



Koneru Lakshmaiah Education Foundation

(Deemed to be University estd. u/s. 3 of the UGC Act, 1956)

◆ Recognised as Category 1 University by UGC ◆ Approved by AICTE ◆ ISO 21001:2018 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. +91 8645 - 350 200; www.kluniversity.in

Admin Off: 29-36-38, Museum Road, Governorpet, Vijayawada - 520 002. Ph: +91 - 866 - 3500122, 2577715, 2576129

Department of Mechanical Engineering Academic Year 2025-26, Even Semester Industrial Visit Report – Kushal Coach Builders, Mallavalli Industrial Park

The B.Tech students of the Department of Mechanical Engineering were taken on an industrial visit to the Kushal Coach Builders, Mallavalli Industrial Park, near Vijayawada, Andhra Pradesh on 17-03-2026. A total of 57 students (51 third year students and 6 fourth year students) along with 2 faculty members (Dr. A.V.S Ram Prasad and Dr. K.V. Durga Rajesh) and 1 non-teaching staff (Mr. K. Bala Hanuman Singh) participated in the visit. The objective of the visit was to provide practical exposure to students about vehicle body building processes and real-time industrial practices. The visit helped students connect theoretical knowledge with practical applications in manufacturing and fabrication industries.





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During the initial stage of the visit, students observed how the vehicle body structure is built on the chassis. The industry persons explained the importance of chassis as the base frame and how structural members are mounted to ensure strength and stability. Students learned about alignment, load distribution, and safety considerations while constructing the body. This stage gave a clear understanding of how the skeleton of buses and special vehicles is developed before adding outer components.



Next, students were taken to the cutting section where metal sheets are cut into required sizes. They observed the use of cutting machines for precise and efficient sheet cutting operations. The operators explained how measurements are taken and how wastage is minimized during cutting. Students understood the importance of accuracy in dimensions, as it directly affects further fabrication processes. This stage highlighted the role of machining and material preparation in manufacturing.



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Students then observed the bending process where sheets are shaped into required forms using bending machines. The technicians demonstrated how different angles and curves are achieved based on design requirements. Students learned about factors such as material thickness, bending radius, and machine settings. This process helped students understand how flat sheets are transformed into complex shapes required for vehicle body structures.





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Next, students explored the interior fabrication section where seats and sleeper beds are prepared. They observed the assembly process, material selection, and ergonomic considerations involved in designing passenger comfort systems. The workers explained how durability and safety are ensured while designing seating arrangements. This section gave students insight into interior design aspects and customization based on vehicle type. Additionally, students learned about cushioning materials, frame structures, and fastening techniques used to enhance comfort and longevity. They also understood how space utilization and layout planning play a crucial role in maximizing passenger capacity and convenience.





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Students were also shown how electrical systems are arranged inside the bus during body building. They observed wiring layouts, installation of lighting systems, and connection of electrical components. Students observed the process of glass fitting in vehicles and the use of MIG welding for joining metal parts. The experts demonstrated how welding ensures strong and durable joints. Students learned about welding techniques, safety precautions, and quality inspection methods.





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Finally, students were shown how repair and modification work is carried out for ambulances. They observed how damaged vehicles are restored and converted into functional ambulances with necessary medical facilities. The process included structural repair, interior modification, and system integration. This gave students an understanding of maintenance, retrofitting, and the importance of specialized vehicle design.



The industrial visit to Kushal Coach Builders was highly informative and beneficial for students. It provided hands-on exposure to real-time manufacturing, fabrication, and repair processes involved in vehicle body building. Students gained valuable practical knowledge that complements their academic learning. The visit enhanced their understanding of industrial operations and motivated them to explore career opportunities in the manufacturing and automobile sectors.

Prepared by

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HOD-ME