkata Police Housing & Infra-structure	Vetting of structural design of the proposed construction of East Bidhannagar Police Station, Police Lines, Barracks etc. under Bidhannagar Police Commissionerate	2016	1.5
8	Simplex Infrastructure	Third party consultancy for 100MGD Water Transmission Project from Hooghly River to New Town, Rajarhat	2015-16	416
9	M/s Balmer Lawrie & Co. Ltd	Investigation of a warehouse roof collapse at Container Freight Station, transport Depot Road	July-Aug 2014	Rs. 1.5
10	Hooghly River Bridge Commission	Inspection of Vidyasagar Setu along with approach viaducts and interchange, 2011	2011-14	257
11	S. R. Chaudhuri and Associates	Checking of Pipe conveyor over Railway bridge	Feb 2014	1.5

12	CESC Kolkata	Structural inadequacy of structural design of an existing RCC slab& possible strengthening proposal, Park Circus Substation	2014	2
13	D.R.V. Passenger Ropeway	Inspection of passenger ropeway, Darjeeling	July 2013	1.0
14	MBB Consultancy	Vetting of design of abutments of proposed rail lines for M/s Mahanadi Coalfield Ltd Samabalpur	April 2013	1.4
15	Kolkata Corporation	Assessment of distress of an ongoing building construction at Beha	2011	1.0
16	BBJ Co Ltd. Kolkata	Checking fabrication and erection of Bridge No. 78 at KM 269/6-270/0 on River Gandak Bihar East Central railway	May 2011	1.0
17	M/S S. R. Chaudhuri and Associates	Checking of 28.05m span through welded girder for HML loading standard of Indian Railway. Rawatsons Eng Pvt. Ltd.	2010	1
18	MBB Consultancy Service Kolkata.	Proof Checking of Substructures for 6 nos bridges from Jharsuguda Sardega	2009	1.25
19	M/s Premco Rail Engrs Ltd.	Proof checking of Skew Twin Bridges No GPL/4 for Gangavaram port, for	Jan 2008	3
20	Govt of Jharkhand	Nondestructive test on Turbo Generator Deck of ongoing Thermal Power Plant construction at Jharsuguda,	2008	1.2
21	Govt. of Madhya Pradesh	Nondestructive test on Turbo Generator Deck of ongoing Thermal Power Plant construction at Amarkantak	2007	1.0
22	Damodar Ropeways & Construction Ltd.	Proof checking of design of monocable passenger ropeway at Trikut Hill, Deoghar, Jharkhand	2006	1
23	Dept. of Hydro Power Dev., Arunachal Pradesh.	Proof checking of hydroelectric power station Rina Mini Hydel Project (2X 1000KW)	March 2005	2
24	RITES, New Delhi	Vetting of design of 53 railway bridges for construction of railway track from coal mines at Raigarh, RITES ltd.,	2005	5
		South City		
25	BHEL	The basic job was a Quality Control Assurance Services for Bakreshwar Thermal Power Plant.	1998-2001,	12

Details of Supervision of PhD Thesis Works

Sl.no	Name of student	Thesis Title	Year
1	Basdudeb Bhattacharyya	Probabilistic Sensitivity Analysis of Structures	2002
2	Sajal Roy	1. Structural Health Monitoring From Free Vibration Response	2008
3	Soumya Bhattacharya	Probabilistic Robust Structural Optimization with Stochastic Parameter	2011
4	Rama Debbarma	Vibration Control under parameter Uncertainty	2011 (QIP)
5	Palsh C Sam	Reliability of Structures under Hybrid Uncertainty	2013
6	Bijan K Roy	Optimum design of BI system under uncertainty	2014
7	Papiya Mondal	Passive Vibration Control under Blast Loading	2016
8	Sandipan N Thakur	Behaviour of Composite Shell Structures	2018
9	Shyamal K Ghosh	Metamodeling Based Efficient Seismic Fragility Analysis of Structures in the Framework of Monte Carlo Simulation	2018
10	Swarup Ghosh	Seismic Fragility Analysis of Structures with Special Emphasis to North East India	2020
11	Gourav Datta	Reliability Analysis of Large Complex System	2022
12	Atin Roy	Metamodeling Technique in Uncertainty Quantification	2022
13	Mithu Dey	Seismic Assessment of Buildings on Hill Slopes	2023
14	Partha Sengupta	Finite Element Model Updating	2023

15	Axay Thapa	Reliability Analysis of Underground Tunnel	Ongoing (QIP)
16	Rajib Sardar	Vibration control of offshore structures under multi-hazards	Ongoing
17	Kaushik Nanady	Prediction of Shape of One Dimensional Structures Based on Minimization of Residual Stress	Ongoing
18	Puja Haldar	Energy-based Approach of Seismic Assessment of Structures	Ongoing
19	Suman Dutta	Dynamic Analysis of Underground Tunnel	Ongoing

Publication Details

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