ROEVER ENGINEERING COLLEGE

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LITERATURE SURVEY

IOT BASED FOR Road safety

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Internet-of-Things-Based Smart Transportation Systems for Safer Road

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- the beginning of civilizations, transportation has been one of the most important requirements for humans.
- Over the years, it has been evolved to modern transportation systems such as road, train, and

- air Transportation. With the development of technology, intelligent transportation systems have been enriched with Information and Communications Technology (ICT).
- Nowadays, smart city concept that integrates ICT and Internet-of-Things (IoT) have been appeared to optimize the efficiency of city operations and services.
- several IoT-based smart applications for smart cities have been developed.
- Among these applications, smart services for transportation are highly required to ease the issues especially regarding to road safety.
- IoT-based smart transportation systems especially in terms of road safety.
- the current state of IoT-based smart transportation systems for safer roads are provided.
- the current research efforts undertaken by the authors to provide an IoT-based safe smart traffic system are briefly introduced.
- It is emphasized that road safety can be improved using Vehicle-to-Infrastructure (V2I) communication technologies via the cloud (Infrastructure-to-Cloud – I2C).
- it is believed that this study offers useful information to researchers for developing safer roads in smart cities.

Keywords:

• internet of things, road safety.

Advantages:

- your driving skills will be improved as you follow traffic rules and regulations diligently.
- You get a greater understanding of the rules of the road and you will know how to drive in a safe manner.

Disadvantages:

- Increased traffic can increase carbon emissions and other pollution.
- Land use for roads can damage built and natural environment, impose mortality on wildlife if habitats are severed, and construction has associated environmental costs. Evaluative Study of the Culture Construction of

Road Traffic Safety Based on Structural Equation Modeling

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- the development of the vehicles, the road traffic accident has become a serious social problem.
- the government in order to improve the road safety level.
- However, there are still many problems not been considered such as how to enhance the safety quality of road traffic participants with culture means.
- In order to promote the benign development of road traffic safety, the culture construction was studied in this paper.
- An evaluative index system for the cultural construction of road traffic safety was established through the interview to the experts.
- Based on structural equation modeling(SEM), that the structure validity of the evaluation system is good and can be used for the evaluation of the construction of the safety file on road traffic was proven.
- the evaluation results, five road traffic projects were analyzed and the cultural construction situations of each project were obtained, which proved that this method is feasible.
- The final results can be helpful for improving the safety of road traffic.
- The method used here can be applied to evaluating more culture construction of road traffic safety and find what to improve.

Advantages:

- the police can immediately trace the location where the accident has occurred and necessary action can be taken after receiving the emergency message.
- This system can prove to be a lifesaver in isolated areas where an accident has occurred and no one is around in order to report the accident.

Disadvantages:

- The main weakness of this system is that there is a possibility of false reporting of an accident at low speeds.
- where the system struggles to ascertain reliably whether the user is in the vehicle. Patel et al.

Road Traffic Safety in Poland, **Slovakia and Czech Republic** - **Statistic Analysis**

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- Transport plays a crucial role in economy bringing
  goods and services to customers and in life of people transporting passengers to work, school or touristic travel.
- the dynamic development of motoring observed in
  the last 2 decades, contributes to many negative phenomena
  occurring in road transport.Traffic congestion and high risk accidents result in disappointment of many drivers.
- transport users, causing psychological tension and increasing the
  traffic accident rate.
- The article presents a comparative analysisof the state of road traffic safety in Poland, Slovakia and CzechRepublic, on the basis of reports and statements of the relevant
  state bodies.
- The traffic accident rate is one of key indicators thathelps measuring processes of the transport system and its
  development.
- In this study we presents the differences on road
  traffic safety in three countries, also demonstrated traffic
  accidents caused by technical malfunction of the vehicle and
  selected aspects of improvement of traffic safety.

Keywords:
human factor, technical malfunction, traffic
accidents, vehicle safety.

Advantages:

- Improves your driving skills.
- Accident free techniques.
- Maximum protection.

Disadvantages:

- Increased traffic can increase carbon emissions and other pollution**.**
- Land use for roads can damage built and natural environment, impose mortality on wildlife if habitats are severed,and construction has associated environmental costs

Controlling of Smart Movable Road Divider and Clearance Ambulance Path Using IOT

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- Smart moveable road divider system help to clearing the traffic on road during peak hours of the day and whenever any ambulance stuck in traffic it will automatically recognize the ambulance and clearing the path using this device.
- This system works where traffic on the ingoing side is more as compared to other outgoing side or vice-versa because traffic on one side is more than the other side then only able to shift the divider otherwise divider can't be shifted.
- The shifting of the divider is very slowly for safety purposes.
- Deep learning is used to acquiring the current situation of traffic and these data will store in clouds using cloud computing and big data handling over IOT.
- Cloud database sends the message to embedded system over IOT protocols to shift the divider left or right.
- Smart moveable road divider system help to clearing the traffic on road during peak hours of the day and whenever any ambulance stuck in traffic it will automatically recognize the ambulance and clearing the path using this device.
- This system works where traffic on the ingoing side is more as compared to other outgoing side or vice-versa because traffic on one side is more than the other side then only able to shift the divider otherwise divider can't be shifted.

Advantages:

- the advantages of safety features in roads and vehicles are a lower rate of injuries and fatalities.
- In practice, safety features encourage poor drivers to drive and average drivers to drive over their heads, increasing the rate of injuries and fatalities.

Disadvantages:

- demonstrated traffic accidents caused by technical malfunction of the vehicle and selected aspects of improvement of traffic safety.
- The traffic accident rate is one of key indicators that helps measuring processes of the transport system and its development.