

Faculty Profile
(For booklet and website)

Name: YATHESHTH ANAND

Designation: ASSISTANT PROFESSOR

Department: MECHANICAL ENGINEERING

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Contact Number and Extn.: 9419209654 (M), 01991- 2470067 Extn: 2356

Qualification: M.Tech (CAD/CAM & Robotics), Ph.D. (Submitted)

Experience: 10 years

Teaching: 10 years Research: 7 years Administration:09 years Total: 10



Areas of Interest / Specialization:

1. Net Zero Energy Buildings
2. Exergy
3. CFD
4. Automation

Brief Bio-data:

Yatheshth Anand, has done his M. E in CAD/CAM& Robotics after pursuing his B.E in Mechanical Engineering before joining Shri Mata Vaishno Devi University, Katra, J&K, India. He is also pursuing his Ph.D. (thesis submitted) in the area of Exergy and Moisture Dynamics in Buildings. He is actively involved in teaching and research and has published (14 nos.) articles in reputed National/International Journals. He also has articles (30 nos.) in various National and International Conference proceedings. He has authored/co-authored a book and 02 book chapters. Yatheshth Anand is also affiliated with many Professional Societies like, ISTE, IEI, SESI and ASHRAE. His research interests are NZEB's, Exergetic Analysis, CFD and Automation.

Research Profile

Research Projects Undertaken: (Applied to AICTE and SERB)

S. No.	Role	Title	Funding Agency	Current Status (Closed/ Running)

Research Publications:

S.No.	Year	Publication
International Journals		
1	2016	Gupta, A., Anand, Y., Anand, S., Tyagi, S.K., Economic and thermodynamic study of different cooling options: A Review. Renewable and Sustainable Energy Reviews 62:164-194. DOI: 10.1016/j.rser.2016.04.035
2	2016	Anand, Y., Gupta, A., Abrol, A., Gupta, A., Kumar, V., Tyagi, S. K., & Anand, S. (2016). Optimization of machining parameters for green manufacturing. Cogent Engineering, 3(1), 1153292. https://doi.org/10.1080/23311916.2016.1153292 .
3	2016	Anand, S., Gupta, A., Anand, Y., & Tyagi, S. K. Use of process steam in vapour absorption refrigeration system for cooling and heating applications: An exergy analysis. Cogent Engineering, 3(1), 1160639. https://doi.org/10.1080/23311916.2016.1160639
4	2016	Anand, Y., Gupta, A., Tyagi S. K. and Anand, S. Variable capacity absorption cooling system performance for building application. In press Journal of Thermal Engineering.
5	2015	Suri, K. R., Gupta, A., Anand, Y., & Anand, S. Porcelain versus Polymer Insulator- A Changing Era in Transmission Lines. International Journal, 3(2), 502-506.
6	2015	Anand, Y., Gupta, A., Anand, S. and Tyagi, S. K. Building envelope performance with different insulating materials – An exergy approach. Journal of Thermal Engineering 1(4):433-439. DOI: http://eds.yildiz.edu.tr/journal-of-thermal-engineering/Articles .
7	2015	Gupta, A., Anand, Y., Anand, S., & Tyagi, S. K. Thermodynamic optimization and chemical exergy quantification for absorption-based refrigeration system. Journal of Thermal Analysis and Calorimetry, 122(2), 893-905.
8	2014	Anand, Y., Gupta, A., Maini, A., Gupta, A., Sharma, A., Khajuria, A., Gupta, S., Sharma, S., Anand, S. and Tyagi, S.K. Comparative Thermal Analysis of Different Cool Roof Materials for Minimizing Building Energy Consumption. Journal of Engineering, 2014.
9	2014	Gupta, A., Anand, Y., Anand, S., & Tyagi, S. K. An Exergetic based Assessment of Biogas as an Energy Source in a Hybrid Refrigeration System. Journal of Refrigeration, Air conditioning, Heating and ventilation, 1(2), 31-40.
10	2014	Anand, S., Gupta, A., Tyagi, S.K., Anand, Y. An Absorption Chiller System using Lithium Bromide and Water as Working Fluids: Exergy Analysis. ASHRAE Transactions 120 (2): 226-239. (SE-14-019).
11	2013	Anand, Y. and Dutta, V. Testing of Composites-A Review published in an International Journal of Advanced Materials Manufacturing & Characterization, Vol. 3, March 2013, pp 359-363. ISSN: 2277-3886.

12	2013	Anand, Y., Anand, S., & Haq, M. I. U. (2013) Fuzzy Neural Network for the Machine Health Diagnosis, International Journal of Mechanical Engineering Research, Vol. 3, No.5, pp 449-456.
12	2011	Saini, J. S., & Anand, Y. Elasto-Plastic Analysis of Corten Steel using Finite Element Method. International Journal of Applied Engineering Research, 6(4), 481-497.
13	2009	Anand, Y., Singh, S. and Kumar S. Effect of Finite Element Mesh Orientation on the Solution Accuracy of Torsion Problems. Effect of Finite Element Mesh Orientation on the Solution Accuracy of Torsion Problems , published in the ICFAI University Journal of Mechanical Engineering, Vol.2, No.3, pp 29-45, August 2009.
Communicated To International Journal		
14		Gupta, A., Anand, Y., Anand, S., Tyagi, S.K., Exergy and Exergo-Economic Performance Evaluation of Options for NH ₃ -H ₂ O Vapour Absorption System Chinese Journal of Mechanical Engineering
15		Gupta, A., Anand, Y., Tyagi, S.K., Anand, S., Environmental Impact Potential and Exergy Quantification of Solar Absorption Refrigeration system. Journal of the Brazilian Society of Mechanical Sciences and Engineering
16		Gupta, A., Anand, Y., Anand, S., Tyagi, S.K., Energy, Exergy and Economic Comparison of Vapour Compression Refrigeration System with and without regeneration. Journal of Thermal Analysis and Calorimetry
National Journal		
17	2017	Verma, S. K., Anand, S., Anand, Y., Review of the combustion emission characteristics of a dual fuel diesel engine using natural gas, Researcher, Vol. XIII No. 1, 2017, pp 21-30. ISSN 2278-9022.

Books Publications:

S.No.	Year	Publication
1	2009	Anand, Y., Effect of Finite Element Mesh Orientation – Subjected to Torsion Problems , VDM Verlag, Germany
2	2016	Anand, S., Gupta, A., Anand, Y. and Tyagi, S. K., —Physical and Chemical Exergy Analysis and Assessment of Biogas as an Energy Source in Hybrid Cooling Machine, book chapter in Emerging Energy Alternatives for Sustainable Environment, TERI Press. ISBN: 9788179934111.
3	2016	Anand, Y., Gupta, A., Palliwal, M., Anand, S. and Tyagi, S. K., —Building Energy Simulation for Improved Thermal Performance: A CFD Approach, book chapter in Emerging Energy Alternatives for Sustainable Environment, TERI Press. ISBN: 9788179934111.

Conference Publications:

S.No.	Year	Conference	Publication
International Conferences			
1	2017	International Conference on Renewable Energy for Sustainable Environment: Challenges and Remedies (ICRESE-2017) 20th – 21st	Anand, Y. and Anand, S., (2017) Soft Computing Based Solutions for BES – An Overview

		March 2017	
2	2017	International Conference on Renewable Energy for Sustainable Environment: Challenges and Remedies (ICRESE-2017) 20th – 21st March 2017	Gupta, A. and Anand, Y., Scenario of Geothermal Energy in Asia: A review
3	2017	International Conference on Renewable Energy for Sustainable Environment: Challenges and Remedies (ICRESE-2017) 20th – 21st March 2017	Singh, H. and Anand, Y. Advancements of Coagulation Flocculation in Wastewater Treatment Process
4	2017	International Conference on Renewable Energy for Sustainable Environment: Challenges and Remedies (ICRESE-2017) 20th – 21st March 2017	Dubey, G. and Anand, Y. Municipal Solid Waste Management
5	2017	International Conference on Renewable Energy for Sustainable Environment: Challenges and Remedies (ICRESE-2017) 20th – 21st March 2017	Umesh and Anand, Y. Policy on Conventional and NonConventional Resources for sustainable development in India: A Review
6	2017	International Conference on Renewable Energy for Sustainable Environment: Challenges and Remedies (ICRESE-2017) 20th – 21st March 2017	Sheikh, U. A., Jameel, A. and Anand, Y. Waste Water Treatment and Energy roduction by Hybrid Energy System: Review
7	2017	International Conference on Renewable Energy for Sustainable Environment: Challenges and Remedies (ICRESE-2017) 20th – 21st March 2017	Sawhney, S., Anand, S., Jameel, A., and Anand, Y. Computational Fluid Dynamics - A Tool for Engineers
8	2017	International Conference International Conference on Renewable Energy for Sustainable Environment: Challenges and Remedies (ICRESE-2017) 20th – 21st March 2017.	Anand, Y., Srivastava, A., Shakya, A., Singh, A. K., and Pandey, A. (2017) Comparison of Different Alcohol's blending on the Efficiency of Compression Ignition Engine
9	2017	International Conference International Conference on Renewable Energy for Sustainable Environment: Challenges and Remedies (ICRESE-2017) 20th – 21st March 2017.	Verma, S. K., Anand, Y. and Anand, S. (2017) Combustion & Emissions Analysis of Dual Fuel Mode Engine: A Review.
10	2016	4th IET International Conference on Clean Energy and Technology (CEAT), Kuala Lumpur, Malaysia	Anand Y., Kumar K., Rahim N. A., Pandey A. K., Tyagi S. K. and Anand S. (2016) Transient Simulation of Buried Pipe Residential Heating System using Solar Energy.
11	2015	1st International Conference on Research & Innovations in Science	Gupta, A., Anand, Y., Anand, S., Double-Effect Ammonia-Water Absorption

		Engineering and Technology (RISET'2015), held at Yogananda College of Engineering and Technology, Jammu, India, 20th to 21st November, 2015. Pages 137-147. ISBN: 978-81-931614-0-1.	Refrigeration System: An Exergy Analysis
12	2015	1st International Conference on Research & Innovations in Science Engineering and Technology (RISET'2015), held at Yogananda College of Engineering and Technology, Jammu, India, 20th to 21st November, 2015. Pages 137-147. ISBN: 978-81-931614-0-1.	Baranwal, R.K., Kumar, A., Kumar, K.L., Nirnal, C., Yadav, S.K., Gupta, A., Anand, Y., Anand, S., (2015) Experimental Analysis of Biomass Cook Stoves.
13	2015	International Workshop on Building Development Divide for Inclusive Growth through Science Technology and Innovation (BRIDGES-2015) by DST-Centre for Policy Research, Baba SahebBhim Rao Ambedkar University (A Central University), Lucknow, Uttar Pradesh on 16th – 17th January, 2015.	Anand, Y., Gupta, A., Palliwal, M., Anand, S. and Tyagi, S.K., (2015) Building Energy Simulation for Improved Thermal Performance: A CFD Approach
14	2015	International Workshop on Building Development Divide for Inclusive Growth through Science Technology and Innovation (BRIDGES-2015) by DST-Centre for Policy Research, Baba SahebBhim Rao Ambedkar University (A Central University), Lucknow, Uttar Pradesh on 16th – 17th January, 2015.	Anand, S., Gupta, A., Anand, Y., Vashistha, A. and Tyagi, S.K., (2015) Exergy and Exergoeconomic Performance Evaluation of Options for NH ₃ -H ₂ O Vapour absorption System
15	2015	International Conference on Advances in Power Generation from Renewable Energy Sources (APGRES'2015), held at Rajasthan Technical University, Kota, 15-16 June, 2015. Pages 137-147.	Anand, S., Gupta, A., Anand, Y., Tyagi, V.V. and Tyagi, S.K., (2015) Effect of the Operating Parameters on the Performance of Environmental Friendly NH ₃ -H ₂ O Vapour Absorption System.
16	2014	3rd IET International Conference on Clean Energy and Technology (CEAT), Kuala Lumpur, Malaysia, ISBN: 978-1-78561-069-1, DOI: 10.1049/cp.2014.1487.	Anand, Y., Panday, A. K., Rahim, N. A., Anand, S. and Tyagi, S. K., (2014) Building envelope simulation for sustainable built environment
17	2014	International Conference on Innovative Trends in Mechanical, Material, Manufacturing, Automotive, Automobile and Aeronautical Engineering (ITMMMAAAE-2014) at	Kumar, V., Gupta, A., Aggarwal, I., & Anand, Y. (2014) Innovative Techniques of Energy-efficiency in Machining. Innovative Techniques of Energy-efficiency in Machining

		Jawaharlal Nehru University, New Delhi, from 15th to 16th Feb, 2014 published in International Review of Applied Engineering Research. ISSN 2248-9967 Volume 4, Number 3, 2014, pp. 297-302.	
18	2014	ICORE (International Congress on Renewable Energy) 2014, held on 8th – 9th Dec, 2014, at Manek Shaw Centre, New Delhi.	Anand, Y., Kumar, K., Anand, S. and Tyagi, S. K., (2014) TRNSYS based analysis of heliothermic processes for sustainable building
19	2014	International Conference on Innovative Trends in Mechanical, Material, Manufacturing, Automotive, Automobile and Aeronautical Engineering (ITMMMAAAE-2014) at Jawaharlal Nehru University, New Delhi, from 15th to 16th Feb, 2014 published in International Journal of Advanced Mechanical Engineering. ISSN 2250-3234 Volume 4, Number 2, 2014, pp. 145-150.	Paliwal, M., & Anand, Y. (2014) Analysis of Puma-560 and Legged Robotic Configurations Using MATLAB
20	2013	International Journal of Mechanical Engineering Research, Vol. 3, No.5, pp 449-456.	Anand, Y., Anand, S., & Haq, M. I. U. (2013) Fuzzy Neural Network for the Machine Health Diagnosis
21	2012	International Conference on Material Processing and Characterization at GRIET, Hyderabad, pp 648-654.	Dutta, V. and Anand, Y. (2012) —Convention Design Engineering Vs Reverse Engineering
National Conferences			
22	2017	National Conference on National Conference on Innovative Trends in Mechanical Engineering – NCITME 2017 jointly sponsored by Indian Institution of Industrial Engineering, Navi Mumbai from 3rd – 4th March 2017.	Verma, S. K., Anand, Y., Anand, S. & Sawhney, S., (2017) Automobile: an indian perspective
23	2017	National Conference on National Conference on Innovative Trends in Mechanical Engineering – NCITME 2017 jointly sponsored by Indian Institution of Industrial Engineering, Navi Mumbai from 3rd – 4th March 2017.	Ali, D., Kumar, A., Jameel, A. & Anand, Y., (2017) Mechanics of internal bone fixation: A review
24	2017	National Conference on National Conference on Innovative Trends in Mechanical Engineering – NCITME 2017 jointly sponsored by Indian Institution of Industrial Engineering,	Jolly, C. S., Khajuria, M., Bali, R., Kumar, V., Sharma, N., Sharma, A., Jameel, A. & Anand, Y., (2017) Application of FEM in modeling crack growth problems: A review

		Navi Mumbai from 3rd – 4th March 2017.	
25	2017	National Conference on National Conference on Innovative Trends in Mechanical Engineering – NCITME 2017 jointly sponsored by Indian Institution of Industrial Engineering, Navi Mumbai from 3rd – 4th March 2017.	Sheikh, U. A., Jameel, A. & Anand, Y., (2017) Applications of finite element analysis in bone biomechanics: a review
26	2015	2nd National Conference and Exhibition on Emerging and Innovative Trends in Engineering Technology (NCEEITET-2014) GCET, Jammu held from 9th – 10th Jan, 2015.	Paliwal, M., Anand, Y. and Anand, S. (2015) —Kinematics and Dynamics Analysis of Puma-560 Robotic Configuration using MATLAB Software
27	2013	9th JK Science Congress 2013 and Regional Science Congress, held from 1st October, 2013 to 3rd October, 2013.	Haq, M. I., Anand, S., Anand, Y. Tak, T. N. and Singh, D. (2013) —An Overview of the virtual tests on Automotive Chassis for Mitigation of Failures
28	2009	National Conference on Advanced Manufacturing Techniques held at Shri Mata Vaishno Devi University, from 5th – 6th Nov, 2009.	Sharma, S. M. and Anand, Y. (2009) —Review of the NIOSH lifting Equation
29	2011	7th JK Science Congress held at Jammu University, from October 13 - 15.	Anand, Y. and Juneja, S., (2011) —Grid Optimization in FEM Applied to 2D Heat Transfer Problems
30	2008	3rd J&K Science Congress for Oral Presentation at University of Jammu from 26-02-08 to 28-02-08.	Anand, Y. (2008) —Effect of Finite Element Mesh Orientation on the Solution Accuracy of torsion Problems

Research Supervised:

S.No.	Year	Role	Research Topic	Status
1	2010	Supervisor	Grid Optimisation in FEM, Applied to 2D Heat Transfer Problems – A Comparison	Completed
2	2011	Supervisor	Analysis of a shock Absorber Spring Finite Element Approach	Completed
3	2012	Co-Supervisor	Fabrication and Characterization of Natural Fiber Reinforced Polymer Composite	Completed
4	2016	Supervisor	Identification and Mathematical Evaluation of Pump Defects	Completed
5	2017	Main Supervisor	Computational Fluid Dynamics Based Ventilation system & Particle Dispersion Analysis in an Operation theater	Completed

Patents: NIL

S.No.	Name	Status

Award and Honours:

S.No.	Title	Activity/Event	Given by	Year
1	2008	3rd JK National Science Congress	Jammu University, Jammu	Feb. 26th – 28th, 2008

Professional Affiliation:

S.No.	Designation	Organization
1	Life Member (LM 63106.)	Indian Society of Technical Engineers (ISTE)
2	Member (A-548006-0)	Institution of Engineers, INDIA (IEI)
3	Member (8310852)	American Society of Heating refrigeration and Air Conditioning Engineer (ASHRAE)
4	Applied for Membership	Solar Energy Society of India