

A.Y: 2023-24

REPORT

Title of the Program:	Technical Training Program on “Wind Tunnel Operations, Open Jet Facility Applications, Water Flow Channel, and Aerodynamics Laboratory Maintenance”.
Faculty Coordinator	Mr. I. Dakshina Murthy Sr. Assistant Professor
Participants:	Non-Teaching Staff
Event Type:	Technical Training Program
Date:	11-03-2024 to 15-03-2024
Resource Person	Mr. I. Dakshina Murthy Sr. Assistant Professor
Summary of the Event:	The Department of Aerospace Engineering organized a five-day Technical Training Program for non-teaching staff focusing on the operation and maintenance of Aerodynamics Laboratory facilities. The training covered Low-Speed Wind Tunnel operations, Open Jet Facility applications, Water Flow Channel experiments, and laboratory maintenance practices. Participants received practical exposure to aerodynamic testing equipment, calibration procedures, flow visualization techniques, troubleshooting methods, safety practices, and preventive maintenance activities. The program emphasized experiential learning through demonstrations and hands-on exercises, enabling participants to effectively support academic

	laboratories, student projects, and research activities within the department.
Outcome from the Event:	The schedule of the program includes the following. DAY 1: Introduction to Aerodynamics Laboratory facilities, Low-Speed Wind Tunnel components, operating procedures, force and pressure measurement systems, and safety precautions. DAY 2: Hands-on operation of the Low-Speed Wind Tunnel, flow visualization techniques, lift and drag measurements, calibration procedures, troubleshooting, and maintenance practices. DAY 3: Open Jet Facility operation, compressor and reservoir systems, pressure regulation, jet flow control, and applications in subsonic and supersonic flow studies. DAY 4: Hands-on training on Open Jet Facility applications, including jet characteristics, nozzle flow studies, jet impingement, intake flow studies, and experimental setup procedures. DAY 5: Water Flow Channel operation and flow visualization techniques, observation of vortex formation, flow separation, and reattachment phenomena, maintenance of laboratory equipment, preventive maintenance schedules, calibration checks, housekeeping, and safety practices for the entire Aerodynamics Laboratory.
Feedback Taken from Participants:	The participants expressed satisfaction with the practical training sessions. They appreciated the opportunity to gain hands-on experience in operating aerodynamic testing facilities and understanding maintenance procedures. The program improved their

	confidence in handling laboratory equipment and supporting academic and research activities.
Action Plan:	• Organize advanced-level training programs on aerodynamic testing and experimental techniques. • Conduct periodic calibration and maintenance workshops for laboratory equipment. • Develop standard operating procedures (SOPs) for all Aerodynamics Laboratory facilities. • Provide training on data acquisition systems and modern aerodynamic instrumentation. • Establish a continuous skill-development framework for laboratory staff to support academic and research activities.

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