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: 2022-2023

Sr. No.	Name of the Faculty	Details of Faculty Achievements and Awards
1	Dr. Achal Shahare	• Served as a Resource Person in the Workshop on "Sustaining Quality Culture in Autonomous Institutions: Impact and Challenges" held on 21–22 September 2022 at Nagpur, organized by Jhulelal Institute of Technology, Nagpur. • Attended the STTP on "Effective Filing of NAAC AQAR – Streamlining Institutional Performance" held from 13–18 March 2023 for 6 days, organized by the IQAC, Vardhaman College of Engineering, Hyderabad • Developed a video lecture on the topic "Line Balancing" under the subject Automation in Production. • Resource Person in the FDP on "Additive Manufacturing and 3D Printing Technologies", conducted in offline mode from 9–13 May 2023 for 5 days at GHRIET, Nagpur. • Resource Person in the STTP on "CNC Programming and Tool Path Optimization", conducted in offline mode from 26–30 December 2022 for 5 days at GHRIET Nagpur. • Published research paper titled "Exergy, Energy and Economic Analyses of Pyramid Solar Still Integrated with Solar Water Heater" in Energy Sources Part A: Recovery, Utilization and Environmental Effects (Taylor & Francis, SCI Indexed). • Published research paper titled "Productivity, Thermal and Exergy Analyses of Tubular Solar Still Integrated with Solar Water Heater" in Energy Sources, Part A: Recovery, Utilization, and Environmental Effects (Taylor & Francis, SCI Indexed).
2	Dr. Arvind Mahalle	• Resource Person in the STTP on "Latest Trends in Mechanical Engineering and Technology" held from 26 to 31 May 2023 at Nagpur, organized by Suryodaya College of Engineering & Technology, Nagpur. • Attended the STTP on "Effective Filing of NAAC AQAR – Streamlining Institutional Performance" held from 13–18 March 2023 for 6 days, organized by the IQAC, Vardhaman College of Engineering, Hyderabad. • Developed e-content in the form of a video lecture on the topic "SFD & BMD" under the subject Mechanics of Materials. • Developed a Types of Governors model for the subjects Dynamics of Machine and Kinematics of Machine, which improved the conceptual understanding of speed regulation mechanisms in mechanical systems. • Developed an Epicyclic Gear model for the subjects Dynamics of Machine and Kinematics of Machine, which enhanced the understanding of compact gear arrangements and their applications in automotive transmissions.

3	Mr. Tejpal Parshiwanikar	• Attended the FDP on "Progressive Trends in Mechanical Engineering and Allied Field" held from 28 June 2022 to 02 July 2022 for 6 days, organized by GHRCE, Nagpur. • Developed e-content in the form of video lectures on the topics "Cam Dynamics" and "Basic Concept of Mechanism" under the subject Kinematics of Machine. • Published copyright titled "Design and Development of Muller Sand Mixing Machine" (121248/2023-CO/L). • Developed e-content in the form of a PowerPoint presentation (PPT) on "Kinematics of Machine". • Developed a Types of Governors model for the subjects Dynamics of Machine and Kinematics of Machine, which improved the conceptual understanding of speed regulation mechanisms in mechanical systems. • Developed an Epicyclic Gear model for the subjects Dynamics of Machine and Kinematics of Machine, which enhanced the understanding of compact gear arrangements and their applications in automotive transmissions. • Developed a Cam and Follower model for the subjects Dynamics of Machine and Kinematics of Machine, which facilitated learning of motion control and valve timing mechanisms in machines. • Developed a working model and prototype of a Crank and Slotted Lever mechanism for the subjects Dynamics of Machine and Kinematics of Machine, which aided the understanding of quick-return mechanisms and kinematic motion analysis.
4	Dr. Manish Gupta	• Attended the FDP on "PLC Programming and its Applications" held from 30 January 2023 to 03 February 2023 for 5 days, organized by NITTTR, Kolkata. • Published e-content copyright titled "Design and Development of Effective Hubless Wheel" (15016/2022-CO/L). • Resource Person in the FDP on "Additive Manufacturing and 3D Printing Technologies", conducted in offline mode from 9–13 May 2023 for 5 days, where he delivered an expert session. • Participated in the One-Day Seminar on "CAD/CAM Software & Its Industrial Importance" for students on 6 February 2023 at GHRIET, Nagpur, organized by the Central Institute of Petrochemicals Engineering & Technology (CIPET), Chandrapur, Government of India.
5	Dr. Jay Govind Varma	• Copyright Published on Design and Fabrication of Solar Operated Material Handling System (L-14987/2022) • Attended the FDP on "Entrepreneurship" held from 10–22 April 2023 for 2 weeks, organized by the Silicon Institute of Technology, Bhubaneswar. • Resource Person in the FDP on "Additive Manufacturing and 3D Printing Technologies", conducted in offline mode from 9–13 May 2023 for 5 days at GHRIET, Nagpur. • Participated in the Industrial Skill Training Program titled "Plastic Material and

		Modern Plastic Processing Techniques" for students and faculty held on 31 January 2023 at the Central Institute of Petrochemicals Engineering & Technology (CIPET), Chandrapur for a duration of 3 days. • Participated in the One-Day Seminar on "CAD/CAM Software & Its Industrial Importance" for students on 6 February 2023 at GHRIET, Nagpur, organized by the Central Institute of Petrochemicals Engineering & Technology (CIPET), Chandrapur, Government of India.
6	Mr. Nilesh C Kanojiya	• Published research paper titled "Exergy, Energy and Economic Analyses of Pyramid Solar Still Integrated with Solar Water Heater" in Energy Sources Part A: Recovery, Utilization and Environmental Effects (Taylor & Francis, SCI Indexed). • Published research paper titled "Productivity, Thermal and Exergy Analyses of Tubular Solar Still Integrated with Solar Water Heater" in Energy Sources, Part A: Recovery, Utilization, and Environmental Effects (Taylor & Francis, SCI Indexed). • Dr. Ritesh Sambare and Mr. Nilesh C. Kanojiya published a research article titled "Improving the Freshwater Production from Tubular Solar Still Using Sensible Heat Storage Materials" in the journal Thermal Science and Engineering Progress, in February 2023. • Presented research paper titled "Enhancing the Freshwater Production from Pyramid Solar Still Using Phase Change Materials" at 2nd International Conference on Recent Advances in Materials, Manufacturing and Machine Learning (RAMMML-2023) organized by Yeshwantrao Chavan College of Engineering, Nagpur, 2–4 February 2023. • Delivered expert lecture in STTP on "Latest Trends in Mechanical Engineering and Technology" organized by Suryodaya College of Engineering & Technology, Nagpur from 26–31 May 2023. • Participated in FDP on "Progressive Trends in Mechanical Engineering and Allied Field" organized by GHRCE Nagpur from 28 June to 2 July 2022. • Video Lecture developed for topic "Expression for Otto Cycle" under the subject Engineering Thermodynamics • Copyright Registration for "PPT on Heat Transfer", Registration No. L-121384/2023, dated 12 April 2023, for developing academic teaching material related to Heat Transfer concepts for engineering education. • Developed PPT teaching material on Engineering Thermodynamics for effective classroom delivery and improved conceptual understanding of thermodynamic principles among engineering students. • Developed PPT teaching material on Automobile Engineering. • Successfully completed the NPTEL-AICTE online course "Introduction to Research" during July–October 2022. • Participated in a One Day Industrial Skill Training Program on "Plastic Material and Modern Plastic Processing Techniques" for students and faculty on 18 October 2022, organized by the Central Institute of Petrochemicals

		Engineering & Technology (CIPET), Chandrapur, gaining exposure to modern plastic processing technologies and industrial applications. • Completed an Industrial Training Program on "Quality Control and Designing" at Kinetic Gears Pvt. Ltd., Nagpur, from 30 November to 7 December 2022, gaining practical exposure to industrial quality control practices and gear design processes. • Completed a Faculty Training Program on "Advance Technology in Automobile Engineering" at Ashok Leyland, STC Workshop, MIDC Hingna, from 26–30 December 2022, gaining exposure to modern automobile technologies and industry practices. • Mr. Nilesh C. Kanojiya and Dr. Ritesh Sambare developed a Piston Crank Mechanism working model for the subjects Engineering Thermodynamics, Advanced IC Engine, and Kinematics of Machines, which supported students in understanding the conversion of reciprocating motion into rotary motion in internal combustion engines.
7	Mr. Pratik Dhage	• Received Certificate of Appreciation from National Programme on Technology Enhanced Learning coordinated by Indian Institute of Technology Madras for serving as Active SPOC (Single Point of Contact) for the SWAYAM–NPTEL Local Chapter during the Jan–Apr 2023 semester. • Awarded Design Registration for the innovative project titled "Solar Water Distillation System" by the Office of the Controller General of Patents, Designs and Trade Marks, Government of India. • Successfully completed Faculty Development Program (FDP) on Universal Human Values (UHV) organized under the initiative of All India Council for Technical Education. • Participated in AICTE recognized Universal Human Values-II (UHV-II) Faculty Development Program, contributing to value-based technical education. • Delivered expert lecture in STTP on "Latest Trends in Mechanical Engineering and Technology" organized by Suryodaya College of Engineering & Technology, Nagpur from 26–31 May 2023. • Resource Person in the FDP on "Advanced Materials & Mathematical Tools" held from 10–14 July 2022 at Nagpur, organized by Suryodaya College of Engineering & Technology, Nagpur. • Delivered expert lecture in STTP on "Latest Trends in Mechanical Engineering and Technology" organized by Suryodaya College of Engineering & Technology, Nagpur from 26–31 May 2023. • Developed e-content in the form of a video lecture on the topic "Non-Conventional Machining Processes" under the subject Advanced Production Process. • Developed a model of a turbojet in the fields of Energy Conversion and Thermal Engineering

8	Dr. Ritesh Sambare	• Ph.D. awarded in Mechanical Engineering from National Institute of Technology (NIT) Raipur, Chhattisgarh on 10 March 2023. • Published SCI research paper titled "Energy, Exergy and Economic Analyses of Tubular Solar Still with Various Transparent Cover Material" in the journal Process Safety and Environmental Protection (Elsevier) on 27 October 2023. • Published SCI research paper titled "Improving the Freshwater Production from Tubular Solar Still Using Sensible Heat Storage Materials" in Thermal Science and Engineering Progress (Elsevier) on 18 January 2023. • Published SCI research paper titled "Exergy, Energy, and Economic Analyses of Pyramid Solar Still Integrated with Solar Water Heater" in Energy Sources Part A: Recovery, Utilization and Environmental Effects (Taylor & Francis) on 25 April 2023. • Published SCI research paper titled "Productivity, Thermal and Exergy Efficiency Analyses of Tubular Solar Still Integrated with Solar Water Heater" in Energy Sources Part A (Taylor & Francis) on 05 April 2023. • Presented research paper titled "Enhancing the Freshwater Production from Tubular Solar Still Using Phase Change Materials" at the 2nd International Conference on Recent Advances in Materials, Manufacturing and Machine Learning (RAMMML-2023) organized by Yeshwantrao Chavan College of Engineering, Nagpur from 2–4 February 2023. • Registered a copyright on Solenoid Operated Camless I C Engine. • Participated in National Intellectual Property Awareness Mission (NIPAM) Workshop on 1 August 2022. • Successfully completed the NPTEL-AICTE course on "Heat Transfer" conducted from July–October 2022 and obtained a certificate with 58% score. • Attended 1-week Faculty Development Program (FDP) on Progressive trends in Mechanical Engineering and Allied Field at GHRCE Nagpur from 28 June – 02 July 2022. • Resource Person in the FDP on "Advanced Materials & Mathematical Tools" held from 10–14 July 2022 at Nagpur, organized by Suryodaya College of Engineering & Technology, Nagpur. • Completed a Faculty Training Program on "Advance Technology in Automobile Engineering" at Ashok Leyland, STC Workshop, MIDC Hingna, from 26–30 December 2022, gaining exposure to modern automobile technologies and industry practices. • Developed a model of a turbojet in the fields of Energy Conversion and Thermal Engineering

9	Mrs. Seema Rewatkar	• Copyright Published on Design And Development Of Muller Sand Mixing Machine (L-121248/2023) • Completed & Appreciated the work of translation for the course Geology and Soil Mechanics offered by IITK in Marathi Laguage • Successfully presented the paper titled Heat Camber Formation from Condenser Heat loss in the International Conference On Sustainable & Resilient Environment Development conducted on 17 & 18 February 2023 organized by GHRU Saikheda in association with NEERI, Nagpur • Completed the 8 weeks FDP on Manufacturing Guidelines for Product Design by IIT Roorkee under NPTEL • Resource Person in the STTP on "CNC Programming and Tool Path Optimization", conducted in offline mode from 26–30 December 2022 for 5 days at GHRIET Nagpur. • Completed Two Day Workshop on " Introduction to Embedded Systems and Robotics " organized by Department of Electronics & Telecommunication Engineering, KDKCOE, Nagpur in association with e-Yantra, IIT Bombay from 20/02/2023 to 21/02/2023. • Completed one week FDP on "Hybrid Electric Vehicles " Jointly organized by the Departments of Mechanical Engineering of GMR Institute of Technology, Rajam and Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada during 21st -25th November 2022. • Successfully Completed IP Awareness/Training program under National Intellectual Property Awareness mission on August 01,2022 organized by Intellectual Property Office, India • Completed the Professional Development Workshop on Digital Creativity Skills as a part of Adobe Essential Program • Passed the Ph.D. Entrance Test (Pet) Examination 2022-2023 • Developed e-content in the form of a video lecture on the topic "Rasterization Techniques" under the subject Computer Aided Design. • Completed an Industrial Training Program on "Quality Control and Designing" at Kinetic Gears Pvt. Ltd., Nagpur, from 30 November to 7 December 2022, gaining practical exposure to industrial quality control practices and gear design processes. • Developed a Cam and Follower model for the subjects Dynamics of Machine and Kinematics of Machine, which facilitated learning of motion control and valve timing mechanisms in machines. • Developed a working model and prototype of a Crank and Slotted Lever mechanism for the subjects Dynamics of Machine and Kinematics of Machine, which aided the understanding of quick-return mechanisms and kinematic motion analysis.
10	Mr. Swapnil Sanjay Nishane	• Published a copyright titled "Development of Refrigeration System Without Electricity (17079/2022-CO/L)". • Successfully completed a 6-day Industrial Training Program on Manufacturing

		Processes from 10–15 December 2022 at Sharda Shree Ispat Ltd., Nagpur, gaining practical knowledge of industrial production techniques and operations. • Completed one week FDP on "Hybrid Electric Vehicles " Jointly organized by the Departments of Mechanical Engineering of GMR Institute of Technology, Rajam and Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada during 21st -25th November 2022.
11	Mr. Prashant Namdeorao Awachat	• Attended the FDP on "Trends and Challenges in the Development of Electric Vehicles and Hybrid Electric Vehicles (Series-2)" held from 14–18 November 2022 for 5 days, organized by the Lendi Institute of Engineering and Technology, Denkada. • Completed the NPTEL-AICTE course "Carbon Materials and Manufacturing" during Jan–June 2023. • Delivered sessions in a 5-day offline STTP on "CNC Programming and Tool Path Optimization" held from 26–30 December 2022 at GHRIET, Nagpur. • Published a research paper titled "Performance Evaluation of Uncertainty in Measurement for Dynamic Young's Modulus of Elasticity" in the Indian Journal of Science and Technology. • Published a research paper titled "The Health Risk and Source Assessment of Polycyclic Aromatic Hydrocarbons (PAHs) in the Soil of Industrial Cities in India" in the *Toxics* journal. • Published a research paper titled "Comparative Analysis of Measurement Uncertainty in Cubic Concrete Compression Testing" in the *ECS Transactions* journal.
12	Mr. Shrikant Arunrao Thote	• Attended the FDP on "Trends and Challenges in the Development of Electric Vehicles and Hybrid Electric Vehicles (Series-2)" held from 14–18 November 2022 for 5 days, organized by the Lendi Institute of Engineering and Technology, Denkada. • Published three utility patents: "Membrane Cleaning Mechanism in Industrial RO" (202121028090A) on 30/12/2022, "Novel Method of Pollution Control" (202221070038A) on 13/01/2023, and "Soxhlet Cum Distillation Apparatus" (202121031879) on 20/01/2023, contributing to innovations in environmental and chemical engineering technologies. • Delivered sessions in a 5-day offline FDP on "Additive Manufacturing and 3D Printing Technologies" held from 9–13 May 2023 at GHRIET, Nagpur. • Published a research paper titled "Pipes with Trapezoidal Cut Twisted Tape Inserts in the Laminar Flow Regime: Nusselt Number and Friction Coefficient Analysis" in the Fluid Dynamics and Materials Processing journal. • Published a research paper titled "Analysis of Friction and Heat Transfer Characteristics of Tubes with Trapezoidal Cut Twisted Tape Inserts" in the Fluid Dynamics and Materials Processing journal. • Presented and published a paper titled "Experimental Comparison Analysis of Desalination System Using Conventional Still Method, Single Layer Cotton Wick and Double Layer Cotton Wick" at the 2nd International Conference on

		Advanced Materials Behaviour and Characterization in 2022. • Presented and published a paper titled "Variation in the Enhancement of Heat Transfer with Different Fluids Using Twisted Tape Inserts" at the International Conference on Advances in Mechanical Engineering (ICAME-2022). • Developed a working model of a Band Brake and Single Shoe Brake in the field of Automobile Engineering, enhancing understanding of braking systems and their applications.
13	Mr. Ajay Mahawadiwar	• Attended a 3-day FDP on "Application of Computer Aided Engineering" from 19/12/2022 to 21/12/2022, organized by Maratha Vidya Prasarak Samaj's Karmaveer Bhausaheb Thakre College of Engineering (KBT COE), Nashik, Maharashtra. • Developed e-content for the courses "Computer Integrated Manufacturing" and "Kinematics of Machines," enhancing understanding of modern manufacturing systems and machine motion principles. • Completed the NPTEL-AICTE course "Fundamentals of Combustion for Propulsion" during Jan–June 2023. • Published a research paper titled "Design, Analysis and Development of a Portable Trolley for Stair Climbing" in the International Journal of Analytical, Experimental and Finite Element Analysis. • Published a research paper titled "Plastic Recycling and Reuse Machine to Level Cavity/Holes on Road" in the International Research Journal of Engineering & Technology (IRJET). • Developed a working model of a Band Brake and Single Shoe Brake in the field of Automobile Engineering, enhancing understanding of braking systems and their applications.
14	Mr. Sumit Karanjekar	• Attended a 5-day FDP on "PLC Programming and its Applications" from 30/01/2023 to 03/02/2023, organized by NITTTR, Kolkata. • Developed e-content in the form of a video lecture on "Lathe Machine & its Functional Parts" under the subject Machining Processes. • Completed the NPTEL-AICTE course "Manufacturing Guideline for Product Design" (Feb–April 2023) • Delivered sessions in a 5-day offline FDP on "Additive Manufacturing and 3D Printing Technologies" held from 9–13 May 2023 at GHRIET, Nagpur. • Successfully completed a 6-day Industrial Training Program on "Manufacturing Process" from 10–15 December 2022 at Sharda Shree Ispat Ltd., Buttibori, Nagpur.
15	Mr. Kishor Hanumantrao Watane	• Attended a 3-day FDP on "Application of Computer Aided Engineering" from 19/12/2022 to 21/12/2022, organized by Maratha Vidya Prasarak Samaj's Karmaveer Bhausaheb Thakre College of Engineering (KBT COE), Nashik, Maharashtra. • Completed the NPTEL-AICTE course "Product Design and Manufacturing" during Jan–June 2023.