



ANAND KUMAR		
	DESIGNATION	Professor
	QUALIFICATION	Ph.D.
	AREA OF INTEREST	Design, Materials
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DETAILED PROFILE

ANAND KUMAR			
	Designation	Professor	
	Phone no.	7081300504	
	Email	kranandhbti@gmail.com	
	Website	https://hbtu.ac.in/mechanical-engineering-2/	
AREA OF INTEREST			
Design, Materials			
PROFESSIONAL EXPERIENCE			
Designation	Organization	From	To
Professor	HBTI, Kanpur	Mar. 01, 2011	Till date
Associate Professor	HBTI, Kanpur	Jan. 01, 2006	Feb. 28, 2011
Assistant Professor	HBTI, Kanpur	Oct. 05, 1999	Dec. 31, 2005
Assistant Professor	Pant Univ., Pantnagar	May 31, 1991	Oct. 04, 1999
HONOURS, AWARDS AND FELLOWSHIPS			
<ul style="list-style-type: none"> • Member, Chartered Management Institute • Fellow Member, Institution of Engineers' (India) • Foreign Countries Visited <ol style="list-style-type: none"> I. To attend IV IPS Collaboration Symposium at Waseda University, Kitakyushi, Japan, Nov. 17-19, 2010 II. To attend SPIE Conference on Smart Materials + Nano - & Micro- Systems at RMIT University, Melbourne, Australia, Dec. 8-12, 2008 • Won second prize for poster presentation prize for research paper '<i>Structural health monitoring of composite laminate using smart magnetostrictive sensory layer</i>' at National Workshop on Advanced Functional Materials and Structures, MNIT, Allahabad, July 12-14, 2012. • Won best poster presentation prize for research paper '<i>Delamination detection in composite beam using magnetostrictive materials as sensor</i>' at International Conference on Recent Advances in Composite Materials, IT-BHU, December, 2004. 			

DETAILS OF SUBJECTS TAUGHT			
Names of Subjects at Under Graduate Level	Institution	Names of Subjects taught at Post Graduate Level	Institution
Kinematics of Machines, Measurement & Control, Theory of Machine, Manufacturing Process	GBPUAT	Friction, Wear & Lubrication, Automatic Control M/c Tool Technologies	GBPUAT
Material Science Engineering Materials Automatic Control, Mechanical Measurements	HBTU	Advance Mechanics of Solid, Composite Material Smart Material & Smart Structures	HBTU
EDUCATIONAL QUALIFICATION			
Degree	University / Institution	Subject	Year
B.Tech.	Pant Univ., Pantnagar	Mechanical Engineering	1988
M.E.	Pant Univ., Pantnagar	Design & Production Engineering	1991
Ph.D.	IIT, Kanpur	Mechanical Engineering	2011
<ul style="list-style-type: none"> • M Tech Thesis, <i>Wear Characteristics of Tin Bronzes with Varying Tin Percentages</i> submitted to Department of Mechanical Engineering, G B Pant University, Pantnagar, 1991. • Ph D Thesis, <i>Structural Health Monitoring of Composites using Smart Actuation and Sensing</i> submitted to Department of Mechanical Engineering, IIT, Kanpur, 2011. 			
ADMINISTRATIVE EXPERIENCE			
<ul style="list-style-type: none"> • Co-ordinator, Admission Committee – 2019 • Member Secretary, Academic Council • Dean of Academic Affairs, Since October, 2017 • Dean of Cont. Edu. & Int. Quality Assurance, Oct., 2016 to Oct., 2017 • Head, Department of Mechanical Engineering, Since October 5, 2016 • Chief Vigilance Officer of the Institute, Jan. 2012- Feb. 2013 • Member, Institute OBC Scholarship Committee, 2010-till date • PG Coordinator, Mechanical Engineering Department, 2008-10 & 2011-12 • Member, House Allotment Committee, 2007-08 • Chief Proctor of the Institute, 2005-07 • Chairman, Institute Proctorial Board, 2005-07 • Member, Procurement Cell, TEQIP, World Bank, 2005-06 • Officer-in-Charge, Mechanical Maintenance, 2002-03 & 2009-10 • Convener, Sport's Council, 2001-02 			

FACULTY INTERACTION WITH OUTSIDE WORLD			
Organization	Position / Assignment	Nature of interaction	Year
NIT, Hamirpur	Senate Expert Member		2019
IIT Kanpur	Member, Selection Committee for Technical Personnel's		Since 2006
Public Service Commission, U P	Technical Expert / Advisor		Since 2005
Public Service Commission, M P	Technical Expert / Advisor		Since 2005
Public Service Commission, Uttarakhand	Technical Expert / Advisor		Since 2005
GCTI, Kanpur	Member, Selection Committee, for CAS promotions		2004
AICTE	Expert Member, Visits for Evaluation of Technical Institutes		2004
IRDT, Kanpur	Member, Course Curriculum Committee		2004
CSJM, Kanpur	Member, Course Curriculum Committee		2008
CSJM, Kanpur	Member, Enquiry Committee		Since 2003
The Institution of Engineers (India)	Project Evaluator and Supervisor		Since 2003
MEMBERSHIP OF PROFESSIONAL SOCIETIES			
Name of Membership	Organization	Year	
Fellow	Institution of Engineer's (India)	2015	
Executive Member	Institution of Engineer's (India) for 4 terms	Since 2008	
Member	Chartered Management Institute	2016	
Member	SPIE (International Society of Optics and Photonics)	2008-09	
Member	Indian Science Congress	2010	
Life Member	Oils Technology Association of India (OTAI)	2007	
Life Member	IIT Kanpur Alumni Association	2011	
SPONSORED RESEARCH PROJECTS			
Number of Projects Completed		04 Completed 01 Ongoing	
<ul style="list-style-type: none"> • Development of utility products using rubber waste, Council of Science & Technology, U P, Three years, (2017-2020) Grant amount Rs.12.00 Lakhs. • Real Time Integrity Monitoring of Composite Structures using Magnetostrictive Materials under Research Promotion Scheme of All India Council of Technical Education, New Delhi, Two years, (2003-04) Grant amount Rs.10.00 Lakhs. • Design and Material Modifications in Existing Yokes and Harnesses for Improved Performance under Technical Education Quality Improvement Programme (TEQIP), World Bank, One year, (2007-08) Grant amount Rs. 0.72 Lakhs. • Study of Dynamic Response of Selected Seasonal Fruits during the Process of Ripening for Better Transportation, Storage and Improved Shelf Life under TEQIP-II, World Bank, One year, (2014-15) Grant amount Rs. 1.20 Lakhs. • Development of a Setup for Producing Compacts for Bio-implants under TEQIP-II, World Bank, One year, (2015-16) Grant amount Rs. 1.00 Lakhs. 			

INDUSTRIAL PROJECTS	
Number of Projects Completed	
CONSULTANCY PROJECTS	
<ol style="list-style-type: none"> 1. Process certification of Lamplig, 2006 for IEDS, Kanpur worth Rs.25,000=00 2. Inspection of Aluminum channel used as construction material, 2010 for KDA, Kanpur worth Rs.12,133=00 3. Inspection of Aluminum channel used as construction material, 2010 for KDA, Kanpur worth Rs.12,133=00 4. Inspection of Aluminum channel used as construction material, 2010 for KDA, Kanpur worth Rs.12, 133=00. 	
ORGANIZATION OF SEMINARS/CONFERENCES/WORKSHOPS	
Number of Seminars/Conferences/Workshops Organized	10
<ul style="list-style-type: none"> • Conference Coordinator, International Conference on <i>Design Materials & Manufacturing Concerns in Production of Quality Engineering Goods</i>, Department of Mechanical Engineering, March 27-29, 2017, HBTU, Kanpur. • Conference Coordinator, National Conference on <i>Innovations in Materials, Design & Manufacturing</i>, Department of Mechanical Engineering, March 27-28, 2015, HBTI, Kanpur. • Programme Coordinator, Faculty Development Programme on <i>Engineering Education: Opportunities, Challenges & Future Directions</i>, Department of Mechanical Engineering, March 7-12, 2014, HBTI, Kanpur. • Dy. Coordinator, Faculty Development Programme on <i>Simulation, Modeling & Analysis of Engineering Systems</i> in collaboration with Department of Computer Science & Engineering, October 25-30, 2013, HBTI, Kanpur. • Coordinator, All India Seminar on <i>Advances in Materials & Material Selection in Design</i>, in collaboration with the Institution of Engineers' (India), Kanpur Local Chapter held at HBTI Kanpur during August 24-25, 2012. • Coordinator, <i>Advances in Engineering Materials</i>, One Week Faculty Development Programme, Department of Mechanical Engineering, March 16-21, 2009, HBTI, Kanpur. • Coordinator, <i>Composite Materials: Potential & Challenges</i>, A two day Refresher Course, Department of Mechanical Engineering, December 28-29, 2007, HBTI, Kanpur. • Coordinator, <i>Advances in Materials & Material Selection in Design</i>, A two day Refresher Course, Department of Mechanical Engineering, March 10-11, 2007, HBTI, Kanpur. • Member, Local Organizing Committee, <i>National Workshop on Smart Materials & Composite Structures</i> at IIT, Kanpur, February 12-14, 2002. 	
PARTICIPATION IN SEMINARS/CONFERENCES/WORKSHOPS	
Number of Seminars/Conferences/Workshops Participated	23
<ul style="list-style-type: none"> • National Workshop on 'Padarth Vigyan:Nai Chunauiyan avam Nai Dishayein' at DMSRDE, Kanpur, February 04, 2016. • UKIERI-AICTE Fourth Further Education Leadership Programme, NITTTR, Chandigarh, March 17-18, 2016. • UKIERI-AICTE Third Further Education Leadership Programme, NITTTR, Chandigarh, October 12-14, 2015. • UKIERI-AICTE Second Further Education Leadership Programme, NITTTR, Chandigarh, March 2-4, 2015. • UKIERI-AICTE First Further Education Leadership Programme, NITTTR, Chandigarh, January 21-24, 2015. • TEQIP-II Workshop on Curriculum Development in Material Science & Chemical Engineering at IIT, Kanpur, February 22-23, 2014. • National Workshop on Advanced Functional Materials and Structures at MNIT, Allahabad, July 12-14, 2012. 	

- One day Workshop on Virtual Instrumentation and Data Acquisition by National Instruments at Kanpur, May 8, 2012.
- Recent Advances in Mechanical Engineering, BSA College of Engineering and Technology, Mathura, March, 2011.
- IV IPS Collaboration Symposium, Waseda Univ., Japan, Nov.17-20, 2010.
- Workshop on Natural Gas Processing and Natural Gas / LPG Pipeline Transportation, GAIL (India) Ltd., NOIDA, June 29- July 01, 2009.
- SPIE Conference on Smart Materials + Nano- & Micro- Systems, Melbourne, Australia, December 8-12, 2008.
- National Conference on 'Padarth Vigyan-Nai Chunautiyan' at DMSRDE, Kanpur, February, 2008.
- International Conference on Recent Developments in Mechanical Engineering. SUSCET, Tangori, Mohali, Punjab, January, 2008.
- National Conference STEM-2007, College of Technology, G.B.Pant University, Pantnagar, October, 2007.
- National Symposium SMDISA, IIT, Kanpur, March, 2007.
- International Conference on Recent Advances in Composite Materials, India Habitat Centre, New Delhi, February, 2007.
- International & INCCOM-6 Conference on Future Trends in Composite Materials & Processing, IIT Kanpur, December, 2007.
- International Conference on Advances in Mechanical Engineering, BBSBEC, Punjab, December, 2006.
- One day Workshop on Intellectual Property Rights and Patents at SSI, Kanpur, 2006.
- International Workshop on Recent Advances in Biometric Systems at IIT, Kanpur, March, 2005.
- International Symposium on Advanced Materials and Processing at IIT, Kharagpur, December, 2004.
- International Conference on Recent Advances in Composite Materials at IT-BHU, December, 2004.

ORGANIZATION OF SHORT TERM COURSES

Number of Short Term Courses Organized	
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PARTICIPATION IN SHORT TERM COURSES

Number of Short Term Courses participated	10
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- Visiting Research Programme, TEQIP Incubation Centre, IIT Kanpur, and May 10 to July 24, 2015 (10 weeks).
- Visiting Research Programme, TEQIP Incubation Centre, IIT Kanpur, December 7-27, 2014 (3 weeks).
- Mechanics in Physics, Department of Physics, IIT, Kanpur, February 22-23, 2014 (1 week).
- Management Development Programme on Enhancement of Leadership in Administrators at IIM, Lucknow (NOIDA Campus), January13-17, 2014.
- Processing, Characterization and Production of Advanced Engineering Materials, IIT, Kanpur, February 24-28, 2010 (1 week).
- Recent Trends in Advanced Composites at IIT, Kanpur, 2005, (1 week).
- FEM and its Advanced Applications at IIT, Kanpur, 2002 (1 week).
- Instrumentation & Data Analysis at IIT, Delhi, 1998 (2 weeks).
- Engineering Materials: Characteristics & Processing at MREC, Jaipur, 1996 (2 weeks).
- Recent Trends in Engineering Materials at MNREC, Allahabad, 1995 (2 weeks).

INVITED LECTURES

- *Smart materials: concepts, & future scope*, Allen House Institute of Engineering & Technology, Kanpur, April **30, 2018**.
- *Design and material issues in light weight structures*, Allen House Institute of Engineering & Technology, Kanpur, April **30, 2018**.
- *Corrosion: Fundamentals & its mitigation*, G B Pant Univ., Pantnagar, **June, 2016**.
- *Evaluation systems in technical education: Appraisal of learning or a tool of mechanical differentiation*, FDP on Essentials of Teaching - Learning Processes, KNIT Sultanpur, **April, 2015**.
- *Corrosion & its control*, Indus College of Engineering, Bilhour, **May, 2015**.
- *Light weight structures*, PSIT, Kanpur, **March, 2015**.
- *Absenteeism & mass bunking of classes: Causes, consequences and remedies*, FDP on Essentials of Teaching - Learning Processes, KNIT Sultanpur, **April, 2015**.
- *Smart materials & structures: concepts and applications*, Dr. Bhimrao Ambedkar College of Engineering & Technology, Etawah, **March, 2014**.
- *Engineering education in India*, FDP on Engineering Education: Opportunities, Challenges & Future Directions, HBTI, Kanpur, **March, 2014**.
- *Global scenario in engineering education*, FDP on Engineering Education: Opportunities, Challenges & Future Directions, HBTI, Kanpur, **March, 2014**.
- *Smart materials and their uses in structural health monitoring*, G B Pant Univ., Pantnagar, **February, 2014**.
- *Smart materials & structures*, National Conference on Emerging Frontiers in Mechanical Engineering, HBTI, Kanpur, **February, 2014**.
- *Mathematical representation of physical systems in engineering*, FDP on Simulation, Modeling & Analysis of Engineering Systems, HBTI, Kanpur, **October, 2013**.
- *Evaluation system: Absolute percentage v/s grading system*, FDP on Curriculum Development & Evaluation System, HBTI, Kanpur, **July, 2013**.
- *Strategies to prevent absenteeism and mass bunking*, FDP on Essentials of Teaching – Learning Process, HBTI, Kanpur, **March, 2013**.
- *Dynamical representation of physical systems and their analysis*, Department of Mathematics, HBTI, Kanpur, **September, 2012**.
- *Keynote address on Health and Usage Monitoring of Composite Structures*, BSA College of Engineering and Technology, Mathura, **March, 2011**.
- *Structural Health Monitoring of Composite Structures using Smart Sensing and Actuation*, IV IPS Collaboration Symposium, Waseda University, Japan, **November, 17-20, 2010**.
- *Health Monitoring of Composite Structures using Magnetostrictive Sensors* at SMDISA-2007, IIT, Kanpur, **March, 2007**.
- *Health Monitoring of Composites using Smart Materials with Special Emphasis on Magnetostrictive Materials*, B R Ambedkar Institute of Engineering, Etawah, **March, 2006**.
- *Material Selection in Design*, B R Ambedkar Institute of Engineering, Etawah, **March, 2006**.

RESEARCH GUIDANCE

Ph.D. Guidance

Name of Ph.D. Scholar	Ph.D. Topic	University	Year of Award
Mohit Katiyar	Polymer composites based microwave absorbers	AKTU	Submitted 2018

Ongoing Ph.D. Guidance

Name of Ph.D. Scholar	Ph.D. Topic	University	Year of Enrolment
Priyanka Katiyar	Development of nano particles filled	AKTU	2013

	composites with improved damping characteristics		
Aditya Kumar	Design and fabrication of honeycomb sandwich panels for structural usage	AKTU	2014
R.K. Ambikesh	Design & development of utility product from waste rubber.	AKTU	2016
Satyendra Kumar	Mechanical behaviour of fibre reinforced ultra high temperature ceramic composites	AKTU	2019
M.Tech. Guided			
Name of M.Tech. Scholar	Title of Thesis	University	Year of Award
Husna Maqsood	Fabrication and Characterization of Particulate Reinforced Hypereutectic Aluminium-Silicon Alloy Composite	HBTU	2018
Vikrant Singh	Study of stiffness properties of unidirectional and woven carbon fiber reinforced polymer laminates	HBTU	2018
Arvind Kumar Yadav	Mechanical Behaviour of Coir and Glass Fiber Reinforced Epoxy Composite with SiC Filler Material	HBTU	2018
Arun Kumar	Fabrication of bamboo fibers and coconut shell particles reinforced epoxy matrix composite	AKTU	2017
Anubhau Shukla	Comparison of package cushioning materials to protect post harvest vibration damages to apples	AKTU	2016
Suraj Kalia	Experimental evaluation of mechanical properties of glass epoxy composites for different laminate orientations	AKTU	2016
Shruti	Development and performance evaluation of rubber composite using recycled vulcanized rubber	GBTU	2015
Arvind Kumar	Development and mechanical characterization of banana / coir powder epoxy composites	GBTU	2015
Kartikeya Dixit	Performance evaluation of aluminium honeycomb sandwich panels with different shell sizes	GBTU	2014
Varun Kumar Singh	Theoretical and experimental performance evaluation of glass fibre composite leaf spring and conventional leaf spring	GBTU	2014
Aditya Kumar	Experimental study of mechanical properties and absorption behavior of coconut shell powder epoxy composite	GBTU	2013
Virendra Kumar Uttam	Mechanical characterization of coconut fibre and fibre powder reinforced epoxy composite	GBTU	2013
Arpit Kumar Srivastava	Failure analysis of laminated composite beam using narrow and wide beam criteria	GBTU	2013
Ankit Saini	Development and performance evaluation of water resistant corrugated board of packaging	GBTU	2013
Priyanka Katiyar	A study of damping characteristics of alumina filled epoxy nano composite	GBTU	2012
Avanindra Nath Yadav	Buckling load analysis of laminated composite plates with different fibre orientations	GBTU	2012
Rashmi Rani Maheshwari	Damage prediction through modal analysis using laser Doppler vibrometer	GBTU	2012
Mahipal Singh	Improvement in the strength of gun barrel by modifying autofretage regime	GBTU	2011
Anil Kumar Yadav	Mechanical and thermal characterization of aero grain polymethyl metha acrylate (PMMA) used in aircraft canopy	GBTU	2011
Dinesh Kumar Pandey	Experimental modal analysis for health monitoring of composite structures using laser Doppler vibrometer	GBTU	2011
Ashish Awasthi	Experimental validation of strength properties of hybrid composite beam using ANSYS	GBTU	2012
Prem Pal	A study of operation and maintenance of water supply and air-	GBTU	2012

	conditioning installations at Air Force Station, Kanpur		
Mahendra Shanker	Studies on tailoring of structural components using hybrid composites for aerospace and critical applications	UPTU	2010
Pradeep Kumar	Studies on effectiveness of magnetostrictive layer in delamination sensing of composite laminates	UPTU	2007
Shakti Singh Patel	Terfenol-D as potential sensing material in health monitoring of composite laminates	UPTU	2006
Rajendra Kumar Soni	Sensing of delamination of laminate composite beam using magnetostrictive material	UPTU	2003
Ajay Prasad Nigam	Analysis of failure through delamination of composite laminates using Terfenol-D layers	UPTU	2006
Navneet Kumar Pandey	Erosive wear modelling	UPTU	2003
Girish Chandra Verma	Computer aided design of vapour compression system and its optimization using genetic algorithm	UPTU	2003
Manoj Kumar Verma	Computer aided design of axial turbine blade profile	UPTU	2002
Gunjan Agrawal	Wear performance evaluation of aluminium bronzes	GBPUAT	1994

BOOKS PUBLISHED

Title of Book	Publisher	Year	ISBN No.
Structural Health Monitoring <i>Dr. Anand Kumar & Dr. Bishakh Bhattacharya</i>	NPTEL IIT Kanpur	2012	e-book

REVIEWER OF JOURNALS / BOOKS

- Reviewed two chapters of a book on Mechanics of Solids for Cineage Publications, 2012.
- Reviewer to the NPTEL course – Principles of Vibration Control prepared by faculty members of IIT, Kanpur, 2012.
- Reviewer to the NPTEL course – Smart Materials, Structures and Systems prepared by faculty members of IIT, Kanpur, 2011.
- Reviewed two research papers for Intl. Jl. of Material Science & Engineering A, 2007.
- Reviewed a book on Machine Element Design for Pearson Publication, 2006.
- Reviewed a book on Mechanical Engineering for New Age Publication, 2006.

CONFERENCE PROCEEDINGS EDITED

- Chief Editor, Proceedings of International Conference on *Design Materials & Manufacturing Concerns in Production of Quality Engineering Goods*, Department of Mechanical Engineering, **March 27-29, 2017**, HBTU, Kanpur.
- Editor, Proceedings of National Conference on *Innovations in Materials, Design & Manufacturing*, Department of Mechanical Engineering, HBTI, Kanpur, **March 27-28, 2015**, (400 pages).
- Editor, *Advances in Materials & Material Selection in Design*, Proceedings of All India Seminar on Advances in Materials & Material Selection in Design organized by IEI, Kanpur and Department of Mechanical Engineering, HBTI, Kanpur, August 24-25, **2012** (244 pages).
- Editor, *Advances in Engineering Materials*, Proceedings of a one week Faculty Development Programme (FDP) organized by Department of Mechanical Engineering, HBTI, Kanpur, March 16-21, **2009** (107 pages).
- Editor, *Composite Materials: Potential & Challenges*, Proceedings of a two day Refresher Course organized by Department of Mechanical Engineering, HBTI, Kanpur, December 28-29, **2007** (136 pages).
- Editor, *Advances in Materials & Material Selection in Design*, Proceedings of a two day

Refresher Course organized by Department of Mechanical Engineering, HBTI, Kanpur, March 10-11, **2007** (153 pages).

Research Publications in International Journals

1. Mohit Katiyar, Mahender Prasad, Kavita Agrawal, R K Singh, **Anand Kumar** & N Eswar Prasad, Development of low density, heat resistant and broadband Microwave absorbing materials (MAMs) for stealth applications, Silicon, Springer Science, **2018** (10:1831-1839).
2. Mohit Katiyar, Mahender Prasad, Kavita Agrawal, R K Singh, **Anand Kumar** & N Eswar Prasad, Study and characterization of EM absorbing properties of EPDM ferrite composite containing manganese zinc ferrite, Journal of Reinforced Plastics and Composites. **2017** (10. 1177/ 0731684417690816).
3. Jitendra Bhaskar, **Anand Kumar** and Bishakh Bhattacharya, *Dynamic response of selected fruits using Laser Doppler Vibrometer*, ELK Asia- Pacific Journal- Special Issue for Proceedings of International Conference ARIMPIE-2015, ITS Engineering College, Greater Noida, April 10-11, **2015** (ISBN 978-81-930411-4-7).
4. **Anand Kumar**, *Tribological performance evaluation of tin bronzes with varying tin percentages*, International Journal of Material Research, Electronics and Electrical Systems, 2(1-2), p1-9, Jan., **2009**, ISSN;0974-6978.
5. A K Jaiswal, **Anand Kumar** and Bishakh Bhattacharya, Structural health monitoring of ribbon reinforced composite laminate using piezoelectric sensory layer, Journal of COMADEM, 11(1), p 9-17, **2008**, ISSN:1363-7681.
6. **Anand Kumar**, and Bishakh Bhattacharya, Delamination sensing of composite laminate using magnetostrictive sensory layer, International Journal of Nano- Systems Technology, Electrical Engineering and Electronics Systems, 1(1), p 49-55, **2008**.

Research Publications in National Journals

1. Priyanka Katiyar and **Anand Kumar**, *Characterization of damping behavior of alumina filled nano-composites*, Journal of the Institution of Engineers (India) Part C, **2016** (10. 1007 / s 40032 – 016 – 0241 - 1).

Publications in International Conferences

1. Ashish Awasthi, Anand Kumar and S B Yadaw, Impact strength of polymer matrix composites, Proceedings of International Conference on Design, Materials & Manufacturing Concerns in Production of Quality Engineering Goods, 2017 (ISBN: 978-93-86256-70-6).
2. Ankit Singh and **Anand Kumar**, Damage detection in composite laminate with 8 mats using experimental modal analysis, Proceedings of International Conference on Design, Materials & Manufacturing Concerns in Production of Quality Engineering Goods, **2017** (ISBN: 978-93-86256-70-6).
3. Anubhav Shukla and **Anand Kumar**, Comparison of package cushioning materials to protect post harvest vibration damage to apples, Proceedings of International Conference on Design, Materials & Manufacturing Concerns in Production of Quality Engineering Goods, **2017** (ISBN: 978-93-86256-70-6).
4. Mohit Katiyar, Mahender Prasad, Kavita Agrawal, R K Singh, **Anand Kumar** & N Eswar Prasad, Study and characterization of microwave using free space measurement system in x-band, Proceedings of International Conference on Design, Materials & Manufacturing Concerns in Production of Quality Engineering Goods, **2017** (ISBN: 978-93-86256-70-6).

5. Husna Maqsood and **Anand Kumar**, Study of different reinforcements in aluminum metal matrix composites: A review, Proceedings of International Conference on Design, Materials & Manufacturing Concerns in Production of Quality Engineering Goods, **2017** (ISBN: 978-93-86256-70-6).
6. Priyanka Katiyar and **Anand Kumar**, A study of characteristics of alumina – filled epoxy nano- composites, Proceedings of SPIE – The International Society for Optical Engineering – 8689, **April, 2013** (10. 1117 / 12. 2012150).
7. **Anand Kumar** and Priyanka Katiyar, *A study on damping characteristics of alumina filled epoxy nano-composites*, Proceedings of SPIE International Conference on Smart Materials, Nano- and Micro- Smart Systems, San Diego, USA, **2013**. doi:10.1117/12.2012150.
8. Arpit Kumar Srivastava and **Anand Kumar**, Comparative studies on laminated composite beam using narrow and wide beam criterion, Proceedings of International Conference on Research and Innovation in Mechanical Engineering, GNDREC, Ludhiana, October, **2013**.
9. Ankit Saini and **Anand Kumar**, Development and performance evaluation of water resistant corrugated board for packaging, Proceedings of International Conference on Research and Innovation in Mechanical Engineering, GNDREC, Ludhiana, October, **2013**.
10. **Anand Kumar**, Peter J Fleming and Bishakh Bhattacharya, *Vibration suppression and damage detection in smart composite laminate using high precision finite element*, Proceedings of SPIE International Conference on Smart Structures and Materials + Nondestructive Evaluation and Health Monitoring, paper no. 7982-41, San Diego, USA, **2011**, doi: [10.1117/12.880351](https://doi.org/10.1117/12.880351).
11. **Anand Kumar**, *Structural health monitoring of composite plate using experimental modal analysis on Laser Doppler Vibrometer*, IVth IPS International Collaboration Symposium, Waseda University, Japan, 17-19 Nov., **2010**.
12. **Anand Kumar** and Bishakh Bhattacharya, *Real time integrity monitoring of composite laminates with magnetostrictive sensory layer*, Proceedings of SPIE International Conference on Smart Materials, Nano- and Micro- Smart Systems, paper no. 7268-24, Melbourne, Australia, **2008**. doi: 10.1117/12.810614.
13. **Anand Kumar** and Bishakh Bhattacharya, *Delamination sensing in composite laminates using magnetostrictive sensory layer*, International Symposium on Procession and Fabrication of Advanced Materials – XVII, paper no. AC-028, IIT Delhi, pp600-614, **2008**.
14. **Anand Kumar** and Bishakh Bhattacharya, *Health and usage monitoring of composite structures with smart magnetostrictive sensory layer*, Proceedings of ISRS-2008, IIT. Madras, **2008**.
15. J Bhaskar, **Anand, Kumar** and Vinay Pratap Singh, *Non-uniform rational B-Spline (NURBS) for object modeling*, ICRDME 2008, pp 644-649, SUSCET, Mohali, Punjab, Jan **2008**.
16. **Anand Kumar** and Bishakh Bhattacharya, *Studies on effectiveness of magnetostrictive sensors in delamination sensing of laminated composites*, Proceedings of International & INCCOM-6 Conference on Future Trends in Composite Materials and Processing, IIT, Kanpur, **2007**.
17. Ajai Prasad Nigam and **Anand Kumar**, *Analysis of failure through delamination in composite laminate using Terfenol-D layer*, Proceedings of International & INCCOM-6 Conference on Future Trends in Composite Materials and Processing, IIT, Kanpur, **2007**.
18. **Anand Kumar** and Bishakh Bhattacharya, *Structural health monitoring of composite laminate with embedded smart magnetostrictive sensors*, International Conference on Recent Advances in Composite Materials, India Habitat Centre, New Delhi, pp571-574, Feb., **2007**, ISBN: 81-8424-175-5.
19. **Anand Kumar** and Bishakh Bhattacharya, *Failure prediction of composite laminate with embedded smart magnetostrictive sensors*, Proceedings of International Conference on Advances in Mechanical Engineering, BBSB Engineering College, Punjab, pp227-232,

Dec, 2006.

20. **Anand Kumar**, *Integrity monitoring of composite structures using Terfenol-D*, International Conference on Recent Advances in Composite Materials, IT-BHU, Dec., **2004**.
21. **Anand Kumar** and B. Bhattacharya, *Delamination detection in composite beam using magnetostrictive materials as sensor*, International Conference on Recent Advances in Composite Materials, IT-BHU, Dec., **2004**. (Awarded best poster presentation prize).
22. **Anand Kumar** and B. Bhattacharya, *Delamination sensing of composite laminates using magnetostrictive materials as distributed sensor*, International Symposium on Advanced Materials and Processing, IIT, Kharagpur, vol. 2, pp 1602-1613, Dec., **2004**.

Publications in National Conferences

1. Ankit Saini, **Anand Kumar** and S B Yadaw, *Development of aluminum foil corrugate board for packaging*, Proceedings of National Conference on Innovations in Materials, Design & Manufacturing, HBTI Kanpur, p3-9, **2015**, ISBN:978-93-84869-47-2.
2. Ankit Singh and **Anand Kumar**, *Damage detection in composite laminate using experimental modal analysis*, Proceedings of National Conference on Innovations in Materials, Design & Manufacturing, HBTI Kanpur, p56-68, **2015**, ISBN:978-93-84869-47-2.
3. Ashish Awasthi, **Anand Kumar** and S B Yadaw, *Strength properties of polymer matrix composites and its validation through ANSYS*, Proceedings of National Conference on Innovations in Materials, Design & Manufacturing, HBTI Kanpur, p115-133, **2015**, ISBN:978-93-84869-47-2.
4. Mohit Katiyar, J N Srivastava, **Anand Kumar** and R K Singh, *Study of mechanical and microwave absorption properties of rubber-ferrite composites*, Proceedings of National Conference on Innovations in Materials, Design & Manufacturing, HBTI Kanpur, p181-190, **2015**, ISBN:978-93-84869-47-2.
5. Kartikeya Dixit and **Anand Kumar**, *Performance evaluation of aluminum honeycomb sandwich panels with different cell sizes*, Proceedings of National Conference on Innovations in Materials, Design & Manufacturing, HBTI Kanpur, p234-244, **2015**, ISBN: 978-93-84869-47-2.
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