# PRAMC – Equipment's

**Laser Based Road Condition Data Collection Vehicle (RCDCV) – Using ROad Measurement Data Acquisition System (ROMDAS)**

- ❑ The System collects **high accuracy** and reliable data for highways

- ❑ Equipped with Distance Measuring Instrument (**DMI**), **Laser Profilers** (for IRI, Texture), **LRMS** (Laser Rut Measurement System), **GPS** receiver, **Video Cameras** ( Right of Way) and Pavement Camera

- ❑ A wide variety of pavement characteristics such as **Rutting, Macro-Texture, Videos, Semi Automatic Condition rating, DGPS** are collected

- ❑ Laser Rut Measurement **gives Immediate and Precise** transverse profile.

- ❑ Used for the detection and characterization of pavement rutting conditions

- ❑ Efficiency to **capture full 4m width profiles** at high speeds

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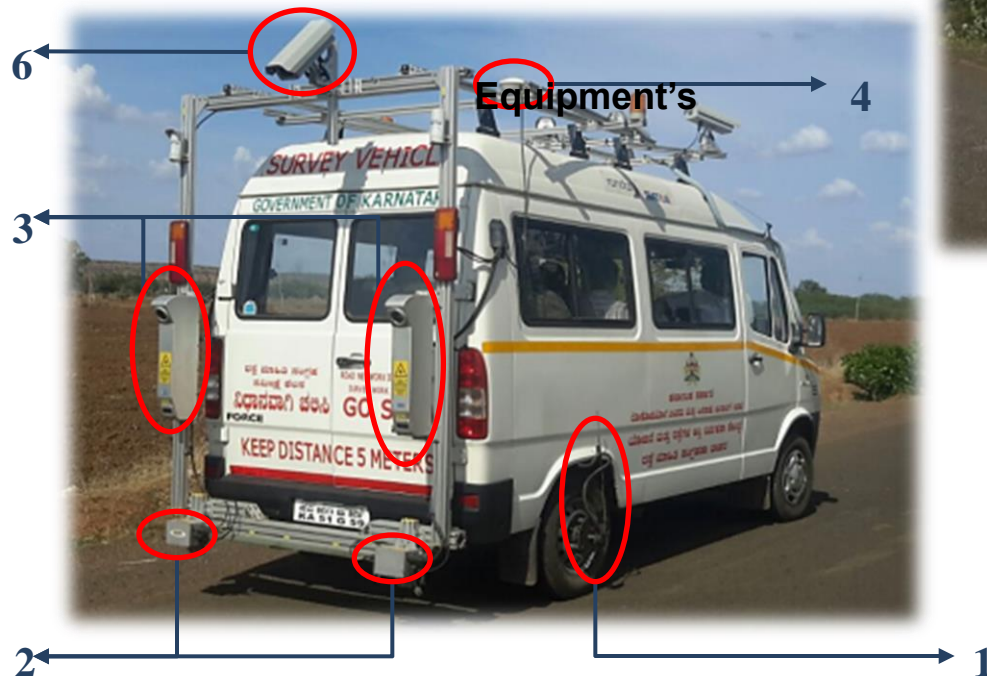
ROMDAS system is configured with various equipment's for collecting inventory and condition data. The equipment's/ accessories installed on the ROMDAS survey vehicle are as mentioned below

❑ ROMDAS Hardware Interface;

❑ Power Distribution box;

❑ Odometer sensor to measure the distance;

❑ Laser Profilometers to measure roughness;

❑ Laser Rut Measurement System (LRMS) to measure rut depth;

❑ GPS receiver for capturing spatial data;

❑ Video Cameras for Right of Way (RoW) and Pavement;

❑ 58 key configurable ROMDAS keyboard for inventory and visual condition

❑ Computer monitor;

❑ Other cable connections.

# PRAMC – Equipment's

## Road Measurement Data Acquisition System

1. Distance Measuring Instrument (DMI)

2. Laser Profilers ( IRI, Texture)
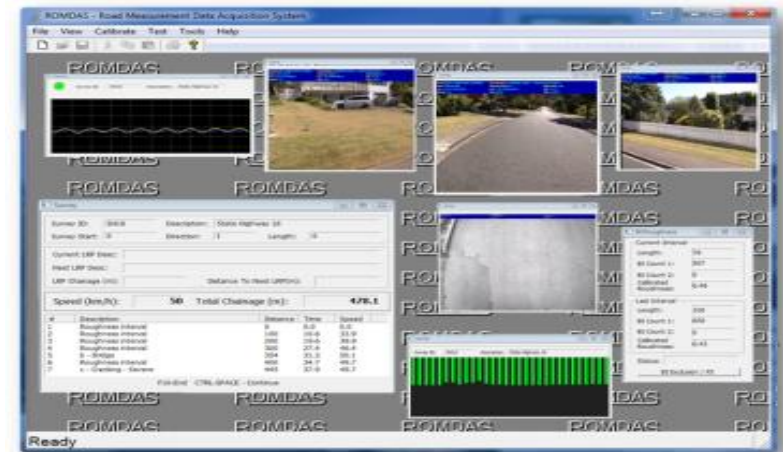
3. LRMS (Laser Rut Measurement System)



Equipment's

4. GPS receiver

5. Video Cameras ( Right of Way)

6. Pavement Camera

# PRAMC – Equipment's

## Road Measurement Data Acquisition System

❑ RCDCV is used for determining

- GPS Centreline and Geometry

- Location Referencing Points

- International Roughness Index (IRI)

- Profile and Pavement Video with GPS coordinates

- Rut Depths, edge break and cracking

- Details of Inventory

- Assets within the Right Of Way

# PRAMC – Equipment's

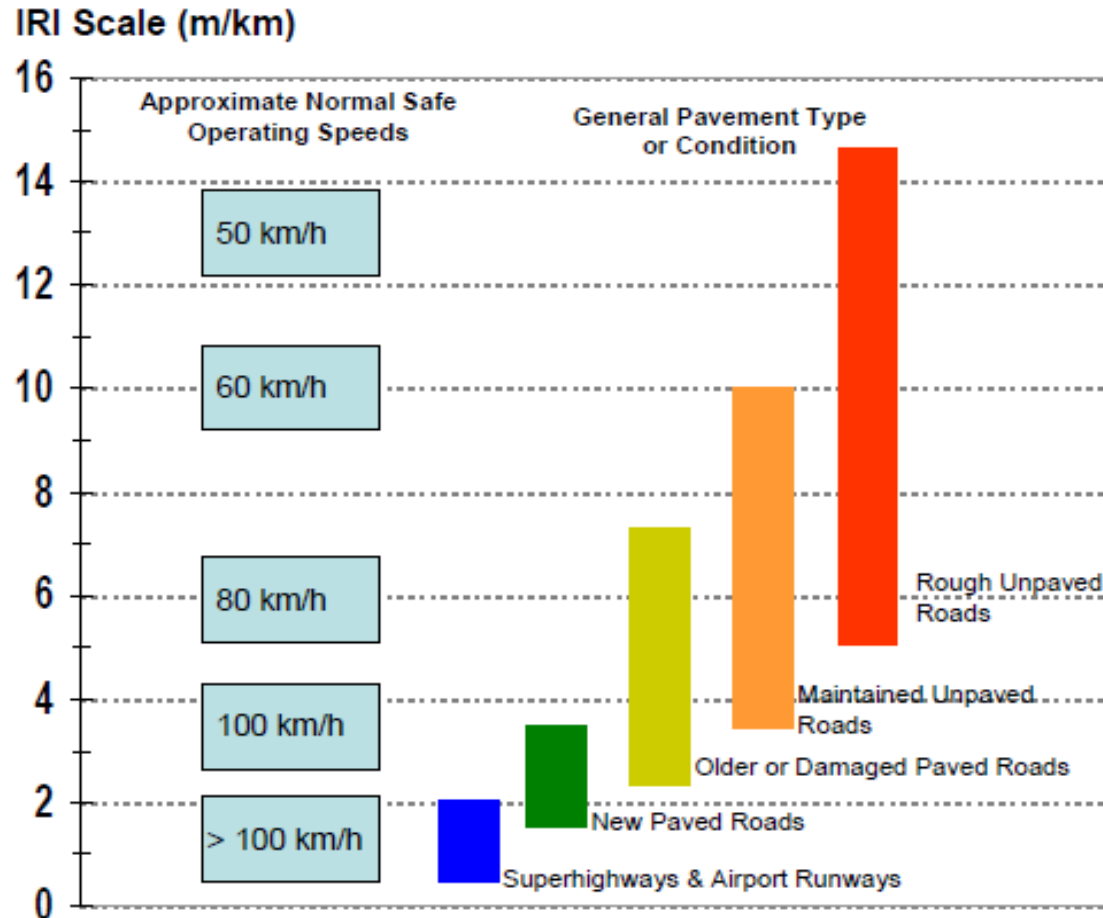## Road Measurement Data Acquisition System

❑ Data Application

- will be used for the **designs of overlays**, **reconstruction** and **Rehabilitations** of Roads

- Pavement Management System

- Routine Maintenance Management System

- **Annual budgeting** for maintenance

- **HDM-4** Analysis

- **Annual works** plan

- **Project** Analysis

- **Program** Analysis

- **Strategic** Analysis

# PRAMC – Equipment's

## Road Measurement Data Acquisition System

❑ Standard IRI Values thresholds



*Source: Sayers et al., 1986*