



# **SNS COLLEGE OF TECHNOLOGY**

**(An Autonomous Institution) Coimbatore-35.**

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## **DEPARTMENT OF AUTOMOBILE ENGINEERING**

**COURSE NAME : 19AUO303-Road Safety & Traffic Rules  
IV YEAR /VII SEMESTER**

**Unit 3-Road Signs and Traffic Rules.**

**Topic : Role of Road Marking, Classification, Visibility**



# The Crucial Role of Road Markings: Classification and Enhancing Visibility



# Introduction

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Road markings play a **crucial role** in ensuring safe and efficient traffic flow. This presentation explores the **classification** of road markings and their impact on **enhancing visibility**. Understanding the significance of road markings is essential for **road safety** and effective transportation management.



# Importance of Road Markings

Road markings serve as **visual cues** for drivers, guiding them on the road. They provide **directions**, indicate **lane divisions**, and warn of **potential hazards**. Properly maintained and visible road markings contribute to **reduced accidents** and **improved traffic flow**.



# Classification of Road Markings

Road markings can be classified into several categories, including longitudinal markings, transverse markings, and special markings. Longitudinal markings run parallel to the direction of traffic, while transverse markings are perpendicular. Special markings include pedestrian crossings, stop lines, and turning arrows.



## Enhancing Visibility

To enhance the visibility of road markings, various factors must be considered. These include proper color selection, adequate width, reflectivity, and maintenance. Using high-contrast colors and reflective materials can significantly improve visibility, especially during nighttime or adverse weather conditions.





# Challenges and Solutions

Road markings face challenges such as **fading**, **wear and tear**, and **weathering**. Regular **maintenance and repainting** are crucial to overcome these issues. The use of **durable materials** and **advanced technologies** like **thermoplastic markings** can extend the lifespan of road markings.



# International Road Marking Standards

To ensure consistency and standardization, international organizations like the **ISO** and **CEN** have developed guidelines for road markings. These standards cover aspects such as **color codes**, **dimensional requirements**, and **performance criteria**. Adhering to these standards enhances **interoperability** and promotes **global road safety**.







# Innovations in Road Markings

Advancements in technology have led to innovative road marking solutions. These include smart road markings with embedded sensors for real-time data collection, dynamic road markings that adapt to changing traffic conditions, and solar-powered road markings for sustainable energy usage.





## Road Markings and Autonomous Vehicles

The rise of autonomous vehicles poses new challenges for road markings. Clear and standardized road markings are crucial for machine vision systems of autonomous vehicles to interpret and navigate roads accurately. Research and collaboration between road authorities and autonomous vehicle manufacturers are necessary for safe and efficient integration.



## Benefits and Future Developments

Investing in quality road markings brings numerous benefits, including improved road safety, reduced congestion, and enhanced driver experience. Future developments may include smart road markings with vehicle-to-infrastructure communication and augmented reality integration, further revolutionizing transportation.



## Conclusion

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Road markings are an integral part of our transportation infrastructure. Their proper classification, visibility enhancement, adherence to international standards, and integration with emerging technologies are vital for **safe and efficient road networks**. By recognizing the crucial role of road markings, we can strive towards a future with improved road safety and enhanced mobility.



# Thanks!

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Do you have any  
questions?