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ADITYA

Institute of Technology and Management

(An Autonomous Institution)

Tekkali-532 201, Srikakulam Dist., AP

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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.

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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.	14A55A1201	A Manal	ONLINE ASSESSMENT SYSTEM

Abstract: Assessment is a powerful question management system that enables trainers and educators to make e-learning exams quickly and easily. Our exams provide students with an array of visual cues that make taking an online exam less complicated. For instance, students are only shown one question at a time, yet students can preview any question, answer them in any order they choose, and see instantly which questions they have answered.

We are providing a unique code key every time a teacher uploads the questions to their students. Students can enter the assessment only when they have a code key. The students need to type the code key to get access to the quizzes. You can specify the amount of time you allow students to complete an exam. Once a student begins an exam, the timer continues on even if the student logs out. We kept this idea of code key as a new secure feature unlike many other quizzing websites.

Assessment works to protect your information through the most secure way. Use of information at quiz only requests personal information when required. We will not disclose personal information to a third party without the information to the individual. We will record e-mail addresses just as a part of registration. Your email address will not be disclosed to any third party users.

FACULTY PUBLICATIONS

➕ **Risks Identification in Global Software Engineering S R Phanindra Kumar Narayanasetty, CH Ravi Kishor**

Abstract:

We have chosen an area in Global software engineering as the domain and we have focused on the challenges that are faced by the companies when they start working with global software development. We also have focused on the mitigation techniques and the tools which are used to crack the challenges. Our research approach or the methods we apply to find the results, expected outcomes and our potential contribution towards the knowledge is also presented in this paper.

➕ **Development of a biometric authentication system based on HAAR transformation and Score Level Fusion Ramesh Naidu Balaka, Prasad Babu Maddali Surendra**

Abstract:

In traditional authentication system Password, Pin-number and Signature are used as sources for identification. The latest technological advancements forced human beings towards the development of complex authentication systems based on biometric traits. The most challenging tasks in biometric authentication system are the recognition of an accurate matching biometric trait in the database and also the size of database to be searched. In this paper, a bimodal biometric authentication approach is introduced where two biometric traits namely facial expressions and fingerprints are used. In the proposed method, Discrete HAAR wavelet compression, HOG (Histogram of Oriented Gradients) for feature extraction and GMM (Gaussian Mixer Model) are applied sequentially on both facial and finger print datasets to derive recognition templates of each trait category. Finally respective recognition templates of each category are fused together using score level fusion to get composite recognition template. Experiments conducted on both finger and face data of 10 individuals. It is observed that proposed model exhibits good accuracy rates and the model helps to reduce the size of database and to retrieve the data from the databases for effective recognition with minimum timestamp.

➕ **A Novel Biometric Authentication System with Score Level Fusion Ramesh Naidu Balaka, Prasad Babu Maddali Surendra**

Abstract:

Biometric authentication plays pivotal role for providing security in any industry. In the previous works, biometric authentication systems are developed by using the Password, Pin-number and Signature as a single source of identification (i.e. unimodal biometric system). But these systems can be noisy, lost, stolen or subjected to spoofing attack. This paper proposes a Multimodal Biometric Authenticated system which use more than one biometric trait for recognition and it is more effective than the any previous work. The proposed system

is strong enough from attacks as the authentication is being done by using multimodal biometric traits. The present system handles two traits face and finger for recognition and these are followed by prepossessing, removing the noise, compression the traits and then extract features by using Histogram Oriented Gradients technique (HOG). The probability Density Function (PDF) values are obtained from the HOG features by using Gaussian mixer model. Fusion the PDF values by using score level fusion. Finally correlation compares both the training dataset and testing dataset traits. Identification of biometric traits have been done based on multimodal biometric system and results are better recognition performance compared to existing methods. However, experiments also done on different parametric measures like RMSE, PSNR and CR. It was observed that DCT has better performance than the existing HAAR wavelet transform. The proposed work is useful for reduce the size of the database, utilization of bandwidth, identification of traits and authentication in bank system, crime investigation etc.

Text Steganography Based on Inter-Word Space Statistics K.Kavitha, B. Kishore Kumar

Abstract:

Steganography can be used for hiding the secret message within a larger one in such a way that others can't discern the presence or contents of hidden message. The Steganography algorithms employ multimedia as the medium to ensure hidden exchange of information between multiple contenders and to protect the data from unauthorized access. Text documents can be watermarked by patterning the inter word spaces. Steganography with watermarking adds additional security to the document and it provides high levels of exploitation of novel concepts of word classification and inter-word space statistics. The text steganography algorithms are based on modification of word style, spaces etc. Here, the nonlinear word positions of data in the document are targeted with insignificant modifications and by grouping into segments and their classification using word class information where the amount of information is dependent on requirement. This information is encoded by modifying some statistics of inter-word spaces of segments belonging to same class.

Energy Analysis of Task Scheduling Algorithms in Green Cloud JagadeeswaraRao G, G Stalin Babu

Abstract— Cloud computing is a great platform using which corporate world is totally looking to reduce their expenditure on resources like software, platform tools and infrastructure. Cloud computing gives a cost effective infrastructure with high scalability and performance. The cloud service providers provides the services through a large data centres. These data centres are maintained in the form of many clusters and each cluster is a group of several physical machines. These physical machines will be virtualized to create virtual machines and the clients access the services through these virtual machines. As the demand increases on the data centre leads to high power consumption and carbon emissions. So here we are giving a comparison of green cloud scheduling algorithm with other task scheduling algorithms.
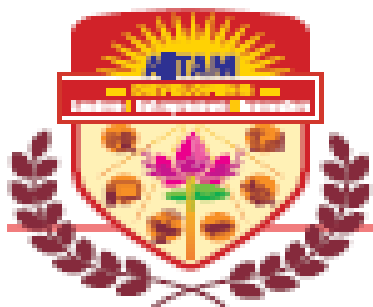
Editorial Board

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3. S. Vishnu Sai , II-IT

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