



Ravindra Kumar Ambikesh		
	DESIGNATION	Assistant Professor
	QUALIFICATION	M.Tech.
	AREA OF INTEREST	Optimization, Automobile Engineering Design, Industrial Engineering , Machine Tool Design
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Ravindra Kumar Ambikesh		
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	Google Scholar Address	

AREA OF INTEREST :

Optimization, Automobile Engineering Design, Industrial Engineering , Machine Tool Design

PROFESSIONAL EXPERIENCE

Designation	Organization	From	To
Lecturer	DIT Dehradun	16.02.2001	20.04.2002
Lecturer	HCST Mathura	06.09.2002	26.02.2003
Asst. Prof.	HBTU Kanpur	28.02.2003	Till date

DETAILS OF SUBJECTS TAUGHT

Names of Subjects at Under Graduate Level	Institution	Names of Subjects taught at Post Graduate Level	Institution
<ul style="list-style-type: none"> • Engineering Mechanics • Industrial Engineering • Automobile Engineering • Engineering Materials • Non-Conventional Energy Sources • Elements of Mechanical Engineering • Principles of Machine Tool Design 	HBTU, Kanpur	<ul style="list-style-type: none"> • Simulation Modelling and Analysis • Manufacturing Automation • Machine Tool Design • Optimization for Engineering Design • Advanced Materials Engineering • Applied Operation Research • Design of Production Systems • Composite Material 	HBTU, Kanpur

EDUCATIONAL QUALIFICATION

Degree	University / Institution	Subject	Year
Ph.D.	AKTU, Lucknow	Mechanical Engineering	Pursuing (2015)
M.Tech.	IIT Roorkee	Production & Industrial Engineering	2001
B. Tech.	IET Lucknow	Mechanical Engineering	1999

ADMINISTRATIVE EXPERIENCE

- Convener Yoga Club (2004-2011)
- In-Charge Automobile Engineering Lab (2004-till date)
- In-Charge Vehicle (April 2008-April 2010)
- Warden DBRA 2 hostel (May 2012- July 2015)
- Warden DBRA 1 hostel (July 2016- 2017)
- Time-table In-charge (Mechanical Engineering Department) 2017, 18, 19.
- In-Charge Energy Conversion Lab (2017-till date)
- Member of Staff Selection Committee at IIT, Kanpur
- Verification of Machines Installed in various Industries under State Government Scheme

MEMBERSHIP OF PROFESSIONAL SOCIETIES

Life member of The Indian Society for Technical Education (ISTE)

ORGANIZATION OF SEMINARS/CONFERENCES/WORKSHOPS

Number of Seminars/Conferences/Workshops organized: <ul style="list-style-type: none">• International Conference on Design, Materials & Manufacturing Concerns in Production of Quality Engineering Goods from 27-29 March 2017 at HBTU Kanpur.	01
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PARTICIPATION IN SEMINARS/CONFERENCES/WORKSHOPS

Number of Seminars/Conferences/Workshops Participated: <ul style="list-style-type: none">• R.K. Ambikesh "Advances in material for automotive application" All India seminar on advances in materials and material selection in design at HBTI Kanpur, 2012	01
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ORGANIZATION OF SHORT TERM COURSES

Number of Short Term Courses participated: <ul style="list-style-type: none">• Three Days Training Programme on Reverse Engineering and Rapid Prototyping from 5-7 January, 2017 at HBTU Kanpur	01
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PARTICIPATION IN SHORT TERM COURSES

- Robotics and Automation at IIT, Kanpur from July 7-18, 2003
- Computer Aided Advanced Computational Methods and Modeling at TIET, Patiala from July 5-16, 2004
- Intellectual Property Rights and Patent Information through NITTR, Chandigarh held at HBTI, Kanpur from Sept. 27-October 1, 2004
- Mathematical Modeling of Real Life Problems at IIT, Roorkee from July 4-15, 2005
- Workshop on Energy at BIET, Jhansi from Nov. 19-20, 2005
- Computer Machine Interfacing at NITTR, Chandigarh from Feb. 19-23, 2007
- Advances in Materials & Material Selection in Design at HBTI, Kanpur from August 24-25, 2012
- Modeling, Simulation and Analysis of Engineering Systems at HBTI, Kanpur from October 25-20, 2013
- Fatigue and Fracture of Advanced Materials at IIT, Roorkee from July 22-23, 2013
- Engineering Education: Opportunities, Challenges & Future Directions at HBTI, Kanpur from March 7-12, 2014
- Mechanics in Physics at IIT, Kanpur from June 23-27, 2014
- Workshop on Statistical Analysis for Engineers - 2015 at IIT, Kanpur from May 4-8, 2015
- State Level Faculty Interaction Seminar at HBTI, Kanpur from June 8-9, 2015
- Workshop on MATLAB Programming and its Applications at HBTI, Kanpur from Feb. 25-26, 2015
- Mechanics School at IIT, Kanpur from Feb. 20-24, 2015
- Strategic Planning and Management of Technical Institutions through ICT at UPTTI, Kanpur from August 17-21, 2015
- FDP on Achieving Academic Excellence at IIM, Raipur from Sept. 7-12, 2015

- Materials Microstructure Characterization using Optical & Scanning Electron Microscopy at IIT, Hyderabad from Dec. 20-24, 2015
- FDP on Applied Research, Training and Education in Lipid Science at HBTU, Kanpur from August 22-27, 2016
- FDP on Entrepreneurship Development at IED, Lucknow from Aug.29 - Sept. 2, 2016
- Occupational Health and Safety Management Practices organized by ESCI, The Institution of Engineers (India) and HBTU, Kanpur from October 3 - 5, 2016
- Two days workshop on Matlab Programming and Its Applications from 25-26 February, 2015 at Harcourt Butler Technological Institute, Kanpur.
- IMDM 2015 National Conference on Innovations in materials, design and manufacturing March 27-28, 2015 at HBTU Kanpur.
- Workshop on Statistical Analysis for Engineers – 2015 from May 04-08, 2015 at Indian Institute of Technology Kanpur.
- Seminar on State Level Faculty Interaction held during 8-9 June, 2015 at Harcourt Butler Technological Institute, Kanpur.
- Faculty Development Programme on Achieving Academic Excellence held during September 07-12, 2015 at Indian Institute of Management Raipur.
- Short Term Course on Strategic Planning and Management of Technical Institutions through ICT from 17-18 August, 2015 at U.P.T.T.I., Kanpur.
- Five Days workshop on Materials Microstructure Characterization using Optical & Scanning Electron Microscopy during 20-24 december,2015 at IIT Hyderabad.
- Faculty Development Programme on Corrosion Control in Chemical and Allied Industries from 22-27 August, 2016 at Harcourt Butler Technological Institute, Kanpur.
- Faculty Development Programme on Entrepreneurship Development from 29 August to 2 September, 2016 at Institute of Entrepreneurship Development, Lucknow.
- Workshop on Occupational Health and Safety Management Practices from 3-5 October, 2016 at HBTU Kanpur.
- Management Development Programme on Management Capacity Enhancement Programme from 5-10 December, 2016 at IIM Kozhikode.
- Three Days Training Programme on Reverse Engineering and Rapid Prototyping from 5-7 January, 2017 at HBTU Kanpur.
- Training Programme on Computer Aided Engineering of Vehicle Development from 17-18 January, 2017 at HBTU Kanpur.
- Three days workshop on Energy Conservation and Energy Audit in Academic Institutions from 07-09 March 2017 at Chemical Engineering Department, HBTU Kanpur.
- International Conference on Design, Materials & Manufacturing Concerns in Production of Quality Engineering Goods from 27-29 March 2017 at HBTU Kanpur.
- Three day training workshop for Faculty Mentors on Induction Programme for New Students from 22-24 September, 2017 at HBTU, Kanpur.
- One week Induction Programme for New Entrants from 15-21 January, 2018 at HBTU Kanpur.
- Five days Training workshop on Academic process for the Implementation of outcome based Education (OBE) from 19-23 February, 2018 at HBTU Kanpur in collaboration with Thiagarajar College of Engineering, Madurai.
- Two days workshop on Outcome based Accreditation for Undergraduate engineering programs from 22-23 March, 2018 at HBTU Kanpur.
- Six days Professional Development Training (PDT) from 21-25 May, 2018 at Indian Institute of Management (IIM) Kashipur.
- Six days Summer Training Program on Active Learning for Senior Faculty from 11-15 June, 2018 at IIT Kanpur.
- Five days Faculty Development Programme (FDP) on Mathematical Modeling & Research Methodology from 08-12 October, 2018 at Department of Mathematics HBTU Kanpur.
- Four days Faculty Development Programme on Material Synthesis and Advanced Characterization Techniques from 01-04 December, 2018 at Department of Chemistry HBTU

Kanpur.			
RESEARCH GUIDANCE			
M.Tech. Guided			
Name of M.Tech. Scholar	M.Tech. Dissertation Topic	University	Year of Award
Abhishek Singh	A comparative study of heuristic methods & genetic algorithm to solve flow shop scheduling problem for optimization make span	HBTU Kanpur	2011
Jitendra Kumar Gautam	Multi objective facility layout design using genetic algorithm	HBTU Kanpur	2013
Manish Kumar	Computer added design and Thermo-Mechanical analysis of IC engine piston	HBTU Kanpur	2013
Ashish Tiwari	FEM analysis of Automobile Frame of Chassis using ANSYS	HBTU Kanpur	2014
Omprakash Prajapati	Multi Objective Design optimization of ball bearing using genetic algorithm	HBTU Kanpur	2014
Sujeet Morya	Computer aided design & analysis of injection mold plastic component through mold flow advisor	HBTU Kanpur	2014
Ravi Anand	Design and optimization of crank shaft using ANSYS	HBTU Kanpur	2015
Pradeep Sharma	Design, analysis and optimization of gearbox using ANSYS	HBTU Kanpur	2016
Nitin Kumar Singh	Analysis of waste tyre rubber and epoxy composite	HBTU Kanpur	2016
Rahul Kumar	Optimization of connecting rod using ANSYS	HBTU Kanpur	2016
Nikhil Mittal	Optimization of Various methods of Drum brake using Genetic Algorithm	HBTU Kanpur	2017
Dileep Kumar Pal	Numerical analysis of various types of disc brake rotor for Al/SiC Metal matrix composite using ANSYS	HBTU Kanpur	2017
Kailash Nath	Design and analysis of brake drum using ANSYS	HBTU Kanpur	2018
Chhaya yadav	Enhancing crashworthiness of automobile bumper beams by incorporating energy absorber	HBTU Kanpur	2018
Hirdesh Kumar	Lean & Six Sigma integration approach in aircraft maintenance organization	HBTU Kanpur	2018
B.Tech Guided			
B.Tech. Project Topic			Year
Plant layout design based on genetic algorithm			2008
Cell formation using genetic algorithm			2008
Unit load and material handling considerations in facility layout design			2009
Manufacturing cell formation using neural network			2009
To design & develop anti-lock braking system for automobiles & performance analysis			2010
Optimization of line balancing in LML Kanpur			2010
Design, fabrication & performance analysis of automatic guided vehicle for pipe inspection			2011
Design, fabrication & performance analysis of automatic transmission for			2011

automotive applications	
Design, fabrication & performance analysis of torsion bar suspension system	2012
Design & Development of electromagnetic clutch	2012
Design & Development of Motorized Scissor Jack	2013
Design & fabrication of four wheels steering mechanism	2014
Automated maintenance & inspection schedule for an automobile	2014
Design and development of Nylon based Torsion bar suspension system	2015
Development and performance analysis of paddle driven By-cycle	2015
Design and fabrication of automated electro hydraulic jack	2016
Design, development and fabrication of Dry-Wet-Dry cleaning machine	2016
Development and analysis of Experimental setup of magnetic braking system	2017
To develop the experimental setup and performance analysis of disc brake	2017
Design and development of auto roll punching machine using Geneva mechanism	2018
Design Fabrication and testing of GFRP leaf spring	2018
Design and development of vacuum assisted power braking system	2018

Research Publications in International Journals

- Nikhil Mittal, R.K. Ambikesh, " Numerical Analysis of various types of Disc brake Rotor for Al/Sic MMC material using ANSYS" International Journal of Emerging Technology and Advance Engineering, pp 31-39, Volume 7 Issue 12, December 2017.

Publications in International Conferences

- Ravi Anand, R.K. Ambikesh "FEM analysis of crankshaft using ANSYS for weight minimization" International Conference on Design, materials & manufacturing concerns In production of quality engineering goods, March 27-29,2017 at HBTU Kanpur
- Pradeep Kumar Sharma, R. K. Ambikesh "FEM analysis of Gear Box using ANSYS for weight minimization" International Conference on Design, materials & manufacturing concerns In production of quality engineering goods, March 27-29,2017 at HBTU Kanpur

Publications in National Conferences

- R.K. Ambikesh, "Facility Layout Optimization using Genetic Algorithm" National conference on innovations in materials Design and Manufacturing, 2015.
- Sujit Morya, R.K. Ambikesh, "Computer Aided Design and Analysis of injection Mold Plastic Component through mold Flow Advisor" National conference on innovations in materials Design and Manufacturing,2015.
- Ashish Tiwari, R.K. Ambikesh, "FEM Analysis of Automobile Frame of Chassis using ANSYS" National conference on innovations in materials Design and Manufacturing,2015.