



MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE
(UGC-AUTONOMOUS INSTITUTION)
Affiliated to JNTUA, Ananthapuramu & Approved by AICTE, New Delhi
NAAC Accredited with A+ Grade, NIRF India Rankings 2021 - Band: 201-250 (Engg.)
NBA Accredited - B.Tech. (CIVIL, CSE, ECE, EEE, MECH), MBA & MCA
Department of Computer Applications



MITSTECH2021

Perfection is our goal Excellence will be tolerated ●

- UnKnown

MESSAGE FROM THE CORRESPONDENT



I feel exhilarated that the Department of Computer Science &Engineering of MITS is bringing out a magazine called MITS TECH from the year 2021. This Magazine brings out the intellectual brilliance in various new techniques introduced in Information Technology industry.

``HARD WORK, SINCERITY, DEDICATION AND ENTHUSIASTIC DEVOTION TO WORK WILL FETCH YOU UNBOUND SUCCESS, MAY THE LORD SHOWER HIS BLESSINGS ON YOU``

I heartily congratulate the students and the staffs of MCA Department and Wish them grand success.

Dr. N. VijayaBhaskarChoudary
Correspondent

MESSAGE FROM THE CHAIRMAN



Your blessings be bestowed upon us leading into the right path in organizing Magazine “MITSTECH” by the Department of Computer Applications students and faculty of MITS and thereby make this magazine a grand success.

Chairman
Sri. N. Krishna Kumar

MESSAGE FROM THE PRINCIPAL



I feel delighted about the magazine “MITSTECCH” to be hosted by the Department of Computer Applications of MITS. On this magnanimous occasion, I congratulate all the students and faculty members of department for their great efforts and coordination in bringing out the magazine a great success.

Principal
Dr. C. Yuvaraj

MESSAGE FROM THE HEAD OF THE DEPARTMENT

MITSTECH is dedicated for addressing the emerging topics and challenges in the area of technology. **MITSTECH** is to create great awareness on new innovative ideas and technologies. I wish the readers of “**MITSTECH**” for their support and also can provide the useful feedback to improve the standards of magazine.

Dr. N.Naveenkumar
Head of the Department

EDITORIAL DESK

The annual release of the department magazine “**MITSTECH**”, mark the spirit of exploration among students in an environment of erudition.

This year’s edition of “**MITSTECH**” focuses on current trends in Computer Science and Information Technology which are the major rays of hope for developing a new world of science. It is a collection of information and facts, featuring the recent developments of fascinating and conceptual communication.

The editorial team owes its gratitude to all who have made “**MITSTECH**”, a scintillating event.

Editors
Dr.N.Naveenkumar,
Dr C.Sivaraj
Dr. R.Maruthamuthu

ABOUT MITS

Madanapalle Institute of Technology & Science is established in 1998 in the picturesque and pleasant environs of Madanapalle and is ideally located on a sprawling 26.17 acre campus on Madanapalle - Anantapur Highway (NH-205) near Angallu, about 10km away from Madanapalle.

MITS, originated under the auspices of Ratakonda Ranga Reddy Educational Academy under the proactive leadership of and **Dr. N. VijayaBhaskar Choudary, Secretary & Correspondent** and **Sri. N. Krishna Kumar, Chairman** of the Academy.

MITS is governed by a progressive management that never rests on laurels and has been striving conscientiously to develop it as one of the best centers of Academic Excellence in India. The Institution's profile is firmly based on strategies and action plans that match changing demands of the nation and the student's fraternity. MITS enjoys constant support and patronage of NRI's with distinguished academic traditions and vast experience in Engineering & Technology.

ABOUT DEPARTMENT

The Department has grown from strength to strength since its inception in 2004. It offers 3 year MCA and 2 year MCA (Direct 2nd year) programmes. These programmes are fully governed by AICTE, New Delhi and affiliated to JNTU Ananthapuramu. The Department is dedicated to the mission of inculcating value-based, socially committed professionalism to the cause of overall development of students and society. It promotes the prime objective of educating and preparing students as dynamic, competent and knowledgeable professionals. Excellent academic results, high-end computer labs, well-defined and documented academic and administrative processes and student counseling sessions (personal and academic) are the core strength of the department.

The Department obtained UGC-Autonomous Status in the year 2014 and is running the programmes successfully by meeting all the requirements. The College Academic Council, Board of Studies of the department strive to provide quality education and most advanced curriculum to make the students industry-ready and excel in the contemporary business world.

The department is frequently organizing Faculty Development Programs, Conferences, Seminars, Symposium and workshops on various emerging areas and technologies. The guest lectures are arranged, eminent professors and industry resource persons are invited from reputed IT industries, top ranked Universities. All the qualified and competent students are placed in renowned organizations, both national and international. Despite maintaining global standards in teaching and learning, successful placement in different renowned organizations and consistent 100% admission in the department are the hallmarks of the department. The M.C.A. Programme under Department of Computer Applications was Accredited by the National Board of Accreditation (NBA) of All India Council for Technical Education (AICTE).

Vision

To be the source of producing competent computer application professionals in academic and research activities to serve the industry and society.

Mission

M1 : To empower students with knowledge of computer applications through state-of-art infrastructure and curriculum.

M2 : To groom students to become competent professionals in emerging technologies with industry specific programs.

M3 : To inculcate ethical values, leadership and managerial skills in the students.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PEO1 Excel in the software industry with the application of comprehensive knowledge and skills.

PEO2 Contribute by building innovative and sustainable solutions to the problems in the IT industry.

PEO3 Achieve successful career by exhibiting social responsibility leading to lifelong learning.

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Multimedia Assistance for Paralyzed patients using Eye Blink Detection

Paralyzed people cannot move a single part of their body Even though these people are cognitively aware; they have no means of communication. They have lost their ability to talk, type, etc. These victims have their thoughts and ideas trapped inside of them. Generally, people with paralysis have control over their eye movement. Therefore, the purpose of this project is to build a real time interactive system that allows paralyzed people to easily express themselves, via eye blinks.

We represent a real time method based on some video and image processing algorithms for eye blink detection. The motivation of this research is the need of disabling who cannot communicate with human. A Haar Cascade Classifier is applied for face and eye detection for getting eye and facial axis information. In addition, the same classifier is used based on Haar- like features to find out the relationship between the eyes and the facial axis for positioning the eyes. An efficient eye tracking method is proposed which uses the position of detected face.

Article Published by

K. Shanmukha Srinivas
(Roll No. 19691F00B2)

DETECTING UN AUTHORISED ACCESS OF PERSONAL DEVICES

Unauthorized access occurs when someone gains access to your device, system, or home without your consent. Unauthorized access is being dealt with using a variety of approaches.

This project highlights how we can improve the capabilities of the devices we've built. Our proposed strategy incorporates an improved methodology that aims to improve the exploration operation's cooperativeness.

In this project, we create an application with a device to prevent unwanted access to our premises by unknown individuals. When an unknown person tries to enter our premises, our program may notify the appropriate people.

Intelligent systems are becoming increasingly prevalent in people's life, and they frequently require identification when used. Traditional methods of identification rely on some personal attributes, such as identity documents and keys, to identify persons, which have obvious flaws. They are readily forgotten, misplaced, or counterfeited. Face recognition, fingerprinting, and other personal features can be used to identify people. The convolution layer and the convolution layer of CNN share parameters in terms of algorithms. This has the advantage of lowering memory needs and, as a result, lowering the number of parameters to train. As a result, the algorithm's performance has been enhanced. Other machine learning techniques, on the other hand, need us to preprocess or extract features from the images. When utilising CNN for image processing, however, we rarely need to conduct these procedures. Other machine learning methods are incapable of accomplishing this. In-depth learning has a few flaws as well. One of them is that constructing a depth model needs a large number of data, limiting the algorithm's usefulness. Face identification and licence plate character recognition have reached excellent results in recent years, thus this topic will focus on some basic research into CNN-based face recognition technologies.

Article By

K. PRUDHVI
(Reg.no 19691F00E9)

ONSCREEN EVALUATION OF OMR SHEET

The way of conducting testing the knowledge of an individual using Multiple Choice Questions (MCQ) has been increased gradually. In Educational industries (like schools and colleges) it's more common nowadays having tests using multiple choice questions. The current state of affairs involves either using OMR technology or manually correcting the test. In real time, it's difficult to possess OMR machine all the time and manually. It's highly taking time to correct and also gives error. I address this issue in our proposed system, by applying "Image Processing" technique also by using open CV library in python. In Python Open CV library is out there for image processing. To urge the most effective output, we use the Django framework together with python. The Open CV might be a programming library focused very much on real-time computer vision.

Article By

K. Siresha
(Reg. No. 19691F00B5)

Insight: Effective Way of Knowledge Sharing

This application enables consumers or users to gain knowledge about electrical utilities and to locate service providers in their area quickly. When someone is transferring from one location to another, because nowadays everyone wants to save time and solve their concerns as quickly as possible. The categories and characteristics of a certain product or service will be added by the administrator. He'll also include service providers depending on the city's most prominent areas. Users will register and submit queries or service requests in accordance with the admin's services. The questions will be given to the service provider, who will attempt to resolve them and offer information about them.

Electrical utility services are responsible for the design, location, building, servicing, repair, and inspection of electrical utility infrastructure, substations, and transmission and distribution lines, among other things. Electrical utility services come in a variety of forms. Rural utility service, underground utility finding service, electrical services, electrical contractor services, and public electric utility service are all examples of this type of service. Electrical contractor services cover a wide range of tasks, from repairing a single outlet to replacing entire electrical systems. To guarantee the safety of personnel, customers, and the general public, electrical utility services adhere to electrical and utility safety regulations. Electrical utility services should follow the Electrical and Utilities Safety Association's guidelines.

In emerging markets, a company's competitive advantage is critical to its success. Many businesses have lost sight of their competitive advantage in order to grow and compete against domestic and international competition. As a result, many businesses aim to acquire it through knowledge management. While firms must exploit their knowledge both internally and externally to gain and maintain a competitive advantage, they encounter numerous challenges in managing knowledge. This thesis examines the issues and barriers to knowledge management, as well as how service companies employ knowledge management to increase efficiency.

Article by

Ramisettigari Sivaprasad

THE SECURITY AND EXPERIMENTAL ANALYSIS FOR DUAL ACCESS CLOUD BASED DATA IN AMAZON WEBSERVICES

Cloud-based data storage service has drawn increasing interests from both academic and industry in the recent years due to its efficient and low cost management. Since it provides services in an open network, it is urgent for service providers to make use of secure data storage and sharing mechanism to ensure data confidentiality and service user privacy. To protect sensitive data from being compromised, the most widely used method is encryption. However, simply encrypting data (e.g., via AES) cannot fully address the practical need of data management. Besides, an effective access control over download request also needs to be considered so that Economic Denial of Sustainability (EDoS) attacks cannot be launched to hinder users from enjoying service. In this paper, we consider the dual access control, in the context of cloud-based storage, in the sense that we design a control mechanism over both data access and download request without loss of security and efficiency. Two dual access control systems are designed in this paper, where each of them is for a distinct designed setting. The security and experimental analysis for the systems are also presented

Article by
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