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| **Course: Automotive Electronics** | | | **Year: 2023-24** | |
| **Theme: ADAS and Autonomous functions for Intelligent Transportation** | | | | |
| 1 | Relative speed measurement of front vehicle. | 15 | | Lane detection |
| 2 | Blind spot detection | 16 | | Pot hole detection |
| 3 | Taxis routing based on the passenger’s destination | 17 | | Parking assistance system. |
| 4 | An IOT application to monitor driver’s performance | 18 | | Sign board detection. |
| 5 | Multiple data sharing over CAN protocol | 19 | | Road inclination detection system. |
| 6 | Accident spot warning system | 20 | | Vehicle guidance system |
| 7 | Accident avoidance during fog condition | 21 | | Modeling and simulation of TCS |
| 8 | Localization of the vehicle. | 22 | | SLAM for localization |
| 9 | Number plate detection | 23 | | [Automotive navigation system](https://en.wikipedia.org/wiki/Automotive_navigation_system) using [GPS](https://en.wikipedia.org/wiki/GPS) and IMU |
| 10 | Vehicle overload detection | 24 | | Adaptive lighting control system |
| 11 | IOT applications in ambulance and traffic control | 25 | | Object detection |
| 12 | Collision avoidance for connected vehicle | 26 | | Modeling and simulation of spark ignition engine |
| 13 | Smart parking system. | 27 | | Modeling and simulation of ABS |
| 14 | Pedestrian detection | 28 | | Modeling and simulation of throttle using different controllers |
| 29 | Symbol based navigation | 30 | | Collision avoidance |
| 31 | Modeling and simulation of spark ignition engine | 32 | | Modelling and simulation of throttle using different controllers |
| 33 | Development of a Fuel Injection Control System | 34 | | Wireless Engine Monitoring and Diagnostics System |
| 35 | Variable Valve Timing (VVT) Control System | 36 | | Integration of Exhaust Gas Recirculation (EGR) System |
| 37 | Design and Testing of an In-Vehicle Infotainment System with Voice Recognition | 38 | | Development of a Wireless Tire Pressure Monitoring System (TPMS) |
| 39 | Design and Simulation of Vehicle Stability Control Systems for Improved Handling | 40 | | Smart Keyless Entry System with Remote Start Feature |