

# An Assistive Mobility Device for the Blind: White Guide

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## ***Abstract:***

Everyone is thinking about digital world. Science and Technology both trying to make human life easier. Blindness is a characteristic, not a disability or defect. Navigating in an unknown environment poses a great difficulty for the visually challenged people. They are dependent for any type of movement. To overcome this smart product is proposed that can be attached to white cane. White cane will help the user with obstacle detection, real time location tracking of the blind, support intimation in case of emergencies and some voice control features. It consists of various sensors to perceive the environment and give haptic feedbacks. The product connects with an Android application via Bluetooth. The main aim is to provide a reliable, safe, affordable and easy to use navigating tool to ease the lives of visually impaired people

*Keywords: Ultrasonic, blind, assistive tool, haptic feedback, sensors, easy walking*

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# DTC Complete Guide

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## ***Abstract:***

The DTC Complete Guide serves as a tool for the users to easily check and verify the Delhi Transportation Corporation's bus details. The application acts as a useful repository of detailed information. The idea is to make the application associated with DTC network, acquainted with the users. The users can log in to the application to know about particular bus information and other data related to it. Also, after checking the bus details he/she may check the bus route and various other buses which serve a particular bus stop. The users may also check the fare for the bus trip he/she may wish to take. The motive to make a system is to make cumbersome task of searching and reviewing bus details streamlined. Segregating the database functionalities for each module provided much needed security to the whole system while maintaining the system integrity. The artistic approach was poured into making of this database in reference to the design and menus. The information of the same like bus route, etc. required the theoretical approach.

*Keywords: DTC, bus route, route master.*

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# Digital Interaction Platform

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## ***Abstract :***

The Digital Interaction Platform aims to fulfill our prime Minister's vision of a DIGITAL INDIA. It comprises of three phases namely : STUDR, CMS/LMS and the integrated platform which helps in communication with the alumni as well as helps students to analyze their performance and results through the tools provided on the platform. It also provides admin functions for various detailed queries on the student database for day to day administrative work. The project aims to provide an interaction and networking platform to the students, teachers, as well as the alumni of the college, by allowing them to connect easily to each other while sharing essentials such as notes, industry specific experience, as well as assignments and tests. The portal will have the capability to

- Automatically register new students in college database based on the credentials on the IPU website using STUDR extension. This will be a one-time registration, and data accuracy will be maintained as students will fill in correct details at registration for college admissions and the very same data is fetched to college database.
- Provide a learning and classroom management system, as well as a student forum- this can allow students and teachers to share notes, assignments, manage classrooms and attendance, as well as discuss post-class queries on a student forum.
- Provide the alumni with a platform to reconnect with their batchmates and communicate with them knowing their current whereabouts. It provides strong search facility using various filters for searching, and messaging facility.
- Enhances teacher-alumni, student-alumni, alumni-alumni interactions, providing better alumni record with the college along with great exposure and opportunities for the currently studying students.
- Allow AI based searching that smartly showcases student/alumni profiles as well as locations based on a set of key parameters.

A platform such as this will be of great help to the college and its members. It will ease the workload of both teachers and students, allow the integration of learning with convenience, will give them a better experience to the learning and teaching process, and will give a strong boost to the educational facilities of the college along with more resource availability, most importantly being the student data and alumni interaction and suggestions.

# Global Terrorism Visualization & Analysis Using R

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## ***Abstract:***

Terrorism is, in its broadest sense, the use of intentionally indiscriminate violence (terror or fear) in order to achieve a political, religious, or ideological aim. It is classified as fourth-generation warfare and as a violent crime. In modern times, terrorism is considered a major threat to society and therefore illegal under anti-terrorism laws in most jurisdictions. Terrorism in India according to the Home Ministry, poses a significant threat to the people of India. Terrorism found in India includes ethno-nationalist terrorism, religious terrorism, left wing terrorism and nacre terrorism.

In this project we aim to analyze the various terrorist attacks in different countries. Also we aim to show what type of terrorist attacks the country has been prone to. Further, we provide a visualization using graphs for various terrorist organizations and the type of attacks they did in various countries. Also, we analyze what kinds of people were attacked and the type of weapon used for the attack. The project provides a graphical view of various attack scenarios and helping in easy understanding of the attacks. This further helps us in predicting the possible attacks in the near future and for what kind of attacks the country needs to take further precautions. This will surely help in fighting the global terrorism phenomena and thus help countries in eradicating terrorism. The technology which is being used in the project is R language.

*Keywords: Terrorism, Visualization, Anti-terrorism*

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# Crime Prediction using K-means Algorithm

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## ***Abstract:***

Crime analysis and prevention is a systematic approach for identifying and analyzing patterns and trends in crime. Our system can predict regions which have high probability for crime occurrence and can visualize crime prone areas. With the increasing advent of computerized systems, crime data analysts can help the Law enforcement officers to speed up the process of solving crimes. About 10% of the criminals commit about 50% of the crimes. Even though we cannot predict who all may be the victims of crime but can predict the place that has probability for its occurrence. K-means algorithm is done by partitioning data into groups based on their means. K-means algorithm has an extension called expectation - maximization algorithm where we partition the data based on their parameters. This easy to implement data mining framework works with the geospatial plot of crime and helps to improve the productivity of the detectives and other law enforcement officers. This system can also be used for the Indian crime departments for reducing the crime and solving the crimes with less time.

*Keywords: Crime Prediction, K-Means, Clustering, Data Mining, Crime Prone Areas.*

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# Role of Big Data in Make in India Smart City and In Manufacturing Products

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## ***Abstract:***

Big Data is the buzzword in the field of technology for some time now. The demand for Big Data Technology is now felt by each and every organization of the world. The benefits of Big Data are immense. It is a study of role Big Data can play in Make in India smart city project. The make in India smart is about manufacturing products in India. The Big Data can revolutionize smartly the entire process of manufacturing. Not only it can decrease manufacturing cost losses but can also help companies achieve customer satisfaction so customer enjoys the living in smart city. From better streamlining of processes in a manufacturing unit to helping create a better working environment, big data has brought a wave of change that cannot be ignored. Further, the Make in India smart city not only brings a lot of investment but a lot of jobs too in India and we really are in need of a technology to manage the large amount of data generated. By use of Big data companies can implement better production techniques and thus can get an edge over their competitors. This study aims to help companies in India and abroad to understand the benefits of Big Data in manufacturing their products smartly. It may also help companies who have already implemented Big Data but are not taking full advantage of it

*Keywords: Big Data, Design, Manufacturing, Big Data Analytics, Machine Learning, Make in India, Production, Survey and Report.*

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# A Study of Vanet & Its Capacity Limitations

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## ***Abstract:***

The Vehicular Ad-Hoc Network or VANET is a technology that uses moving cars as nodes in a network. To create a mobile network, VANET turns every participating car into a wireless router or node, allowing cars approximately 100 to 300 meters or each other to connect and, in turn, create a network with a wide range. As cars fall out of the signal range and drop out of the network, other cars can join in, connecting vehicles to one another so that a mobile Internet is created.

In this study, we take a look at the proposed architecture of the VANETs in previous years, we discuss its implementation in different domains and also specify the Communication and Layered Architecture. In the literature review section, we briefly outline the wireless networking and different topologies used, Wireless Adhoc network, their most recent applications and types of routing protocols employed. Scope of the Work presents the limitations in VANETs, their implications and possible solutions and recent research in the area. We finally end with the simulation results of a wireless adhoc network comparing packet delivery ratio w. r. t. packet origination rate for different no. of nodes in the network.

*Keywords: Ad-hoc Network, VANET, Routing Protocols*

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# Employee Secure Messaging Web Application

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## ***Abstract:***

In the era of Cyber theft, the previous and expensive data of the organization is at stake and even the communication among the employees can be leaked or hacked. This can result in great loss of money and property to the organization. To resolve this problem we need a secure medium for communication and storing data. This is where the Employee Secure Messaging Web Application. This web app will setup a secure means of communication among employees, which will be done in the form of E-mails, and they can attach their data within those E-mails, which they can review later on as well. To enhance the security, all the data in the server and communication among employees will be encrypted. By using different cryptography methods. We have created our own encryption algorithm using Blum Blum Shub as the base.