WHEEL BALANCING AND ALIGNMENT

Event No	MI001
Organizing Department	Mechatronics Engineering
Date	18/10/2023
Time	04:30 PM to 06:00 PM
Event Type	Workshop
Event Level	Dept. Level
Venue	Hybrid and Electric Vehicle Laboratory (Center of Excellence
Total Participants	60
Students - Internal	60

Related SDG

Involved Staffs

Sl	Name	Role
1	Arpit Anil Panwar	Convenor
2	Boopathi M	Convenor

Outcome

Enhanced understanding of the principles of wheel balancing and alignment in automotive engineering.Practical experience gained through hands-on use of advanced wheel balancing and alignment equipment.Appreciation for the impact of wheel imbalances and misalignments on vehicle dynamics and stability.Knowledge of the technical intricacies involved in precise wheel angle and weight adjustments for improved driving experience and extended tire and suspension component lifespan.Development of crucial skills relevant to future pursuits in the field of Mechatronics Engineering.Recommendation for the integration of practical workshops to enrich the overall educational experience for students.

Event Summary

Introduction: On the 18th of October, 2023, from 16:30 to 18:00, a workshop focusing on wheel balancing and wheel alignment was conducted for first-year Mechatronics Engineering students. The primary goal was to provide participants with a comprehensive understanding of the underlying principles and practical applications of these essential automotive engineering concepts.**Workshop Content:**The session commenced with an introduction to the fundamental principles governing wheel balancing and alignment, emphasizing their critical role in ensuring optimal vehicle performance and safety. Utilizing advanced wheel balancing and alignment equipment, practical demonstrations were conducted, allowing students to actively engage in the calibration and adjustment procedures.**Key Learning Outcomes:**Participants gained valuable insights into the profound effects of wheel imbalances and misalignments on vehicle dynamics and stability. They also acquired knowledge about the intricate technical procedures involved in precisely adjusting wheel angles and weights, crucial for enhancing overall driving experience and prolonging the lifespan of tires and suspension components.**Conclusion:**The workshop successfully instilled a deep appreciation for the complex interplay between automotive engineering principles and their real-world applications. Equipped with newfound skills and knowledge, the students are now better prepared for their future pursuits in the field of Mechatronics Engineering. It is recommended that such practical sessions be integrated further into the curriculum to enhance the overall educational experience.

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