

Curriculum Vitae

Professor Abhay Bambole

*Dean Infrastructure Development & Maintenance, VJTI
Professor and Head, Structural Engineering Department
Veermata Jijabai Technological Institute, Mumbai, INDIA
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Institute Address:

Veermata Jijabai Technological Institute (**VJTI**)
(Central Technological Institute, Maharashtra, India)
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TEACHING, ADMINISTRATIVE AND RESEARCH EXPERIENCE

Total Teaching Experience = 28 years

Experience as Full Professor = 13 years

Administrative experience in Professor grade = around 15 yrs

July 2011 till date	Professor, Structural Engineering Dept., VJTI, Mumbai, INDIA
March 2021 to Till date	Dean Infrastructure Development & Maintenance, VJTI, Mumbai, INDIA
September 2020 till date	Professor and Head, Structural Engineering Dept., VJTI, Mumbai, INDIA
February 2018 to till date	Faulty In-charge of PG Boys Hostel Construction VJTI, Mumbai.
July 2012 to till date	Faculty In-charge of Central Library, VJTI, Mumbai.
November 2017 to January 2018	Visiting Professor, Texas A & M University, Colleges Station, TX, USA.
October 2014 to September 2016	Dean Research & Development, VJTI, Mumbai, INDIA
October 2012 to September 2014	Professor and Head, Structural Engineering Dept., VJTI, Mumbai

April 2011 – **Professor and Head of Department**, Structural Engineering Dept., SPCE,
July 2011 Mumbai.

September 2008– **Professor**, Structural Engineering Dept., SPCE, Mumbai
March 2011

August 1999 – **Asst. Professor**, Structural Engineering Dept., SPCE, Mumbai
September 2008

January 1994 – **Lecturer**, Structural Engineering Dept., SPCE, Mumbai
August 1999

EDUCATIONAL QUALIFICATION

Post-Doctoral Research/Training

Disturbed State Concept-DSC to predict the inelastic behavior of various homogeneous and non-homogenous materials and its application to Laminated Composite Plates at University of Arizona, Tucson, AZ, USA, June – July, 2013.
Supervisor: Professor C. S. Desai, Regents' Professor, Department of Civil Engineering and Engineering Mechanics, University of Arizona at Tucson, USA.

PhD (Civil Engineering)

Hybrid-Interface Element for Elasto-plastic and Failure Analysis of Laminated Composite Plates at IIT Bombay, Mumbai, 2008.
Supervisor: Dr. Y. M. Desai, Professor, Civil Engg. Dept. IITB

Post Graduate Degree M.E. (Structural Engineering)

Dissertation on 'Expert System for Bridge Truss Design'
Sardar Patel College of Engineering, Mumba, 1994

Bachelor's Degree B.E. (Civil Engineering)

Sardar Patel College of Engineering, Mumba, 1991

EXPERIENCE IN BRIDGE ENGINEERING

[A] Design of Bridges

1. Proof Checking of Design of Drawings for 20 nos of Rail-Over-Bridges, Nagpur – Itarsi 3rd line. Client: Central Railway.
2. Proof Checking of Design of Drawings for Rail-Over-Bridges, Nagpur – Sevagram line. Client: Central Railway.
3. Proof Checking of Design of Drawings for Kasara Rail-Over-Bridges. Client: Central Railway.
4. Proof Checking of Design of Drawings for Asanagaon Rail-Over-Bridges. Client: Central Railway.
5. Proof Checking of Design of Drawings for Sion Rail-Over-Bridges. Client: Central Railway.
6. Proof Checking of Design of Drawings for Bridge No. 27, 31 and 40 for 6th line in Mumbai Suburbs. Client: Western Railway.
7. Proof Checking of Design of Drawings for Bridge No. 114/3 115/2, 117/3, 118/4 & 119/3 in Kalyan-Kasara section. Client: Central Railway.
8. Proof Checking of Design of Drawings for Bridge at Sevagram for 3rd and 4th line. Client: Central Railway.

[B] Rehabilitation of Bridges

1. Rehabilitation of Mumbra Kausa flyover at Mumbra. Client: PWD, Govt. of Maharashtra.
2. Rehabilitation of Turbhe flyover at Navi Mumbai. Client: PWD, Govt. of Maharashtra, Mumbai
3. Rehabilitation and Testing of Rail Over Bridge at Karal, JNPT, Navi Mumbai. Client: JNPT.
4. Rehabilitation of Rajiv Gandhi flyover at Bhivandi. Client: Bhivandi-Nijampur Municipal Corporation.
5. Structural investigation and rehabilitation of damaged pier P32, Bhivandi town in the outskirts of Mumbai. Client: JMC Projects (India) Limited.
6. Structural Audit and Repair-Rehabilitation scheme for bridge at Palghar Wada Devgaon road SH 76 km C.N. 47/800 on Pinjal River, Tal. Wada. Client PWD.
7. Repair-Rehabilitation scheme for old Bridge on Surya River, Tarapur. Client: MIDC, Tarapur
8. Structural Audit and Repair-Rehabilitation scheme for bridge at Jawhar Wada Bhivandi Kalyan Karjat Khopoli Road SH 76 C.N. 31/800 Deherje River, Tal. Wada, Dist. Palghar. Client PWD.

[C] Structural Assessment of Bridges

1. Structural Audit of Thane Creek Bridge-II (New Vashi Bridge). Client: MSRDC

2. Structural Audit of Eastern Freeway for Tunnel Leakages, Rough Concreter patches and settlement of approaches. Client: MCGM.
3. Structural Audit of Santacruz-Chembur Link Road (SCLR) Flyover. Client: MCGM.
4. Structural Audit of Eastern Freeway for Tunnel Leakages, Rough Concreter patches and settlement of approaches. Client: MCGM
5. Structural Audit of Santacruz-Chembur Link Road (SCLR) Flyover. Client: MCGM
6. Structural Audit and rehabilitation of 24 Skywalks in Mumbai City. Client: MCGM,
7. Structural Audit and rehabilitation of 11 Mainor bridges / Culverts on Major and arterial road in Mumbai. Client: MGCM.
8. Structural Audit and rehabilitation of 8 FOB on WEH Mumbai. Client: MMRDA, Govt. of Maharashtra.
9. Structural Stability Assessment of Mumbai Monorail (20 km long from Arthur road to Chembur). Client MMRDA.
10. Structural Stability Assessment Parsi Temples (Atash Behrams) at Kalbavevi area with regard to Tunneling and Station construction of Metro line 3. Client: MMRDA.
11. Structural Audit & Load Test of Amar Mahal Flyover on EEH at Chembur, Mumbai. Client: PWD.
12. Structural Audit and Repair-Rehabilitation scheme of the distressed Kopri Eastern Express Highway ROB at KM 32/ 12-13 Mulund Thane Section. Client: PWD.

ADMINISTRATIVE RESPONSIBILITIES / POSITIONS

[A] At the Institute level

Faculty In-charge, Construction of 450 bed PG boys Hostel at VJTI.	3 years
Dean Research & Development, VJTI, Mumbai, INDIA 2014-2016	2 Years
Dean Infrastructure Development & Maintenance, VJTI, Mumbai, INDIA 2014-2016	March 2021 till Date
Head of Department, Structural Engineering Dept., VJTI, Mumbai, INDIA 2012-2014	3 Years
Head of Department, Structural Engineering Dept., SPCE, Mumbai, INDIA 2011	1 years
Member, Board of Governor, Sardar Patel College of Engineering, University of Mumbai 2010-2012	2 years
Chairman/Convener- Central Library, VJTI, Mumbai.	2012 onwards till date
Ex-officio of Entrepreneurship Cell, SPCE 2008-2011	3 years
Member (elected) on Local Management Committee of SPCE 2001-2012	11 years
Convener of Exam cell for the year 2003, SPCE	2 years
Ex-officio, Students Gymkhana 2001-2003, SPCE	2 years

[B] At State Level

Coordinator for First-Year Engineering Admission of Maharashtra State, All Maharashtra Round and OMS round conducted in SPCE 2001-2003

2 years

AWARDS AND RECOGNITIONS

1. Professor Chandrakant and Patricia Desai Fellowship for research in the field of Earthquake Resistant Low-Cost Rural Housing- October 2018.
2. Award by Indian Institute of Bridge Engineers, on Golden Jubilee Celebration for Contributions in the field of Bridge repairs and Rehabilitation, December 2014.
3. Graphical System Design Award in Planet NI Category by National Instruments for contribution in Bridge testing and monitoring, September 2013.
4. Appreciation letter from MMRDA Authorities for saving about Rs. 10 crores in construction of retaining wall for Mithi river, September 2010.

MEMBER OF GOVERNMENT COMMITTEES/PANELS

1. Convenor, Technical Committee for Preparation DPR (Detailed Project Report) to start new Government Engineering College at Ratnagiri for Govt. of Maharashtra. Higher and Technical Education Ministry, Govt. of Maharashtra October – November 2020.
2. Member, ‘Standing Technical Advisory Committee for Roads and Bridges, MCGM, Mumbai, January 2020 till date.
3. Member, Technical Committee to Suggest Immediate and Long-Term Measures for repairs of Amar Mahal flyover on Eastern Express Highway, PWD, Govt. of Maharashtra April – May 2017.
4. Member, Expert Committee for Structural Restoration of Turbhe Flyover, PWD, Govt. of Maharashtra, February 2014 to June 2017.
5. Member, ‘Standing Committee for Thane Creek Bridge -I, II and Turbhe Flyover., PWD, Govt. of Maharashtra, July 2017 till date.
6. Member, Governing Council, Atomic Energy Education Society, Department of Atomic Energy, Sept 2015 till date.
7. Member (elected), Senate, University of Mumbai from College Teachers Constituency, University of Mumbai - Sept 2010 to Oct 2015.
8. Member, Technical Committee for scrutiny of development proposals of High Rise Buildings in MCGM area, Govt. of Maharashtra, November 2012 to October 2014.
9. Member, Mumbai Heritage Conservation Committee, Govt. of Maharashtra, November 2012 to October 2014.
10. Member, Board of Governor, Sardar Patel College of Engineering, University of Mumbai, August 2009 to July 2012.
11. Member (elected), Local Management Committee of SPCE, April – 2001 to March 2005 and July 2008 to June 2011.
12. Member, Board of Governors, Atomic Energy Education Society, DAE, June 2014 till date.

RESEARCH INTEREST

Composite Mechanics and its Applications to Laminated Composite plates, Sandwich plates and Functional Graded plates, Low-cost Earthquake Resistant Housing, Finite Element Method, Non-Destructive evaluation techniques in Civil Engineering, Structural Assessment and Health Monitoring of Bridges and Buildings, Fibre Reinforced Composites in Repair, Retrofitting and Strengthening of structures, Fire Endurance of RC structures, Waterproofing of RC structures.

Current research activity: (Eight research scholars are currently working on the following topics for their doctoral thesis)

1. Development of novel technology for the construction of low-cost earthquake resistance housing using earth-filled wire mesh sandwich panels for walls and roof.
2. Non-destructive methodology to evaluate in-situ stresses in structural concrete members using stress relief technique
3. Evaluation soil E value and modulus of subgrade reaction.
4. Diagnostic health monitoring of bridges using wireless sensor network.
5. 3-D Elasticity solution for laminated composite and functionally graded plates subjected to concentrated loads.
6. 3-D Elasticity solution and stability analysis of functionally graded material cylindrical shells subjected to concentrated loads/line loads.
7. Effect of diagonal bracing dampers on structures subjected to seismic loading.
8. Studies on performance of bridge girders for different types of bearings.

PHD SCHOLARS SUPERVISION

Shashank Mehendale (2012 – 2017)	Analytical Modelling of Reinforced Masonry Beam with Experimental Validation.
Ashutosh Dabli (2012 – 2021)	Non-Destructive Evaluation of In-Situ Stresses in Concrete Structures using Stress Relief Technique
Giridher Narule (2012 –2019)	Effect of Shape and slenderness of RCC columns on strengthening using FRPC confinement.
Jaydeep Wagh (2013 – till date)	Effect of in-situ soil properties on design of foundation. (expected to submit the thesis by March 2022)
Shrirang Kamble (2013– till date)	Diagnostic Health Monitoring of Bridges using Wireless Sensor Networks (expected to submit the thesis by March 2022)

Sandeep Ranshur (2014– till date)	Development of technology for construction of Low cost Earthquake resistant houses for semi-urban or rural areas using earth-filled wire meshed panels. (expected to submit the thesis by March 2022)
Deepa Rawal (2014 – till date)	Elasticity solution of laminated composite plates. (expected to submit the thesis by July 2022)
Saurabh Pednekar (2015 – till date)	Effects of dampers on structures subjected to seismic loading (expected to submit the thesis by July 2022)
Sharvari Dhepe (2015 – till date)	Elasticity solution for composite shells under bending (expected to submit the thesis by July 2022)

RESEARCH PROJECTS (funded)

2014– 2016	Research grant for setting up Uniaxial servo-hydraulic shake table facility for research in Earthquake Engineering. funded by TEQIP-II, MHRD, Mumbai. Grant: Rs. 45 lakhs
2014– 2016	Design, development and setting up of 400 T capacity Compression Testing Machine for sample size upto 2m in length for study of RCC columns strengthened with FRP funded by TEQIP-II, MHRD, Mumbai. Grant: Rs. 9.3 lakhs
2013– 2016	Effect of Shape and size on load carrying capacity of FRPC strengthened RCC Columns, funded by AICTE, New Delhi. Grants – Rs. 17.3 lakhs.
2008 –2009	Study of shape effect on concrete columns strengthened with FRP wraps, funded by SPCE, Mumbai. Grant – RS. 1.0 lakhs
2008 –2009	Fire on FRP wrapped RC structural members, funded by R & M International, Mumbai. Grant – RS. 0.5 lakhs
2007– 2008	Performance evaluation of waterproofing products based on Crystallisation, funded by Penetron ICS Pvt. Ltd.
2006– 2007	Properties of Ready mix polymer modified mortar, funded by BASF Chemicals.
2002–2003	Performance evaluation of polymer modified mortar, funded by University of Mumbai.

RESEARCH FACILITIES DEVELOPED

2013 –2016	Experimental Stress Analysis Laboratory (Loading frame – 3mx4mx3m 100T capacity and Compression Testing Machine with sample of length 2m 400T capacity, 32 Channel data question system with load cells and different types of sensors) Funded by AICTE. New Delhi Grant: Rs. 32 lakhs (MODROBS and RPS)
2016 –2017	Structural Dynamics and Earthquake Engineering Research Laboratory (Uniaxial) Funded by TEQIP-II- MHRD. Grant: Rs. 50 lakhs.

SEMINAR / CONFERENCE / WORKSHOPS ORGANISED

July 2019	International Conference on Rehabilitation and Retrofitting of Structures Rehabilitation and Retrofitting of Structures (ICRRS-2019), Jointly organised by VJTI, Indian ASTR, DCSEM and BARC, June 24-25, 2019, Held at DAE Convention Centre, Anushakti Nagar, Mumbai – 400094. Role: Convenor.
February 2018	Seminar on Improving Aesthetics of Cities with Architectural Concrete”, Jointly organised with ICI Mumbai and RMCMA, Feb 28, 2018.
June 2016	The Sixth International Congress on Computational Mechanics and Simulation - ICCMS2016, jointly organised by VJTI and IIT Bombay, Held at IIT Bombay, June 27- July 1, 2016, Role: Conference Chair.
September 2013	Workshop On Structural Rehabilitation And Retrofitting Using Construction Chemicals – WSRR-13, Jointly organised by IIT Bombay and Indian ASTR, Held at IIT Bombay, 24-25 September 2013, Role: Co-Convenor.
August 2012	ECO REVOLUTION-12, International Conference on Environment and Humanity, 18 th to 20 th August 2012, jointly organised by Sadaham Sevana, Sri Lanka and Eco-Needs Foundation, India. Role: Jt. Coordinator of the Conference.
April 2012	One week ACITE approved STTP- Short Term Training Program from 16 th to 20 th April 2012 on “Application of Finite Element Method to Civil Engineering” at VJTI, Mumbai. Role: Coordinator of the STTP
March 2011	One day symposium on 26 th March 2011 at Sardar Patel College of

Engineering on “Finite element Method and Its Applications” in the honour of Professor B. N. Pandya.

Role: Convener of the Symposium

August 2009 Workshop on Retrofitting and Rehabilitation of Structures WSRR09, jointly organised by IIT Bombay and Indian ASTR, Held at IIT Bombay, 28-30 August 2009.

Role: Convener.

July 2009 Professional Development course for Structural Engineers on Design of High Rise Buildings on 4 weekends in July-August 2009.

Jointly Organised with Techoesis Consultants, Mumbai.

March 2009 Impetus-09 An Entrepreneurship Development Course for student members of E-cell. Organised as Ex-officio of Entrepreneurship Cell, SPCE.

INTERNATIONAL SEMINAR / CONFERENCE / WORKSHOPS ATTENDED

June 2019 ICRRS’19, The International Conference on Rehabilitation and Retrofitting of Structures, jointly organised by VJTI, BARC, ASTR, and DCSEM; held in BARC Mumbai. June 25-25th, 2019,

June 2016 ICCMS 2016, The Sixth International Congress on Computational Mechanics and Simulation (ICCMS 2016), Jointly organised by VJTI Mumbai and IIT Bombay; 27th June 2016 to 1st July 2016; held at IIT Bombay.

June 2014 Pre-conference course on Mechanics of laminated composite plates, conducted by Prof. J. N. Reddy. University of Stony Brook, USA

June 2014 *MECHCOMP2014* – first international conference in Mechanics of Composites. University of Stony Brook, USA

June 2013 *ISEC-7 The Seventh International Structural Engineering and Construction Conference*, University of Hawaii at Manoa, Honolulu, USA

January 2013 *Plasticity -12, International Symposium on Plasticity and its Current Applications 2012*, San Juan, Puerto Rico, USA

July 2007 *ICCE-15, 15th International Conference on Composite Engineering*. Hainan, China.

NATIONAL SEMINAR / CONFERENCE / WORKSHOPS/ TRAINING PROGRAMMES ATTENDED

June 2018 Five Days Professional Development Training Programme For Sr. Academic cum Administrative Executives, IIM Shillong, June 18-22, 2018. Under TEQIP-III

INTERNATIONAL COLLABORATION

1. "Common Academic Strength and interest in the areas of structural and geotechnical engineering", Department of Civil Engineering and Engineering Mechanics College of Engineering, University of Arizona, USA. (1209 E 2nd St Tucson, AZ 85721 USA) and Department of Structural Engineering, VJTI, Mumbai, India. 2013-2016, (3Years). (MoU-Signed)
2. "Intellectual exchange with an international focus between students, faculty members & administrators of VJTI", Memorandum of Agreement (MOU), Wright State University, USA and Department of Structural Engineering, VJTI, Mumbai, India. 2013-2016, (3Years). (MoU-Signed)

NATIONAL COLLABORATION

"To encourage interaction between faculty and students of VJTI with industry person in the field of Advance dynastic testing, investigation of fire-damaged & Waterproofing system", Dr. Fixit Institute, Mumbai, India and Department of Structural Engineering, VJTI, Mumbai, India. 2014-2017, (3 Years)

PUBLICATIONS

(A) Refereed Journal

1. Bambole A. N. and Desai Y. M., (2007), Hybrid-interface finite element for thick laminated composite plates, *Computers and Structures*, **85** (19-20), 1484-1499.
2. Bambole A. N. and Desai Y. M., (2007), Hybrid-interface finite element for laminated composite and sandwich beams, *Finite Element Method in Analysis and Design*, **43** (13), 1023-1036.
3. Rai G. L. and Bambole A. N., (2013), Strengthening of Bridge by Pre-stressing at JNPT and testing its efficacy, Special Publication, ACI. (post PhD -1)
4. Mehendale Shashank, Bambole Abhay, Raghunath S (2017), Development of pseudo interface element for modelling of reinforced brick masonry, *Revista ALCONPAT*, **7**(1), 73-86, e-ISSN: 2007-6835. (post PhD-2)
5. Mehendale Shashank, Bambole Abhay, Raghunath S (December 2017), Moment of Resistance of Reinforced Masonry Beam Based on Effective Pull-Out Stiffness of Reinforced Brick Mortar Joint, *The Masonry Society*. **35**(1), 19-30. (post PhD-3)
6. Narule Giridhar, Bambole Abhay (March 2018) Axial behavior of CFRP wrapped RC columns

of different shapes with constant slenderness ratio, *Structural Engineering and Mechanics- An International Journal*, Techno Press **65**(6), 679-687, DOI: 10.12989/sem.2018.65.6.679. (post PhD-4)

7. Narule Giridhar, Bambole Abhay (2021), An experimental study on Axial behavior of CFRP strengthened RC rectangular columns with variable slenderness ratio, *Asian Journal of Civil Engineering*, 22(1), 263–275, doi: 10.1007/s42107-020-00312-5. (post PhD-5)
8. Ashutosh Dabli, Bambole Abhay, Evaluation of in-situ stress in concrete by incremental hole drilling, *ACI Materials Journal*, ACI, Vol 117, no. 4, July 2020. (post PhD-6)

(B) Conference Paper

1. Narule G. and Bambole A. N., Experimental Study on the Effect of Aspect Ratio On Strength Enhancement of CFRP Wrapped RC Rectangular Columns of Varying Slenderness Ratio, SEC-2016, ICCRS'10, BARC Mumbai, 24-25 June 2019.
2. Ambadas Waghmare, Daniel Koothoor, Dhruv Shah, Kinal Bid, Rahul Ghadwal, Snehal Sonawane, Viraj Sanghvi, Abhay Bambole, Performance of RC Columns Strengthened with Prestressed CFRP Bands, *Recent Advances in Structural Engineering-Volume 2*, Select Proceedings of SEC 2016, Springer Singapore, vol. 12, Pages 709-720, Published in 2019, DOI:10.1007/978-981-13-0365-4.
3. Ambadas Waghmare, Daniel Koothoor, Dhruv Shah, Kinal Bid, Rahul Ghadwal, Snehal Sonawane, Viraj Sanghvi, Abhay Bambole, Exact Analysis of Layered Plates Using Mixed Form of Hooke's Law, *Recent Advances in Structural Engineering-Volume 2*, Select Proceedings of SEC 2016, Springer Singapore, vol. 12, Pages 797-809, Published in 2019, DOI:10.1007/978-981-13-0365-4.
4. A. Ajgaonkar, S. Vichare, R. Badgular, M. Bansode, D. Karia and A. Bambole, Remote Structural Health Monitoring, 2020 International Conference on Convergence to Digital World - Quo Vadis (ICCDW), Mumbai, India, 2020, pp. 1-5, doi: 10.1109/ICCDW45521.2020.9318730.
5. Narule G. and Bambole A. N., Experimental Study on Contribution of Constituent Materials in Load Carrying Capacity and the Actual Stress-Strain Variation of Concrete in CFRP Wrapped RC Rectangular Columns, SEC-2016, CSIR-Chennai, 21-23 December 2016.
6. Mehendale Shashank, Bambole Abhay, Raghunath S, "*Studies on Pull-Out Resistance of Reinforcement in Bed Joint of Brick Masonry*" 10th International Conference on Structural Analysis of Historical Constructions, 13th to 17th Sept, 2016, at Leuven, Belgium. Published in Proceeding: Van Balen & Verstrynghe (Eds) © 2016 Taylor & Francis Group, London, ISBN 978-1-138-02951-4.
7. Doshi S., Narule G. and Bambole A. N., "*Experimental study on structural performance of rectangular R.C. Columns strengthening with CFRP wrap*", SEC-2016, CSIR-Chennai, 21-23 December 2016.
8. Pendke R., Kamble S. and Bambole A.N., "*Free Vibration and Damage detection analysis of a cracked beam using a wireless sensor network*", SEC-2016, CSIR-Chennai, 21-23 December

- 2016.
9. Agrawal R., Waghmare A., Sanghvi V. and Bambole A. N., “*Exact Analysis of layered plate using Mixed form of Hooke’s Law*”, SEC-2016, CSIR-Chennai, 21-23 December 2016.
 10. Bid K., Ghadwal R. and Bambole A. N., “*Performance of PC columns strengthened with prestressed CFRP bands*”, SEC-2016, CSIR-Chennai, 21-23 December 2016.
 11. Khan S., Bambole A. N., Murgudkar H., “*Analysis Of Spherical Dome With Openings Using Finite Element Method*”, ICCMS-2016, IIT Bombay, June 27-July 1, 2016.
 12. Kamble S., Shindade A. B., Salokhe N., Bambole A.N., “*Free Vibration Analysis Of A Simply Supported Beam*”, ICCMS-2016, IIT Bombay, June 27-July 1, 2016.
 13. Bambole A. N., Murgudkar H., Thakur P., “*Expert System for Bridge Truss Design*”, ICCMS-2016, IIT Bombay, June 27-July 1, 2016.
 14. Raval D. , Bambole A. N., “*Analysis Of Laminated Composite Orthotropic Plates Under Bi-Directional Bending Subjected To Concentrated Loads*” , ICCMS-2016, IIT Bombay, June 27-July 1, 2016.
 15. Pednekar S. C., Iwalekar A.A., Bambole A. N., “*Application Of Friction Dampers For Improving The Seismic Performance Of Structures: An Overview*”, ICCMS-2016, IIT Bombay, June 27-July 1, 2016.
 16. Narule G. N. and Bambole A. N., “*Shape effect study of FRPC wrapped concrete columns*”, SEC-2014, IIT Delhi, New Delhi, 22-24 December 2014.
 17. Dabli A., Bambole A. N. and Zemase R., “*Development of non-destructive methodology to evaluate in-situ stresses in structural concrete members using stress relief technique*”, SEC-2014, IIT Delhi, New Delhi, 22-24 December 2014.
 18. Bambole A. N. and Raval Deepa, “*3-D Elasticity Solutions For Cross-Ply Laminated Composite Plates Subjected To Point Load*”, MECHCOMP2014, Stony Brook University, Long Island, NY State, USA, 07-12 June 2014.
 19. Bambole A. N. and Desai Y. M., “*Three-Dimensional Elasto-Plastic Analysis of Thick Laminated Composite Plates using Hybrid Interface Elements*”, ISEC-7, University of Hawaii at Manoa, Honolulu, Hawaii, USA, 18-23 June 2013. (Proceedings ISBN-9789810566795)
 20. Bambole A. N. and Desai, Y. M., Elasto-Plastic Analysis of Angle-Ply Laminated Composite Plates using Hybrid Formulation, *International Symposium on Plasticity and its Current Applications 2012 (Plasticity -12)*, San Juan, Puerto Rico, USA, 3-7 January 2013. (CD form)
 21. Rai G. L. and Bambole A. N., “*Strengthening of Bridge by Prestressing at JNPT Flyover and Testing its Efficacy*” *ACI Fall 2010 Convention*, Pittsburg, PA, October 24-28 2010. (presented through video conference)
 22. Bambole A. N., Pandya, B. N. and Chakrabarty A., “*Analysis of beams on elastic foundation using concept of exact stiffness*”, ICCCM09 –*Third International Congress on Computational Methods and Simulation*, IIT Bombay, Mumbai, India, 1-5 December 2009.

23. Bambole A. N., Rai G. L, and Jangid R. S., Testing of Rail Over Bridge at Karal, JNPT Rehabilitated in First Phase, *National Workshop on Rehabilitation and Retrofitting of Structures-09 (WSRR-09)*, IIT Bombay, Mumbai, India, 28-30 August 2009.
24. Bambole A. N. and Desai, Y. M., Novel hybrid-interface formulation for statics of angle-ply laminates, *15th International Conference on Composite Engineering (ICCE-15)*, Hainan, China, July 2007. (CD form).

(C) Books / Proceeding

1. Bambole A. N., Reddy R.S., Rai G. L, and Pandya, B. N., Proceeding of *National Workshop on Rehabilitation and Retrofitting of Structures-09 (WSRR-09)*, IIT Bombay, Mumbai, India, 28-30 August 2009.
2. Bambole A. N., Reddy R.S., Rai G. L, and Shrivastava S. P, Proceeding of *National Workshop on Non-Destructive Evaluation Techniques (NDES-13)*, Training School, BARC Mumbai, India, 8-9 February 2013.
3. Bambole A. N., Reddy R.S., Rai G. L, and Suriya Prakash, Guidelines for Structural Rehabilitation and Retrofitting, ASTR Publication - ASTR-GL-01-2019.

LECTURES DELIVERED IN SEMINAR / CONFERENCE / TRAINING PROGRAMS

1. Expert lecture on Low-Cost Wireless Sensors using Internet of Things (IOT) for Structural Health Monitoring of Bridges in TEQIP-III Sponsored Online Short Term Training Program – ‘Advances in Special Civil Engineering Structures & Materials (ASCESM - 2021)’, organised by SVNIT, Surat, 13 March 2021.
2. Expert lecture on Application of Finite Element Method to Structural Dynamic Problems in AICTE approved one week Short Term Training Program – ‘Recent Advances in Structural Dynamics’, organised by COE Amravti, 20th February 2019.
3. Expert lecture on Finite element method of plates and shells in 5 days Workshop on “Finite Element Method” for Engineers Teachers organised by Coimbatore institute of Technology, 19th February 2019.
4. Expert lecture on Structural Health Monitoring of Bridges in One days Workshop on “Bridge Inspection and Repairs” for Engineers of PWD Maharashtra Organised by META Nashik, 28th November 2016.
5. Expert lecture on Repairs and Rehabilitation of Buildings in One day Training for Engineers of PWD Maharashtra, Organised by PWD Thane, 6th October 2016.
6. Keynote lecture on “Energy Scenario in 2050”, in ECO REVOLUTION-12, International Conference on Environment and Humanity, jointly organised by Sadaham Sevana, Sri Lanka and Eco-Needs Foundation, India. 18 - 20 August 2012.
7. Expert lecture on “Advanced Repair Techniques”, in a 2 day professional training program on "Structural Diagnosis, Repair and Retrofitting of Concrete Structures, Organised by Department of Civil & Environmental Engineering and Structural Engineering, Dr Fixit Institute, Mumbai, 12 – 13 July 2012.

8. Lecture on “Plates and Shells Finite Element” in a 5 day CEP course on Finite element method and applications in Civil engineering, Organised by Civil Engineering Department, IIT Bombay, Mumbai, 2 – 6 July 2012.
9. Lecture on “Finite element method for analysis of plates and Shell problems”, in a 5 day STTP course on Application of Finite Element Method to Civil Engineering”, Organised by Department of Structural Engineering, VJTI, Mumbai, 16-20 April 2012.
10. Keynote lecture on “Structural Controls and Health Monitoring” in a 2 day University National Seminar on Earthquake Resistant design and Construction, Organised by Department of Structural Engineering, Faculty of Engineering and Architecture, Jai Narayan Vyas University of Jodhpur, Rajasthan, 21-22 February 2012.
11. Lecture on “Case Studies of Special Structures”, in a 5 day Short Term Training Programme (STTP) on Damage Assessment and Repair Methodology for RCC Structures, Organised by Department of Civil & Environmental Engineering and Structural Engineering, VJTI, Mumbai, 400019, 9 – 13 January 2012.
12. Lecture on “Case Studies of Special Structures”, in a 5 day Short Term Training Programme (STTP) on Damage Assessment and Repair Methodology for RCC Structures, Organised by Department of Civil & Environmental Engineering and Structural Engineering, VJTI, Mumbai, 400019, 9 – 13 January 2012.
13. Lecture on “Role of NDT in Structural Assessment”, in a 5 day Short Term Training Programme (STTP) on Damage Assessment and Repair Methodology for RCC Structures, Organised by Department of Civil & Environmental Engineering and Structural Engineering, VJTI, Mumbai-400019, 9 – 13 January 2012.
14. Lecture on “Diagnosis and Condition Assessment of Buildings (including NDT)”, in a 2 day Training Program on Building Maintenance - Waterproofing and General Repair, Organised by Dr. Fixit Institute of Structural Protection and Rehabilitation, Andheri (E), Mumbai 400059, 18-19 January 2012.
15. Lecture on “Finite element method for analysis of plates bending problems using ANSYS”, in a 5 day CEP course on Finite element method and applications in Civil engineering, Organised by Civil Engineering Department, IIT Bombay, Mumbai 16-20 August 2011.
16. Lecture on “Finite element analysis of RCC BOX Girder for Strengthening of Using FRPC wraps and laminates for TURBHE Flyover at Navi Mumbai”, Symposium on Finite Element Method and Its Applications, Organised by Structural Engineering Department, SPCE, Mumbai, 26 March 2011.
17. Lecture on “Finite element formulations for Materially Nonlinear Composite Structures”, in a 2-day Workshop on Applications of Finite Element Methods to Structural and Geotechnical Engineering, Organised by Structural Engineering Department, VJTI, Mumbai 20 -21 January 2011.
18. Lecture on “Finite element method for analysis of plate bending and shell problems”, in a 5 day CEP course on Finite element method and applications in Civil engineering, Organised by Civil Engineering Department, IIT Bombay, Mumbai 12-16 October 2009.
19. Lecture on Finite element method for analysis of plates bending problems, in a 5 day CEP course on Finite element method and applications in Civil engineering, Organised by Civil

- Engineering Department, IIT Bombay, Mumbai 17-21 November 2008.
20. Lecture on Non-destructive testing of concrete structures to Civil Engineers of Prasar Bharti, Films Division, Peddar Road, Mumbai,
 21. Lecture on Application of Engineering Mechanics to practising Structural consultants at Professional Development course for Structural Engineers on Design of High Rise Buildings on 4 weekends in July-August 2009
 22. Lecture on Finite element method to practising structural consultant at Professional Development course for Structural Engineers on Design of High Rise Buildings on 4 weekends in July-August 2009.
 23. Lecture on Finite element method for analysis and design of Bridge Structures, A 3 day Training program for CPWD Engineering, Daman, 12th to 16th April 2007.
 24. Lecture on RCC Design in Training program on Concrete Technology for AFCONS, Andheri, Mumbai, February 1998.

SUBJECTS TAUGHT

Under-Graduate Level (Bachelor's Degree)	Strength of Material, Engineering Mechanics / Applied Mechanics, Computer Applications in Civil engineering, Numerical Methods, Concrete Technology and Reinforced Concrete Theory.
Graduate Level (Master's Degree)	Experimental Methods in Structural Engineering, Finite Element Method of Analysis, Computational Methods, Design of Tall Structures, Structural Dynamics.

DISSERTATION SUPERVISED (Masters of Civil Engineering program): around 70

A few titles of the dissertation have been listed below.

- Finite element analysis of stiffened plates
- Behaviour of concrete confined with Experimental study of polymer modified mortars
- Fibre glass roving under uniaxial compression
- Lateral load analysis of flat slab multi-storeyed structures
- Computer aided analysis, design and fabrication of space truss
- Experimental study of polymer modified mortars
- Hybrid interface element for analysis of laminated beams

MAJOR CONSULTANCY WORKS

2020-2021	Structural Audit of Thane Creek Bridge-II (New Vashi Bridge). Client: MSRDC
2020-2021	Structural Audit of Eastern Freeway for Tunnel Leakages, Rough Concreter patches and settlement of approaches. Client: MCGM
2020-2021	Structural Audit of Santacruz-Chembur Link Road (SCLR) Flyover. Client: MCGM
2019-2020	Rehabilitation of Mumbra Kausa flyover at Mumbra Client: PWD, Govt. of Maharashtra.
2019-2020	Structural Audit and rehabilitation of 24 Skywalks in Mumbai City. Client: MCGM,
2018-2019	Structural Audit and rehabilitation of 11 Mainor bridges / Culverts on Major and arterial road in Mumbai. Client: MCGM
2018-2019	Structural Audit and rehabilitation of 8 FOB on WEH Mumbai. Client: MMRDA, Govt. of Maharashtra.
2018-2019	Structural Stability Assessment of Mumbai Monorail (20 km long from Arthur road to Chembur) Client: MMRDA, Govt. of Maharashtra.
2018-2019	Structural Stability Assessment Parsi Temples (Atash Behrams) at Kalbavevi area with regard to Tunneling and Station construction of Metro line 3. Client: MMRDA, Govt. of Maharashtra.
2018-2019	Proof Checking of Design of Drawings for Rail-Over-Bridges. Client: Central Railway, Govt. of India.
2017-2018	Structural Audit & Load Test of Amar Mahal Flyover on EEH at Chembur, Mumbai. Client: PWD, Govt. of Maharashtra, Mumbai.
2017-2018	Rehabilitation of Rajiv Gandhi flyover at Bhivandi. Client: Bhivandi-Nijampur Municipal Corporation.
2017-2018	Structural Audit and Repair-Rehabilitation scheme of the distressed Kopri Eastern Express Highway ROB at KM 32/ 12-13 Mulund Thane Section. Client: PWD, Govt. of Maharashtra, Mumbai.
2017-2018	Structural investigation of distress in pier P32, Bhiwandi town in the outskirts of Mumbai. Client: JMC Projects (India) Limited.
2017-2018	Structural Audit and Repair-Rehabilitation scheme for JJ Hospital buildings (Sharda Building, New Nurses Hostel, Apna Boys Hostel and Dr. Quarters building nos. 6, 7, 8A/B). Client: PWD, Govt. of Maharashtra, Mumbai.
2017-2018	Structural Audit and Repair-Rehabilitation scheme for bridges at:

- 1) Palghar Wada Devgaon road SH 76 km C.N. 47/800 on Pinjal River, Tal. Wada, Dist. Palghar.
 - 2) Jawhar Wada Bhiwandi Kalyan Karjat Khopoli Road SH 76 C.N. 31/800 Deherje River, Tal. Wada, Dist. Palghar.
- Client: PWD, Palghar.
- 2017-2018 Structural Audit of Thane Creek Bridge-I on Sion-Panvel Special State Highway.
Client: PWD, Govt. of Maharashtra, Mumbai.
- 2017-2018 Structural Audit and Repair-Rehabilitation scheme for old Bridge on Surya River, Tarapur.
Client: MIDC, Tarapur
- 2016-2017 Third Party Quality Assurance services for construction of Office building for Income Tax Department at BKC, Mumbai.
Client: CPWD, Govt. of India, Mumbai.
- 2015-2016 Condition assessment, deflection measurement, Identification of dynamic parameters and inspection of bearings and expansion joints of Turbhe Flyover on Sion-Panvel Expressway.
Client: PWD, Govt. of Maharashtra, Mumbai.
- 2015-2016 Proof Checking of Structural design & drawings of Proposed Residential buildings at Jaipur.
Client: Ratan J. Botlibai Consultants Pvt. Ltd.
- 2014-2015 Structural Audit of Mumbai Fire Brigade's Fire stations
Client: Municipal Corporation Of Greater Mumbai.
- 2014-2015 Proof Checking of Structural design & drawings of Multi-storied public parking at Loharwadi, Parel.
Client: Indiabulls Properties Pvt. Ltd.
- 2014-2015 Proof Checking of Structural design & drawings of proposed Public parking lot in Residential complex at Ghatkopar.
Client: Wadhwa Residency Pvt. Ltd.
- 2011-2014 Structural Audit of buildings in Inf Bn No.1 at Birchgunj, Port Blair.
Client: Garrison Engineer, Port Blair.
- 2010-2011 Rehabilitation of Turbhe flyover at Navi Mumbai.
Client: PWD, Govt. of Maharashtra, Mumbai
- 2008-2011 Rehabilitation and Testing of Rail Over Bridge at Karal, JNPT, Navi Mumbai
Client: JNPT, Nhava Sheva, Navi Mumbai.
- 2008-2009 Testing of Ganga Bridge at Patna, Bihar Before and After Rehabilitation.
Client: National Highway Authority of India.
- 2007-2009 Proof Checking of Proposed Office Bldg. for Indian Oil Co. at Bandra-Kurla Complex Mumbai.
Client: Indian Oil Co. Ltd. (IOCL).

2008 –2009 Proof checking of design of Touch Piles as Retaining Wall for Mithi River, Mumbai
Client: MMRDA.

RESEARCH CONSULTANCY

2008-2009 Study of Polymer Based Water-Proofing Products
Client: Apcotex Industries, New Bombay

2007- 2009 Study of strength and ductility of RC members strengthened with FRP wraps and laminates.
Client: S & P Clever Reinforcement India (Pvt.) Ltd.

MEMBERSHIP: PROFESSIONAL BODIES / ORGANISATIONS

- Indian Society for Technical Education (ISTE) - Life Member
- Indian for Steel Development and Growth (INSDAG) – Life Member
- American Society of Civil Engineers (ASCE) – Member
- Indian Society for Non-Destructive Testing (ISNT) – Life Member
- Association for Structural Rehabilitation (ASTR),-Life Member and Secretary Maharashtra Chapter
- International Concrete Repair Institute, USA (ICRI) – Member
- Indian Institution of Bridge Engineers (IIBE), Life Member and Secretary Mumbai Chapter

TECHNICAL SKILLS

- Strain, Vibration, displacement measurement using wired and wireless sensors.
 - Specialised Non-Destructive Test Concrete: Corrosion Mapping, Pull-Off Test, Pull-Out test, Break-Of test.
 - Water permeability test on concrete as per DIN 1048, IS 2645
 - Certified Lead Inspector for Construction Activities.
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20th December 2021

Abhay Bambole