



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

COIMBATORE-35

Accredited by NBA-AICTE and Accredited by NAAC – UGC with A++ Grade

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

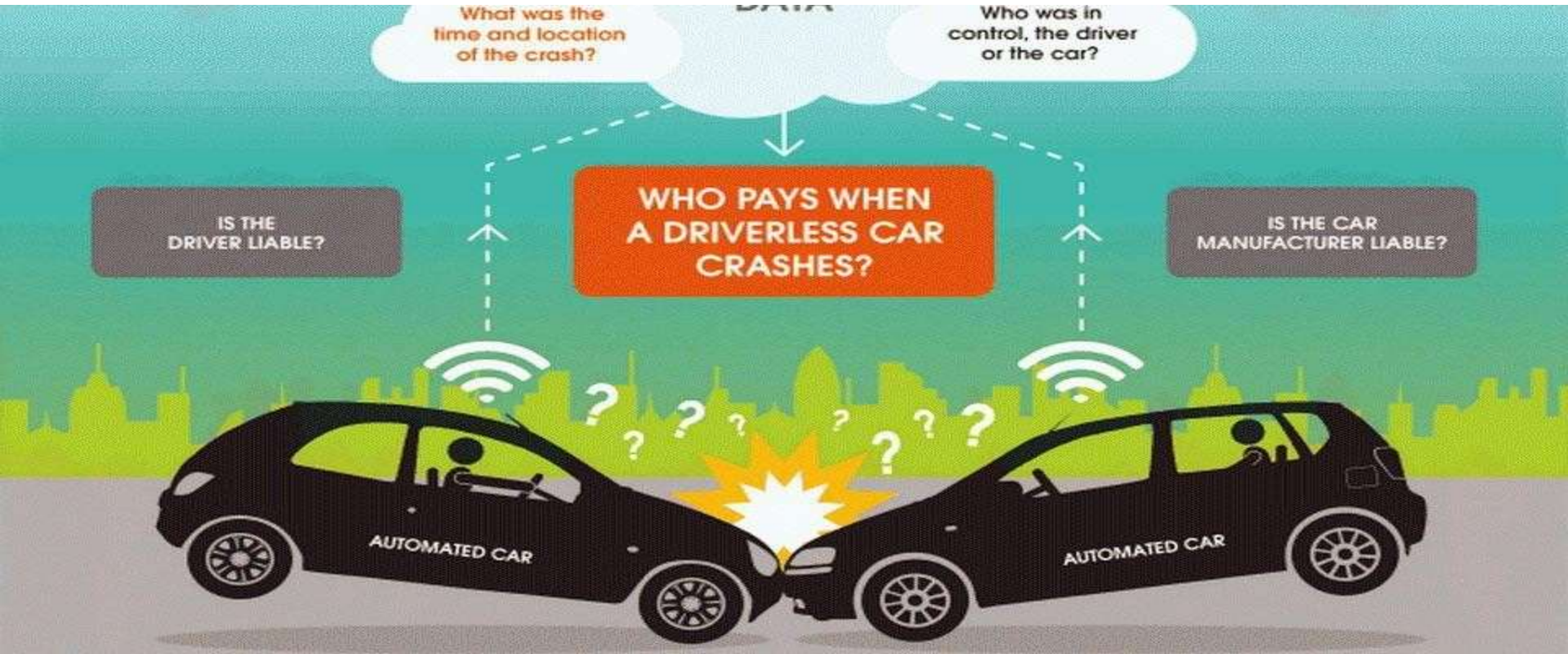


19EET401 / AI TECHNIQUES IN ELECTRICAL ENGINEERING

UNIT V: AI APPLICATIONS

Topic: AI TECHNIQUES IN SELF DRIVING CARS







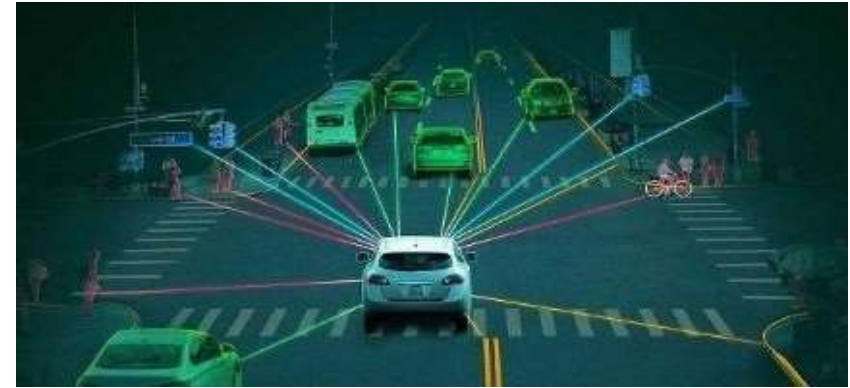
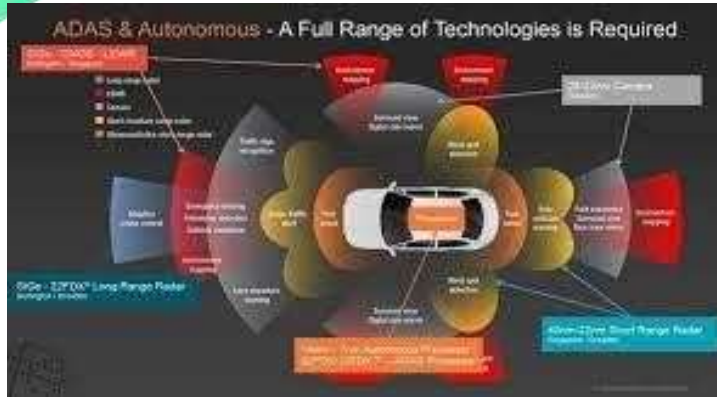
TOPIC OUTLINE



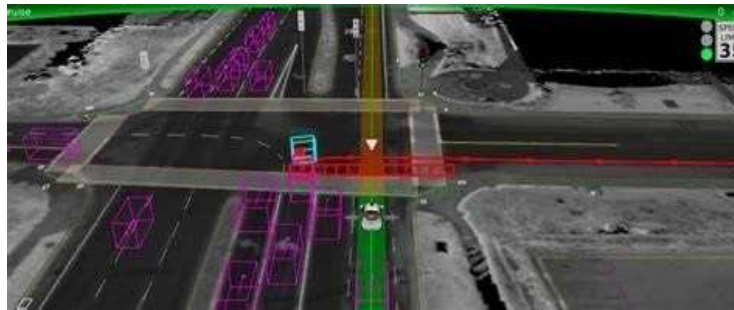
Techniques?
An comparison?
Eco system
Industries in EV
Patent rights?
Pros and cons



AI TECHNIQUES in SELF DRIVING CARS



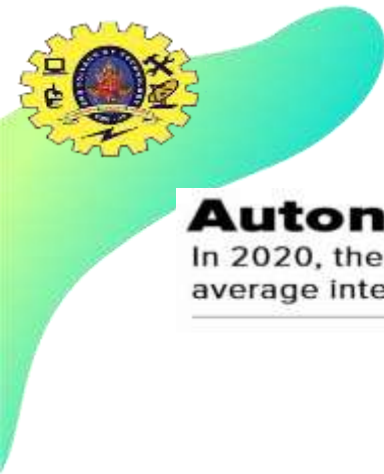
Object identification



Vehicle tracking system



Uses deep learning algorithm



COMPARISON

Autonomous car data vs. human data

In 2020, the average autonomous car may process 4,000 gigabytes of data per day, while the average internet user will process 1.5 gigabytes. That means...



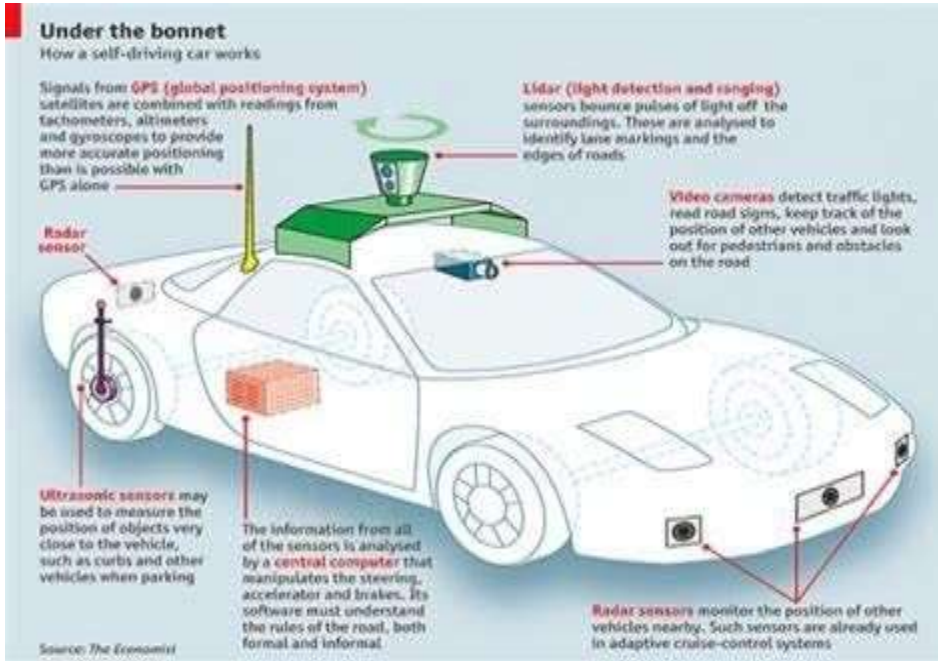
1 autonomous car = 2,666 internet users

Source: Intel

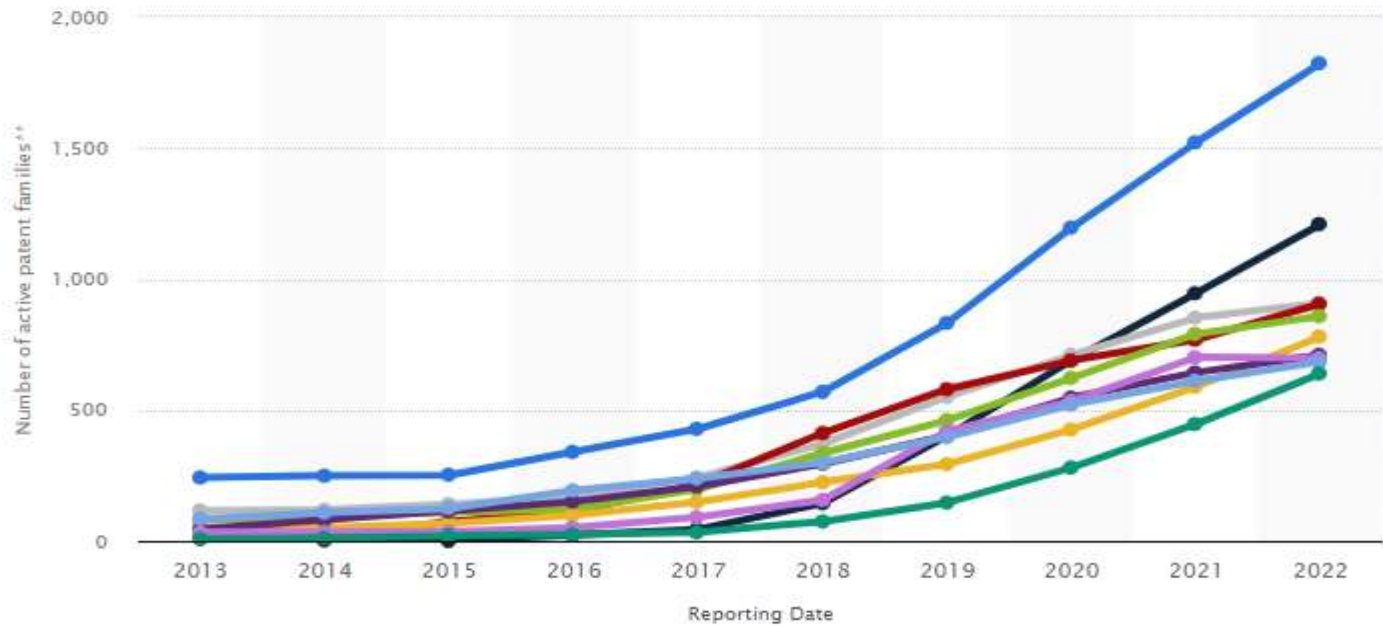
Mashable



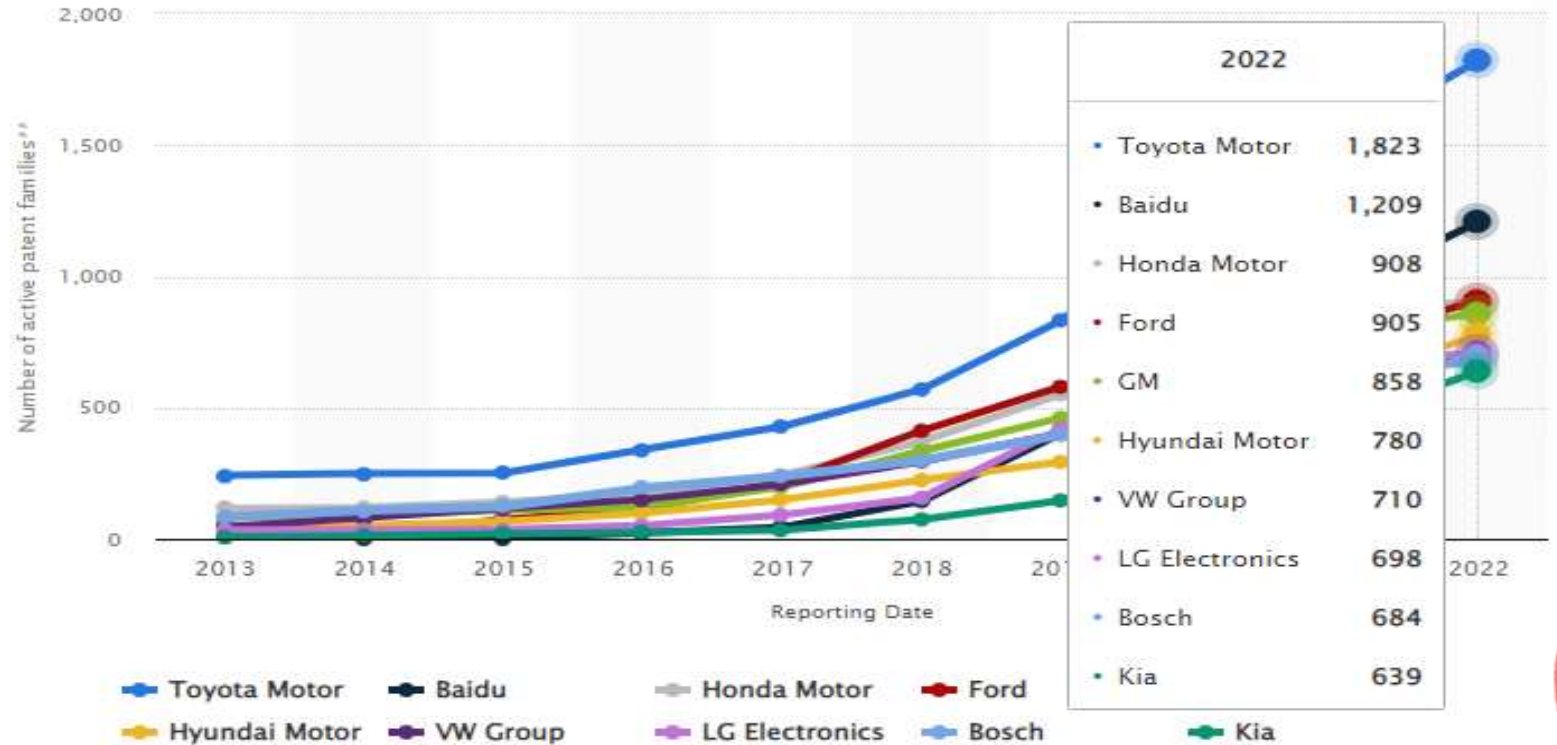
PHYSICAL ECOSYSTEM OF AN AUTONOMOUS VEHICLE



- Global Positioning System (GPS)
- Light Detection and Ranging (LIDAR)
- Cameras (Video)
- Ultrasonic Sensors
- Central Computer
- Radar Sensors
- Dedicated Short-Range Communications-Based Receiver



- Toyota Motor
- Baidu
- Honda Motor
- Ford
- GM
- Hyundai Motor
- VW Group
- LG Electronics
- Bosch
- Kia





DISADVANTAGE



CAREFREE CARS

PROS	CONS
LESS DEPENDENCE ON CARS	MAJOR URBAN PLANNING CHANGES NECESSARY
FEWER CARS ON THE ROAD	PRIVACY AT STAKE
SAFER MULTITASKING	COST
MORE PRODUCTIVITY POSSIBLE	LEGAL ISSUES
MORE ENERGY EFFICIENT	TIME CONSUMING LEGISLATION
INCREASED SAFETY	

High
 COST

Unemployment

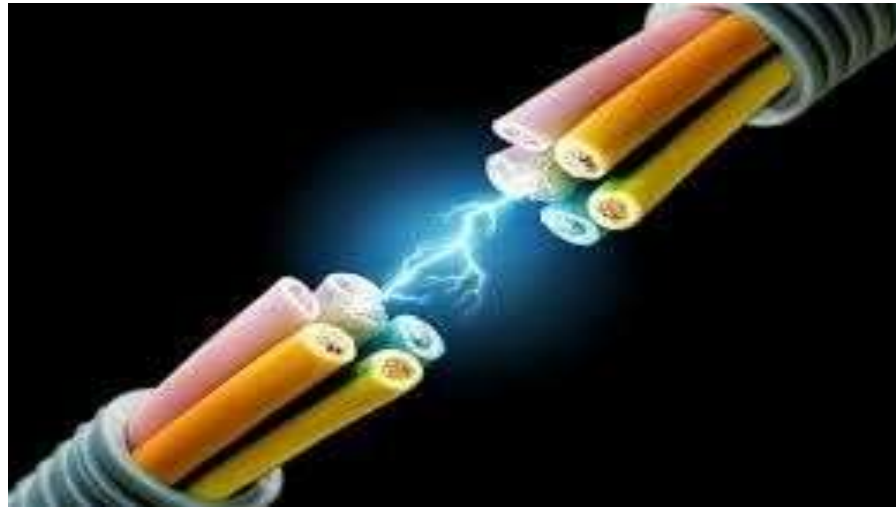


Lazy





RECAP....



....THANK YOU