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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

Sl. No.	Roll No.	Name of the Student	Project Title
1	10A51A1217	GANGU JHANSI	E-CAMPUS STOCK

Abstract:

The “E-CAMPUS STOCK” has been developed to override the problems prevailing in the practicing manual system .The Database Maintains Information about Stock Details, Software Details, Hardware Details and Infrastructure Details of particular campus .Moreover this system is designed for the particular need of the company to carry out operations in a smooth and effective manner .The application is reduced as much as possible to avoid errors while entering the data. Main objective of this project is to develop a web application useful for particular department of the campus for providing services like, Stock Details, Software Details, Hardware Details and Infrastructure Details. This project can be a part of any college campus which wants to store the data of particular details like Stock Details, Software Details, Hardware Details and Infrastructure Details. This can be easily integrated with any existing system .This system makes use of the existing system data.

Sl. No.	Roll No.	Name of the Student	Project Title
2	10A51A1233	PANTALA BALAMBIKA	Geographical Position of A Receiver Based on GPS.

Abstract:

Many innovative ideas are being incorporated in the mobile phones in order to make the device more and more consumer oriented. “GPS BASED VEHICLE MESSAGING SYSTEM” is an Android application which sends messages to a list of mobile phones that the vehicle is arriving them soon (in few minutes) according to the change in the location of the vehicle. Its main objective is to locate the vehicle’s position handling the particular gadget geographically using Google Maps and GPS and then according to it , sends messages to a particular list of mobile users who are actually looking for the vehicle. This app could be useful for the students who are actually looking for the college/institute vehicles to catch it. The vehicle contains the gadget with the particular app which actually locates the position of the vehicle and then according to the location sends messages that the vehicle is just few minutes far from the next stop. So that the students get alert for the vehicle. For sending messages to the mobile phones the app in the particular gadget should also contain GSM connections.

Sl. No.	Roll No.	Name of the Student	Project Title
3	10A51A1249	TANGUDU SANDYA	MANET routing attacks

Abstract:

The motivation of our application is to reduce the risk in MANET routing attacks. There are several work addressed the intrusion response actions in MANET by isolating uncooperative nodes based on the node reputation derived from their behaviors. Such a simple response against malicious nodes often neglects possible negative side effects involved with the response actions. In MANET scenario, improper countermeasures may cause the unexpected network partition, bringing additional damages to the network infrastructure. To address the above-mentioned critical issues, more flexible and adaptive response should be investigated.

Sl. No.	Roll No.	Name of the Student	Project Title
4.	10A51A1209	BORIGE KARISHMA	Acquire locus of victim using GPS'

Abstract:

Many innovative ideas are being incorporated in the mobile phones in order to make the device more and more consumer oriented. 'Acquire locus of victim using GPS' is a mobile based application developed using Android technology. The main objective of the application is giving a hope to the victim who is in danger situation. The user should install the app first in their android mobile and then select the contacts and store those contacts in special file. The victim should activate GPS and then click the warn button then latitude and longitude values of the victim will send to the selected contacts. As this application supports Google maps, selected contact persons can able to see victim's current location in mobile using maps so that they can find the correct way to the destination address.

Sl. No.	Roll No.	Name of the Student	Project Title
5.	10A51A1236	PENTA MYTHRI	Authenticated Group Key Transfer Protocol Based on Secret Sharing.

Abstract: Key transfer protocols rely on a mutually trusted key generation center (KGC) to select session keys and transport session keys to all communication entities secretly. Most often, KGC encrypts session keys under another secret key shared with each entity during registration. In this paper, we propose an authenticated key transfer protocol based on secret sharing scheme that KGC can broadcast group key information to all group members at once and only authorized group members can recover the group key; but unauthorized users cannot recover the group key. The confidentiality of this transformation is information theoretically secure. We also provide authentication for transporting this group key.

Sl. No.	Roll No.	Name of the Student	Project Title
6.	10A51A1240	RASAMSETTI SRI VENKATA SATHYA SARVANI	DECISION TREE CLASSIFIER MODEL FOR INDIAN ANAEMIA

Abstract: In this project we are constructing a dataset for anemia disease in northeast region of ANDHRA PRADESH. Anemia is one of the severe diseases in India it may also lead to heart attack it is mainly seen in women and children. Anemia is a condition in which blood has lower than normal number of red blood cells. It also occurs if R.B.C contains less amount of hemoglobin. In this project we are using a decision tree model to classify the patients. The goal of decision tree model is to predict the value of target variable based on several input variables. In this model we are considering the previous test records of several anemia patients.

Sl. No.	Roll No.	Name of the Student	Project Title
7.	10A51A1258	KORADA VENKATA SHALINI	INFORMATION RETRIVAL SYSTEMS

Abstract: Information retrieval is activity of obtaining resources relevant to information need from collection of information resources. Searches can be based on meta data.

Automated information retrieval systems used to reduce what has been called "information overload ".Many universities and public libraries is IR system provide access to books, journal etc .Web search engines are must IR applications .

An information retrieval process begins when a user enters query into the system. Queries are formal statements of information needs for eg search string in web search engines. In IR, a query does not uniquely identify a single object in collection instead several object that much query, perhaps with different degrees of relevancy.

An object is an entity that is represented by information in data base user queries are matched against the data base .Information depending on application the data object may be object may be documents ,images,videos,audio..etc. Often the documents themselves are not kept or stored directly in IR system but are instead represented in the system by document surrogate or metadata. Most IR systems compute a numeric score on how well each object in database matches the query and rank the object according to this value . The top ranking are then shown to the user the process may then be iterated if user wishes to refine the query. Our project WEB CRAWLER is closely related to systems. Because this web crawler also used for searching data and produces refined results in short period.

Sl. No.	Roll No.	Name of the Student	Project Title
8.	10A51A1223	KUNUKU CHITTI PAPA	IDIOMS AND PHRASES DICTIONARY

Abstract: We are living in interesting times? 21st century is the century of smart phones .Where ever we see we will find Smart Phone. So, why can't we make the student world smarter with Smart Phones? Technical Writing is a art, suitable phrases is essential .So my intention is to provide an application in android with all phrases and idioms with in glance or touch. This application will be beneficial for students in gaining knowledge and also improve their communication skills.

Faculty Publications

✚ **Watermarking Scheme For Color Images** Jyothi Mandala , Srividya Kotagiri and Kavitha Kapala

Abstract: The growth of Internet usage is very much nowadays. The data that is transmitted through Internet is very sensitive i.e., anyone can access it. So, in this paper an approach is given to provide security to the data using watermarking concept. Digital watermarking conceals the secret information in images to protect the secret information from attackers. The proposed scheme is blind and invisible and is used for color images. For every 2x2 R, G, B blocks of host image a secret R, G, B bits are embedded using the proposed method. The efficiency of the proposed method is shown through experimental results.

✚ **Secure Network Connectivity in the Cloud Computing Environment**

Chinta.ChandraSekhar , Chintada. Srinivasa Rao

Abstract: In this paper, we propose a secure network connectivity between on-premises and cloud through a novel services. To provide dynamic scalability for various applications, there has been an increasing trend in business organizations to outsourcing their data to remote cloud at Cloud Service Provider (CSP). Meanwhile, once data goes into cloud they lose control of their data, which inevitably brings new security risks towards identity and access control in cloud computing environment. Hence, efficient and effective connectivity is needed, such as relayed connectivity and direct connectivity to avoid security risks between cloud roles and external machines. Here, we discuss how the cloud delivery models maps to the components in an IT infrastructure. This paper elaborates various services provided by cloud operating system, extending relational database server to the cloud and Cloud Services for building distributed, connected applications. Cloud service architecture, its services and inter-role communication for cloud computing platform. These are the foundational

building blocks for all cloud applications. In addition, in order to provide cloud-centric building blocks and infrastructure in the areas of secure application connectivity used by Service Bus and Access Control services, designed specifically to the cloud. All external connections come through a load balancer, which is a key to Cloud computing. Here's the two main areas of compute and storage functionality as a cloud service. The contribution of the paper is to understand how the on-premises service connects to the relay service through an outbound port and creates a bidirectional socket for communication tied to a particular rendezvous address when you need direct synchronous communication.

Understanding The Terminology And Test Plan – A Survey Analysis

Uday kumar J, Asst.prof, Jagadeeswara Rao G, Asst.prof. AITAM.

Abstract: Quality is proportional to testing in software engineering. Quality is not only the justification of requirements but also the presence of values. In this new era of software engineering, test phase is ought to be viewed as separate phase in software development lifecycle. At the same time we can't separate these two words "FIXING and FINDING". Tester will find the defect later developer will fix it.

Inspection of code by a programmer itself turned as testing. So, how can we find a thin layer between Fixing and Finding? This paper attempted to address the understanding of terminology and difference among those roles and phases along with good test plan.

Editorial Board

Faculty

**G Jagadeeswara Rao
Dr.P Prasantham**

Students

- 1. P.Ramanamurthy, II-IT**
- 2. P Naimeesha, III-IT**
- 3. B Vasu, IV-IT**



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