



SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A' Grade

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE NAME : 19OE120 AUTOMOTIVE ELECTRONICS

I YEAR /I SEMESTER MECHATRONICS ENGINEERING

Unit 3 – STARTING / CRANKING AND ELECTRIC SYSTEMS



TROUBLE DIAGNOSIS OF STARTING SYSTEM



- The starting system may have troubles such as the engine does not crank or the engine cranks but does not start. Apart from these troubles, the solenoid may have some noise; the pinion may not disengage properly.
- To diagnose the trouble, the headlights be switched on and observed. If lights do not dim, and there is no cranking and check whether there is the voltage at the ignition switch and starting motor terminals with ignition key on ‘start.’



- If lights dim heavily and there is no cranking the possibility of battery is discharged. If lights dim slightly and no cranking occurs, the pinion may not be engaging properly with the crankshaft.
- Also, there may be an open circuit in the starting motor. If lights go out completely and cranking does not occur, there may be an improper connection in the battery.
- If there are no lights and cranking also does not occur, the battery is open or dead. If the engine cranks slowly and does not start, it may be due to the defective starting motor.
- Solenoid noise may be due to low battery or defective solenoid winding.



- ❑ Artificial Intelligence Start: As cars become more autonomous, they may be able to use artificial intelligence to start the engine automatically based on the driver's habits and preferences.
- ❑ Wireless Charging Start: Instead of traditional starting methods that rely on a battery, wireless charging technology may be used to start the engine, eliminating the need for a traditional starter motor.