Department of Electronics and Telecommunication Engineering / Department of Electrical Engineering

Two-Day Technical Workshop on Hands-on Training of Laboratory Equipment's and its Maintenance

The Department of Electronics and Telecommunication Engineering and the Department of Electrical Engineering at G H Raisoni College of Engineering and Management, Nagpur, successfully organized a **two-day technical workshop on "Hands-on Training of Laboratory Equipments and its Maintenance" on 23rd and 24th June 2025.** The workshop was specially conducted for non-teaching staff to enhance their technical skills and practical understanding of electronics and circuit systems.

The first day commenced with an insightful session on the basics of electronics. Mr. Kunal Khawashi delivered a comprehensive overview of essential components such as resistors, capacitors, diodes, and transistors. Foundational concepts including Ohm's Law and Kirchhoff's Laws were explained with practical relevance to real-world circuit applications.

Following this, the focus shifted to digital electronics. Participants explored various logic gates AND, OR, NOT, NAND, NOR, XOR, and XNOR—along with their truth tables and practical implementation. Engaging hands-on sessions allowed the non-teaching staff to build basic logic circuits using ICs and breadboards, greatly enhancing their confidence and conceptual clarity.

The second day of the workshop delved into power supply circuits. Mr. Khawashi explained different types of rectifiers, filters, voltage regulators, and introduced the concept of Switched Mode Power Supply (SMPS). The working principles and roles of individual components in stabilizing power outputs were clearly illustrated.

The later part of the day focused on fault analysis techniques. Participants were trained in diagnosing and troubleshooting electronic circuit faults using multimeters and circuit diagrams. Live demonstrations and real-time fault correction exercises provided hands-on experience, sharpening the participants' analytical and problem-solving skills.

The workshop provided a valuable opportunity for non-teaching staff to gain both theoretical and practical insights into electronics and circuit troubleshooting. Mr. Kunal Khawashi interactive and application-oriented approach made the sessions highly engaging and impactful.

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This training program was conducted successfully under the guidance of: **Dr. Devashree Marotkar**, Head, Department of Electronics and Telecommunication Engineering, **Dr. Bhupendra Kumar**, Head, Department of Electrical Engineering and **Dr. Vivek Kapur**, Director, GHRCEM, Nagpur

Their constant support and leadership ensured the smooth execution and success of this initiative. The workshop concluded on a positive note, with enthusiastic participation and valuable takeaways for all attendees.



Dr. Devashree Marotkar / Dr. Bhupendra Kumar
HOD, ETC Engg. HOD EE Engg.