



TECHNOLOGY **AND SOCIETY**



TECHNOLOGY FOR YOY

UNZIPPED

A publication of the CSE Department



About Institute

M Dasan Institute of Technology (M-DIT) KOZHIKODE was established in 2012-13., with a total of seven academic departments. The technology institute was named after the late dynamic visionary Shri M.Dasan, former Member of Kerala Legislative Assembly. The programs offered at M-DIT extend beyond the horizon of engineering and also cover the key aspects of management. The college is approved by the All India Council for Technical Education, New Delhi and affiliated to the APJ Abdul Kalam Technological University (KTU).





Vision

Be a centre of excellence of International credence in futuristic education and research in Science, Technology and Engineering.

Mission

- Provide quality education through balanced discourses in academic and professional programs fulfilling both theoretical and practical needs of the scientific community and the society.***
- Contribute to the nation's engineering and technological strides through structured teaching and learning processes, research and consultancy, high order discipline and teamwork.***
- Maintain a diverse, collegial, open-ended and supportive pedagogy system that promote creativity and professionalism and motivate students to serve the community and the world at large.***





About Department

Computer Science Engineering (CSE) encompasses a variety of topics that relates to computation, like analysis of algorithms, programming languages, program design, software, and computer hardware.

Computer Science engineering has roots in electrical engineering, mathematics, and linguistics. In the past Computer Science was taught as part of mathematics or engineering departments & in the recent days it has emerged as a separate engineering field.

Software Developers: Software developers are professionals who are concerned with facets of the software development process which involves activities such as design and coding, computer programming, project management, etc.

Hardware Engineers : These professionals do research, design, develop, test, and oversee the installation of computer hardware which inter alia includes computer chips, circuit boards, systems, modems, keyboards, and printers.

System Designer : Professionals involved in system designing, Logical & Physical Designing where in logical designing can be enumerated as the structure & characteristics such as output, input, files, database & procedures, etc.

System Analyst : Computer engineers who work as systems analyst do research about the existing problems and plan solutions for the problem. They also recommend software and system related problems and coordinate development between business development teams.

Networking Engineers : Networking engineers are computer professionals involved in designing, implementation, and troubleshooting of computer networks.

DBA : DBA or Database Administrator are the professionals who are bestowed with the job to design, implement, maintain, and repair an organization's database. Inter alia DBA professionals are also known as Database Coordinator or Database Programmer in IT sector.



Vision

A leader in the Computer Science and Engineering program to bring out globally competent graduates committed to the welfare of the community and the nation.

Mission

- Build up competencies in Computer Science and Engineering graduates through innovative teaching and learning processes***
- Impart team spirit through assignment of professional responsibilities on competitive basis***
- Strengthen awareness of environmental protection through capstone design projects associated with the syllabus***
- Advance innovative research and lifelong learning in Computer Science and Engineering to serve the needs of the community, industry, and the government***



HOD MESSAGE



Ms.NITHYA V P

With great pleasure I introduce you to the Department of Computer Science and Engineering of M.Dasan Institute of Technology(M-DIT), Kozhikode. The department nurtures and moulds the students to enter in the fast changing realistic world yet maintaining the sensitivity in them. The department of CSE is one of the most dynamic departments of M-DIT. The department has consistently maintained a good academic record. I am really happy to tell that the department stands on the strength of experienced and well qualified faculty who are very dedicated to teaching and also involved in upgradation of knowledge. This gives a better experience to help cultivate better future for our students. With great demand in industry and great placement opportunities, the department stands tall and proud. Our students are given a strong foundation in computer science and problem-solving techniques . They are not only academically sound and disciplined, they also organise various events and club activities. I welcome you to CSE department whether you are looking for undergraduate or post graduate program. My team is confident that your stint with CSE will definitely make you outshine with a successful and accomplished career.



Ms. Manjusha M S
Faculty Incharge



Amar Krishna PA
Chief Editor



Dhanun R Nair
Design Head

Sub Editors



Sreehari GS



Nandakishore MJ



Santhini PR



Tech Trends



Industry
Interaction



Achievements



Events
Conducted



Convocation

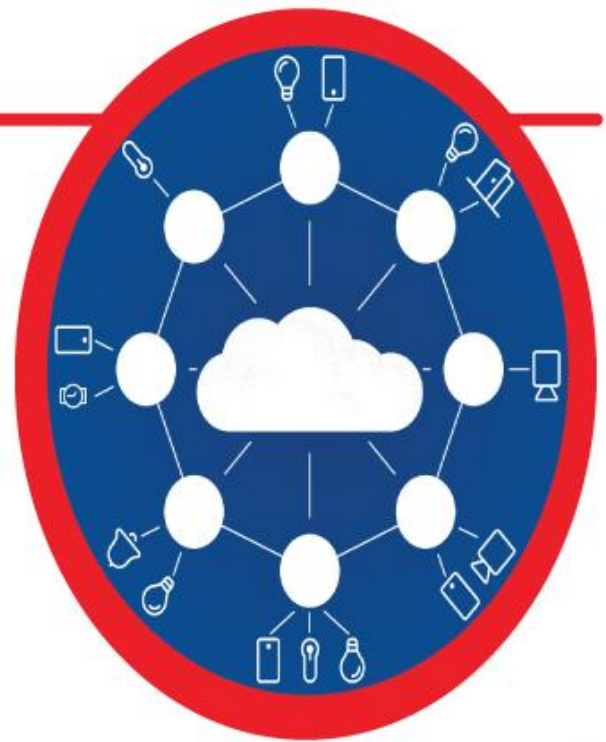


Art Work

CONTENTS

EDGE COMPUTING

1.



Why Edge?

Edge computing is a distributed computing paradigm that brings critical information analysis and knowledge storage closer to the location where it is needed. With the growing number of IoT devices along with connected automotive and industrial applications; latency, privacy, and bandwidth become critical limiting factors and edge computing solves this by bringing the intelligence closer to the source. Edge computing is a distributed computing paradigm that brings critical information analysis and knowledge storage closer to the location where it is needed. With the growing number of IoT devices along with connected automotive and industrial applications; latency, privacy, and bandwidth become critical limiting factors and edge computing solves this by bringing the intelligence closer to the source.

In the coming times, IoT will prevail everywhere, from autonomous mobility and vehicles, machinery equipment, smart devices equipment, wearable devices, enterprises to healthcare, among many more. As a result of the explosive growth of IoT devices generating an intense amount of data, the pressure on the internet infrastructure is immense. This has led to the need for real-time computing power, thus bringing edge computing systems into play.

For the majority of organisations, reduction in expenditure is a major driver towards deploying an edge-computing architecture. The biggest added advantage is the ability to process and store data faster, enabling for more efficient real-time applications that are critical to companies.

BLOCKCHAIN

2.



Blockchain is the foundational technology that powers electronic currencies such as Cryptocurrencies. In simple terms, a Blockchain is an electronic ledger that can be shared among different users. This helps in creating a record of transactions that cannot be altered. Each of these records is time-stamped and linked to the previous one. So every time a new transaction is added to the ledger, it is stored as another block in the chain of transactions hence the name. Blockchain is updated after the different parties contributing to the ledger agree. After new data is fed into a block, it cannot be erased. This makes technology verifiable and secure. This validation of transactions helps companies reduce their costs as no third party has to be paid. The system is very secure and there is no need for paying for centralized entities, as the technology is decentralized. Transactions are easier to track using Blockchain.



AbCellera Celium™

3.



In late March, biotech firm AbCellera hosted a call with 40 researchers to review the data they'd collected on potential antibodies against SARS-CoV-2. Using AbCellera's high-throughput microfluidics and single-cell analysis tools to probe samples of COVID-19 patients, the company's team had deciphered the genetic sequences encoding hundreds of antibodies that might treat the disease. Sifting through all of that data by hand was tedious, though, so the team fed it into Celium, a data visualization tool that intersects more than a million high-quality data points for those antibodies to reveal which ones might work best in patients as a potential therapy. In real time, on the call, the researchers used Celium to probe those relationships and home in on the LY-CoV555 antibody that, months later, entered clinical trials as a possible COVID-19 treatment, says Maia Smith, lead of data visualization at AbCellera and creator of Celium. "I think that kind of says it all." Before Celium came on the market in 2017, scientists working with AbCellera to find antibodies would get back complex spreadsheets of data that were difficult to navigate, and it was hard to know where to start, Smith says. Using Celium, data are presented in a visual format and the tool "helps you identify the right molecule for your needs," Fernando Corrêa, a protein engineer at Kodiak Sciences in Palo Alto, California tells The Scientist.

He's partnered with AbCellera to identify antibodies to treat retinal diseases, and says the company's package of microfluidics, single-cell analysis, and data visualization tool "streamlines the process of antibody discovery in a user-friendly manner." In late March, biotech firm AbCellera hosted a call with 40 researchers to review the data they'd collected on potential antibodies against SARS-CoV-2. Using AbCellera's high-throughput microfluidics and single-cell analysis tools to probe samples of COVID-19 patients, the company's team had deciphered the genetic sequences encoding hundreds of antibodies that might treat the disease. Sifting through all of that data by hand was tedious, though, so the team fed it into Celium, a data visualization tool that intersects more than a million high-quality data points for those antibodies to reveal which ones might work best in patients as a potential therapy. In real time, on the call, the researchers used Celium to probe those relationships and home in on the LY-CoV555 antibody that, months later, entered clinical trials as a possible COVID-19 treatment, says Maia Smith, lead of data visualization at AbCellera and creator of Celium. "I think that kind of says it all." Before Celium came on the market in 2017, scientists working with AbCellera to find antibodies would get back complex spreadsheets of data that were difficult to navigate, and it was hard to know where to start, Smith says. Using Celium, data are presented in a visual format and the tool "helps you identify the right molecule for your needs," Fernando Corrêa, a protein engineer at Kodiak Sciences in Palo Alto, California tells The Scientist. He's partnered with AbCellera to identify antibodies to treat retinal diseases, and says the company's package of microfluidics, single-cell analysis, and data visualization tool "streamlines the process of antibody discovery in a user-friendly manner.

ROBOTIC PROCESS AUTOMATION

4.



Robotic Process Automation (RPA) is a technology used for automating daily tasks, similar to artificial intelligence. Here, the software is used for automating repetitive tasks such as handling and replying to emails, processing transactions, and handling business data. This technology is used for automating tasks for low-level employees to higher-ranking officials. RPA can automate more than 40% of daily tasks. According to McKinsey, more than 60% of all repetitive tasks can be partially automated using RPA. So, this technology is going to threaten a lot of jobs. On the other hand, this latest technology will also create many job opportunities in the automation sector.



INDUSTRY INTERACTION



SKULL SESSION

The SKULL session conducted as part of AIM 2020 was an initiative to reduce the gap between industry needs and the skill level of UG engineering students. The session was an eye opener for students which helped them focus their time and energy towards skills which are of high demand in the industry and even though this was an interaction between industry experts and students, the conversation was in a very casual and insight full manner so as to ensure a proper channel of communication between professionals with deep domain knowledge and students who have limited domain knowledge



Immanuel Thomas
Student Coordinator
Dept of CSE



Achievements

VAISHNAVI S B S7 CSE



Vaishnavi SB of CSE department has been a part of a renowned dance group and have performed many classics as well a contemporary dance performance which convey a social message. The performances include, CHILAPPTHIKARAM - A theatrical version of Tamil epic Chilappthikaram written by Ilango Adikal, JAIHIND - A theatrical presentation on National Integration that gives a clear idea of history of Indian independence. SARGA KERALAM - A theatre work based on poetic and cultural traditions of kerala. It is audio-visual explosion of kerala traditions. JYOTHIRGAMAYA - An educative program on drug abuse. VISWAM VIVEKANANDHAM AND VEERA SMRUTHI - The first work on Swami Vivekanandan's life and visions through theatrical work and the second based on life and activities of Kerala Varma Pazhssiraja.

Jharkhand

*Jamshedpur, Tata Nagar
Organised by Indian
malayali samajam*

Kolkata

*Organised by
malayali Samajam*

Gujarat

*Ahmedabad
Organised by malayali
Samajam the function*



Achievements

T C SHIKHA
S1 CSE



GUINNESS WORLD RECORDS



1. GEAR UP 2020

Gear up 2020, The Department conducted a Goal setting and Time management session on 5th February. It helped students gain insight on smart goals, the importance of smart goals, tools & techniques in time management, innovation etc. The session was taken by Mr.Subin Bennet(Sr.soft skills Trainer).



2. Data Science: An Introduction, Scope, and Opportunities.



Osprey
International Institute



RAVI SHANKAR S

ASSISTANT PROFESSOR, DEPT OF CSE
VIDYA ACADEMY OF SCIENCE & TECHNOLOGY

M-DIT College in collaboration with Osprey International Institute conducted a program on Data Science: An introduction, scope, and opportunities. The session was conducted by Sri Ravi Shankar s assistant professor , Dept. of CSE, Vidya academy of science & Technology through Google meet on 21 August at 4 pm.

3. GATE AND CAMPUS PLACEMENT

The college conducted a webinar on GATE AND CAMPUS PLACEMENT on 25th August through Google meet. The session was taken by Mr. Mathew Kurian Director, Manifold Gate/ placement Trainer, and Entrepreneur



Mr.Mathew Kurian
Director, Manifold Gate
GATE/Placement Trainer
and Entrepreneur

EVENTS CONDUCTED

4. VIRTUAL FAREWELL PARTY - AU REVOIR

VIRTUAL FAREWELL PARTY Conducted on AUGUST 25 from 2.00 to 5.00. The function was inaugurated by Ms. Nithya V.P, HOD, Department of CSE. And followed by different programs like video presentation, tutor speech, cultural programs, best wishes video from pass out batch, nostalgic video presentation, a token of love (certificate) etc.

5. YOUR PERSONALITY CAN TRANSFER YOUR FUTURE

On Tuesday 17th of November 2020, the department of CSE organised a session, "YOUR PERSONALITY CAN TRANSFER YOUR FUTURE ", by MR.SHIJU PUTHIYA VEETIL (managing director and chief trainer AEROGlint TRAINING SOLUTIONS). The session was very helpful as it helped students gain a perspective on how to change their personality so as to have a bright future.



Mr. Shyju Puthiya Veetil
Managing Director & Chief Trainer
AEROGlint TRAINING SOLUTIONS

6. ICE BREAKER

The college conducted an "ICE BREAKER" session on 25th November 2020. The program was organised by the department of CSE.

7. INTENSIFY YOUR PENTESTING SKILLS.



M-DIT in association with RedTeam Hacker Academy conducted a webinar on INTENSIFY YOUR PENTESTING SKILLS. The session was handled by Mr. Sachin Jose and Ms. Achsah Annie (CyberSecurity instructor at RedTeam Hacker Academy) through Google meet on 5th December at 2.30 PM

8. ART IS LIFE

On 5th December 2020, a session "ART IS LIFE " was conducted by ARCHANA VASUDEV who is very much familiar with her contributions as an actress, writer, and educator. The session was a big success due to the active participation of students and all the college faculties.



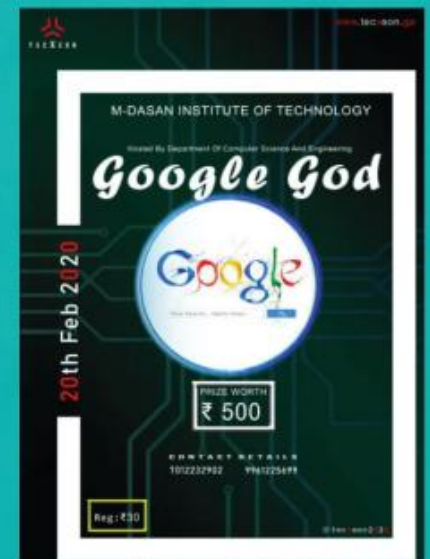
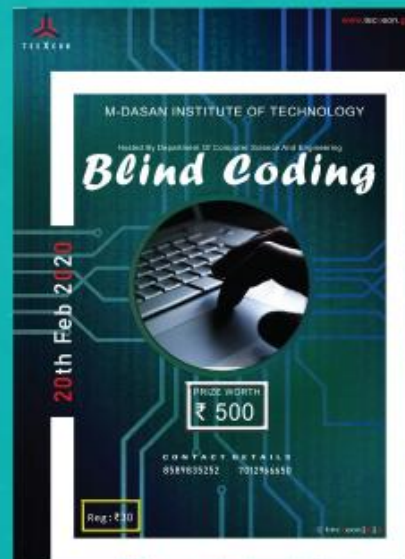
Archana Vasudev

TECH FEST



The tech fest conducted by the Department of CSE, "TECXEON" on Feb 20 was a mix of events which helped students showcase their determination and skill. The various events conducted were **Sherlock Holmes** - Participants had to solve various technical and mathematical problems in order to unlock the last box, **Blind coding**- Participants were give a coding question and were asked to code in a language of their choice with the monitor being turned off, **Google god** - Participants were asked to google a particular topic and find out a certain information, **Quizical - Technical Quiz**, **Online photography contest**, **Tik tok contest**, **Basketball throw challenge** and various gaming tournaments.

EVENTS CONDUCTED



CONVOCATION

Alumini convocation was conducted in the college on Aug 17 2020 for the 2020 pass out batch. The event was well organised and the pass out batch was honoured with mementos.

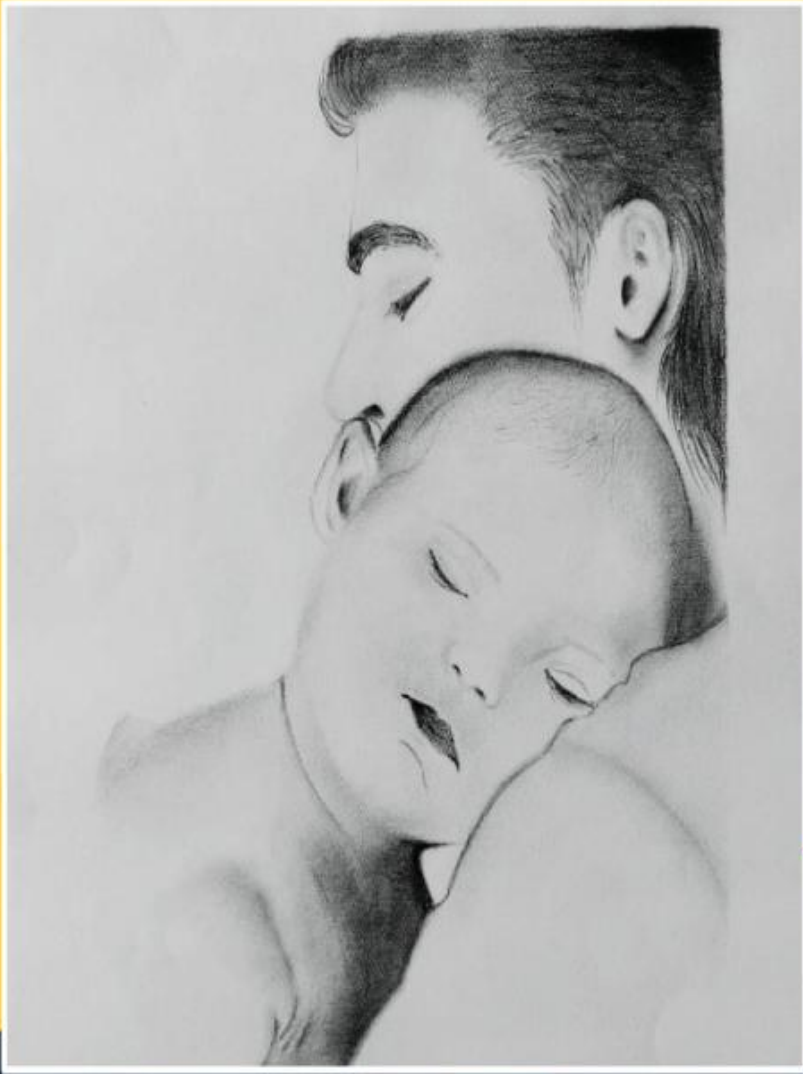


ART WORK



Akshay Prasanth
S7 CSE
M-Dit





Santhini PR
S3 CSE
M-Dit



ART WORK

ARTWORK



CSE LOGO DESIGNED BY DHANUN R NAIR



INK PAINTING



*Dhanun R Nair
S7 CSE*

PHOTO GALLERY



PHOTO GALLERY



Department of Computer Science & Engineering



M-DIT KOZHIKODE

M.Dasan Institute of Technology

Approved by AICTE, New Delhi & Affiliated to the APJ Abdul Kalam Technological University

