



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

MITSTECH2022

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 2022. 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 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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Design and Development of Desktop Language Translator

Today the technological advancement is increasing day by day. Earlier only there was a computer system in which we can do only few tasks. But now machine learning, artificial intelligence, deep learning, and few more technologies have made computer systems so advance that we can perform any type of task. In such era of advancement if people are still struggling to interact using various input devices, then it's not worth it. For this reason, we developed a voice assistant using python which allows the user to run any type of command in Linux without interaction with keyboard. The main task of voice assistant is to minimize the use of input devices like keyboard, mouse etc. It will also reduce the hardware space and cost.

Everything that a human being can perform is being replaced by machines in this technological era. Changes in performance are one of the key factors. We educate our machines to think like humans and do tasks on their own in today's environment. As a result, the concept of a virtual assistant was born. A virtual assistant is a digital assistant that recognises voice commands and performs relevant tasks as requested by the user using voice recognition features and language processing algorithms. A virtual assistant can filter out ambient noise and return relevant information based on specific commands given by the user. Virtual assistants are entirely software-based, although they are now integrated into a variety of devices, and some of the assistants are even mobile.

Article Published by

N.Tagore

(Roll No. 19691F00B8)

Deep Neural Network Model For Stress Detection In Social Networks

The technological advancement and significant rise in the usage of social media has resulted in major psychological health problems such as stress, anxiety etc. These challenges can be analyzed and prevention strategies can be formulated. To overcome these severe problems, the urgent need is to monitor the blogs in social media as it is irrepressible by humans due to their strong desire towards SMEs (Social Media Environments). Traditional methods such as questionnaires and interviews were conducted by psychologists but these processes are time-consuming and hysteretic. In this paper we have surveyed various stress detection strategies and found to be ineffective to detect stress from social media. In this paper we proposed an Effective Stress Detection method to utilize the ontology for stress detection among individuals and taking necessary precautions to prevent the users from committing suicide. Ontology is the keyword matching search process used in social media to identify the stress-related messages shared among individuals with improved accuracy.

Article By

Y. Yogendra Kumar Reddy
(Reg.no 19691F00E8)

Insight: Online Bed Booking for Quarantine Using Cyber Healthcare

The COVID-19 is the most pandemic time .It crossed millions of deaths. To control deaths by giving treatment to the Covid patients. To contribute this pandemic situation control, this study attempts to control deaths by providing treatment. we developed a better way to take treatment in quarantine Hubs .Our application will help to create a way to book their slot to take treatment on pandemic situation .which reduce the burden to the people who got positive.

Article By

Purusotham

(Reg. No. 19691F0067)

K-Dimensional Tree using coresets for KNN based Classification

KD-Tree produces an index of all accessible data in the offline phase and uses that indexed tree to discover and answer closest neighbour queries or to classify the input query. A Light Weight Coreset technique reduces the amount of data used to construct the tree index, resulting in a faster index production time. We improve on existing Nearest Neighbor-based Classification approaches and compare our classification method to a widely used, cutting-edge data structure. KD-Tree. Our solution achieves roughly identical accuracy and outperforms the original KD-Tree algorithm in terms of time when dealing with larger data sets. Navigate to the appropriate part of the Tree for the new point. In the "Best" queue, it should be placed first. Traverse upward for each node. Put it in the "Best" queue, because that's where it belongs. Then see if you can come up with a better argument. Fit a sphere around the location with the same radius as the distance to the last entry in the "Best" queue. Examine the sphere to check if it spans the splitting plane that connects the branchpoint in issue. If you have the option, travel down the opposite side. Otherwise, it's time to move on to the next level. Instead of conducting controlled testing to identify which algorithm and algorithm configuration performs best for a specific classification task, practitioners are recommended to conduct controlled tests to determine which algorithm and algorithm configuration performs best for a given classification task.

Article by

Sivakumar.B

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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