






Dr. Anand A

DESIGNATION : Assistant Professor

CONTACT

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Professional Experiences:

Teaching: 11 Years

Industry: 3 Years

Research: 6 Years

Courses Taught:

- 1 Computer Intergrated Manufacturing
- 2 Additive Manufacturing
- 3 CAD-CAM
- 4 Computer Aided Engineering Drawing
- 5 Finite Element Analysis
- 6 Fluid Power Systems

ABOUT ME

I'm having 8 years of teaching and my primary objective is to teach basics concept of mechanical engineering for UG students. I'm also life member for Institution of Engineers of India (IEI) , Indian Society of Technical Education (ISTE) and Indian Society of Heating, Refrigerating and Air-conditioning Engineers (ISHRAE). I have been elected as secretary for ISHRAE-Mysuru chapter in year 2016-17. My area of interest include Additive Manufacturing, Finite Element Methods, Fracture Mechanics, and Biofuels.

I have actively participated and organized various events such as paper presentations, short term training programs and workshops on cutting edge technologies.

RESEARCH INTERESTS:

Research Areas: Additive Manufacturing, Finite Element Analysis & Methods, Fracture Mechanics and Alternative Fuels for IC Engine.

EDUCATION

Ph.D - Biodiesel

Title : PERFORMANCE STUDY OF COMPOSITE BIODIESEL EXTRACTED FROM PONGAMIA, NEEM & CALOPHYLLUM SEEDS

Research Centre/University Name: VVCE/VTU
Year of Graduation : 2011

M.E/M.Tech. - Maintenance Engineering
Institute/University Name: VVCE/VTU
Year of Graduation : 2011

B.E., - Mechanical

Institute/University Name: SJCE/VTU
Year of Graduation :2005

PUBLICATIONS

Papers Published in International Journals:

1. B Suresha, V Hanamasagar, A Anand "Processing and tribological behaviour of carbon fiber reinforced polylactic acid composites" IOP Conference Series: Materials Science and Engineering 1272 (1), 01 , 2022
2. B Suresha, VV Giraddi, A Anand, HM Somashekar "Dynamic mechanical analysis of 3D printed carbon fiber reinforced polylactic acid composites" Materials Today: Proceedings 59, 794-799, 2022
3. Anand A. Naveen Prakash G.V. Nithyananda B.S. (2019) "Performance and Combustion Analysis of Pongamia Biodiesel (PB20) as an alternative fuel for CI Engine" Applied Mechanics and Materials (Volume 895), 139-143, nov 2019
4. A.Anand, L.J. Sudev and H.V. Lakshminarayana, 2012. "Determination of SIF for a Crack Emanating From a Rivet Hole in a Plate using Displacement Extrapolation Method". Journal of Applied Sciences, 12: 1020-1025.
5. A.Anand, and L.J. Sudev "Comparison of Plane Stress and Plane Strain Method for a Crack Emanating from Rivet Hole in a Plate and Approaching Another" IJMEMS, 5(2) July-December 2012, pp. 105-109
6. Akash D. A, Anand A, Sudev L. J and Gnanendra Reddy "Validation of the Methodology to Determine Stress Intensity Factor for an Axial Crack Emanating in a Pressurized Cylinder", Midas Touch International Journal of Commerce, Management and Technology, ISSN: 2320 – 7787, Vol. 2, No. 1, January 2014, pp. 405 – 411.
7. Nithyanand B S, Anand A, Naveen Prakash G V "Experimental investigation on properties of biodiesel extracted from pongamia oil ", Midas Touch International Journal of Commerce, Management and Technology, ISSN: 2320 – 7787, Vol. 2, No. 1, January 2014, pp. 398-404.
8. Akash D. A, Anand A, G. V. Gnanendra Reddy and Sudev L.J, "Evaluation of SIF for Crack Emanating at 450 Orientation from a Hole in Pressurized Cylinder Using FEA", International Journal of Applied Research in Mechanical Engineering (IJARME), ISSN: 2231 – 5959, Volume-3, Issue-1, 2013, pp. 44 -48.
9. Akash D.A, Anand A, G.V. Gnanendra Reddy, Sudev L.J, "Determination of Stress Intensity Factor For a Crack Emanating From a Hole in a Pressurized Cylinder Using Displacement Extrapolation Method", International Journal of Mechanical Engineering and Technology (IJMET), ISSN 0976-6340 (Print), ISSN 0976-6359 (Online), Volume 4, Issue 2, March-April (2013), pp. 373 – 382. Journal Impact Factor (2013): 5.7731 (Calculated by GISI).
10. Naveen Prakash G. V, Anand A and Nithyananda B. S, "Experimental Investigation Of Diesel Engine using Different Blends of Mixed Pongamia-Coconut Biodiesel as Alternative Fuel", International Journal of Engineering Research & Technology (IJERT), Vol. 2, Issue 7, Jul – 2013, ISSN: 2278-0181, pp. 2644 – 2647.
11. Naveen Prakash G. V, Anand A and Nithyananda B. S, "Performance Study on Diesel Engine using Different Blends of Neem Biodiesel", International Journal of Engineering Research & Applications (IJERA), Vol. 3, Issue 4, Jul – Aug 2013, ISSN: 2248-9622, pp. 1778 – 1781.
12. Naveen Prakash G. V, Anand A and Nithyananda B. S, "Experimental Investigation of Neem And Mixed Pongamia - Coconut Methyl Esters as Biodiesel on C.I. Engine", International Journal of Mechanical Engineering and Technology (IJMET), Vol. 4, Issue 4, Jul - Aug 2013, ISSN 0976 – 6340 (Print), ISSN 0976 – 6359(Online), Journal Impact Factor (2013): 5.7731 (Calculated by GISI), pp.232-242.
13. Naveen Prakash G. V, Anand A and Nithyananda B. S, "Experimental Investigation of Pongamia and Neem Methyl Esters as Biodiesel on Compression Ignition Engine", International Journal of Mechanical Engineering & Robotics Research, Vol. 2, No. 4, Oct. 2013, ISSN 2278 – 0149, pp.45-51.
14. Abhishek V, Nithyananda B S, Anand.A, Dr. Naveen prakash "Evaluation And Comparison For Fuel Properties Of Simarouba And Calophyllum Biodiesel" IJMETInternational Journal Of Mechanical Engineering And Technology, ISSN: 0976-6340, volume 5 , issue 9, 2014

15. Raghavendra. P, Anand.A, S. R. Basavaraddi “Determination of Stress Intensity Factor for a Crack Emanating From a Rivet Hole and Approaching Another in Curved Sheet” International Journal Of Modern Engineering Research (IJMER), ISSN: 2249–6645 Vol. 4, Iss.7, July. 2014, pp 28-37

Papers Published In International Conference:

- 1.
2. Anand A and Sudev L. J, “Finite Element Analysis of a Crack Emanating From a Rivet Hole in a Plate and Approaching Another”, International Conference on Advanced Materials and Processing, R.M.K Engineering College, Chennai, 19th – 20th December, 2011, pp. 349 – 354.
3. Anand, L. J. Sudev and H. V. Lakshminarayana, “ Determination of SIF for a Crack Emanating from a Rivet Hole in a Plate Using Displacement Extrapolation Method”, International Conference on Intelligent Manufacturing Systems, Sastra University, 17th – 18th February, 2012, pp. 1 – 5.
4. Anand A. and Dr. Sudev L. J “Comparison of Plane Stress and Plane Strain Method for a Crack Emanating from a Rivet Hole in a Plate and Approaching Another”, International Conference on Current Trends in Engineering and Management (ICCTEM-2012), Vidyavardhaka College of Engineering, Mysore, 12th – 14th July, 2012, pp. 127.
5. Akash D. A, G. V. Gnanendra Reddy, Anand A and Sudev L.J, “Evaluation of SIF for Crack Emanating at 450 Orientation from a Hole in Pressurized Cylinder Using FEA”, International Conference on Advanced Research in Mechanical Engineering (ICARME), Interscience Research Network (IRNet), Chennai, 16th June 2013, pp. 1-5, ISBN No. 978-93-82208-97-6.
6. Naveen Prakash G. V, Linge Gowda N. S, Anand A and Nithyananda B. S, “Performance Study on Diesel Engine using Different Blends of Pongamia Biodiesel”, First International Conference on Emerging Trends in Engineering & Technology , International Juncture of Business Research & Modern Manufacturing, Chennai held at Munnar, Kerala, 04 -05 Oct. 2013, pp. 104 -106.
7. Akash D. A, Anand A and Sudev L. J, Validation of the Methodology to Determine Stress Intensity Factor for an Axial Crack Emanating in a Pressurized Cylinder”, International Conference on Technology Management for Green Environment (ICTMGE – 2013), Visvesvaraya Technological University- Regional Centre, Mysore, 19th -21st September 2013.
8. Anand.A, Darshan Bennur, Jeevan TP “Stress Analysis of 2D-Cylindrical Pressure Vessel with Torispherical Endclosure” SAE Technical Paper, 2014-01 -0766, 2014, doi:10.4271/2014-01-0766.
9. Naveen Prakash G. V, Abhishek V, Nithyananda B. S and Anand A, “Evaluation and Comparison for Fuel Properties of Simarouba and Calophyllum Biodiesel”, 2nd International Conference on Current Trends in Engineering and Management (ICCTEM–2014), VVCE, Mysore, 17–19, July 2014, p.59.
10. Naveen Prakash G. V, Raghavendra H. L, Nithyananda B. S and Anand A, “Comparison of Properties for Different Blends of Calophyllum Methyl Esters”, 2nd International Conference on Current Trends in Engineering and Management (ICCTEM–2014), VVCE, Mysore, 17–19, July 2014, p.61.

FDP/STTP/ WORKSHOPS/CONFERENCES/SEMINARS ATTENDED:

- 1) Attended National Conference on “Engineering Of Materials Through Energetic Particles” at Bahubali College Of Engineering on 8th April 2010.
- 2) Two-Week ISTE WORKSHOP on “Solar Photovoltaics: Fundamentals, Technologies and Applications” Conducted By Indian Institute of Technology Bombay.
- 3) One day Seminar on “Bio-fuel and Research Opportunities” Organized by Bio-fuel Development Board (KSBDB), at VTU, “Jnana Sangama” Belgaum on 19th-Feb-2013.
- 4) Ready Engineer Certification on “ Fundamentals of Automobile Design, Analysis and Manufacturing along with training on CATIA” at TATA Technologies – Pune on 2019-20
- 5) Ready Engineer Certification on “ Advanced Automobile design covering design of BIW, plastics and trims” at TATA Technologies – Pune on 7th & 8th Feb 2020

OTHER INFORMATION:

(Patents Filed/ Membership/Administration/Consultancy/Evaluator/Research Guidance and funding/Awards/Key Roles/Invited Talks Delivered, etc)

Software Exposure:

- Advanced training on ANSYS 8.0 (APDL programming) certified by ANSYS Inc. (ANSYS Meshing, Structural Analysis, Thermal Analysis, Couple Field Analysis, Optimization, Submodelling, Contacts 2d & 3d, Modal Analysis, Elasto Plastic Analysis and Fracture Mechanics).
- Solid edge V20/Solid Works 2020 (3D-part modeling, assembly and 2D drafting.)
- MATLAB 2022 (Mathematical Function, basic plotting, matrix Generation and operation, Array operations and Linear equations)
- MINITAB V17 : Design of Experiments and statistical analysis using Taguchi and RSM methods
- ORIGINLAB : Data analysis, 2D graphs, 3D graphs,

Funded Research Project: 1. Title: Vibration, Noise and Tribological Investigations on the Prospective Use of Different Types of Polymers and its Composites in Gear Transmission Systems Scheme: Research Grant Scheme 2021 of VTU University, Belgavi Amount-Rs. 10,00,000/- Overview- To Put-forth, Elucidate and Validate the Strategies for the Vibration, Noise and Tribological Performance Enhancement of Composite/Polymer Gears With the Use of Different Eco-friendly Materials”
Status-Ongoing