Report on

A THREE-DAY WORKSHOP ON MECHATRONICS

Academic Year	2026-2027
Program Start Date	20/ 08/2026
Program Ending Date	24/08/2026
EVENT NAME	A THREE-DAY HANDS-ON WORKSHOP ON MECHATRONICS
Number of students participated	53
Event faculty coordinator	Mr. N. BULLI RAJU, Assistant Prof., Dept. of ME

ABOUT WORKSHOP:

The workshop was conducted with the objective of providing students with practical and theoretical knowledge of **mechatronics, sensors, actuators, controllers, automation, and intelligent systems**. **Mr. Madhan Kumar M, R&D Engineer, Falcon IT Training and Educational Services LLP, Chennai**, served as the resource person and delivered technical sessions.

Objectives of the Workshop

1. **To provide practical knowledge of Mechatronics** by integrating mechanical, electronic, and intelligent systems.
2. **To develop hands-on skills** through hardware kits, real-time implementations, and interactive sessions.
3. **To introduce advanced concepts** in sensors, actuators, control systems, and automation.
4. **To enhance problem-solving and innovation skills** required for modern engineering applications.
5. **To prepare students for Industry 4.0 technologies** and intelligent manufacturing systems.

- The **first day** focused on the fundamentals of mechatronics, system integration, sensors, actuators, controllers, and feedback systems. Students learned how mechanical systems can be integrated with electronic and control technologies to develop automated systems.
- The **second day** emphasized **hands-on training** using hardware components, sensors, actuators, and real-time control systems. Students gained practical experience in sensing, processing, decision-making, and actuation.
- The **third day** focused on **automation, robotics, intelligent systems, and applications**. Students understood the practical importance of mechatronics in modern industries.

The workshop Was improved students' **technical knowledge, practical skills, troubleshooting ability, teamwork, logical thinking, and problem-solving skills**. It also helped them connect

classroom concepts with real-world engineering applications and understand the importance of multidisciplinary knowledge.

The **Three-Day Workshop on Mechatronics** was successfully conducted from **20th to 22nd August 2026** with 55 students registered and active participation from **53 IV-Year Mechanical Engineering students**. The programme provided a valuable combination of theoretical knowledge, industrial insights, practical demonstrations, and hands-on experience.

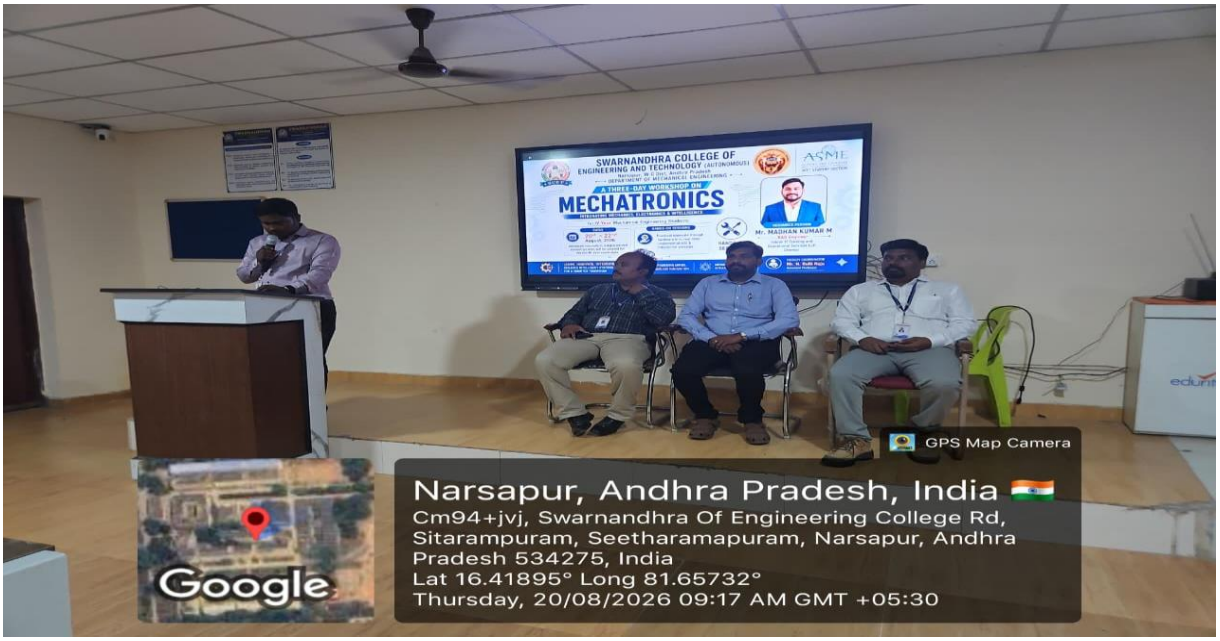
The contribution of the resource person, **Mr. Madhan Kumar M**, and the coordination of **Mr. N. Bulli Raju and Mr.V.John Bunyan, Assistant Professors, Department of Mechanical Engineering**, played an important role in the successful execution of the programme. The workshop fulfilled its objectives by providing students with practical and industry-oriented knowledge of mechatronics and by creating awareness of emerging technologies in automation and intelligent engineering systems. Overall, the programme was highly beneficial to the students and served as an effective platform for enhancing their technical competence, innovative thinking, and readiness to meet the requirements of modern engineering industries.

I extend my heartfelt thanks to our beloved management chairman Sri. K. Satyanarayana garu, Treasurer Sri K. V.Swamy garu, Director Sri A.srihari garu, Vice Principal sir Dr. A. Gopichand garu, and Head of the Department Dr. Francis Luther King garu, and all the professors, for their continued support and encouragement in conducted this Three-Day Workshop successfully.

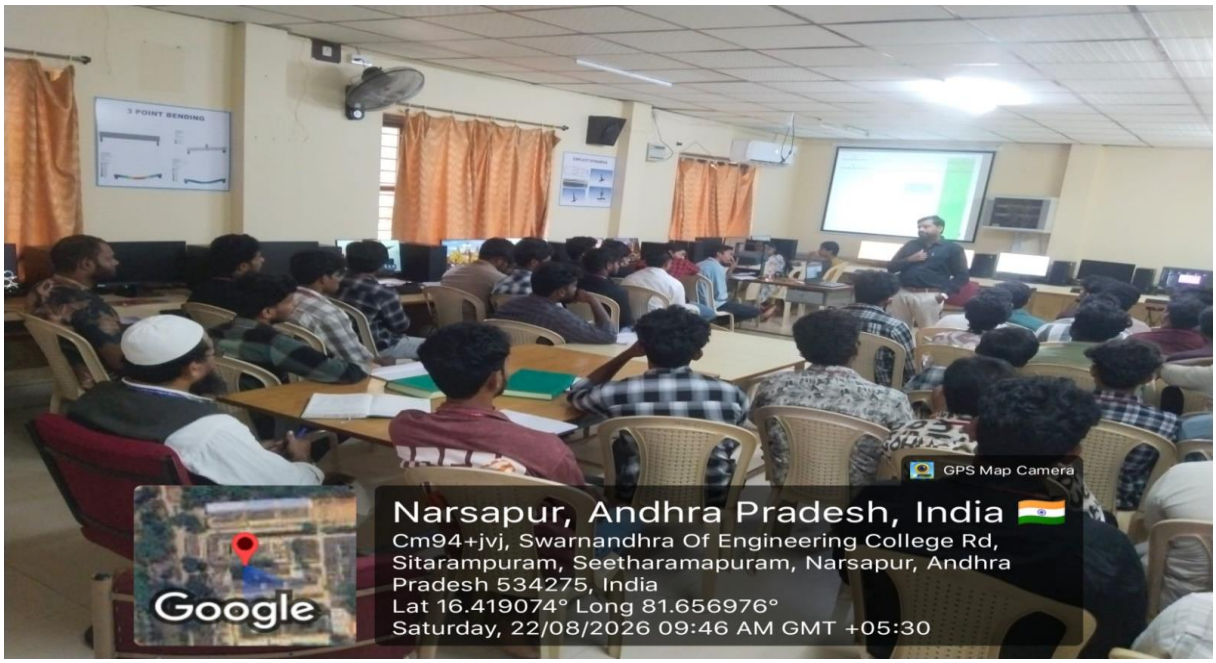
Photos:




SWARNANDHRA COLLEGE OF
ENGINEERING AND TECHNOLOGY (AUTONOMOUS)
MECHATRONICS


SWARNANDHRA COLLEGE OF
ENGINEERING AND TECHNOLOGY (AUTONOMOUS)
MECHATRONICS
Mr. MADHAN KUMAR M
GPS Map Camera
Google
Narsapur, Andhra Pradesh, India
Cm94+jvj, Swarnandhra Of Engineering College Rd,
Sitarampuram, Seetharamapuram, Narsapur, Andhra
Pradesh 534275, India
Lat 16.41895° Long 81.65732°
Thursday, 20/08/2026 09:17 AM GMT +05:30


GPS Map Camera
Google
Narsapur, Andhra Pradesh, India
Cm94+jvj, Swarnandhra Of Engineering College Rd,
Sitarampuram, Seetharamapuram, Narsapur, Andhra
Pradesh 534275, India
Lat 16.41896° Long 81.657325°
Thursday, 20/08/2026 09:18 AM GMT +05:30


GPS Map Camera
Narsapur, Andhra Pradesh, India
Cm94+jvj, Swarnandhra Of Engineering College Rd,
Sitarampuram, Seetharamapuram, Narsapur, Andhra
Pradesh 534275, India
Lat 16.419074° Long 81.656976°
Saturday, 22/08/2026 09:46 AM GMT +05:30
Google


GPS Map Camera
Andhra Pradesh, India
CM94+JVJ, Swarnandhra Of Engineering College
Rd, Sitarampuram, Seetharamapuram, Narsapur,
Lat 16.419071°Long 81.657080°
24/8/2026 10:26 AM GMT+05:00

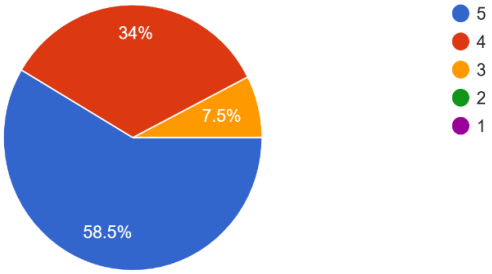

GPS Map Camera
Andhra Pradesh, India
CM94+JVJ, Swarnandhra Of Engineering College
Rd, Sitarampuram, Seetharamapuram, Narsapur,
Lat 16.419071°Long 81.657080°
24/8/2026 10:25 AM GMT+05:00

STUDENTS FEED BACK:

1. The workshop objectives were clearly explained at the beginning.

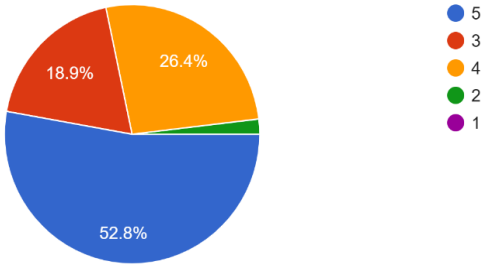
A. Workshop Learning & Course Outcomes (Feedback Statement) RATING: [5. Excellent Improvement. 4.Very Good Improvement. 3. Good Imp...jectives were clearly explained at the beginning.

53 responses



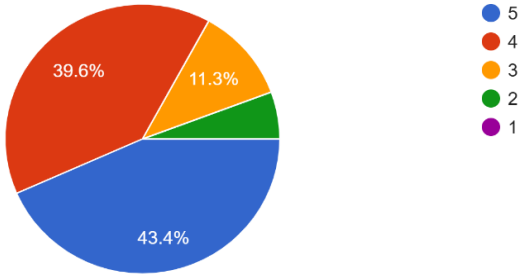
2. I gained a clear understanding of the fundamentals of Mechatronics.

53 responses



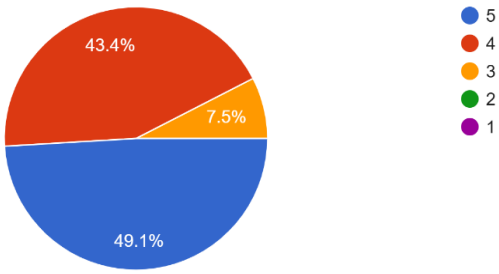
3. I understood the integration of mechanical, electrical/electronic and intelligent systems.

53 responses



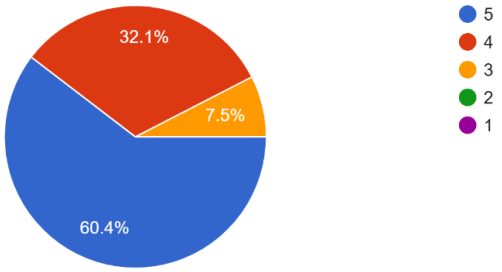
4. The workshop improved my understanding of sensors and actuators used in mechatronic systems.

53 responses



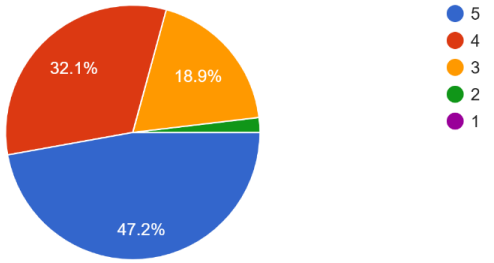
5. I gained practical knowledge through hands-on activities.

53 responses



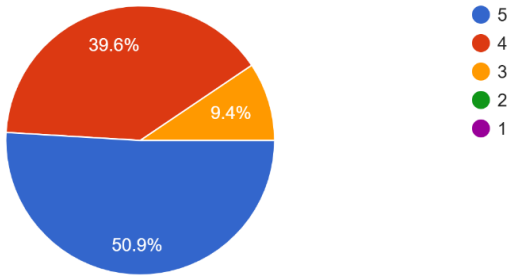
6.I can identify and select appropriate components for a basic mechatronic system.

53 responses



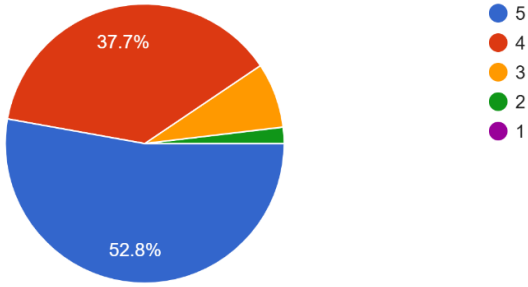
7. I developed confidence in interfacing hardware/components for a mechatronic application.

53 responses



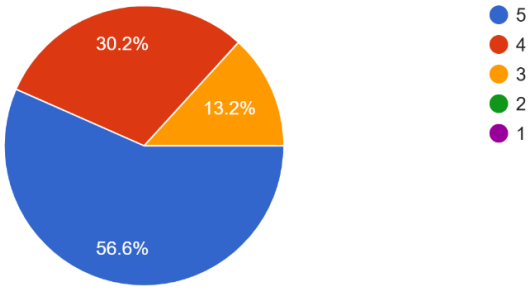
8. I can apply the concepts learned to solve basic engineering problems.

53 responses



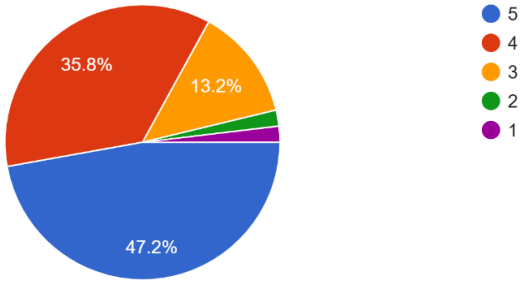
9. The practical sessions helped me connect theoretical concepts with real-world applications.

53 responses



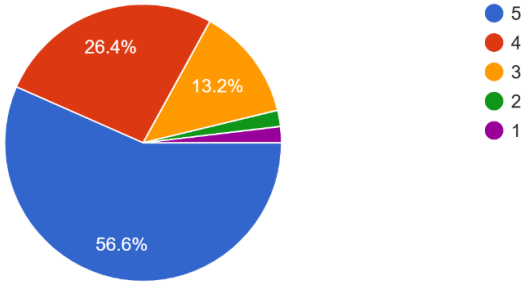
10. The workshop enhanced my ability to think about automation and intelligent engineering solutions.

53 responses



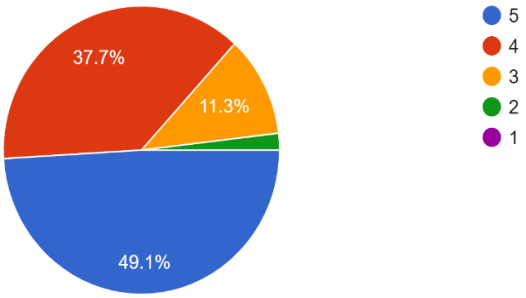
B. Hands-on Training 11.Adequate time was provided for hands-on practice.

53 responses



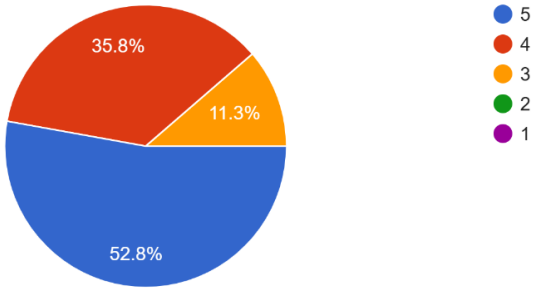
12.The practical demonstrations were easy to understand.

53 responses



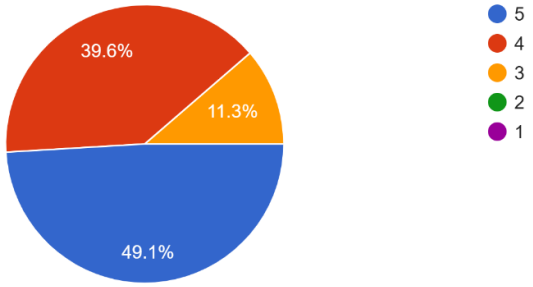
13. The hands-on activities were relevant to Mechanical Engineering applications.

53 responses



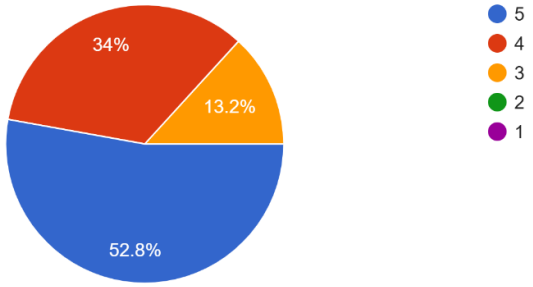
14. I was able to participate actively in the practical activities.

53 responses



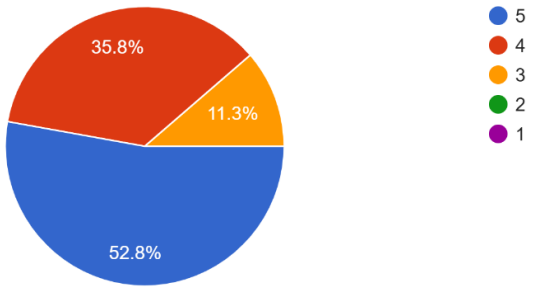
15. The workshop improved my ability to troubleshoot basic mechatronic systems.

53 responses



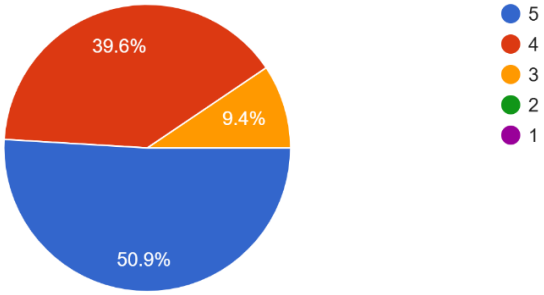
C. Resource Person & Delivery (Feedback Statement) 16.The resource person demonstrated strong technical knowledge.

53 responses



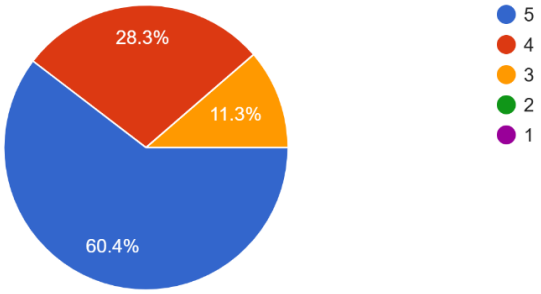
17. The concepts were explained clearly and systematically.

53 responses



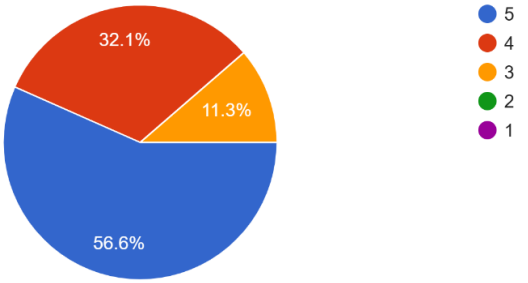
18. The resource person encouraged student interaction and participation.

53 responses



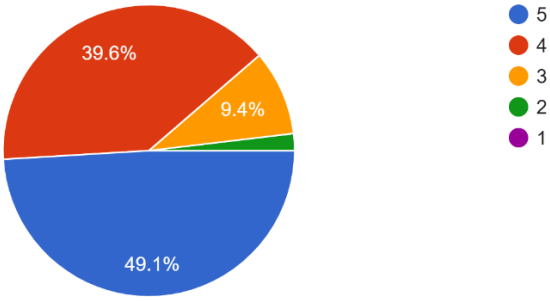
19. The demonstrations and examples were relevant to industry applications.

53 responses



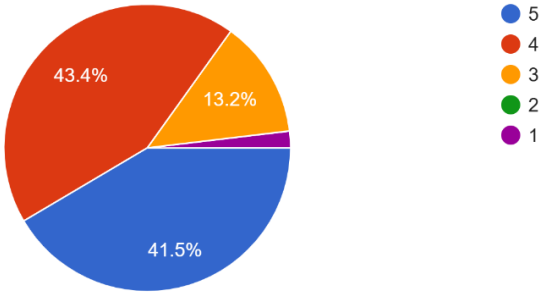
20. The resource person effectively addressed students' doubts and questions.

53 responses



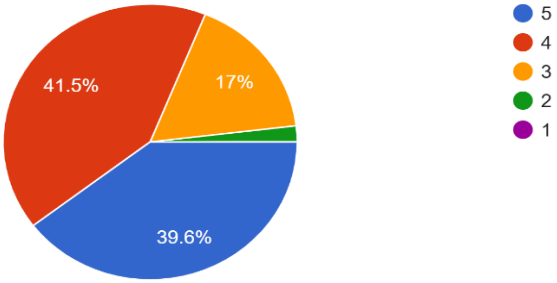
Workshop Organization (Feedback Statement) 21.The workshop was well organized.

53 responses



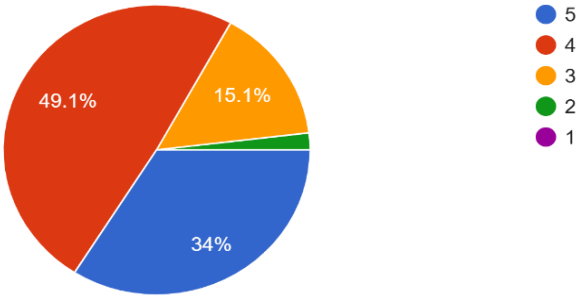
22. The duration of the workshop was appropriate

53 responses



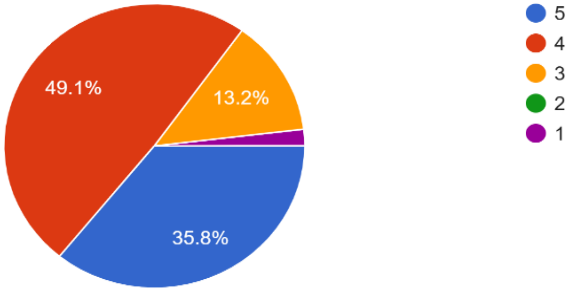
23. The venue and laboratory/technical facilities were adequate

53 responses



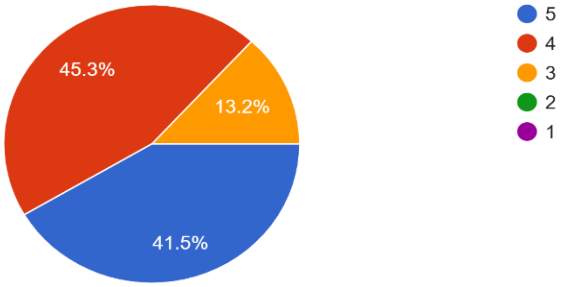
24. The workshop schedule was followed effectively

53 responses



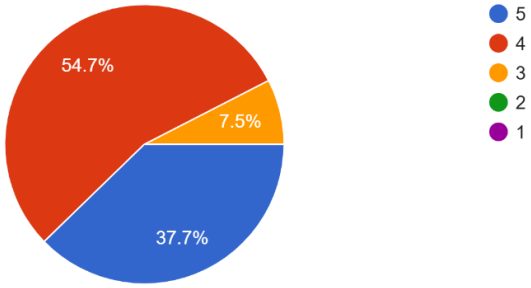
25. Overall, the workshop was useful for my academic and professional development.

53 responses



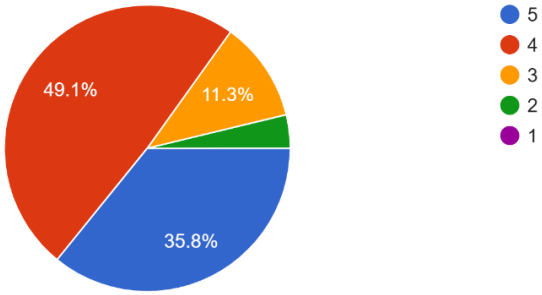
OBE-Oriented Outcome Assessment After attending this workshop, I am able to: 26.WLO1: Explain the basic principles and components of mechatronic systems.

53 responses



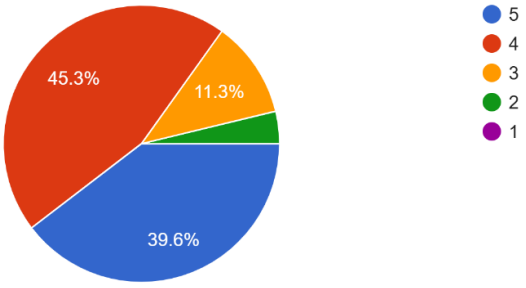
27. WLO2: Identify and integrate sensors, actuators and control elements in a basic system

53 responses



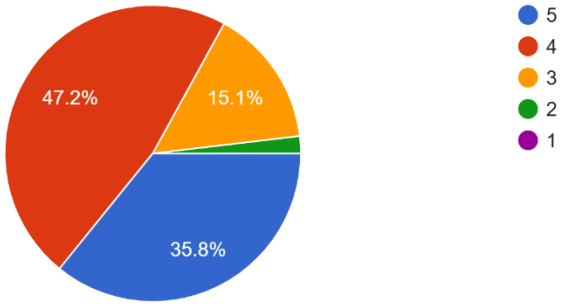
28. WLO3: Apply hands-on knowledge to develop/operate a basic mechatronic application.

53 responses



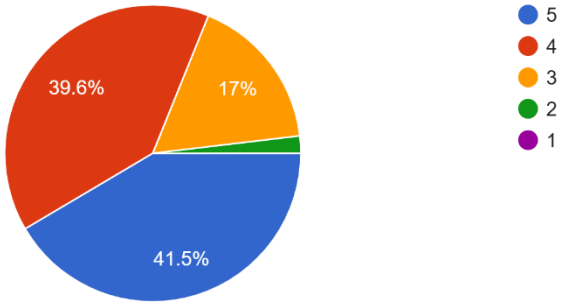
29. WLO4: Analyze and troubleshoot basic mechatronic system problems.

53 responses



30. WLO5: Relate mechatronics concepts to industrial automation and intelligent manufacturing applications.

53 responses



31.Overall Learning Gain How much has your knowledge/skill improved after this workshop?

53 responses

