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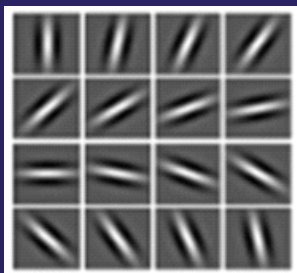Director, Allenhouse Group of Institutions

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Director, Allenhouse Institute of Technology

Editor-in-Chief
Ms. Richa Mishra
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B.Tech (CSE 4th Year)

Mr. Ram Mohan Dixit
B.Tech (CSE - AI&ML 2nd Year)

"Gabor Wavelet" tool for Face Recognition

Face recognition (FR) is one of the most eminent methods of biometric recognition that provides a prominent platform for various applications, such as intelligence, personality identification, pattern matching and much more. The performance of the

Editor's Note

Warm Greetings to all the readers of Allenbytes!

We are pleased to present the fourth release of our bi-annual newsletter 'Allenbytes'. The purpose behind this newsletter is to give an informative bite to our readers regarding technical buzzes and also to present the star achievers of department of Computer Science and Artificial Intelligence.

With every release we try to introduce some new columns which can enhance the awareness of our young readers. In this release along with our routine columns we have added a column of brief biographies of legendary personalities which aim to present the milestone achievements of inspiring personalities with the intent to nourish the mind of our readers with healthy motivations.

Special praise to new writers from B.Tech (2nd year) who have contributed their articles for the first time and a heartfelt thanks to all the contributors at every stage for their worthy efforts.

Also, I extend my deepest gratitude to the Campus Director of Allenhouse Group of Institutions Prof. (Dr.) Bhagwan Jagwani, Director of Allenhouse Group of Institutions, Dr. Rubby Chawla and Director of Allenhouse Institute of Technology, Prof. (Dr.) Somendra Shukla for their valuable guidance and support.

"Today a reader, tomorrow a leader."– Margaret Fuller- with this, I wish all my readers good luck and joyful new year.

Ms. Richa Mishra
Assistant Professor (CSE)

Open Source Learning with MOODLE

In today's world, education and training are single-handedly one of the most crucial parts of the working sector. Resources are available to make the process easy and efficient but such resources cost the students who wish to learn as well as the instructors who wish to teach the same. Also the methods or resources may not be that intuitive, modular and customizable. To tackle such problems in the world that is connected with the power of internet, MOODLE, an open source Online Learning Environment comes forward with as seamless Ocean of features and functionalities that are being consistently improved and added on with the help of an unending online developer's community. It promises to provide the most modular and intuitive platform for students to learn, and teachers to teach the ways intended to make learning a fun involving and rigorous activity with the help of real world problem modules.

Mr. Abhimanyu Mishra
Assistant Professor (CSE)

Virtual Reality and Augmented Reality-

Virtual reality and augmented reality have been popular terms in the technological industry for more than ten years, but consumer goods utilizing these cutting-edge technology advancements are still not commercially available. Our daily lives hardly involve virtual reality or augmented reality. Despite becoming well-known on the market, VR and AR are still relatively young technology uptill 2022.

While augmented reality-based apps reached their height in popularity a few years ago before waning, Virtual reality has been used extensively in video games to date. Virtual reality needs to become established in people's daily lives for it to become a major technology trend in the future.

In recent years, virtual reality has started to be used in training programs. Virtual reality adventures have been useful in providing visitors to museums, with experiences. The rise of virtual reality is similar to that of 3D technology in that it might just require one application, like a 3D movie, for the technology to become widely used.

There is presently no need of formal education for careers in virtual reality. Simple programming abilities, curiosity in the subject, and knowledge of the value of visualization should be sufficient to land you a job. The number of virtual reality devices sold annually is in the millions, so it's only a matter of time before VR and AR become commonplace.

Ms. Renu Chaurasia
Assistant Professor (CSE)

Face Recognition (FR) system depends upon the various factors, like type of the feature extractor used by the developer etc. If developer is able to propound a well and sophisticated FR system, more accurate will be the biometric mechanism. The efficiency of the FR system is precept by the choice of the feature extractor.

In the study of the information of digital images, Gabor Wavelet Transform emanate as one of the most lucrative methodologies for feature extraction. For the past few decades, many variants have been proposed to enhance the performance of the Gabor filter. It is a mathematical model of visual cortical cells of mammalian brain and by using this; an image can be decomposed into multiple orientations in multiple scales. The Gabor function has been considered as a very useful tool for texture analysis, due to its optimal localization properties in both spatial and frequency domain, and found widespread use in technologies like computer vision. Texture features are found by calculating the variance and mean of the Gabor filtered image.

Further Reference:

https://medium.com/@anuj_shah/through-the-eyes-of-gabor-filter-17d1fdb3ac97

Mr. Gaurav Tiwari
Assistant Professor (CSE-AIML)

Early Lung Cancer Detection using Machine Learning Techniques

Lung cancer is considered as the deadlier disease and a primary concern of high mortality in present world. Lung cancer affects human being at a greater extent and as per prediction it now takes 7th position in mortality rate index causing 1.5% of total mortality rate of the world. Lung cancer originates from lung and spreads up to brain and is categorized into two major groups. One is non-small cell lung cancer and the other is small cell lung cancer. Some of the symptoms which are associated with the patients are severe chest pain, dry cough, breathlessness, weight loss etc. Looking into the cultivation of cancer and its causes, doctors consider smoking and second-hand smoking as the primary causes of lung cancer. Treatment of lung cancer involves surgery, chemotherapy, radiation therapy, Immune therapy etc. Therefore, it is highly necessary to take early precautions at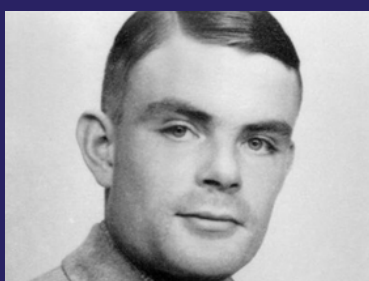 the initial stage so that its symptoms and effects can be found at early stage for better diagnosis. Machine learning now a days has a great influence to health care sector because of its high computational capability for early prediction of the diseases with accurate data analysis. Due to covid pandemic, this problem becomes even more severe as we all know corona virus and its different mutant directly harm the lungs and affect the lungs capacity. Machine Learning techniques like KNN (K Nearest Neighbour) and K Means method with appropriate feature selection can be a good method to improve the accuracy on early lung cancer detection.

Ms. Sony Tripathi
Assistant Professor (CSE)

Brief biography of LEGENDARY personalities

Alan Turing: British Mathematician and Logician

Born: June 23, 1912 London England
Died: June 7, 1954 (aged 41) England

Alan Turing, in full Alan Mathison Turing, British mathematician and logician who made major contributions to mathematics, cryptanalysis, logic, philosophy, and mathematical biology and also to the new areas later named computer science, cognitive science, artificial intelligence, and artificial life.

The son of a civil servant, Turing was educated at a top private school. He studied mathematics from University of Cambridge in 1931. After graduating in 1934, he was elected to a fellowship at King's College in recognition of his research in probability theory. In 1936 Turing's seminal paper "On Computable Numbers, with an Application to the Entscheidungsproblem [Decision Problem]" was recommended for publication. Turing's method had profound significance for the emerging science of computing. Turing completed his Ph.D. in mathematical logic from Princeton University in 1938.
During the course of his work on the Entscheidungsproblem, Turing invented the universal TURING MACHINE, an abstract computing machine that encapsulates the fundamental logical principles of the digital computer. Turing showed in 1936 that every lambda-definable function is computable by the universal Turing machine and vice versa. During the autumn of 1939 and the spring of 1940, Turing and others designed a code-breaking machine known as the Bombe which supplied the Allies during World-War-II with large quantities of military intelligence. After a short while Turing was made an Officer of the Most Excellent Order of the British Empire (OBE) for his code-breaking work. In 1945, Turing was recruited to the National Physical Laboratory (NPL) in London to create an electronic computer.
Turing was a founding father of Artificial Intelligence and of modern cognitive science. Turing proposed what subsequently became known as the Turing test as a criterion for whether an artificial computer can mimic the human brain(1950).
Turing was found dead on 8 June 1954, as a result of cyanide poisoning. His death was ruled a suicide. On 15 July 2019, he was announced as the face of the new £50 note, which went into circulation in 2021 on 23 June, the date of his birth.

Ms. Richa Mishra
Assistant Professor (CSE)

AMAGING FACTS :

⇨ The Firefox logo isn't a fox, it's actually a red panda.
⇨ Facebook's logo is blue in colour because Mark Zuckerberg is colourblind and blue colour is the clearest colour he is able to see.
⇨ The code name for windows vista is Longhorn.
⇨ Swift is the robust and intuitive programming language used by Apple computers.
⇨ The wearable AI market will reach $180 billion in 2025.

Aanya Shukla
B.Tech (CSE-2nd yr)

> **Programming is a skill best acquired by practice and example rather than from books.**

ALLEN-GOT-TALENT (Dec'22)

1st Position :
Prashant Shukla
AIML 2nd Yr Sec B

2nd Position :
Aqsa Naseem
CSE 3rd Yr

3rd Position :
Pooja Sahu
CSE 3rd Yr

Kavyam Mishra
AIML 2nd Yr Sec A

Star Achievers in Events last six months

CODE SAGA (Nov'22)
Winners from 2nd year:

1st Position :
Omar Ahmad Sayed
CSE 2nd Yr

Sayed Taha Ahmed
CSE 2nd Yr

2nd Position :
Aman Rehman
AIML 2nd Yr

Divya Kanojiya
AIML 2nd Yr

Winners from 3rd year:

1st Position :
Rohan Singh
CSE 3rd Yr

Anand Pal
CSE 3rd Yr

2nd Position :
Kaleem Ahmad
AIML 3rd Yr

Shreyansh Kr. Sahu
AIML 3rd Yr

SPEED-O-ALLEN (Dec'12)

1st Position :
Priyanshu Gupta
AIML 2nd Yr Sec B

2nd Position :
Prince
AIML 2nd Yr Sec B

3rd Position :
Rishabh
AIML 2nd Yr Sec B

BUZZ AROUND CHATGPT

What is ChatGPT making news worldwide? ChatGPT is an AI chatbot built by open AI that has taken the world by storm with its utopian capabilities. It lets the user give a 'prompt' and to the result of which an AI-generated answer is obtained at the user's end. The GPT in ChatGPT stands for Generative Pre-Trained Transformer which is a neural network holding the ability to use the training data or input data to form text-based output content. It comprises large language models with rigorous supervised and reinforcement learning techniques and, does not require the internet as it is pre-trained, therefore, it shares no similarities with search engines like Google.

How ChatGPT works under the hood?

Technologies like Natural Language Processing and Artificial Intelligence have succeeded in making human-machine interaction easier over time and play a pivotal role in the working mechanism of ChatGPT. On getting the prompt, it encodes the input into a numerical representation known as Tokenization. The prompt is fed to the transformer to process and generate a response. One of the key powers of ChatGPT is to remember past information on generating a realistic and humane response. Within its release, ChatGPT broke all records by hitting the 1 million user mark within the first six days of release and already there are speculations regarding the threat it can pose to replace Google in future.

Mohammad Alim
B.Tech [CSE 4th Year]

THE IMPACT OF CODING

The present generation can't even imagine the life without programming, software, apps and websites. The One of the major reasons behind technical development and digitalization of the modern age lies in the lines of codes. While so many people see coding as a highly modern and technical skill, it is, in fact, another form of the literacy, like a new language but only for computers. Children Living in the 21st-century are growing up towards the digital era, and the skill of coding that can be used every day.

Coding skills are an advantage not only in the workforce but also provides advantages for children and student's life in general. Data shows that young children can learn and acquire Computational Thinking (CT) skills, which have led governments and policymakers internationally to integrate Computational thinking into the curriculum, starting in the earliest grades. Researchers support the idea that, this introduction not only focus on a problem-solving skill but also provide children with new ways to express themselves, supporting their cognitive, language, and socio-emotional development (Computational Fluency-CF). Coupled with the media and government's rhetoric and an increasing number of apps offering various programming lessons, puzzles, and challenges, educators have been responsible for introducing young children to Computational thinking and Computational Fluency using latest technologies.

Abhishek Tripathi
B.Tech [CSE(AI-ML)- 2nd year]

Artificial Intelligence - The Controversies surrounding AI concept.

As in the leading world we're seeing that how the Technology is spreading in our basic needs and it is observed that everything is dependable upon AI and its functions. But the question here arises is that, Is this AI really safe and secure to the human?

Although, the Legal and Ethical Issues that confront society due to AI, include privacy and surveillance bias, which is a challenge for the role of human judgment. The Concerns about newer technologies are becoming a new source of inaccuracy and data breaches which have arisen as a result of its use. The mistakes in the procedure of Healthcare and in Medical Treatment can have a devastating consequences for the patient who is the victim of just a small error. Currently, there are no well-defined regulations in place to address the legal and ethical issues that may arise due to the use of artificial intelligence in various sectors. As AI-based decisions are not always intelligible to humans, they are susceptible to inaccuracies. There are new concerns for fairness and risk for Human Rights.
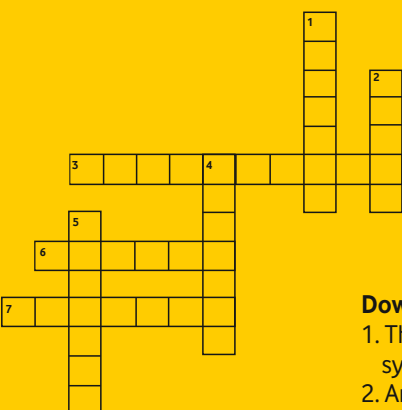

So would you like to be judged by a Robot in a Court of Law? Even if we are not sure how it reaches its conclusions?

AI surrounds us in our daily life, from Siri to Alexa, social media applications, and numerous virtual player games and virtual reality. However, like any other application, Artificial Intelligence also has its pros and cons. Thus there are many controversies related to use of Artificial Intelligence which makes the topic to debate in UN and in other agencies.

Adnan Ahmed
B.Tech [CSE (AI&ML)-2nd yr]

CROSSWORD PUZZLE

Computer Science vs Artificial Intelligence

Down
1. The most sold operating system?
2. American manufacturer of electric automobiles, solar panels, and batteries for cars and home power storage.
4. One of the world's fastest supercomputers from Japan.
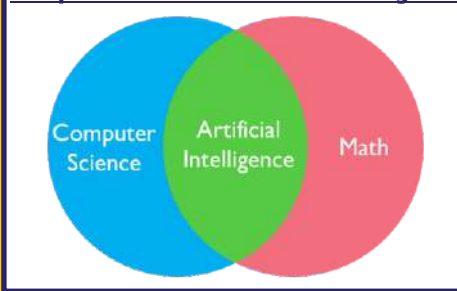5. A video sharing platform where users around the world stream 694,000 hours of content every minute.

Across
3. Intelligence that is developed by humans.
6. The most advanced humanoid robot.
7. One of the popular human-like conversation bots in the world created using Pandorabot platform.

Rajendra Singh
B.Tech [CSE (AIML) – 3rd yr]

IMAGE PUZZLE
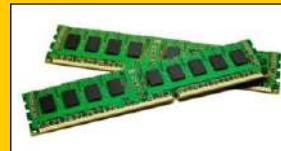Identify the following hardware components:

Component — **Options:**

a) CPU
b) ROM
c) RAM
d) HARD DISC

a) GRAPHICS CARD
b) CPU
c) HARD DISC
d) MOTHER BOARD

a) GRAPHICS CARD
b) AUDIO CARD
c) HARD DISC
d) MOTHER BOARD

a) CPU
b) ROM
c) RAM
d) HARD DISC

Qasim Abbas Naqvi
B.Tech(CSE- 3rd yr)

Crossword Answers: 1. Android 2. Tesla 3. Artificial 4. Fugaku 5. Youtube 6. Sophia 7. Mitsuku

Image Pazzle Answers : 1 (a) , 2 (c), 3 (a), 4 (c)

Campus Placement Interview Tips

Here are the top 10 campus placement interview tips that you can use for interviews, regardless of the position you are applying for.

1. Make Your Resume Impressive.

A Resume is a student's real identity, so it needs to be perfect and interesting. Follow the below points:

The projects undertaken by you.

The acquired certifications

The training programs you attended, if any.

2. Frequently asked Campus Placement Questions.

Some of the most popular campus placement interview questions include:

Describe yourself.

Talk about your academic pursuits.

Why should we hire you?

Why do you want to work with us?

Any question you would like to ask us?

3. Find out as many necessary things about the Organizations Coming in for Campus Placement as You Can.

Researching the companies that are visiting your campus is crucial. Having thorough knowledge of an organization will allow you to stay adequately prepared for the campus placement interview.

4. Order of the relevant Documents that are set in the file.

Filing all necessary documents in a synchronized manner is important, including your professional certifications. It is advisable that the relevant documents shall be there which will enable the recruiters to look at your progress without much hassle.

5. Vital part is presenting yourself before recruiter.

You might wonder to know that why someone with excellent grades is dropped while an average student is selected. Outstanding presentation is the reason. Presenting yourself in a professional manner is very important, and you should work on your presentation before you appear for a campus interview.

6. Importance of the attires you are wearing.

Put on the attire suiting best on you when you come for the campus placement interview, but refrain from going over-the-top. If the position you are applying for involves dealing with clients and business associates, the employer can assess you on the basis of your dressing style.

7. Maintaining Positive Body Language should be the on priority.

Do remember to walk with a straight spine and a smile on your face to display confidence. Shake hands warmly to reveal your passionate side. Do maintain the eye contact, and hold it for 4 to 5 seconds to show that you are interested. Body language is a form of non-verbal communication, and having positive body language is extremely important in today's work environment.

8. Choose the Right way to Answer Questions.

Stay as clear as possible and avoid fumbling or speeding up when answering questions. Stay calm while listening to a question, and ask the interviewer to repeat it if you have any doubts. Never attempt the questions that you do not know. Guesswork leaves a bad impression.

9. If Conquering Nervousness is not getting possible, Hide It?

Being nervous before or during a campus placement interview is natural and normal, but don't let employers know that you are nervous. Recruiters may try to confuse you to check how confident you are.

10. Why they should choose you should be answered smartly

There are several people applying for the same profile. Through your dressing sense, presentation skills, body language, and knowledge, you should give recruiters more than one reason to select you.

Ms. Jai Nandini Singh
Senior Manager-
Training & Corporate Relations

Super Star Achievers 2023

Vaibhav Mishra
Infosys
9.5 LPA

Vaibhav Mishra
TCS
7 LPA

Achal Tiwari
Jaro Education
6.6 LPA

Ashvani Shukla
Infosys
6.25 LPA

Aatiq Afzal
Infosys
6.25 LPA

Anushka Jain
HCL Technologies
4.25 LPA

Achal Tiwari
Infosys
3.6 LPA

Mahak Kushwaha
Infosys
3.6 LPA

Umeesh Chaudhary
Infosys
3.6 LPA

Devashish Khare
Infosys
3.6 LPA

Ankit Singh
Infosys
3.6 LPA

Chetan Kumar
TCS
3.6 LPA

....and Star Achievers are.

Pushpanjali
Airdit Software

Riya Dhawan
Airdit Software

Sakshi Pathak
Airdit Software

Chetan Kumar
Airdit Software

Shivansh Awasthi
Airdit Software

Ishita Jaiswal
SmartBrains

Aradhya Nishad
Collabera

Kshama Gupta
Collabera

Anushka Jain
Collabera

Gaurav Sachan
Collabera

Ananya Awasthi
Collabera

Tricha Mishra
SmartBrains

Vaibhav Mishra
Palle Technologies

Achal Tiwari
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Aatiq Afzal
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Mohammad Alim
Palle Technologies

Anushka Jain
Palle Technologies

Sahil Khan
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Gaurav Sachan
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WFM Experts

Pakhi Biswas
WFM Experts

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