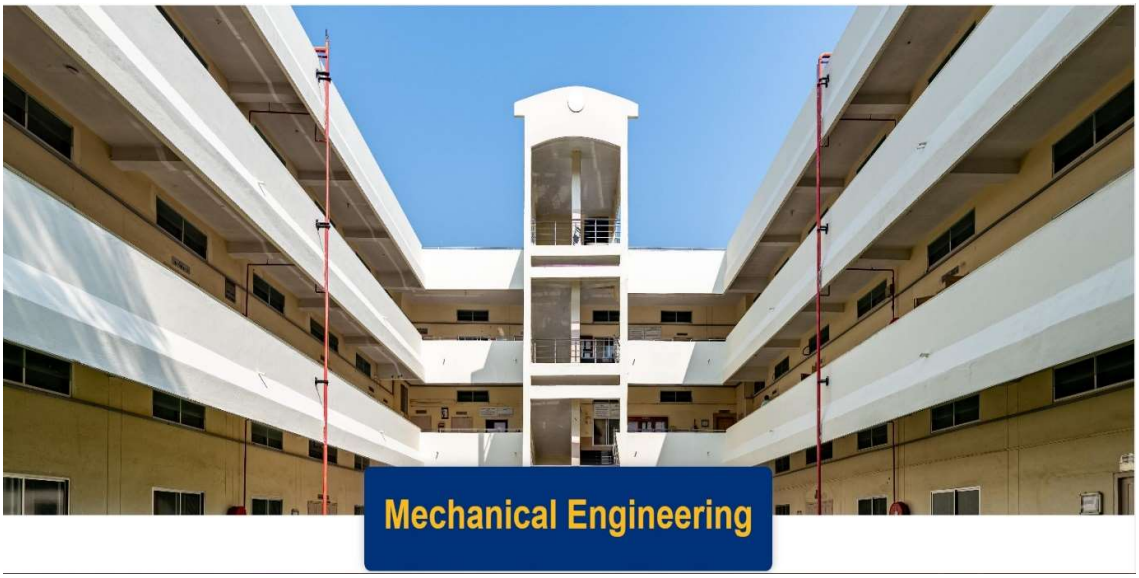
January - February 2022

NEWSLETTER

ISSUE-1



ABOUT US

SINCE from the inception 1997 the department is grown with all paces and bagged many laurels at university level. Department is able to produce universal engineers with competitive salaries. Our alumni is the strength of department in providing assistant in all aspects like placements, career development etc. department is rich in qualified and Experienced faculty and state of art laboratory facilities. A desire can change nothing, a decision can change something but a determination can change everything. For sure Department of Mechanical Engineering is strongly determined to provide its students a successful career.

Events and Achievements:

Department Related:

Outstanding achievements

- **Dr. Avinash Alagumalai** (Assistant Professor) was among the Top 2% Scientists in the world by Stanford in association with Elsevier 2020.

Cited by		VIEW ALL
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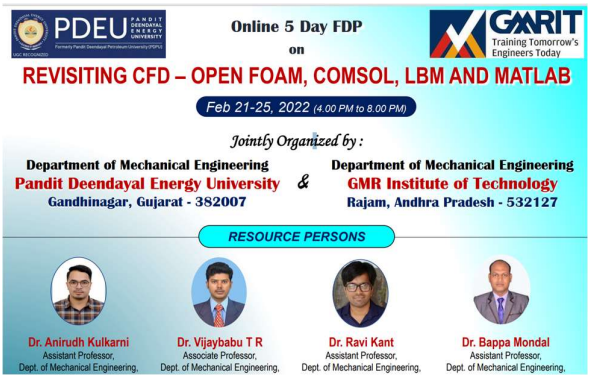
Citations	1332	1186
h-index	20	18
i10-index	32	31

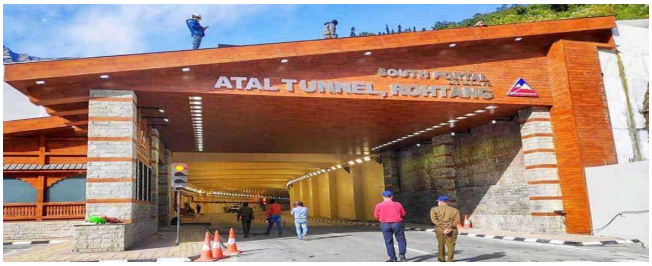
- **Dr. G. Janardhan** (Assistant Professor) won the best oral presentation award at 3rd International Conference on Processing and Characterization of Materials (ICPCM) from 6th – 8th December 2020 organized by NIT Rourkela, Odisha, India.
- Mr. N. Govinda Rao attended online course complete course in "Python Scripting for Automation" Upskill with Eduonix (Certificate of Brilliance) on January 12, 2022.

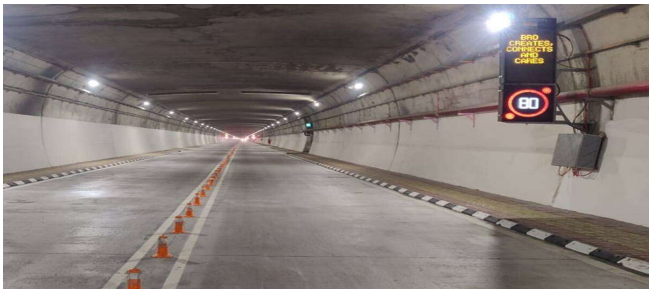


Dr. Vijaybabu T R Associate Professor and Dr. Bappa Mondal (Assistant professor) organized an Online 5 Day FDP on "REVISITING CFD – OPEN FOAM, COMSOL, LBM AND MATLAB" in joint collaboration with Department of Mechanical Engineering Pandit Deendayal Energy University Gandhinagar, Gujarat from 21stFebruary 2022 to 25th February 2022. .

Study Tours

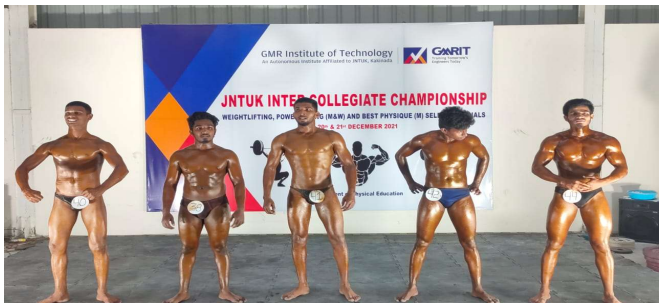
10 students of 3rd year visited the ATAL Tunnel, Rohtang, Himachal Pradesh from 18th December 2020 to 25th December 2020 to carry out study tour under the AICTE youth for acquiring knowledge (YUVAK) scheme under the supervision of **Dr. Ambarish Maji** (Assistant Professor).

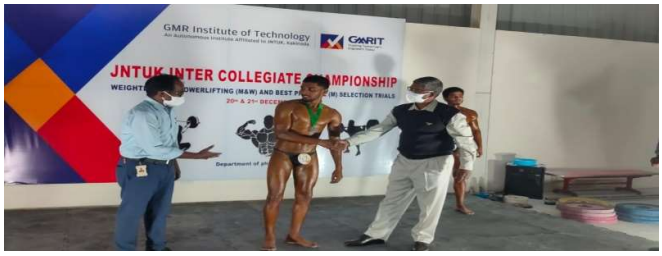




Sports Achievements

Mr. V. Venkatesh of 3rd year won the 2nd position in the 60 kg body weight category in Weight lifting/Best physique championship at JNTUK Intercollegiate Tournament and Trials Selection championship 2021 during 20th December to 21st December 2021.





K. Lakshmana Murthy of 3rd year mechanical won 1st place in Long jump in Men's category in the inter collegiate Athletic men and women championship and trials held at Aditya engineering college on the 26th and 27th December 2021.

K. Lakshmana Murthy of 3rd year mechanical won 2nd place in 400 m Relay in Men's category in the inter collegiate Athletic men and women championship and trials held at Aditya engineering college on the 26th and 27th December 2021.

Journal Publications:

1. M Moorthi, A Murugesan, **Avinash Alagumalai,** "**Enhancement of fuel properties of Manilkara zapota biodiesel blend by doping green-synthesized silver nanoparticles**", Applied Nanoscience. September 2021 (ISSN: 2190-5517) (Indexed in : SCIE and scopus) (Impact factor: 3.7) (https://link.springer.com/article/10.1007/s13204-021-02088-9) Q2
2. **Sasidhar Gurugubelli**, Rama Bhadri Raju Chekuri, T.Rajasanthosh Kumar, "**The Method Combining Laser Welding and Induction Heating at High Temperatures was Performed**", Design Engineering, Vol. No. 2021, Issue No. 5, pp. 592-602, May 2021. (ISSN No. : 0011-9342) (Indexed in : scopus) (Impact Factor: No Impact Factor) (http://www.thedesignengineering.com/index.php/DE/article/view/1569)
3. **Dr. V. Rambabu, A. Lakshumu Naidu**, "**Study on the Effect of Inclination Angle on Heat Transfer Enhancement of a Ferrofluid and Kerosene in a Closed Loop Oscillating Heat Pipe**", Turkish Journal of Computer and Mathematics Education, Vol.

No. 12, No. 11, pp. 4895-4910, May 2021 (ISSN No.: 1309-4653) (Indexed in: Scopus) (Impact Factor: No. Impact Factor) (https://dergipark.org.tr/en/pub/turkbilmat)

4. **Ambarish Maji**, Tuhin Deshamukhya, Gautam Choubey, Anupam Choubey, '**Performance evaluation of perforated pin fin heat sink using particle swarm optimization and MCDM techniques**', Journal of Thermal Analysis and Calorimetry, 2021, pp. 1-18. (ISSN No. 1388-6150) (Indexed in Scopus and SCI) (Impact Factor: 2.471) (https://link.springer.com/article/10.1007/s10973-021-10872-6)
5. **Sanjay Kumar Gupta,** Rahul Dev Misra, "Flow boiling performance analysis of copper-titanium oxide micro-/nanostructured surfaces developed by single-step forced convection electrodeposition technique", Arabian Journal for Science and Engineering, June 2021 (ISSN No.: 2193-567X) (Indexed in Scopus and SCI) (Impact Factor: 1.711) (https://link.springer.com/article/10.1007/s13369-021-05850-x)
6. **Sasidhar Gurugubelli**, V.V.S.KesavaRao, '**Inclusive Review on Welding of Duplex Stainless Steels**', Advances in Mechanical Engineering, Lecture Notes in Mechanical Engineering, June, 2021, pp. 393-403. (ISSN No. 2195-4356) (Indexed in Scopus) (https://doi.org/10.1007/978-981-16-0942-8_38)
7. Gummaluri Venkata Surya Subrahmanya Sharma, Chilamkurti Lakshmi Venkata Ranga Sobhanachala Vara Prasad, Velamala Rambabu, "**Online machine drawing pedagogy—A knowledge management perspective through maker education in the COVID-19 pandemic era**", Knowledge and Process Management, 2021 (ISSN No.: 1099-1441) (Indexed in: Scopus) (Impact Factor: No. Impact Factor) (https://onlinelibrary.wiley.com/doi/epdf/10.1002/kpm.1684) SCIMago: Q3
8. Kakala Sanjeevarao, **P.N.L. Pavani**, Ch. Suresh, Pakanati Anil Kumar **"Experimental investigation on VCR diesel engine fuelled with Al_2O_3 nanoparticles blended cottonseed biodiesel - diesel blends",** Materials Today: Proceedings, 46, pp.301-306, (ISSN No.: 2214-7853) (Indexed in: Scopus) (Impact Factor: No. Impact Factor) (https://www.sciencedirect.com/science/article/pii/S2214785320359046) SCIMago: Not yet assigned quartile
9. **G.V.S.S. Sharma,** P. Srinivasa Rao, B. Surendra Babu, "**Establishing Process Capability Indices in a Sugar Manufacturing Industry – an Industrial Engineering Perspective**", Jordan Journal of Mechanical and Industrial Engineering, Vol. 15, No. 4, pp. 319-328, (ISSN No.: 1995-6665) (Indexed in: Scopus) (Impact Factor: No. Impact Factor) (http://jjmie.hu.edu.jo/vol-15-4/01-jjmie_8_21.pdf) SCIMago: Q3
10. S. Ravi Babu, N.V.A Ravi Kumar, P. Ramesh Babu "**Effect of moisture and sonication time on dielectric strength and heat transfer performance of transformer oil based Al2O3 nanofluid**", International Journal of Advanced Technology and Engineering Exploration, Vol. 8, Issue 82, pp. 1222-1233, (ISSN No.: 2394-7454) (Indexed in: Scopus)(ImpactFactor:NoImpactFactor)(https://accentsjournals.org/PaperDirectory/Journal/IJATEE/2021/9/9.pdf)
11. Avinash Alagumalai, Omid Mahian, Mortaza Aghbashlo, Meisam Tabatabaei, Somchai Wongwises, Zhong Lin Wang, "**Towards Smart Cities Powered by Nanogenerators: Bibliometric and Machine Learning–Based Analysis**", Nano Energy, Vol. 83, Article

105844, May 2021. (ISSN No. 2211-2855) (https://www.sciencedirect.com/science/article/abs/pii/S2211285521001026) (Indexed in SCI) (Q1)

12. **Vinod Babu Chintada**, Ramji Koona, MVA Raju Bahubalendruni, "State of Art Review on Nickel-Based Electroless Coatings and Materials", Journal of Bio-and Tribo-Corrosion, vol 7, no. 4. PP.1-14, 2021. (Indexed by SCOPUS) (Q2) https://link.springer.com/article/10.1007/s40735-021-00568-7
13. **Avinash Alagumala**i, Caiyan Qin, KEK Vimal, Evgeny Solomin, Liu Yang, Ping Zhang, Todd Otanicar, Alibakhsh Kasaeian, Ali J Chamkha, Mohmammad Mehdi Rashidi, Somchai Wongwises, Ho Seon Ahn, Zhao Lei, Tabassom Saboori, Omid Mahian, **"Conceptual analysis framework development to understand barriers of nanofluid commercialization",** Nano energy, Vol. No.92 (ISSN: 2211-2855) (Indexed in SCI) Q1 (https://doi.org/10.1016/j.nanoen.2021.106736)
14. Vijaybabu T. R. "**Impression of porous body and magnetic field on the double-diffusive mixed convection traits**", International Journal of Mechanical Sciences vol 215 (ISSN: 0020-7403) (2021): pp. 106955 (Indexed in SCI) Q1, I.F: 5.329, (https://doi.org/10.1016/j.ijmecsci.2021.106955)
15. **Dr. Chiranjeeva Rao** Seela, "**Optimization of Nano Emulsified Biodiesel Lubricants**", Design Engineering, vol 2021, no. 9. PP.831-843, Dec2021 (Indexed by SCOPUS, Q4, http://thedesignengineering.com/index.php/DE/article/view/7019)
16. **Yegireddi.shireesha**, Nandipati.govind "**Optimization using response surface methodology and artificial neural network in geared drilling**" International Journal of Modern Manufacturing Technologies, vol XIII, no. 2. PP.116-123, December 2021 (Indexed by SCOPUS) Q3 https://www.ijmmt.ro/vol13no22021/14_Y_Shireesha_1.pdf
17. **Dr. M. Srinivasa Rao, Dr. CLVRSV Prasad, A Lakshumu Naidu, GVSS Sharma**, **"Preparation and Characterization of a Novel Natural Fiber Based Composite For Tribological Applications",** International Journal of Mechanical Engineering, Vol. 7, No. 1 (ISSN: 0974-5823) (Indexed in Scopus) Q4 (https://kalaharijournals.com/resources/301-320/IJME_Vol7.1_317.pdf)
18. T. Nagaraju, **Dr. V. Rambabu, A Lakshumu Naidu, "The effect of different inclination angles on heat transfer enhancement of ferrofluid in a closed helical loop oscillating heat pipe under magnetic field**", Natural Volatiles and essential oils, vol 8, No. 4: pp. 4807-4823 (Indexed in Scopus) Q3 (https://www.nveo.org/index.php/journal/article/view/1069/966)
19. **Govindarao** Nammi, Dhrijit Kumar Deka, Sukumar Pati, Laszlo Baranyi "**Natural convection heat transfer within a square porous enclosure with four heated cylinders**", Case Studies in Thermal Engineering, Volume 30, February 2022, 101733, ISSN: 2214-157X, (Indexed by SCI), Q1, (https://www.sciencedirect.com/science/article/pii/S2214157X21008960)
20. Gopal Chandra Pal, **Govindarao** Nammi, Sukumar Pati, Pitambar R. Randive, Laszlo Baranyi, "**Natural convection in an enclosure with a pair of cylinders under**

magnetic field", Case Studies in Thermal Engineering, Volume 30, February 2022, 101763, ISSN: 2214-157X, (Indexed by SCI) Q1 (https://www.sciencedirect.com/science/article/pii/S2214157X22000090)

21. V. Bhargava Linga Raju**, A. Vijin Prabhu**, "**The performance, combustion and emission analysis of Ci engine fueled with waste cooking oil biodiesel in addition of graphene nanoparticles and isopropanol**", Natural Volatiles and essential oils, vol 8, No. 4: pp. 4807-4823 (Indexed in Scopus) Q3 (https://www.nveo.org/index.php/journal/article/view/2848/2416)
22. **Sajja Ravi Babu,** K.P.V. Krishna Varma, Kunapuli Siva Satya Mohan, "**Artificial Neural Network Technique for estimating the thermophysical properties of Water-Alumina nanofluid**", Ecological Engineering & Environmental Technology, Vol. 23, No. 2, pp. 96–105, (ISSN : 2719-7050) (Indexed in Scopus) (Quartile : No results found) (http://www.ecoeet.com/Artificial-Neural-Network-Technique-for-Estimating-the-Thermo-Physical-Properties,145583,0,2.html)
23. **Sasidhar Gurugubelli**, Rama Bhadri Raju Chekuri, Ravi Varma Penmetsa, "**Experimental investigation and optimization of turning process of EN8 steel using Taguchi L9 orthogonal array**", Materials Today: Proceedings, pp.1-5, (ISSN: 2214-7853), (Indexed in scopus) (Not yet assigned Quartile) (https://doi.org/10.1016/j.matpr.2022.01.474)
24. Balivada. Sai Bhushan Patnaik, **C. L. V. R. S. V. Prasad, P. N. L. Pavani**, "**Simulation study on impact of orientation in metal additive manufacturing on residual stresses**", Journal of emerging technologies and innovative research, Vol. 9, No. 1, pp. 669-673, (ISSN: 2349-5162), (Quartile : No results found) (not indexed in scopus) (https://www.jetir.org/view?paper=JETIR2201493)
25. O. Mohan Chandra Kumar, **K.Simhadri,** "**Effect of Al_2O_3 nanoparticle blended Mahua oil biodiesel combustion on performance and emission characteristics of CI engine**", Nanotechnology for Environmental Engineering, (ISSN: 2365-6379) (Indexed in Scopus) Q2 (https://link.springer.com/article/10.1007/s41204-022-00219-3)
26. O. Mohan Chandra Kumar, · **K. Simhadri,** "**Exploration of mahua oil (Madhucaindica seed oil) biodiesel as a fuel in compression ignition engine: A review**", Natural Volatiles & Essential Oils, (Indexed in Scopus), Vol. 8, No. 4, pp-11609-11627, (ISSN:2148-9637), Q3 (https://www.nveo.org/index.php/journal/article/view/2394/2112)
27. Bo, L., Zhang, X., Luo, Z., Saboori, T., Dehghan, M., Ghasemizadeh, M., Karimi-Maleh, H., **Alagumalai, A.,** Mahian, O., 2021. "An overview of the applications of ionic fluids and deep eutectic solvents enhanced by nanoparticles". J. Therm. Anal. Calorim. February 2022 (ISSN: 1588-2926) (Indexed in : SCIE and scopus) Q2 (Impact factor: 4.6) https://doi.org/10.1007/s10973-021-11097-3;
28. Alagumalai, A., Qin, C., K E K, V., Solomin, E., Yang, L., Zhang, P., Otanicar, T., Kasaeian, A., Chamkha, A.J., Rashidi, M.M., Wongwises, S., Ahn, H.S., Lei, Z., Saboori, T., Mahian, O., 2022. "Conceptual analysis framework development to

understand barriers of nanofluid commercialization". Nano Energy 92, 106736. February 2022 (ISSN: 2211-2855) (Indexed in : SCIE and scopus) (Impact factor: 17.8) Q1 https://doi.org/https://doi.org/10.1016/j.nanoen.2021.106736

29. **Avinash. A**, C. Qin, V. K E K, E. Solomin, L. Yang, P. Zhang, T. Otanicar, A. Kasaeian, A.J. Chamkha, M.M. Rashidi, S. Wongwises, H.S. Ahn, Z. Lei, T. Saboori, O. Mahian, Conceptual analysis framework development to understand barriers of nanofluid commercialization, Nano Energy. (2022). doi:10.1016/j.nanoen.2021.106736. **(SCI Indexed) (Impact factor: 17.8) (Q1)**

International Conferences:

1. Santarao K., Suresh Ch., Prasad C.L.V.R.S.V., "Application of Taguchi Procedure to Decide Optimum Variable Levels for Powder Blended EDM", **First International Conference on Future Technologies in Manufacturing, Automation, Design and Energy**, Organized by Department of Mechanical Engineering National Institute Of Technology Puducherry, 28 - 30 December 2020.
2. Vinod Babu Chintada, Sasidhar Gurugubelli and Sudhakar Uppada, " **Review on Materials and Method Used to Develop Antimicrobial Coatings in Medical and Food Processing Industry**", Recent Advances in Manufacturing, Automation, Design and Energy Technologies, Proceedings from ICOFT 2020, Lecture Notes in Mechanical Engineering, Springer Nature Singapore Pte Ltd. 2022. Pp. 57-63. (Indexed by SCOPUS) https://doi.org/10.1007/978-981-16-4222-7_7
3. Fathimunnisa Begum, Sasidhar Gurugubelli and N. Ravi Kumar, "Observational **Exposition of Metal Matrix Composite Aluminum 6069 (Al) Fraction Variance Strengthened with Molybdenum (Mo) and Coconut Shell Ash (CSA)**", Recent Advances in Manufacturing, Automation, Design and Energy Technologies, Proceedings from ICOFT 2020, Lecture Notes in Mechanical Engineering, Springer Nature Singapore Pte Ltd. 2022. Pp. 105-113. (Indexed by SCOPUS) https://doi.org/10.1007/978-981-16-4222-7_12
4. Vykunta Rao, M., Raju Bahubalendruni, M. V. A., & Chintada, V. B. (2022). **"General Regression Neural Network-Based Frame Work for the Evaluation of Ultimate Tensile Strength of Vibratory-Assisted Welded Joints"**, Recent Advances in Manufacturing, Automation, Design and Energy Technologies, pp. 173-180, Springer, Singapore.