

Ashutosh Kumar Upadhyay



Assistant Professor

Department of Applied Mechanics

(E-mail: ashutosh@mnnit.ac.in)

Phone : +91-532-2271209 (O)

Date of Birth: 15-05-1979
Marital Status: Married
Nationality: Indian
Address for Communication: C-58, Residential Campus
M.N.N.I.T., Allahabad (U.P.) – 211004
Permanent Address: S/o Shri R.P. Upadhyay
P.O. at Vill.- Ashraphpur
Sant Kabir Nagar (U.P.) – 272162

Educational Qualification:

Degree	Discipline	Year	Institute
10 th	Science, Mathematics, English	1993	RKPHIC, U.P.
12 th	Physics, Mathematics, Chemistry	1995	HRIC, U.P.
B.E.	Mechanical Engineering	2002	REC Silchar (Assam)
M.Tech	Applied Mechanics	2007	MNNIT Allahabad, U.P.
Ph.D	Applied Mechanics	2013	MNNIT Allahabad, U.P.

M.Tech Thesis: Hygroscopic effects on bending and stability of Laminated Composite Plates
Ph.D Thesis: Nonlinear Static and Dynamic Analysis of Skew Plates
Teaching Experience: 5 years (Joined on 12-02-2009)

Current Research Areas:	Composite and Sandwich Structures, Energy absorbers, Impact and Blast loading on structures.
Subjects taught at PG level:	Dynamics of Structures, Mechanics of Composite Materials and Applied Computational Methods
Subjects taught at UG level:	Mechanical Vibrations, Engineering Mechanics and Strength of Materials

Publications:

International Journals: 10

1. Ramesh Pandey, **A.K.Upadhyay** and K.K.Shukla (2010), “Hygro-Thermo-Elastic Post buckling Response of Laminated Composite Plates”, *J. Aerospace Engineering, ASCE*, 23(1), 1-13.
2. **A.K.Upadhyay**, Ramesh Pandey and K.K.Shukla (2010), “Nonlinear Flexural Response of Laminated Composite Plates under Hygro-Thermo-Mechanical Loading”, *Communications in Nonlinear Science and Numerical Simulation*, 15(9), 2634-2650.
3. **A. K. Upadhyay**, Ramesh Pandey and K.K.Shukla (2011), “Nonlinear Dynamic Response of Laminated Composite Plates Subjected to Pulse loading.” *Communications in Nonlinear Science and Numerical Simulation*, 16(11), 4530-4544.
4. Ramesh Pandey, **A.K.Upadhyay**, K.K.Shukla and Anuj Jain (2012), “Nonlinear Dynamic Response of Elastically Supported Laminated Composite Plates”, *J. Mechanics of Advanced Materials and Structures*, 19(6), 397-420.
5. **A.K.Upadhyay**, K.K.Shukla (2012) “Large Deformation Flexural Behavior of Laminated Composite Skew Plates: An Analytical Approach” *Composite Structures* 94, 3722–3735.
6. Ambuj Sharma, **A. K. Upadhyay** and K.K.Shukla (2013), “Flexural Response of Doubly Curved Laminated Composite Shells.” *Science China Physics, Mechanics & Astronomy*, 56 (4), 812-817.
7. G.Bhardwaj, **A.K.Upadhyay**, R. Pandey and K.K.Shukla (2013), “Non-linear Flexural and Dynamic Response of CNT Reinforced Laminated Composite Plates” *Composites Part-B*, 45, 89–100.
8. **A.K.Upadhyay** and K.K.Shukla, (2013) “Geometrically Nonlinear Static and Dynamic Analysis of Functionally Graded Skew Plates”, *Communications in Nonlinear Science and Numerical Simulation*, 18, 2252–2279.
9. **A.K.Upadhyay** and K.K.Shukla, (2013) “Post buckling Behavior of Composite and Sandwich Skew Plates”, *Int. J. Nonlinear Mechanics*, 55, 120-127.

10. **A.K.Upadhyay** and K.K.Shukla, (2013) “Nonlinear Static and Dynamic Analysis of Skew Sandwich Plates”, *Composite Structures*, 105, 141-148.

International Conferences: 12

1. R. Pandey, **A. K. Upadhyay**, K. K. Shukla and A. Jain (2007), “Nonlinear Response of Laminated Composite Plates under Hygro-Mechanical Loading”, ICTACEM-07, IIT Kharagpur. (27-29 December, 2007)
2. Sumit Sharma, Ramesh Pandey, **A.K.Upadhyay** and K.K.Shukla (2009), “Postbuckling Response of Hybrid Plates”, ICCMS09, IIT Mumbai, (01-05 December, 2009)
3. Praveen Kumar, **A.K.Upadhyay** and K.K.Shukla (2009), “Static analysis of laminated Composite Skew Plates”, ICCMS09, IIT Mumbai, (01-05 December, 2009)
4. Ambuj Sharma, **A. K. Upadhyay** and K.K.Shukla (2010), “Flexural Response of Doubly Curved Laminated Composite Shells .”, Second Asian Conference on Mechanics of Functional Materials & Structures, China (ACMFMS, 22-25 October, 2010)
5. Kuldeep K. Saxena, **A.K.Upadhyay**, Mukul Shukla (2010), “Mechanical properties evaluation of carbon nanotube reinforced polymer composite using molecular dynamics simulation”, ICTACEM-10, IIT Kharagpur. (27-29 December, 2010)
6. Vishwanath S.M., **A.K.Upadhyay** and K.K.Shukla (2011), “Low velocity impact analysis of composite laminates using linearized contact law.” Fifth International Conference on Advances in Mechanical Engineering, ICAME-11, SVNIT, Surat, (06-08 June 2011).
7. K.V. Kulkarni, **A.K.Upadhyay** and K.K.Shukla (2011), “An analytical solution for dynamic response of laminated composite skew plate.” Fifth International Conference on Advances in Mechanical Engineering, ICAME-11, SVNIT, Surat, (06-08 June 2011).
8. **A.K.Upadhyay** and K.K.Shukla (2012), “Nonlinear Dynamic Analysis of Laminated Composite Skew Plates” Fourth International Conference on Structural Stability and Dynamics, ICSSD-2012, MNIT, Jaipur, (04-06 January 2012).
9. V. S. Managuli, **A.K.Upadhyay** and K.K.Shukla (2012), “Low Velocity Impact Analysis of Sandwich Plates Using General Linearized Contact Law” Fourth International Conference on Structural Stability and Dynamics, ICSSD-2012, MNIT, Jaipur, (04-06 January 2012).
10. G.Bhardwaj, **A.K.Upadhyay**, R. Pandey and K.K.Shukla (2012), “Buckling and Post Buckling Response of CNT Reinforced Multi-Scale Composite Laminated Plates” Fourth International Conference on Structural Stability and Dynamics, ICSSD-2012, MNIT, Jaipur, (04-06 January 2012).
11. **A. K. Upadhyay** and K.K.Shukla (2012), “Buckling of laminated composite and sandwich skew plates.”, Third Asian Conference on Mechanics of

Functional Materials & Structures, IIT Delhi (ACMFMS, 05-08 December, 2012)

12. **A.K.Upadhyay** and K.K.Shukla (2012), Static and Dynamic Analysis of Functionally Graded Skew Plates”, ICCMS12, IIT Hyderabad, (09-12 December, 2012)

National Conferences: 01

1. Rameez, A.K. Upadhyay, K.K. Shukla (2013), “Energy absorption in sandwich plates with pyramidal hollow truss core”, Indian Conference on Applied Mechanics (INCAM) 2013, IIT Madras, 4 – 6 July 2013.

M.Tech. Thesis supervised:15

1. Praveen Kumar (2009) - Linear static analysis of laminated composite skew plates. (Co-Supervisor – Prof. K.K. Shukla).
2. Kuldeep Saxena (2010) -Modeling and characterization of elastic properties of CNT Nanocomposites. (Co-Supervisor – Dr.Mukul Shukla).
3. Ambuj Sharma (2010) - Static analysis of Doubly Curved laminated composite Panels on Rectangular Plan form. (Co-Supervisor – Prof. K.K. Shukla).
4. Sachin Kumar (2010) - Nonlinear dynamic response of laminated composite plates subjected to blast loading. (Co-Supervisor – Prof. K.K. Shukla).
5. S.M. Vishwanath (2011) – Low velocity impact analysis of laminated composite plates. (Co-Supervisor – Prof.K.K. Shukla).
6. K.V. Kulkarni (2011) – Dynamic analysis of laminated composite skew plates. (Co-Supervisor – Prof. K.K. Shukla).
7. S.C.Srivastava (2011) – Analysis of tapered laminated composite plates. (Co-Supervisor – Prof.AK Govil).
8. M.N.Javed (2011) – Low velocity impact analysis of laminated composite stiffened plates. (Co-Supervisor – Dr. Anindya Bhar).
9. Rashank Sharma (2011) – Effective moduli of CNT reinforced composite with wavy CNT fibre.
10. Pankaj Upadhyay (2012) – Buckling analysis of laminated composite skew plates with and without cut-out. (Co-Supervisor – Prof.K.K. Shukla).
11. Soni Kumari (2012) – Stress analysis for an infinite plate with circular holes. (Co-Supervisor – Prof.K.K. Shukla).
12. Rameez (2013) – Energy absorption by sandwich plates with hollow pyramidal truss cores. (Co-Supervisor – Prof.K.K. Shukla).
13. Bharat Bhushan Sharma (2013) – Post-buckling analysis of laminated composite skew plates with geometric imperfection. (Co-Supervisor – Dr. Ramesh Pandey).
14. Arvind Kumar Singh (2013) – Post-buckling analysis of FGM skew plates with geometric imperfection. (Co-Supervisor – Prof.K.K. Shukla).

15. Md. Reyaz-Ur-Rahim (2013) – Energy absorption by circular tubes subjected to oblique loading. (Co-Supervisor – Prof.K.K. Shukla).

Workshop Attended: 2

1. One week Short Term Course on “Finite Element Analysis- Theory & Practice”, January 29 – February 03, 2007, Department of Applied Mechanics and Mechanical Engineering, M.N.N.I.T. Allahabad
2. Four days “workshop on Applied Mechanics: Pravartana 2013” October 4-7, 2013, held at IIT Kanpur.