G H RAISONI INSTITUTE OF ENGINEERING & TECHNOLOGY
(Approved by AICTE, New Delhi and Recognized by DTE, Maharashtra)
An Autonomous Institute Affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur
Accredited by NAAC with A+ Grade
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Department of Mechanical Engineering

Faculty Achievements and Awards

Session: 2023-2024

Sr. No.	Name of the Faculty	Details of Faculty Achievements and Awards
1	Dr. Achal Shahare	• Attended the STTP on "Outcome-Based Education and Accreditation" held from 08–12 January 2024 for 5 days, organized by the National Institute of Technical Teachers Training and Research (NITTTR), Bhopal. • Published copyright titled "Design and Fabrication of Monowheel" (L-126175/2023). • Published research paper titled "Design and Analysis of Wiping Type Bending Tool for Lever Draft Control – A Review" in the International Journal of Innovative Research in Technology in May 2024. • Published Design Patent titled "Solar Water Distillation Apparatus" (Patent No. 390930-001) on 03/10/2023.
2	Dr. Arvind Mahalle	• Resource Person in the FDP on "Teaching Learning Process using ICT Tools for Education 4.0" held from 24 to 30 June 2024 at Nagpur, organized by Suryodaya College of Engineering & Technology, Nagpur. • Resource Person in the FDP on "Teaching Learning Process using ICT Tools for Education 4.0" held from 24 to 30 June 2024 at Nagpur, organized by Suryodaya College of Engineering & Technology, Nagpur. • Attended the STTP on "Outcome-Based Education and Accreditation" held from 08–12 January 2024 for 5 days, organized by the National Institute of Technical Teachers Training and Research (NITTTR), Bhopal. • Developed e-content in the form of a PowerPoint presentation (PPT) on "Design of Machine Elements" for teaching and learning purposes. • Successfully completed the NPTEL-AICTE course on "Manufacturing Guideline for Product Design" during January–March 2024 and obtained a certificate with 55% score. • Published research paper titled "Design and Fabrication of Mini Electric Power Tiller" in the International Journal of Innovations in Engineering and Science on 23 December 2023.
3	Dr. Tejpal Parshiwanikar	• Attended the STTP on "NEP 2020 Orientation & Sensitization Programme" held from 08–19 January 2024 for a duration of 2 weeks, organized by the Malaviya Mission Teacher Training Centre in association with the National Institute of Technology (NIT) Warangal. • Attended the STTP on "Crafting and Conducting Cutting-edge Research and Innovation" held from 03–08 January 2024 for 6 days, organized by the RCC Institute of Information Technology. • Published e-content copyright titled "Design & Fabrication of Two Wheel Cutter Machine" (L-141684/2024) under the course Design of Machine

		Elements. • Published e-content copyright titled "Fabrication & Development of Mobile Operated Cleaning and Sanitizing BOT" (L-137131/2023). • Published research paper titled "Design and Development of Battery Powered Tiller – A Review" in the Journal of University of Shanghai for Science and Technology in May 2024. • Attended and presented a paper titled "Experimental Investigation and Optimization of Extraction of Bio Oil from Coconut Shells" at the International Congress on Renewable Energy (ICORE-2023) held from 7–9 December 2023 at Kochi, organized by the Solar Energy Society of India (SESI) and the Kerala Renewable Energy Entrepreneurs' and Promoters' Association (KREEPA) • Dr. Tejpal Parshiwanikar guided a UG project titled "Development of Domestic Transportation with Electric Vehicle" for a duration of 6 months, which focused on achieving cleaner and energy-efficient transportation by reducing emissions, fuel dependence, and operating costs through the use of electric vehicles. The project received seed funding from the institution in support of undergraduate student research and development.
4	Dr. Manish Gupta	• Copyright published on poster on Design and fabrication of V shape Vegetable Transplanter (L-146326/2024) • Attended a 1-day Seminar on "Battery Modelling and Estimation Using AI for EV with MATLAB" on 8th September, 2023. • Completed One Week Short Term Training Programme on "Disaster Management" at GHRCE Nagpur, from 1–5 April 2024. • Completed 6-day AICTE Training and Learning (ATAL) Academy Faculty Development Program on Generative AI & It's Applications at G. H. Raisoni Institute of Engineering & Technology from 05/02/2024 to 10/02/2024. • Published a research paper on "Design and Development of Grader with Moisture Detection and Flow Regulator for Separating Vermicompost: A Review" in International Journal of Novel Trends and Innovation. • Published a research paper titled "Development and Performance Evaluation of a Mechanized V-Shaped Vegetable Transplanter" in the International Journal of Science and Engineering in November 2023. • Attended an Industrial Training Program on Data Analysis and Safety Engineering conducted by JP Research India Pvt. Ltd., Nagpur, from 20–25 November 2023, where he enhanced his skills in data analysis, safety practices, and risk management. • Dr. Manish Gupta and Dr. Jaygovind Verma developed a Pelton Turbine Model for the Hydraulic Machine laboratory, which demonstrates the working principle of impulse turbines and helps students understand energy conversion concepts in hydraulic systems. • Dr. Manish Gupta and Dr. Jaygovind Verma developed models of Different Types of Couplings for the Dynamics of Machine laboratory, which support the comparative understanding of various coupling types and their applications

		in mechanical machinery.
5	Dr. Jay Govind Varma	• Dr. Jaygovind Verma and Dr. Manish Gupta developed models of Different Types of Couplings for the Dynamics of Machine laboratory, which support the comparative understanding of various coupling types and their applications in mechanical machinery. • Published Book Chapter titled "Multi-faults diagnosis of gearbox by deep convolution neural network." Advanced Signal Processing for Industry 4.0, Volume 2: Security issues, management and future opportunities. Bristol, UK: IOP Publishing, 2023. 11-1. • Copyright Published on Design and Fabrication of V-Shape Vegetable Transplante (L-146326/2024). • Published copyright titled "Development and Fabrication of Pedal Operated Saw Cutter" (5295/2024-CO/L). • Completed 5 Day workshop on "Numerical Methods in Engineering: Advances and Applications" organized by the Department of Mechanical Engineering, IIT Ropar during 5th -8th July, 2023 • Eminent Speaker on "AI & ML applications in industries" organized by Department of Mechanical Engineering, Anand International College of Engineering, Jaipur during 15th -19th April, 2024 • Attended the STTP on "Exploring the Potential and Benefits of 3D Printing in Medical and Industrial Applications" held from 21–26 August 2023 for 6 days, organized by GHRCE, Nagpur. • Developed e-content in the form of a PowerPoint presentation (PPT) on "Advanced Manufacturing and Production Techniques". • Successfully completed the NPTEL-AICTE course on "Mechanical Measurement System" conducted from January–March 2024 and obtained a certificate with 59% score. • Participated in the Industrial Skill Training Program titled "Plastic Material and Modern Plastic Processing Techniques" for students and faculty held on 23 April 2024 at the Central Institute of Petrochemicals Engineering & Technology (CIPET), Chandrapur for a duration of 3 days. • Participated in the One-Day Skill Training Program on "CNC Part Programming" for students held on 22 April 2024 at the Indo-German Tool Room, Nagpur for 1 day, where he learned CNC programming, improved practical machining skills, and became better prepared for industry projects. • Developed a Pelton Turbine Model for the Hydraulic Machine laboratory, which demonstrates the working principle of impulse turbines and helps students understand energy conversion concepts in hydraulic systems. • Developed models of Different Types of Couplings for the Dynamics of Machine laboratory, which support the comparative understanding of various coupling types and their applications in mechanical machinery.

6	Dr. Nilesh C Kanojiya	• Successfully completed Doctor of Philosophy (Ph.D.) in Mechanical Engineering from G. H. Raisoni University, Amravati, on 20 April 2024. PhD Thesis Title: "Experimental Investigation of Tubular Solar Still and Pyramid Solar Still Using Passive and Active Techniques." • Presented research paper titled "Thermal Energy, Exergy and Economics Analysis of Pyramid and Tubular Solar Still with Modified Absorber Plate Coupled with Solar Water Heater" at the International Conference on Tech Trends in Science, Engineering and Management, held at Suryodaya College of Engineering & Technology, Nagpur, on 15 April 2024. • Published Design Patent titled "Solar Water Distillation Apparatus" (Patent No. 390930-001) on 03/10/2023. • Published Design Patent titled "Photovoltaic Solar Distillation System" (Patent No. 391879-001) on 03 August 2023. • Copyright Published on Performance Improvement of Tubular Solar Still and Pyramid Solar Still Integrated with Solar Water Heater (L-136442/2023) • Developed E-Content.: PPT on Refrigeration & Air Conditioning • Published a research paper titled "Automatic Dung Collection Machine for Livestock Enclosure" in the International Journal of Advance Scientific Research and Engineering Trends, in November 2023, • Delivered an expert lecture on "Teaching Learning Process using ICT Tools for Education 4.0" during an FDP organized at Suryodaya College of Engineering and Technology, Nagpur, from 24–30 June 2024. • Delivered an expert session in Short Term Training Programme on "BS-VI and Beyond: Technologies Shaping the Future of Automobiles" organized at GHRIET Nagpur, from 19–23 December 2023. • Resource Person in in AICTE ATAL FDP on "Productivity Enhancement" organized by Vidarbha Institute of Technology, Nagpur, from 9–14 October 2023. • Completed One Week Short Term Training Programme on "Sustainable Energy Technology for Hydrogen, Solar, Wind and Biomass" at GHRCE Nagpur, from 4–8 July 2023. • Completed a 5-day Industrial Training on "Innovation in Automobile Engineering" at Ashok Leyland, STC Workshop, MIDC Hingna, from 2–6 January 2024, gaining exposure to modern automobile technologies and industry practices. • Completed a 5-day Industrial Training Program on "Evaporator Production Process and Testing" at Chanvim Engineering Pvt. Ltd., Nagpur, from 11–15 December 2023, focusing on evaporator manufacturing processes, testing, and quality control in refrigeration systems. • Under the guidance of Nilesh C Kanojiya, a UG project titled "Development and Fabrication of Mechanical Mechanism for Waste Storage System used in NMC Vehicles" won the Nagpur District Level in the Maharashtra Students Innovation Challenge–2023 (an initiative by the Government of India) and

		received a cash prize of ₹1, 00,000. • Dr. Nilesh C. Kanojiya, and Mr. Swapnil Nishane, developed a Bevel Gear and Differential Gear model for Automobile Engineering and Theory of Machines, which strengthened students' understanding of gear mechanisms used in automotive power transmission systems. • Dr. Nilesh C. Kanojiya and Dt. Shrikant Thote developed a Reciprocating Engine Mechanism model for Advanced IC Engine, Engineering Thermodynamics, and Automobile Engineering, enhancing understanding of engine kinematics and thermodynamic processes in IC engines. • Dr. Nilesh C. Kanojiya and Mr. Pratik Dhage developed Disk Clutch, Centrifugal Clutch, and Multiplate Clutch models for Automobile Engineering, improving students' understanding of clutch operation and torque transmission in automobiles. • Serving as Reviewer for various SCI indexed journals.
7	Mr. Pratik Dhage	• Published a Scopus indexed research paper titled "Efficiency Enhancement by Using a Solar PV Module Free Channel Rectangular Aluminum Fins" in Journal of Propulsion Technology (January 2024). • Presented a research paper titled "Efficiency and Power Output Enhancement by Using Multi-Concept Cooling Technique" at ICACEBD-2024 International Conference organized by G. H. Raisoni Institute of Engineering and Technology, Nagpur. • Presented a research paper titled "Study of Methods for Useful Devices Fabricated on Micro or Nano by Additive Manufacturing" at ICTTSEM-2024 Conference organized by Suryodaya College of Engineering and Technology, Nagpur. • Resource Person in in AICTE ATAL FDP on "Productivity Enhancement" organized by Vidarbha Institute of Technology, Nagpur, from 9–14 October 2023. • Delivered an expert session in Short Term Training Programme on "BS-VI and Beyond: Technologies Shaping the Future of Automobiles" organized at GHRIET Nagpur, from 19–23 December 2023. • Delivered an expert lecture on "Teaching Learning Process using ICT Tools for Education 4.0" during an FDP organized at Suryodaya College of Engineering and Technology, Nagpur, from 24–30 June 2024 • Patent filed on Solar Distillation System, contributing towards innovation in renewable energy technology. • Attended NPTEL Workshop organized by IIT Bombay for professional development and knowledge enhancement. • Serving as SPOC (Single Point of Contact) for NPTEL/SWAYAM at institute level to promote online learning initiatives. • Appointed as UHV Cell Coordinator, actively promoting Universal Human Values education among engineering students. • Serving as Virtual Lab SPOC, facilitating remote laboratory access for

		students. • Worked as Institute Representative for NPTEL Examination conducted by IIT Madras. • Served as Observer for UHV FDP by AICTE, contributing to institutional academic activities. • Attended the STTP on "NEP 2020 Orientation & Sensitization Programme" held from 18–30 December 2023 for a duration of 2 weeks, organized by the Malaviya Mission Teacher Training Centre in association with RTMNU, Nagpur. • Developed e-content in the form of a PowerPoint presentation (PPT) on "Universal Human Values". • Developed e-content in the form of a PowerPoint presentation (PPT) on "Energy Storage System" • Developed Disk Clutch, Centrifugal Clutch, and Multiplate Clutch models for Automobile Engineering • Developed a model of a Cochran Boiler for the subjects Energy Conversion and Thermal Engineering, which facilitated the understanding of boiler construction, steam generation, and thermal energy conversion. • Developed a working model of a Loffler Boiler in the field of Thermal Engineering
8	Dr. Ritesh Sambare	• Published SCI indexed research paper titled "Productivity Enhancement Techniques for Tubular Solar Still — A Review" in the journal Environmental Progress & Sustainable Energy (Wiley) on 3 January 2024. • Presented research paper titled "Performance Analysis of Tubular Solar Still Integrated with Solar Photovoltaic Modules for Improved Productivity" at the International Conference on Sustainable Energy & Environment (ICSEE-2024) organized by MNIT Bhopal (NIT Bhopal) from 23–25 February 2024. • Resource Person in AICTE ATAL FDP on "Productivity Enhancement" organized by Vidarbha Institute of Technology, Nagpur, from 9–14 October 2023. • Published Design Patent titled "Solar Water Distillation Apparatus" (Patent No. 390930-001) on 24 July 2023. • Published Design Patent titled "Photovoltaic Solar Distillation System" (Patent No. 391879-001) on 03 August 2023. • Completed a 5-day Industrial Training Program on "Evaporator Production Process and Testing" at Chanvim Engineering Pvt. Ltd., Nagpur, from 11–15 December 2023, focusing on evaporator manufacturing processes, testing, and quality control in refrigeration systems. • Copyright Published on Productivity enhancement of TSS using reflectors. • Serving as Reviewer for various SCI indexed journals. • Attended 1 Week ATAL Faculty Development Program (FD**P)** on

		Sustainable Energy Technology for Solar Energy Systems (July 2023). • Attended NPTEL Workshop conducted by IIT Madras. • Developed a model of a Cochran Boiler for the subjects Energy Conversion and Thermal Engineering, which facilitated the understanding of boiler construction, steam generation, and thermal energy conversion. • Developed a working model of a Loffler Boiler in the field of Thermal Engineering
9	Mrs. Seema Rewatkar	• Attended the FDP on "Additive Manufacturing Technology" organized by the School of Engineering & Technology, Sandip University, Nashik, held from 04–09 March 2024 for 6 days. • Attended the FDP on "Evaluation Strategies & Classroom Management Skills" organized by IQAC, Michael Job Memorial College of Education for Women, Coimbatore, held from 05–06 February 2024 for 2 days. • Successfully completed the NPTEL-AICTE FDP on "Mechanical Measurement Systems" conducted from January 2024 to March 2024 for 8 weeks • Published a copyright for e-content titled "Fabrication & Development of Mobile Operated Cleaning and Sanitizing BOT" (L-137131/2023). • Completed & Appreciated the work of translation for the course Product Design and Development (112107217) offered by IITR in Marathi Laguage • Participated in the NPTEL E-Awareness workshop on July 27, 2023 organized by IIT Madras. • Developed e-content in the form of a PowerPoint presentation (PPT) on "Metrology and Quality Control". • Developed a working model and prototype of Oldham's Coupling for the subject Design of Machine Elements, which aided in understanding torque transmission between parallel but misaligned shafts in mechanical systems.
10	Mr. Swapnil Sanjay Nishane	• Pursuing Doctor of Philosophy (Ph.D.) in Mechanical Engineering from G. H. Raisoni college of Engineering and Management, Nagpur. • Registration date: 25-05-2023 PhD Thesis Title: Design and Development of Combine Cpm (Continuous Passive Motion) Machine for Physiotherapeutic Treatment of Knee, Ankle and Hip Joint. • Participated and successfully completed in the NPTEL Manufacturing Guidelines for Product Designon on Jan-Mar 2024 organized by IIT Roorkee. • Participated and successfully completed in the Quality Design and Control FDP on (Jan-Apr 2024) organized by IIT Madras. • Participated and successfully completed in the Quality Design and Controlon Jan-Apr 2024organized by IIT Kharagpur. • Participated and successfully completed in the Manufacturing Guidelines for Product Design on (Jan-Mar 2024) organized by IIT Madras.

		• Published Design Patent titled "Versatile Crucible Tray for Tubular and Muffle Furnaces" (Patent No. 419679-001) on 11/06/2024. • Participation in international conference on design, materials and manufacturing engineering of sustanaible development. (ICDMMESD-2024) on 10th May 2024 on exploring open water characteristics of marine propeller blades across variable advamced velocities. • Developed a Bevel Gear and Differential Gear model for Automobile Engineering and Theory of Machines, which strengthened students' understanding of gear mechanisms used in automotive power transmission systems.
11	Dr. Prashant Namdeorao Awachat	• Attended the STTP on "Exploring the Potential and Benefits of 3D Printing in Medical and Industrial Applications" held from 21–26 August 2023 for 6 days, organized by GHRCE, Nagpur. • Successfully completed a 4-day Industrial Training Program on "5S Principle Implementation" from 12–15 June 2024 at C. B. Industry, MIDC Nagpur. • Published a research paper titled "Robust Analysis of Various Measurement Uncertainty Parameters in Rebound Hammer Test" in the Indian Journal of Science and Technology on 29/08/2023.
12	Dr. Shrikant Arunrao Thote	• Attended a 7-day FDP on "Present Scenario and Future Scope of Research and Advancement in the Field of Electric Vehicles and Renewable Energy Sector" from 06/07/2023 to 12/07/2023, organized by Guru Nanak Institute of Technology (JIS Group). • Successfully completed a 6-day Industrial Training Program on "Quality Control and Designing" from 11–16 June 2024 at Kinetic Gears Pvt. Ltd., Nagpur. • Published a research paper titled "Improvement of Heat Transfer Through Use of Twisted Tape Inserts: A Review" in the Journal of Engineering, Project, and Production Management on November 27, 2023. • Developed a Reciprocating Engine Mechanism model for Advanced IC Engine, Engineering Thermodynamics, and Automobile Engineering, enhancing understanding of engine kinematics and thermodynamic processes in IC engines.