

# *Vidyajhari*

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# ADITYA

## Institute of Technology and Management

**(An Autonomous Institution)**

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**Department of Information Technology**

### VISION

To evolve into a premier engineering institute in the country by continuously enhancing the range of our competencies, expanding the gamut of our activities and extending the frontiers of our operations.

### MISSION

Synergizing knowledge, technology and human resource, we impart the best quality education in Technology and Management. In the process, we make education more objective so that the efficiency for employability increases on a continued basis.



# ADITYA

## Institute of Technology and Management

(An Autonomous Institution)

### Department of Information Technology

#### Vision of the Department

Create high-quality engineering professionals through research, innovation and teamwork for Information Technology services with outstanding faculty, facilities and education.

#### Mission of the Department

- M1:** Information Technology program dedicates itself to provide students with a set of skills, knowledge and attitude that will permit its graduates to succeed and thrive as successful information technologists.
- M2:** Enhance overall personality development which includes innovative thinking, Team work, entrepreneur skills, communication skills, employability skills and ethical conduct.
- M3:** Ensuring effective teaching–learning process to provide in-depth knowledge of Inter disciplinary areas.
- M4:** Providing industry interactions through consultancy and sponsored research for the societal needs.



**Dr. K. Someswara Rao**  
**Chairman**

### **MESSAGE**

**At AITAM, we are committed to excellence in everything we do. We strive to mould the students in balancing intellectual and practical skills to become leaders in all the fields of Technical know-how and Management. We have created the finest facilities for the students to make the most of their scholastic pursuits. We are closely aligned with the corporate world which ensures exchange of ideas and experiences that keep our curricula focused on current developments and challenges in the field of engineering. We are firmly committed to research and consulting activities to contribute to the development of the discipline of engineering. Our vitality lies in our spirit of innovation. Our strength lies in our pragmatic approach. Our success lies in our will to do.**



**Sri. L L Naidu**  
**Secretary**

### **MESSAGE**

Aditya Institute of Technology and Management is founded to meet the increasing demand for competent engineering graduates. Within a short span of its inception, AITAM has grown to be a premier engineering college of its kind and has won laurels and kudos from the industry. The faculty and staff in AITAM are dedicated to providing first-class education that instils strong and potent basic knowledge for sound practice in science and engineering for the well-being of the society. The Institute offers curricula that nurtures creative thinking and prepares students for productive and rewarding careers. The Institute offers programmes that deepen learning experiences of our students and prepare them for successful careers as engineers.



**Prof. V V Nageswara Rao**  
**Director**

### **MESSAGE**

Engineering education at AITAM is indeed a rewarding intellectual experience. The Institute prepares the engineering professionals of tomorrow imbued with insight, imagination and ingenuity to flourish as successful engineers. Our programs are attuned to the needs of the changing times. The classrooms are ultra-modern; the library and labs are cutting-edge; and all the members of the faculty are workaholic professionals and masters in their fields. Not surprisingly, our students are recruited by such renowned organizations as HCL, Satyam, WIPRO, INFOSYS, TCS, Visual Soft, Innova-Solutions and InfoTech. The exceptional dedication of our students, faculty and staff, and our collaborations with Industry and other institutions ensure that the Institute is well-poised to create a unique niche in the horizons of engineering education.



**Dr.K B Madhu Sahu**  
**Principal**

#### **MESSAGE**

It is only through knowledge that man attains immortality. Knowledge has to expand or grow to remain as knowledge. The road to excellence is toughest, roughest and steepest in the Universe. The world requires and honors only excellence. Available information has to be directed by wisdom and intelligence to create new knowledge. Promotion of creativity is the new role of education. It is only through creative thinking that the present and future problems can be addressed to find dynamic solutions. Technology should be used to help remove poverty from the world. In fact forty per cent of the world's poor are in India. Confidence leads to capacity. It is faith in oneself that produces miracles. Education at AITAM helps build character, strengthen the mind, expand the intellect and establish a culture of looking at problems in a new perspective. The student is put through rigorous training so that he can stand on his own feet after leaving the portals of the Institute.



**Dr. B V Ramana**  
**HOD, IT Department**

#### **MESSAGE**

Information Technology is a professional engineering discipline that deals with application of computers to store, retrieve, transmit and manipulate data. Our department has a team of qualified and experienced faculty and staff members and we are motivation both faculty and students continuously to improve the quality of education and to maintain its position of leadership in engineering and technology. The department guides the students to develop their technical skills and motivate them to learn in research methodology. Our department has been conducting National workshops and organizing seminars since its beginning to keep the faculty and students with the latest developments in the field of technical education. Our department faculties are actively published in reputed international and national journals and actively participated in various international and national conferences to publish papers.



## B.Tech Project Abstracts

S No	Roll No.	Name of the Student	Project Title
1	12A51A1230	P.Sowjanya	Panic control

**Abstract:** The main scope of our project "Panic control" is to develop an android application to protect the women from strangers' .Technology is playing very prominent role now-adays. So, this application protects and secures one's life in danger. In this application, first the personnel should register with their details and a database is maintained with the registered details. While doing registration, they are supposed to give contact numbers to whom the notification is to be sent while the particular personnel is in danger .The location (latitudes and longitudes) with an alert message is sent to those contact numbers. In this way, one can rescue themselves without being panicked. Deploying this, "Panic control" serves as an early warning and a security surveillance tool, minimizing the risks from attacks by strangers.

S No	Roll No.	Name of the Student	Project Title
2	12A51A1201	AKULA ESWAR SANMUKHA SAI	CITY BUS MANAGEMANT SYSTEM

**Abstract:** This is an android application used to find out the bus number from one place to another place. User need to give the details of source and destination. Accordingly it will display the details of the bus number which is going in that route. It is a time saving application to user. User can easily get the information of the bus number of a particular route. In this way a user will be free of confusion about the buses. It will also be very helpful for those people who are new to the city. In the cities especially in India buses are the major form of transportation. So by this app we can get the information required for reaching to desired destination. We select the source, destination and then clicking submit button we get the bus number of the bus we have to travel. Thus this application has its importance in the city travelling. There are some bus route finders and bus number finding systems in the internet these days but these require internet connectivity for the working of the application. This is somewhat money consuming. Also if the net is slow the process is also slow. And if the net connectivity is weak then the process of finding the busses will also be difficult. To overcome the above problems we have developed our particular project which will work without internet. City Bus Management application that we have developed will work without internet connectivity. This is the major advantage this particular application we have developed our project t has a database of its own which makes it independent of internet, and it displays the bus numbers on its own. This makes finding of the bus numbers easy, fast and efficient. This management system provide many services like bus timings and Bus type and distance and fare and routes and stages in between source and destination. There are some bus route finders and bus number finding systems in the internet these days but these require internet connectivity for the working of the application. This is somewhat money consuming. Also if the net is slow the process is also slow. And if the net connectivity is weak then the process of finding the busses will also be difficult. To overcome the above problems we have developed our particular project which will work without internet. City Bus Management application that we have developed will work without internet connectivity. This is the major advantage this particular application we have developed our project t has a database of its own which makes it independent of internet, and it displays the bus numbers on its own. This makes finding of the bus numbers easy, fast and efficient. This management system provide many services like bus timings and Bus type and distance and fare and routes and stages in between source and destination.

S No	Roll No.	Name of the Student	Project Title
3	12A51A1223	KOTNI MEGHANA	HELPING HAND

**Abstract:** In cases of moving to new places, tracking the nearby hospitals and pharmacy stores and contacting doctors whenever we are in need is very difficult. Through our application, people can track the hospitals and medical stores which were located near to his place. By this way, one can easily reach the source which is less distant to him. Our Applications serves the users in providing navigation to be followed by the users while reaching a particular destination selected by the users among the retrieved results. In addition to that, the application eases the users by enabling the maps in three types of views namely hybrid, satellite and terrain.

S No	Roll No.	Name of the Student	Project Title
4	12A51A1247	VOONA AMANI	SMART SERVER

**ABSTRACT:** Now a day's horrific crimes are coming to public eyes. Like many assault cases, murders, snatching, kidnapping..... Etc The victim doesn't even get a chance to fight for her/his rights. Because the victim doesn't get a chance to inform the friends and relatives about the life censorious situation. To overcome this situation we are developing a project for which the victim can get at least one chance to fight for self-protection.

S No	Roll No.	Name of the Student	Project Title
5	12A51A1234	P. Maneesha	Glossary for Software Technocrats

**ABSTRACT:** Now a days we are having different types of dictionaries which are useful to know the exact meaning and synonyms of different words. But, we are unable to find-out the meanings for the software terminology or terms. To overcome their problem we came up with new idea which is named as "Glossary for Software Technocrats". The computer field is continuing to expand and new terms are being generated and also new meanings are being adopted for existing terms. This project was undertaken to document those vocabulary. Its purpose is to identify terms which are currently in-use in the computer field and to establish standard definitions for these terms. The dictionary is intended to serve as a useful reference for those in the computer field for those who come into contact with computers either through their work or in their everyday lives. The dictionary is being developed as subject as subject-area glossaries covering some software terminologies with their suitable contexts of some software subjects and also some bits related to this subjects.

S No	Roll No.	Name of the Student	Project Title
6	12A51A1209	B.Sri Sowmya	DRUG SUBSTITUTE ADVISER USING ANDROID

**ABSTRACT:** This application is a simple mobile application which enables user to find equivalent name of medicines. The App functions in a very simple and intuitive way: research medicine easily by product name, trade name or disease and you will find the right equivalent. A person who cannot invest more money on the medicine can get equivalent low price medicine. More information about trade name, product name, company name, price and name of the disease can be added by simply adding entries in the database. There are some medicine equivalent finding systems in the internet these days. But these require internet connectivity for the working of the application. This is somewhat money consuming. Also if the net is slow the process is also slow. And if the net connectivity is weak then the process of finding the equivalent medicine will also be difficult. To overcome the above problems we have developed our

particular project which will work without internet. Drug substitute adviser application that we have developed will work without internet connectivity. This is the major advantage of this particular application. We have developed our project which has a database of its own which makes it independent of internet, and it displays the equivalent medicines on its own. This makes finding of the equivalent medicine easy, fast and efficient.

S No	Roll No.	Name of the Student	Project Title
7	(12A51A1210)	Ch. Gayatri	ONLINE CAREER GUIDANCE SYSTEM

**ABSTRACT:** This project "Online Career Guidance System" is an online website in which students and also employment can see various career opportunities, the system shows various fields available after 12th, for graduation like B.Tech,B.Sc,B.com etc., and also fields available after graduation like M.Tech, MBA, MSC etc., .It also lists various colleges and companies available where students or employment can search colleges or companies by their courses. Next the system allows users to give a test. It is actually a series of tests of various general questions. After test completion a score is calculated for each test. Based on those results the system manipulates and calculates the best career for that user. For employments, it suggests the best company for them based on their test marks. The system also includes an eBooks page.

S No	Roll No.	Name of the Student	Project Title
8	(12A51A1243)	T. Gayatri	Recommender Systems in E-Commerce

**ABSTRACT:** A Recommender System learns from a customer and recommends products that they will find most valuable from among the available products. Many of the largest commerce Web sites are already using recommender systems to help their customers find products to purchase. The products can be recommended based on the top overall sellers on a site, based on the demographics of the customer, or based on an analysis of the past buying behavior of the customer as a prediction for future buying behavior. With the rapid growth of E-commerce, how to provide accurate and valuable information for customers in the main problem that the personalized recommendations system need to solve. The system can dynamically adjust the results based on the customer behavior.

S No	Roll No.	Name of the Student	Project Title
9	12A51A1229	P. Syam Sai	Back To My Village

**ABSTRACT:BTMV** is a charity group of professionals those want to voluntarily contribute in their village/town's development. Issues like Primary education, people's health, government policies awareness and availability of basic facilities/infrastructure are on main focus among others. Through the website group want to help their members collaborate, to plan, assess and implement different activities and learn with others experience/feedbacks/suggestions. Group also wants to encourage others to join their initiatives and recognize their contributions.

S No	Roll No.	Name of the Student	Project Title
10	12A51A1247	V.Amani	Student Attendance Management System using Android

**Abstract:** Over the years that the process of manual attendance has been carried out across almost all educational institutions. The Process is not only time consuming but also sometimes inefficient resulting in the false making of attendance. Following this thought, we have proposed an attendance monitoring system based on the concept of web services which is implemented as an Android mobile application that communicates with the database residing on a remote server and it contains the various modules of the system and its implementation.

S No	Roll No.	Name of the Student	Project Title
11	12A51A1245	U. Kiran Kumar	Online Railway Reservation System using .NET

**Abstract:** The online reservation system is basically derived from the GDS (Global Distributed System) also known as CRS. The online reservation system has its database centrally located which is accessed through an Application Programming Interface. With the invent of online reservation system the traveler and the railway got the freedom to book a seat anywhere at any time at their convenience.

## Faculty publications

### De-Identified Personal Health Care System Using Hadoop Dasari Madhavi, B.V. Ramana

**Abstract:** Hadoop technology plays a vital role in improving the quality of healthcare by delivering right information to right people at right time and reduces its cost and time. Most properly health care functions like admission, discharge, and transfer patient data maintained in Computer based Patient Records (CPR), Personal Health Information (PHI), and Electronic Health Records (EHR). The use of medical Big Data is increasingly popular in health care services and clinical research. The biggest challenges in health care centers are the huge amount of data flows into the systems daily. Crunching this Big Data and de-identifying it in a traditional data mining tools had problems. Therefore to provide solution to the de-identifying personal health information, Map Reduce application uses jar files which contain a combination of MR code and PIG queries. This application also uses advanced mechanism of using UDF (User Data File) which is used to protect the health care dataset. De-identified personal health care system is using Map Reduce, Pig Queries which are needed to be executed on the health care dataset. The application input dataset that contains the information of patients and de-identifies their personal health care. De-identification using Hadoop is also suitable for social and demographic data.

### Recognition of License Plate Numbers using Connected Component Analysis B.Leelarani , B.Ramesh naidu

**Abstract -** In traditional system identify the license plate detection is the most critical step to identify the number plate. Many researchers have done so much work to overcome all the challenges to detect the objects, but found that no general method is best suitable for the detection of license plate models from different areas. In the Existing system the fixed parameters cannot be identified because scale invariant license plate number images. It can identify only fixed parameters license plate number. In this paper we propose a new technique which finds the both fixed parameter and scale invariant license plate image. It achieved by using Connected Component Analysis (CCA) and Hit and Miss Algorithms. By using these algorithms we can improve the lighting, remove the shadows, and camera position and orientation can be done. The system is implemented using MATLAB and the result of number plate images is successfully detected.

**✚ A Novel 4X4 LSB Pixel Substitution Approach for Image Steganography Venkata Giriprasad  
Ronanki , K Kavitha**

**Abstract—** Steganography is the knowledge and art of hiding secret data into information which is a great extent utilized as a part of data security frameworks. Steganography typically manages the methods for concealing the presence of the conveyed information in a manner that it stays secret. It keeps up mystery between two conveying gatherings. In image steganography, mystery is accomplished by embedding information into a cover image and creating a stego image. Different techniques have been proposed in which in which most of them are not capable of both preventing visual degradation and providing a large embedding capacity. In this, we spotlights on the property of human vision structure that offer help to manufacture the measure of data concealing in the bitmap (.bmp) and JPEG (.JPG) pictures in every way that really matters. In this paper, we proposed a tunable visual picture quality and information lossless system in spatial domain based on a genetic algorithm. The essential thought about the proposed framework is showing the steganography issue as a hunt and advancement issue. Experimental results demonstrate that the proposed approach performs high embedding point of confinement and in addition overhauls the PSNR and MSE of the stego image.

**✚ CCP-ABE Technique for Decentralized Disruption Tolerant Military Networks Ch. Gopala Krishna ,  
M. Apparao**

**Abstract -** Mobile nodes in military environment such as a battle field or a hostile region are likely to suffer from intermittent network connectivity and frequent partitions. Disruption-Tolerant Network (DTN) innovations are getting to be effective arrangements that permit remote gadgets conveyed by fighters to impart with one another and access the confidential data or order dependably by abusing outer stockpiling hubs. A portion of the most difficult issues in this situation are the requirement of approval approaches and the strategies upgrade for secure information recovery. In the existing system for secure transactions Attribute-Based Encryption (ABE) is used. In the proposed system Constant Cipher text Policy- Attribute Based Encryption (CCP-ABE) is a promising cryptographic technique for the entrance control issues in military networks. Constant Cipher text-Policy ABE (CCP-ABE) provides ascalable way of encrypting data such that the encrypted defines the attribute set that the descriptor needs to possess in order to decrypt the cipher text. Thus, different users are allowed to decrypt different pieces of data per the security policy. The issue of applying CCP-ABE in decentralized DTN presents a few securities and protection challenges with respect to the quality renouncement, key escrow, and coordination of characteristics issued from diverse powers. In this paper, we propose a safe information recovery plan utilizing CCP-ABE for decentralized DTNs where different key powers deal with their qualities autonomously. We exhibit how to apply the proposed component to safely and proficiently deal with the confidential information disseminated in the interruption tolerant military system.

✚ Investigation of novel drugs as potential H1N1 neuraminidase inhibitors Dr. G. Nageswara rao, Sri Ch. Ravi Kishore

**Abstract:** The outbreak of H1N1 influenza pandemic strains that are resistant to currently prescribed antivirals has earmarked the need to develop/screen novel compounds that target viral gene products such as Neuraminidase. In the process of targeting H1N1 flu virus, cell-based replication assays, etc. can be performed, but are time consuming and costlier. Hence, we employed the structure based drug screening approach to delineate the dependency of ligand features responsible for binding affinity. This approach treats viral neuraminidase 3D structure as rigid and the majority of the drugs (as flexible) from Drug Bank database were screened to inhibit the neuraminidase activity, thereby offering a method that is both fast and reliable. In addition to the identification of binding modes of various drugs, the docking approach reported here allows simultaneous detection of favourable H-bond interactions and energy contributions. The docking analysis, after energy minimization steps, revealed few hits that were found to possess high binding affinity than the anti-viral drug oseltamivir (-110.316 kcal/mol with model protein and -114.109 kcal/mol with 3CL2), when bound to the active site region of H1N1 neuraminidase. The top hits obtained after consensus scoring were DB02259 and DB04041 with binding affinities -190.157 and -209.755 kcal/mol respectively.

✚ An Efficient ASCII Value Based Image Steganography K.Kavitha , Jagadeeswara Rao.G

**Abstract:** Encryption is a process of generating secret text from the input text using a secret key and an encryption algorithm in such a way that only authorized users can read it. In this context, we use the ASCII values to convert the plain text to be converted into secret text. Steganography is the process of hiding a secret message within a larger one in such a way that someone cannot know the presence or contents of the hidden message. The purpose of Steganography is to maintain secret communication between two parties. Image steganography involves a method of covering the important information behind an image. So, this paper presents a technique where the cipher text generated using ASCII values will be embedded into an image at the sender side and the same will be extracted at the receiver's side.

## **Editorial Board**

### **Faculty**

**G Jagadeeswara Rao  
Dr.P Prasantham**

### **Students**

- 1. P.Nagaraju, II-IT**
- 2. A.Manal , III-IT**
- 3. P.Ramanamurty, IV-IT.**



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