Bio Data

NAME: **Dr. Anindya Bhar**

Present Designation: Assistant Professor

Present Affiliation: MNNIT Allahabad, India-211004
[Since May, 2009]

Contact Address: Applied Mechanics Department, MNNIT Allahabad, Uttar Pradesh, INDIA-211004.

Phone (Office): +91-532227-1286
(**Residence**) +91-532227-1964

Email: anindya_bhar@yahoo.co.in; anindyab@mnnit.ac.in

Date of birth: January, 1979

Nationality: Indian

Permanent address: Satmandirtala; P.O.- Singur; Dist.- Hooghly; West Bengal-712409, INDIA.

ACADEMIC QUALIFICATIONS:

Sl. No.	Examination	Subject/Specialization	Board/University	Year of passing	Class/Div. and Distinction if any
1	Madhyamik (10^{th})	General (Including Mathematics)	WBBSE	1994	1^{st} Div.
2	H.S. (10+2)	Science (Math, Phy, Chem)	WBCHSE	1996	1^{st} Div, Star (*) Marks
3	B.E.	Civil Engg.	B. E. College (D.U.) (Presently renamed as BESU)	2000	1^{st} Div.
4	M.E.	Structural Engg.	Do	2003	1^{st} Div., 2^{nd} rank
5	PhD	Theoretical and computational solid mechanics	IIT Kharagpur	2011	-

M.E. Thesis Title: Stability analysis of arches and plane frames of varying cross sections using the finite element method.

PhD Thesis Title: Finite Element Analysis Of Stiffened Laminated Composite And Functionally Graded Plates Using A Higher-Order Shear Deformation Theory.

Areas of Specialization: Structural Engineering, Theoretical and Computational Solid Mechanics, Analysis of Stiffened Plates / Shells of Advanced Materials.

Current Research Interests: Laminated Composite and Stiffened Structures, Structures of Advanced Materials (Smart, Functionally Graded and CNT reinforced composites), Finite Element & Other Numerical Methods, Continuum Mechanics, Fluid-Structure Interactions.

Teaching Experience

Sl. No.	Period		Position Held	Organization
	From	To		
1.	26/08/2011	Till Date	Assistant Professor	MNNIT Allahabad, UP-211004, India
2.	28/05/2009	25/08/2011	Lecturer on Contract [Redesignated as: Assistant Professor on Contract]	MNNIT Allahabad, UP-211004, India

Subjects Taught (Lecture Classes)

Sl No.	Subject Name & Code	Program, Semester etc	Period & Place of Teaching
Under graduate subjects			
1.	Engineering Mechanics (AM-1101/ AM-1201)	B.Tech, 1st / 2nd Sem (All Branches)	MNNIT Allahabad: Odd Sem [2012-13] Even Sem [2012-13]
2.	Strength of Materials (AM-302)	B.Tech, 3rd Sem (CE, ME & PIE)	MNNIT Allahabad: Odd Sem [2009-10, 2010-11, 2011-12]
3.	Structural Analysis-I (AM-401)	B.Tech, 4th Sem (CE)	MNNIT Allahabad: Even Sem [2009-10, 2010-11]
4.	Structural Analysis-II (AM-501)	B.Tech, 5th Sem (CE)	MNNIT Allahabad: Odd Sem [2013-14 (Tutorial)]
Post graduate subjects			
1.	Experimental Stress Analysis (AM-904)	M.Tech, 1st Sem (Applied Mechanics)	MNNIT Allahabad: Odd Sem [2009-10]
2.	Experimental Methods & Design (AM-903)	M.Tech, 1st Sem (Applied Mechanics & Fluids Engg.) Odd Sem, 2009-10	MNNIT Allahabad: Odd Sem [2010-11, 2011-12]
3.	Finite Element Methods (AM-908)	M.Tech, 2nd Sem (Applied Mechanics)	MNNIT Allahabad: Even Sem [2011-12, 2012-13]

4.	MEMS & Bio-MEMS (AM-969)	M.Tech, 2nd Sem (Applied Mechanics, Mat. Sc. & Engg.)	MNNIT Allahabad: Even Sem [2011-12]
5.	Dynamics of Structures (AM-904)	M.Tech, 1st Sem (Applied Mechanics)	MNNIT Allahabad: Odd Sem [2012-13]
6.	Wave Propagation in Solids (AM-2112)	M.Tech, 1st Sem (Applied Mechanics)	MNNIT Allahabad: Odd Sem [2013-14]

Theses Supervised (PhD):

In Progress

1. *Broad Area*: Finite Element Modeling and Analysis of Bone Fracture, Satish Kumar Dwivedi (2012RAM01). [Co-Supervisor: Prof. K. K. Shukla].

Theses Supervised (M. Tech):

Completed

1. Finite Element Analysis of Stiffened Plates of Functionally Graded Materials, Abhay Kumar Singh (2008AM05), 2010. [Co-Supervisor Dr. Ramesh Pandey].
2. Vibrational Behaviour of Stiffened Functionally Graded Plates, Prasad Sunil Janve (2009AM09), 2011. [Co-Supervisor Dr. A. K. Govil].
3. A Study on Low Velocity Impact Response of Stiffened Laminated Composite Plates, M. N. Javed (2009AM08), 2011. [Co-Supervisor Er. A. K. Upadhyay].
4. Static Response of Stiffened Laminated Composite Plates Bonded with Piezoelectric Layers, Raj Vardhan (2009AM15), 2011. [Co-Supervisor Dr. Ramesh Pandey].
5. A Study on Finite Element Analysis of Laminated Composite Stiffened Shell Structure, Shivana Gowda Chokka (Reg. No. 2010AM12), 2012.
6. Vibration Analysis of Reservoir Lock Gate Structures considering Fluid Structure Interaction, Arun Kumar Singh (Reg. No. 2010AM10), 2012. [Co-Supervisor Dr. P. R. Pal].
7. Analysis of Laminated Stiffened Plates Using Finite Element Method: Some parametric Study, Upendra Kumar Yadav (Reg. No. 2010AM05), 2012.
8. Finite Element Analysis of Stiffened CNT Reinforced Composite Plates, Indra Jeet (Reg. No. 2011AM22), 2013. [Co-Supervisor Prof. K. K. Shukla].
9. Some Parametric Study on the Finite Element Analysis of Functionally Graded Stiffened Plates, Abhishek Srivastava (Reg. No. 2011AM17), 2013. [Co-Supervisor Dr. Ramesh Pandey].
10. Parametric Studies on Response Behaviour of Laminated Composite Stiffened Plates, Shashi Kant Singh (Reg. No. 2011AM13), 2013. [Co-Supervisor Dr. Ramesh Pandey].
11. Some Parametric Study on Finite Element Analysis of Stiffened Laminated Composite Shells, Anup Kumar Pathak (Reg. No. 2011AM02), 2013.

In Progress

1. *Tentative Topic*: Mixed Finite Element Analysis of Stiffened Plates, Ajay Dwivedi (Reg. No. 2012AM15), June-2014 (expected).
2. *Tentative Topic*: Finite Element Analysis of Fluid-Structure Interaction in Stiffened Lock-Gate Structures, Rajni Kant Mishra (Reg. No. 2012AM08), June-2014 (expected).
3. *Tentative Topic*: Dynamic Analysis of Stiffened Functionally Graded Plates in Thermal Environment Using Finite Element Method, Naman Agarwal (Reg. No. 2012AM06), June-2014 (expected).
4. *Tentative Topic*: Finite Element Analysis of Stiffened Functionally Graded Plates in Thermal Environment, Priyanka Singh (Reg. No. 2012AM07), June-2014 (expected).
5. *Tentative Topic*: Finite Element Analysis of Smart Laminated Composite Stiffened Plates, Subrata Mondal (Reg. No. 2012AM14), June-2014 (expected).

Research Publications:

International Journals

1. Javed M. N.*, **Bhar A.** and Upadhyay A., Effect of Stiffener on Composite Plate Under Low Velocity Impact, International Refereed Journal of Engineering and Science, Vol. 2(2), pp. 40-44, 2013. [ISSN: 2319-1821 (Print) 2319-183X (Online)].

2. Pal P.* and **Bhar A.**, The Displacement Perspective During Ultimate Failure of Composite Laminates, Applied Composite Materials, Vol. 20, pp. 171-18, 2013. [Published Online First: 22-March 2012]. [ISSN: 0929-189X (Print) 1573-4897 (Online)].

3. **Bhar A.*** and Satsangi S. K., Accurate Transverse Stress Evaluation in Composite / Sandwich Thick Laminates Using a C^0 HSDT and a Novel Post-Processing Technique, European Journal of Mechanics - A/Solids, Vol. 30(1), pp. 46-53, 2011. [Available online 24 September 2010] [ISSN: 0997-7538].

4. **Bhar A.***, Phoenix S. S. and Satsangi S. K., Finite Element Analysis of Laminated Composite Stiffened Plates Using FSDT and HSDT: A Comparative Perspective, *Composite Structures*, Vol. 92(2), pp. 312-321, 2010. [Available online 6 August 2009] [ISSN: 0263-8223].

5. Phoenix S. S.*, **Bhar A.** and Satsangi S. K., Vibration Control of Smart Plates Based on Mixed Variational Theorem, *Journal of Composite Materials*, Vol. 42(8), pp. 787-803, 2008. [Originally published online Mar 4, 2008] [ISSN: 0021-9983 (Print); ISSN: 1530-793X (Online)].

National Journals

1. **Bhar A.** and Satsangi S.K.*, Free Vibration Analysis of Laminated FRP Composite Stiffened Plates with Arbitrary Stiffener Lay-out, *Journal of Ship Technology*, Vol-2(2), pp. 68-79, July-2006. [Now stopped being published]

International Conference Proceedings

1. **Bhar A.***, Satsangi S. K. and Bhattacharyya S. K., Finite Element Analysis of Laminated Composite Stiffened Annular Sector Plates (Paper No. 18), Proceedings of the *International Conference on Ship & Offshore Technology* (*ICSOT INDIA 2013*), IIT Kharagpur, India, 12-13 December, 2013. [ISBN: 978-1-909024-22-9]
2. **Bhar A.***, Satsangi S. K. and Bhattacharyya S. K., Static and Natural Vibration Analysis of Stiffened Functionally Graded Plates (Paper ID. 419), Proceedings of the *16th International Conference on Composite Structures* (*ICCS16*), FEUP, Porto, Portugal, 28-30 June, 2011. [Link: http://paginas.fe.up.pt/~iccs16/CD/401-440/419Bhar.pdf]
3. **Bhar A.**, Satsangi S. K.***** and Bhattacharyya S. K., Finite Element Analysis of Stiffened Functionally Graded Annular Sector Plates, pp. 814-816, Proceedings of the *5th International Conference on Theoretical, Applied, Computational and Experimental Mechanics (ICTACEM-5), IIT Kharagpur, India*, 27-29 December, 2010. [ISBN: 9789380813035]
4. **Bhar A.**, Phoenix S. S. and Satsangi S. K.*****, Response of Multilayered Stiffened Plates with a Refined C^0 Higher-Order Shear Deformation Theory, pp. 476-480, Proceedings of the *4th International Conference on Theoretical, Applied, Computational and Experimental Mechanics (ICTACEM-4), IIT Kharagpur, India*, 27-29 December, 2007. [ISBN: Not Available]
5. **Bhar A.***, Phoenix S. S. and Satsangi S. K., Vibrational Behaviour of Laminated Composite Stiffened Structures, pp. 548-554, Proceedings of the *2nd International Congress on Computational Mechanics and Simulation (ICCMS-2), IIT Guwahati, India*, 8-10 December, 2006. [ISBN: 81-89866-16-8, November 7, 2007]
6. Phoenix S. S.*****, **Bhar A.** and Satsangi S. K., Quasi - Three - Dimensional Modeling of Laminated Composite Plates, pp. 649-654, Proceedings of the *10th East Asia-Pacific Conference on Structural Engineering and Construction (EASEC-10), Bangkok, Thailand*, 3-5 August, 2006. [ISBN: 974-8257-18-5]
7. **Bhar A.** and Satsangi S. K.*****, Finite Element Analysis of Stiffened FRP Composite Plates, pp. 476-480, *3rd International Conference on Theoretical, Applied, Computational and Experimental Mechanics (ICTACEM-3), IIT Kharagpur, India*, 28-30 December, 2004. [ISBN: Not Available]

National Conference Proceedings

1. **Bhar A.*** and Satsangi S. K., Finite Element Analysis and Computation of In-Plane and Transverse Stresses In Laminated Composites Using A Recently Developed Semi Refined HSDT, (Paper Code: SM6S189), *58th Congress of ISTAM, BESU, Shibpur*, 18-21 December, 2013.
2. **Bhar A.**, Satsangi S. K.***** and Bhattacharyya S. K., Natural Vibration Analysis of Laminated Composite Stiffened Annular Sectorial Plates, pp. 207-212, *55th Congress of ISTAM, NIT Hamirpur*, 18-21 December, 2010.
3. Phoenix S. S.*****, **Bhar A.** and Satsangi S. K., Finite Element Analysis of Smart Composite Plates Based on Mixed Variational Theorem, *DREAMS-2007, General Electric, Bangalore*.

Honours / Awards / Recognition etc

- Awarded MHRD Scholarship for pursuing M.E. at B. E. College (D.U.) [presently renamed as BESU] (August 2001 to January 2003).
- Awarded Institute Scholarship (financed by MHRD) for pursuing Ph.D at IIT Kharagpur (March 2003 to February 2007).

Conferences / Workshops / Short Term Courses Organized

- Acted as **Organizing Secretary** for National Workshop on 'Advanced Functional Materials and Structures (AFMS-2012)' during 12-14 July, 2012 at MNNIT Allahabad, India in collaboration with University of Missouri (MU), Columbia, USA. Total Participants: 40.

Other Informations

- Acted as **Reviewer** for the following Manuscripts (for original and/or revised versions).

1. "Size Optimization of Stiffeners in Bending Plates" by: Adel Elsabbagh, *Mechanics of Advanced Materials and Structures (Taylor & Francis),* 10 April-2011 to 10 May-2011 (original manuscript).
2. "A Posteriori Shear and Normal Stress Recovery for Laminated Composite Annular and Rectangular Plates Via the GDQ Method" by: Francesco Tornabene, Alfredo Liverani, Gianni Caligiana**,** *Composites Part B (Elsevier),* September-2011 to December-2011 (original and revised manuscript).
3. "Application of design of experiments and artificial neural networks for stacking sequence optimizations of laminated composite plates" *International Journal of Engineering, Science and Technology (MultiCraft Publishers),* February-2012 to March-2012 (original manuscript).
4. "Frequency Optimization of Laminated Composite Annular Sector Plates" by: Umut Topal, *Arabian Journal for Science and Engineering (Springer),* March-2012 to May-2012 (original and three revised manuscripts).
5. "Analysis of Geometrical Parameters Effects on Advanced Hybrid Wind Turbine Tower under Rated Wind Load" by: Xiang-Guo Wu, Jing Yang, Issa Brown Mpalla, Qun Yu, *Arabian Journal for Science and Engineering (Springer),* June-2013 to July-2013 (original manuscript).

Administrative / Non-Academic Responsibilities:

1. Member, Working Group, Central Library, MNNIT Allahabad; from: 24/11/2009 to June, 2013 (Approx.).
2. Officer in Charge, Strength of Materials Lab, Applied Mechanics Department, MNNIT Allahabad; from: 01/07/2010 to 03/01/2013.
3. Officer in Charge, Computational Lab, Applied Mechanics Department, MNNIT Allahabad; since: 04/01/2013.
4. Warden-II, Girls Hostels (KNGH & SNGH), MNNIT Allahabad, from: 27/08/2012 to 22/07/2013.
5. Faculty Coordinator, Volleyball Teams (Boys & Girls), MNNIT Allahabad; during: Session 2011-12.
6. Faculty Coordinator, Athletics (Boys & Girls), MNNIT Allahabad; during: Session 2012-13.