

Industrial visit to Aum Dacero Coatings Pvt Ltd., for PG students

Date of Visit: **27/09/2025**

Organizer: **BSAR Crescent Inst. of Science and Technology**

Department: M.Tech CAD CAM

Semester: I sem students (along with two faculty members)

Introduction

The first-year postgraduate students studying Product Development course visited Aum Dacro Coating Pvt. Ltd. to understand the role of surface engineering in enhancing product performance, durability, and lifecycle. The visit provided exposure to how coating technologies are integrated into the product development cycle, especially in automotive and engineering components.



Objectives of the Visit

- To understand the role of surface coatings in product design and performance improvement.
- To study how coating selection influences product lifecycle, corrosion resistance, and reliability.
- To observe the integration of coating processes within the product development cycle.
- To gain exposure to industrial validation and testing methods used during product development.

About Aum Dacro Coating Pvt. Ltd.

Aum Dacro Coating Pvt. Ltd. specializes in zinc flake coatings that are widely used in automotive product development. These coatings are designed to enhance corrosion resistance, reduce maintenance requirements, and improve the functional performance of components such as fasteners, brackets, and structural parts.

During the visit, the following key areas were covered:

- 1 Surface preparation and its importance in product durability
- 2 Dip-spin coating process and its relevance to complex product geometries
- 3 Curing and process parameter control in coating development
- 4 Quality inspection and validation methods in product development
- 5 Salt spray testing and lifecycle assessment of coated components

Key Observations

- Coating is a critical design consideration influencing product life and reliability.
- Uniform coating thickness is essential for predictable product performance.
- Process repeatability ensures consistency in large-scale product manufacturing.
- Testing and validation play a key role in qualifying coatings during product development.
- Environment-friendly coatings are replacing traditional electroplating in modern product design.

Learning Outcomes

- Understanding the role of coatings in product design and engineering decisions.
- Insights into how materials and surface treatments impact product lifecycle.
- Exposure to industrial validation techniques in product development.
- Awareness of sustainable material choices in modern engineering products.

Conclusion

The visit provided a strong connection between product development concepts and industrial practices. Students were able to understand how surface engineering contributes to product performance, durability, and sustainability. This experience will help them in applying these concepts in real-world product design.

Industrial Visit Photograph:

