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Tech Glimpse
CSE Department Magazine
Volume 6, 2020

Vision of the Institute

Development of academically excellent, culturally vibrant, socially responsible and globally competent human resources.

Mission of the Institute

1. To keep pace with advancements in knowledge and make the students competitive and capable at the global level.

2. To create an environment for the students to acquire the right physical, intellectual, emotional and moral foundations and shine as torchbearers of tomorrow's society.

3. To strive to attain ever-higher benchmarks of educational excellence.

Vision of the Department

To develop highly talented individuals in Computer Science and Engineering to deal with real world challenges in industry, education, research and society.

Mission of the Department

1. To inculcate professional behavior, Strong ethical values, innovative research capabilities and leadership abilities in the young minds & to provide a teaching environment that emphasizes depth, originality and critical thinking.

2. Motivate students to put their thoughts and ideas adoptable by industry or to pursue higher studies leading to research.

Program Educational Objctives (PEO's)

1. Empower students with a strong basis in the mathematical, scientific and engineering fundamentals to solve computational problems and to prepare them for employment, higher learning and R&D.

2. Gain technical knowledge, skills and awareness of current technologies of computer science engineering and to develop an ability to design and provide novel engineering solutions for software/hardware problems through entrepreneurial skills.

3. Exposure to emerging technologies and work in teams on interdisciplinary projects with effective communication skills and leadership qualities.

4. Ability to function ethically and responsibly in a rapidly changing environment by applying innovative ideas in the latest technology, to become effective professionals in Computer Science to bear a life-long career in related areas.

Program Specific Outcome (PSO's)

1. Ability to apply skills in the field of algorithms, database design, web design, cloud computing and data analytics.

2. Apply knowledge in the field of computer networks for building network and internet based applications.

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Editorial Desk

Editorial Committee

Chairman
Dr L Basavaraj, Principal

Chief Editor
Dr Putte Gowda D, HOD, CS

Student Coordinators
Chandrakanth J
Sachin S

Dear Readers,

We are delighted to bring out our department magazine "Tech Glimpse". This magazine will showcase the activities and credentials of CS & E department staff and students.

I wish to express my gratitude for the invaluable encouragement and support by our beloved Principal and staff.

Your valuable comments and suggestions are appreciated. We wish all the readers an enjoyable reading.

Dr Putte Gowda D
Chief Editor

Department of Computer Science and Engineering

The Department of Computer Science & Engineering started in the year 2010. It is a evolving academic centre for higher education, research and novel in the key areas of Computer Science. It has been imparting quality education to meet the technological advancements and industrial requirements. The strength of students are progressively increasing every year and this is possible due to qualified and experienced faculties with excellent academic delivery process imparted. The first initiative taken by the department is "Computer Society of India - Student Branch", which is a professional body at National Level, in the year 2012, all the students have got enrolled as a members to this branch. The department has obtained CSI institutional membership and maximum teaching faculties have become CSI life members and platform is provided for the students to enhance their technical skills by participating in various events conducted under this professional body.

MOU has signed between Geekslab Techologies Pvt.Ltd., Department has Centre of Excellence in networking -CISCO, by providing CCNA Certification to students in networking and all final and pre final year semester students have done internship under this programme. The Department has got library, which believes in sharing of knowledge in the form of books, the most novel way of building the young mind by technical and ethical knowledge for students. Department also conducts various workshops, technical talks, and CSI events to students to up skill their skills. Technical training and Aptitude training is delivered to students to improve in their placement activities. Students have published various papers on project and have been awarded the best paper presentation. Students actively involved in hackathons, sports, cultural and many intercollege events and have bagged prizes.

Cisco Training

Department of Computer Science and Engineering organized Internship training to 7 sem students from July 10th to 26th 2019. Trained by Mr Anil Kumar B H, Mr Kiran B, Mrs Prakruthi S, Asst. Prof., Dept. of CSE. They trained and explained on network technologies. Explain how devices access local and remote network resources. Describe router hardware. Explain how switching operates in a small to medium-sized business network. Design an IP addressing scheme to provide network connectivity for a small to medium- sized business network. Configure initial settings on a network device. Implement basic network connectivity between devices and Configure monitoring tools available for small to medium-sized business networks. Packet Tracer exam, chapter exam and skill test was conducted.
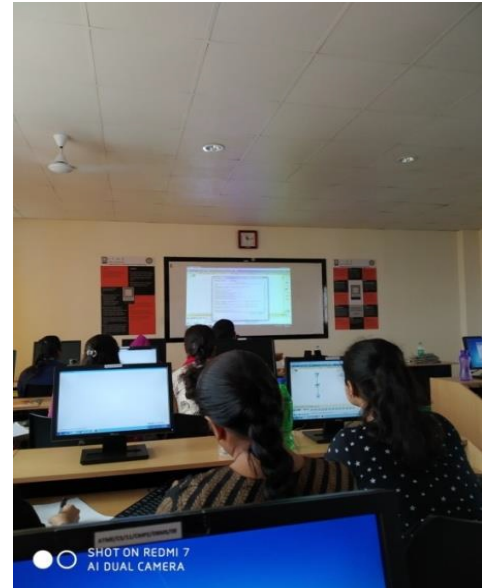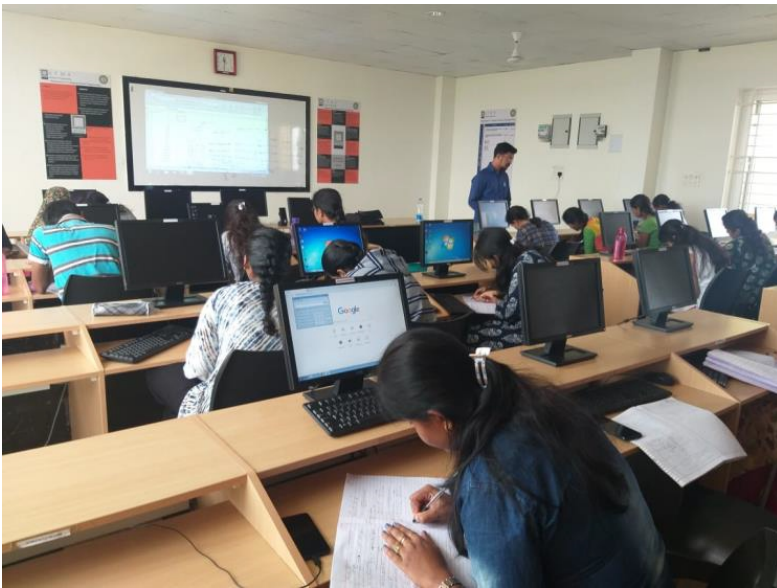
Technical Talk on Roadmap to Computer Science Students

Department of Computer Science and Engineering, ATME College of Mysore has conducted a seminar "A Roadmap to Computer Science course" on 12th September 2019 for third year students by Mr.Deepak, NICT Computer Mysore. The following topics were discussed in the session,

- Why engineering
- Need for Computer science
- Recent Technological developments in the field of Computer Science
- Attitude, Aptitude & importance of soft skills in employability

A Report on 'Two Day Workshop on Android App Development'

The Department of Computer Science and Engineering started an Android Club during academic year 2019-20 to encourage the students to acquire the knowledge in Android Technology.

The objective of the club is as follows:

- To create awareness about android technology among students.
- To solve social problems using Android Technology.
- To learn and gain detailed knowledge about android and other new technologies required for mobile application development.
- Tosh are knowledge with students and faculties.

Faculty Coordinator:
1. Mr. Kiran B, Asst. Prof, Dept. of CSE
DATE: 6th Nov to 7th Nov 2019
Venue: CSE Seminar Hall, 10 AM to 5 PM
Resource person: Mr. Pradhyumna, CEO AT EU Softwares, MYSURU

Workshop on "Android App Development" aims to impart technical and practical knowledge to students and future engineers. A value - added course on android mobile application development was conducted in Computer Science and Engineering Department for III - year students.

All the sessions were handled by Pradhyumna, CEO, ATEU Softwares on the need for Android App development, Installation of eclipse and android development kit and the basic files in the android. Students learnt how to develop simple android applications. He provided insights about Android development. He explained them app architecture, app components and app resources. He not only explained it analytically but also demonstrated by creating an app with the students. Even the students got a chance to experiment with their coding skills on Android Studio. To enhance their

skills an app development competition was declared. In this the students had to design the user interface of the app. The first app developed by students is to display a simple message. From this they are familiar with how to create an app, and run the app. The second app developed by students is to display the contents in the text box as simple text.

From this, they learnt how to use the components in the app development and also learnt to code for that app. The third app developed by the student is simple addition calculation. The fourth app developed by student is simple calculator. From this they are very well trained with how to use android software for application development and writing code for the application. Students felt that this value- added session on android mobile app development was very much useful for them and they got the basic idea for developing mobile application. It is planned to extend this value - added training in the next semester with some medium level of application development.

Smart India Hackathon 2020

Smart India Hackathon is a nationwide initiative to provide students with a platform to solve some of the pressing problems we face in our daily lives, and thus inculcate a culture of product innovation and a mind set of problem-solving. It is a non-stop 36 hour product development.

SIX teams from the department of Computer Science and Engineering had submitted solutions for the problem statements in SIH 2020. One team got short listed for national grand finale.

Faculty Name (Mentor)	Student Name	Award
Mrs. Nasreen Fathima Assistant Professor, Department of CSE, ATMECE, Mysuru.	Samura Mariyam K A	Shortlisted for grand finale 2020
	Syed Abdur Rahaman	
	Syed Asif	
	Usha M T	
	R Anu Kanthan	
	T N Sinchan Muthamma	

Three Day Workshop on Basics of Object Oriented Programming using C++ for IV Sem Students

Department of Computer Science and Engineering, ATME College of Engineering, Mysore organized Three Day Workshop on Basics of Object Oriented Programming using C++ for IV Sem Students from 10th Febuary2020 to 12th Febuary2020.

Workshop Objective:

1. The basic programming and OOPs concepts
2. Creating C++ programs
3. Tokens, expressions and control structures in C++
4. Arranging same data systematically with arrays
5. Classes and objects in C++
6. Constructors and destructors in C++
7. Files management and templates in C++
8. Handling exceptions to control errors

Workshop Context:

1. Understand the C++ language features.
2. Exploring Programming Basics and OOPs Concepts
3. Introducing C ++ Programming
4. Working with Tokens, Expressions and Control Structures in C++
5. Managing Input and Output Data
6. Arranging the Same Data Systematically: Arrays
7. Classes and Objects in C++
8. Implementing OOPs Concepts in C++
9. Constructors and Destructors
10. Groups of Statements: Functions

11. Implementing Structures and Unions
12. Inheritance, Encapsulation, Polymorphism,
13. Pointing to a location: Pointers
14. File Management in C++
15. Templates in C++
16. Handling Exceptions in C++
17. Manipulating Strings in C++
18. Working with Pre-processor Directives

Workshop Methodology:

Interactive action learning methodology included in the worshop:
- Presentation
- Individual feedbacks
- MS Power Point for their presentation and discussion throughout the workshop.
- Class Room, Projector.
- Neck Mike for the trainer and portable mike for the students.

Support required to conduct the workshop:

- Class Room, Projector.
- Neck Mike for the trainer and portable mike for the students.

Resource Persons: Sneha N P, Asst. Prof. Dept. of CSE, ATMECE, Mysuru.

**Venue:** Seminar Hall,401.Dept. of CSE, ATME Campus, Mysore

Workshop Date & Time: 10th Febuary 2020 to 12th Febuary 2020 9.30 am to 4.30 pm

Workshop Outcome:

- Describe OOPs concepts
- Use functions and pointers in your C++ program
- Understand tokens, expressions, and control structures
- Explain arrays and strings and create programs using them
- Describe and use constructors and destructors
- Understand and employ file management
- Demonstrate how to control errors with exception handling

Technical Talk on AR and VR Technologies

A Seminar has been conducted on AR and VR Technologies for third year students from 18th Feb 2020 at ATMECE, Mysuru. It was conducted in the Department of Computer Science and Engineering at ATME College of Engineering, Mysuru.
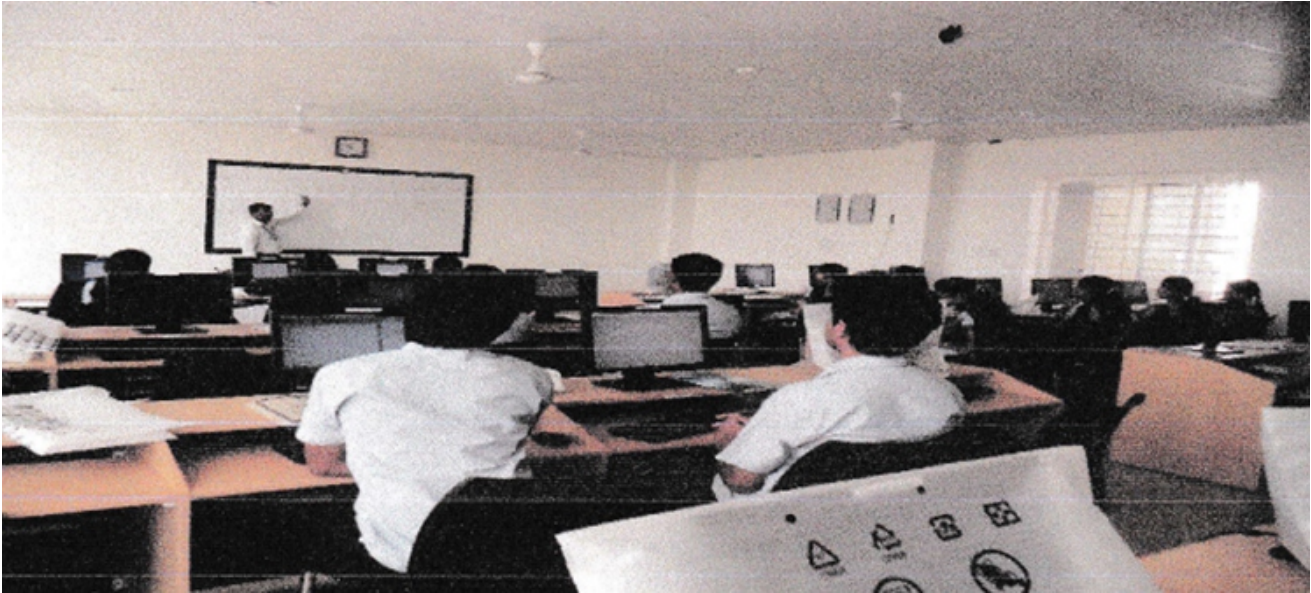
A seminar was conducted for third year students regarding Augmented and virtual reality. The following topics were discussed in the seminar.
- Why AR & VR
- How AR VR works
- AR VR Applications
- Job opportunities in AR and VR Technology

FACULTY PARTICIPATION

WORKSHOP / FACULTY DEVELOPMENT PROGRAMME

1. Mrs. Sowmya S, Ms.Keerthana M M , Mr Raghuram A S, and Ms. Kavyashree E D, Participated in Internship Training on CISCO held at ATMECE, Mysuru from 10th – 26th July 2019.

2. Mrs. M S Sunitha Patel , Participated One week training Programme for teachers on " Machine Learning and Deep Learning with Python Programming" held at VTU-HRDC, Chikkaballapur from 22nd – 26th July 2019.

3. Faculties of Computer Science Department, attended "One day Workshop on Linux" through ICT at IIT Bombay held at ATMECE, Mysuru on 23rd Aug 2019.

S pecial Technical Trainings are offered to the students on the technologies required by industry. A special team of faculty is engaged in this activity. Technical Trainings are conducted for the students on Aptitude, the team prepares comprehensive training programs, which is not restricted to but is inclusive of technical, behavioral, programming, foundation in mathematics, Logical and analytical Training, and many more tailor-made training programs for the holistic development of a student.

No of students placed in Companies : 43

No of students admitted to Higher Studies : 05

Average Package : 4.00 LPA

Achievers List

The details of the students who achieved in various sports

SL.NO.	NAME	EVENT	YEAR	PHOTO
1	Varsha	Softball	2019-2020	
2	Yashwanth P S	Softball	2019-2020	

Student Toppers

4th Semester - A Section		
USN	STUDENT NAME	SGPA
4AD17CS024	FAIZA FIRDAUS	8.89
4AD17CS004	AHALYA P	8.56
4AD17CS046	MALAVIKA T M	8.30

4th Semester - B Section		
USN	STUDENT NAME	SGPA
4AD17CS072	RAKSHITHA C M	8.44
4AD17CS079	SAHANA M S	8.37
4AD17CS057	NIKITHA S RAO	8.33

6th Semester - A Section		
USN	STUDENT NAME	SGPA
4AD16CS035	MANASA M R	8.12
4AD15CS086	THEJA K	8.04
4AD16CS006	AMEENA KOUSAR	7.96

6th Semester - B Section		
USN	STUDENT NAME	SGPA
4AD16CS072	SHAZIA BAIG	8.46
4AD16CS082	SUDHA M P	7.92
4AD16CS079	SMITHA M V	7.92

8th Semester - A Section		
USN	STUDENT NAME	SGPA
4AD15CS048	MOHAMED SALMAN SIDDIQI	9.05
4AD15CS004	AISHWARYA P	8.95
4AD15CS017	D NIKITHA	8.90

8th Semester - B Section		
USN	STUDENT NAME	SGPA
4AD15CS077	SHILPA	8.70
4AD14CS054	SACHIN GOWDA S	8.65
4AD15CS070	RYAN SOORYA	8.55

TECHNICAL ARTICLES

Top 10 Trending Technologies

Change is the only constant. This applies to your professional life as well. ***Up-skilling yourself*** is a need nowadays, the reason is pretty simple, technology is evolving very quickly. Here is the list of the top 10 trending technologies, which are expected to acquire a huge market in 2020.
1. Artificial Intelligence
2. Blockchain
3. Augmented Reality and Virtual Reality
4. Cognitive Cloud Computing
5. Angular and React
6. DevOps
7. Internet of Things (IoT)
8. Intelligent Apps (I – Apps)
9. Big Data
10. RPA (Robotic Process Automation)

So, the countdown begins from here.

10) RPA (Robotic Process Automation)

- Generally, any desk job in any industry involves tasks that are repetitive in nature and can be automated.
- RPA or Robotic Process Automation allows you to automate such routine and repetitive tasks.
- You don't need to write any code to automate repetitive tasks.
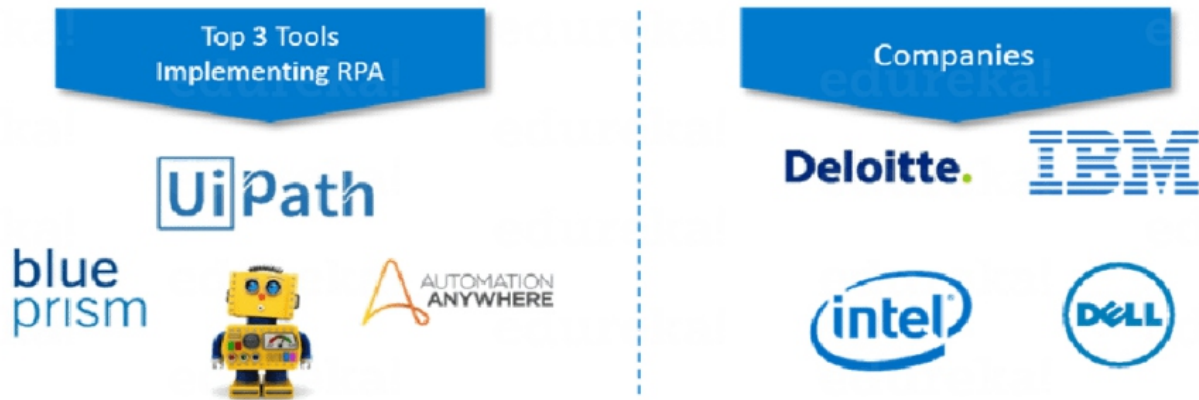
9) Big Data

Big data refers to problems that are associated with processing and storing different types of data. Most of the companies today, rely on big data analytics to gain huge insight about their:
- customer,
- product research,
- marketing initiatives and many more.

Hadoop and Spark are the two most famous frameworks for solving Big Data problems.

8) Intelligent Apps (I – Apps)

Ÿ I-Apps are pieces of software written for mobile devices based on artificial intelligence and machine learning technology, aimed at making everyday tasks easier.
Ÿ This involves tasks like organizing and prioritizing emails, scheduling meetings, logging interactions, content, etc. Some familiar examples of I-Apps are Chatbots and virtual assistants.

As these applications become more popular, they will come with the promise of jobs and fat paychecks.

7) Internet of Things (IoT)

Ÿ Another buzzword that no longer remains a buzzword but has become a full-fledged technology ecosystem in itself.
Ÿ IoT essentially is connecting many devices and creating a virtual network where everything works seamlessly via a single monitoring center of sorts.
Ÿ IoT is a giant network of connected devices – all of which gather and share data about how they are used and the environments in which they are operated.

This includes everything from your:

Ÿ mobile phones,
Ÿ refrigerator,
Ÿ washing machines to almost everything that you can think of.

With IoT, we can have smart cities with optimized:
Ÿ traffic system,
Ÿ efficient waste management and
Ÿ energy use

6) DevOps

This is the odd one out in the list. It is not a technology, but a methodology.
DevOps is a methodology that ensures that both the development and operations go hand in hand. DevOps cycle is picturized as an infinite loop representing the integration of developers and operation teams by:
Ÿ   automating infrastructure,
Ÿ   workflows and
Ÿ   continuously measuring application performance.

5) Angular and React

OK, now we are getting into core tech.
Ÿ   Angular and React are JavaScript based Frameworks for creating modern web applications.
Ÿ   Using React and Angular one can create a highly modular web app. So, you don't need to go through a lot of changes in your code base for adding a new feature.
Ÿ   Angular and React also allows you to create a native mobile application with the same JS, CSS & HTML knowledge.
Ÿ   Best part – Open source library with highly active community support.

Speed & Performance · Modular · Native App Development · Open Source
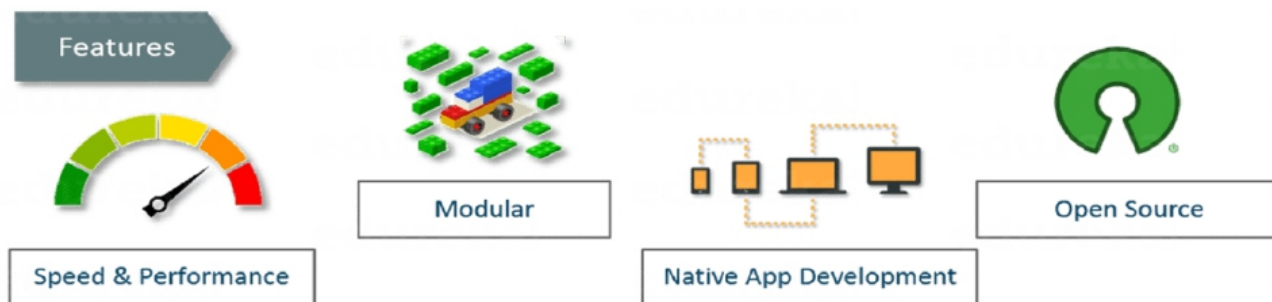
4) Cognitive Cloud Computing

Ÿ Cognitive Cloud is an extended ecosystem of traditional Cloud and Cognitive Computing.
Ÿ It's due to this, you can create Cognitive Computing applications and bring to the masses through cloud deployments. Cognitive computing is considered as the next big evolution in the IT industry.
Ÿ IIt converses in human language and helps experts in better decision making by understanding the complexities of Big Data. Its market size is expected to generate revenue of $13.8 billion by 2020 and is one of the top 10 trending technologies to consider this year.
Ÿ Big brands such as IBM, Google, Microsoft, Cisco have already started implementing this next-gen tech to gear up for the upcoming market.

3) Augmented Reality and Virtual Reality

Ÿ Virtual is real! VR and AR, the twin technologies that let you experience things in virtual, that are extremely close to real, are today being used by businesses of all sizes and shapes. But the underlying technology can be quite complex.
Ÿ Medical students use AR technology to practice surgery in a controlled environment.
Ÿ VR on the other hand, opens up newer avenues for gaming and interactive marketing.

Virtual reality is an artificial environment that is created with software and presented to the user in such a way that the user suspends belief and accepts it as a real environment

The various types of virtual reality differ in their levels of immersion and applicational use cases

Non Immersive — Jogging with a VR TV
Semi Immersive — Flight Simulation
Fully Immersive — Immersive VR Gaming

2) Blockchain

Ÿ This is the tech that powers bitcoins, the whole new parallel currency that has taken over the world.
Ÿ Interestingly, blockchain as a technology has far-reaching potential in everything from healthcare to elections to real estate to law enforcement.

Understand how blockchain works and your career is as sorted as the secure ledger this tech is based on!
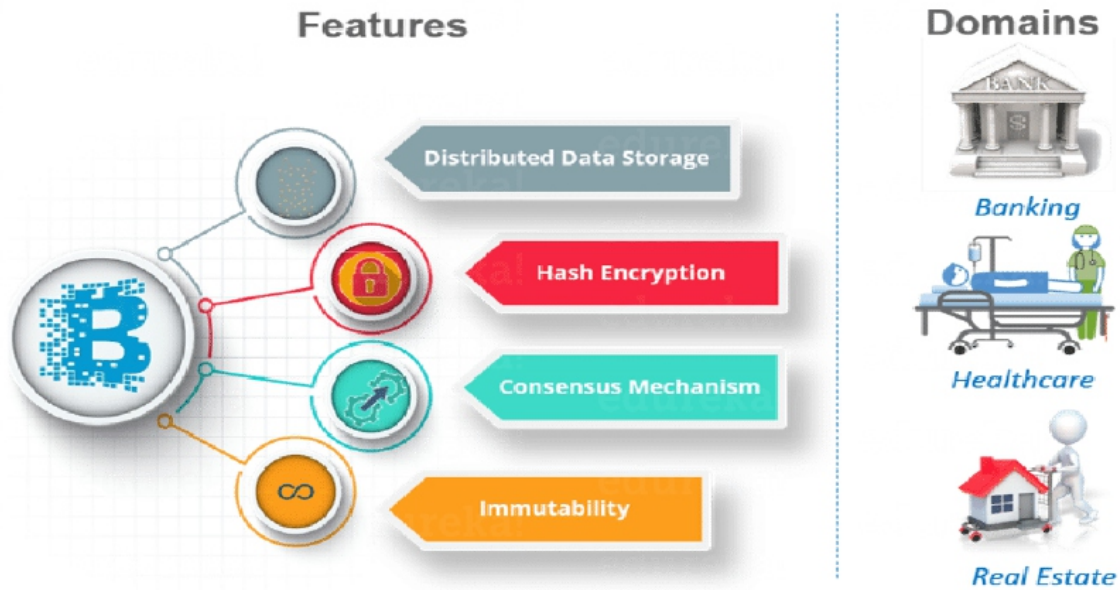
1) Artificial Intelligence (AI)

Ÿ AI existed even before the internet was born, but it is now that the data processing and compute power backbone became strong enough to sustain an entire technology by itself.
Ÿ AI is everywhere today, from your smartphones to your cars to your home to your banking establishment.

By
Department of CS & E Faculties

SMARTHOME SECURITY AND AUTOMATION

Home security has been an area of great interest among technology companies for several decades. But in the past five to seven years, new technology has taken this industry to unprecedented new heights totally revolutionizing the gadgets, systems, and devices that protect home owners from external threats.

The latest and greatest in this industry is smart-home security that automates an array of tasks and processes that previously could be handled only manually and in person.

Four Trends to Keep an Eye On

- Millions of households have come to depend home security technology over the years to improve safety and the residents' peace of mind. According to InMyArea.com, more than 90 percent of burglars say they would target a different home if they saw signs of a security system in place.
- The data also shows that homes without a security system are three times more likely to be burglarized. In recognition of the huge demand for home security solutions, many tech firms have poured their smart-home R&D efforts into automated security solutions that are intuitive to use and cost-effective to maintain.
- "Traditional home security alarm systems had a sole purpose make loud noise so that the people in the vicinity are alerted of an intruder. As the technology advanced, new systems were built that would send out a signal or a code to a central monitoring station informing them of the location of the alarm so that the police could be dispatched," Command One Security explains.
- Unfortunately, traditional home security systems haven't been as effective or reliable as they ought to be. But new innovations in the smart home space have paved the way for exciting trends that are more effective and reliable than in the past.

The home security industry is nowhere near to achieving its full potential, but it has made significant strides over the past few years. As smart-home technology continues to respond to the home security niche, you can expect to see new innovations that are powerful, effective, and safer than ever before.

By
Poornashree D
4AD16CS055
6th Sem 'B'

PHOTO GALLERY

PHOTOGRAPHY IS THE STORY I FAIL TO PUT INTO WORDS

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