Session 15 : How AUTOSAR is used in Chassis Domain , AUTOSAR in Vehicle Body Domain.

AUTOSAR in Chassis Domain

The Chassis Domain encompasses systems that directly affect the vehicle's driving dynamics, stability, and control. These are often highly safety-critical systems.

Key systems within the Chassis Domain:

- **Braking Systems**
- **Steering Systems**
- **Suspension Systems**
- **Tire Systems**
- **Integrated Chassis Control.**

How AUTOSAR is used in the Chassis Domain:

The Chassis Domain is a prime example of where AUTOSAR Classic Platform is indispensable due to its focus on:

1. **Hard Real-Time Performance**
2. **Functional Safety (ISO 26262)**
3. **Standardized Interfaces**
4. **Complex Sensor and Actuator Interaction**
5. **Inter-ECU Communication**
6. **Software Component (SWC) Development**
7. **Diagnostics**

In summary, AUTOSAR Classic Platform is the backbone of most modern chassis control systems, enabling their safety, reliability, and complex integration.

AUTOSAR in Vehicle Body Domain

The Vehicle Body Domain encompasses systems related to the vehicle's comfort, convenience, security, and external lighting. While many of these are not as safety-critical as chassis or powertrain, they are crucial for the user

experience and often involve significant complexity due to customization and variant management.

Key systems within the Body Domain:

- **Lighting**
- **Wipers and Washers**
- **Door and Access Systems**
- **Climate Control (HVAC)**
- **Security Systems**
- **Passive Safety (excluding airbags/pre-tensioners often in separate ECU)**
- **Other Comfort Features**

How AUTOSAR is used in the Body Domain:

The Body Domain predominantly uses AUTOSAR Classic Platform. This is due to:

1. **Standardization of Common Functions**
2. **Variant Management**
3. **Communication**
4. **Hardware Abstraction**
5. **Software Components (SWC) Development**
6. **Diagnostics**
7. **Consolidation (via BCMs)**