19MO631- AUTOTRONICS
UNIT 5 -
CHASSIS AND SAFETY SYSTEMS

Traction Control System

BY

YAGAVA.A [20CEMO15]
MECHANICAL&MECHATRONICS
[ADDITIVE MANUFACTURING]

Without Traction Control

with Traction Control

Introduction to Traction Control System

❖Traction control system is a safety

feature in modern automobiles that

helps prevent the wheels from losing

traction while driving. It works by

detecting when a wheel is slipping

and then applying the brakes to that

wheel or reducing engine power to

regain traction. This system is

How Traction Control System Works

The traction control system is usually integrated with the anti-lock braking system (ABS), which helps prevent the wheels from locking up during hard braking. Together, these systems provide enhanced safety and control while driving in slippery conditions.

Benefits of Traction Control System

❖The primary benefit of the traction control system is improved safety while driving in slippery conditions. By preventing the wheels from losing traction, the system helps prevent skidding and sliding, which can lead to accidents. Additionally, the system can improve acceleration and handling in certain situations, such as

Limitations of Traction Control System

❖While the traction control system is a valuable safety feature, it does have some limitations. For example, the system may not be effective in extremely slippery conditions, such as black ice or deep snow. In these situations, it may be necessary to use snow chains or other specialized equipment to maintain control of the vehicle.

❖Additionally, the traction control system may not be effective if the tires are worn or damaged. It is important to regularly inspect and replace tires as needed to ensure that the system can

Future Developments in Traction Control System

As technology continues to advance, there are likely to be further developments in the field of traction control systems. One area of research is the use of artificial intelligence and machine learning algorithms to improve the performance of these systems. By analyzing data from sensors and cameras, these systems could potentially predict and prevent loss of traction before it occurs.

THANK YOU

UNIT 2 BUILDING COMPONENTS