SHRI SHANKARACHARYA INSTITUTE
OF PROFESSIONAL MANAGEMENT AND TECHNOLOGY
RAIPUR
COMPUTER SCIENCE & ENGINEERING

CYBER TRINITY

NEWSLETTER

January - June 2019, Vol 4

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"What next?", Is the question that empowers Shri Shankaracharya Institute of Professional Management to strive to make a resilient effort to accomplish the value- based competency of young professionals .In the efforts to achieve this aim, we have successfully launched SSIPMT 2.0 after a decade of surpassing elementary phase of learnedness and prologue of apprenticeship.

The 2.0 focuses on hundred percent placement and creation of credible engineers for the society and its betterment.

I give my wishes and blessings to soon-to-be graduates of CSE, batch 2015-19 for their upcoming endeavors in future. I extend my felicitations to the workforce of CSE Department for bringing together technical Workshops and AGRESITA-2019 successfully. We still have a long way to go and stress ourselves on the prolific journey towards excellence.

Shri Nishant Tripathi
Chairperson, SSIPMT

VISION

"To produce value based quality Engineers with the knowledge of latest trends and research technologies to meet the developing needs of industry and society."

MISSION

- To impart quality education in line with quality teaching-learning process.
- To provide a better environment to encourage and support innovative research and development.
- To strengthen linkage between industry-academia for overall improvement ofstudents.

Program Specific Outcomes (PSO's)

PSO:1 Specify, design, develop, test and manage reliable and efficient application software systems that uses SDLC principles as per user requirements on the required platforms including desktop, Mobile, Distributed and Network environments.

PSO:2 Understand the architecture and design of Digital Computers including multi-core processors.

PSO:3 Understand the design and use of System Software and packages including Compilers, Operating Systems, Database Management Systems and Soft Computing tools.

Program Educational Objectives (PEO's)

PEO: 1 Specify, design, develop, test and maintain usable software systems that behave reliably and efficiently and satisfy all the requirements that customers have defined for them.

PEO: 2 Develop software systems that would perform tasks related to Research,Education and Training and/or E-governance.

PEO: 3 Work in a team using common tools and environment to achieve project objectives.

THE MEMORANDUMS

This semester has been a phenomenal working with the students and witnessing their growth in academics among other extra-curricular activities.

This memoranda discusses the popular technology Artificial Intelligence .All the Major IT companies such as google ,IBM etc has been exploring this field to learn and predict results as well as use it in activities where human intelligence is required.This blooming technology has arched the new era of automation and intelligence simulated by bots and codes.

The most popular courses offered on AI are:-

- Machine Learning Crash Course by Google
- Introduction to Artificial Intelligence (AI) by Microsoft
- Data Science and Cognitive Computing Courses by IBM

The key areas to be mastered for being an AI specialist are:-

- Bayesian networking (including neural nets)
- Computer science (gain coding experience with popular programming languages)
- Cognitive science theory
- Engineering
- Physics
- Robotics
- Various level of math (algebra, calculus, logic and algorithms, probability, and statistics).

Some of the job opportunities this course has to offer are: AI Chatbot Designer, Data Scientist, Machine Learning Engineer, Data Scientist, Business intelligence developers, Research Scientist, Big Data Engineer/Architect.

Students I urge you all to explore this revolutionary technology because it can bring an era of modernized tools and simplified results which holds the power to overwrite primitive coding techniques and bettering the data handling method.

Mrs. Sumitra Samal
Asst. Prof. CSE Dept.

Artificial intelligence (AI) is the imitation of human intellect processes by machines, particularly computer systems. These processes consist of learning (the attainment of information and set of laws by means of the information), reasoning (using rules to accomplish approximate or definite conclusions) and self-correction. Some application of AI include speech recognition, expert systems, and machine vision.

AI can be classified as either weak or strong. Weak AI, is an AI System which is designed and trained for a well known task which has a finite no of steps. Strong AI, is an AI system with generalized human cognitive abilities. When presented with an unusual task, a strong AI system is capable to find a solution without human involvement.

As hardware, software and staffing costs for AI can be costly, a lot of vendors are including AI apparatus in their standard offerings, as well as access to Artificial Intelligence as a Service (AIaaS) platforms. AI as a Service allows individuals and organizations to research with AI for different business purposes and sample several platforms earlier than making a commitment. Well-known AI cloud offerings include Amazon AI services, IBM Watson Assistant, Microsoft Cognitive Services and Google AI services.

Mr. Ashish Trivedi
Asst. Prof. CSE Dept.

ARTIFICIAL INTELLIGENCE

Be it either learning to ride a bicycle or play the guitar, our brain helps us in understanding and learning both the task. Artificial Intelligence(AI) was built with a similar idea.
A simple definition:- "Artificial intelligence (AI) is the simulation of human intelligence processes by machines, especially computer systems. "
These processes include learning, reasoning and self-correction. AI tries to copy a human being's method of learning and understanding problems and making its own decisions.

Types of Intelligence:-
The basic element of our Intelligence:-Pattern-matching helps us in a long way.
1)**Linguistic Intelligence**:- When we talk, our brain continuously searches for words and meanings.
2)**Spatial Intelligence**:- While we travel we showcase SI by constructing a route inside our head.
3)**Interpersonal Intelligence**:-Understanding what other people feel.

Terms: Strong AI and Weak AI
1) **Strong AI**:- Also known as General Artificial Intelligence.It can be seen as a full fledged-human being created artificially. In strong AI, a machine can showcase all the aspects of a human being.
2) **Weak AI**:- Also known as Narrow AI.It can be said as the other side of coin. Weak AI is very limited in its scope and will work only on a specific task.

By - Rohit Mene (CSE 6th sem)

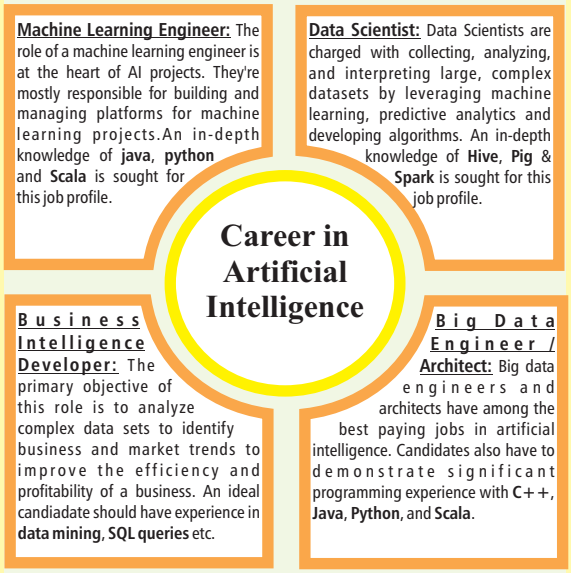
Who do we trust when Human and Machine Intelligence Disagree?

ON 29 October, Lion Air flight JT 610 crashed into the sea off Jakarta with the loss of 189 lives. This is considered as one of the biggest examples of human and machine intelligence disagreement occurred.

The investigation continues, but flight information recovered from the wreckage indicates that the pilots were battling with the autopilot (a system based on AI).

On the other hand, autopilot in planes are built not only to operate normally but to read changes in abnormal operations and adjust accordingly. Furthermore, AI helps in plotting the routes so as to dodge tech/non-tech obstacles.

In a situation like that, who should we rely on: human or machine?



By - Arpit Chandrakar (CSE 6th sem)

Some Inventions Based on AI:

GOOGLE DEVELOPS AI SYSTEM TO PREDICT WHEN A PATIENT WILL DIE: It can also forecast how long people may stay in hospital, as well as their chances of re – admission. In one particular instance, googles algorithm was able to detect the mortality risk of a cancer patient at 19.9%, which was more accurate than the hospital's computer.

FACEBOOK WORKING ON AI THAT CAN MAKE CLOSED EYES LOOK OPEN: The researchers trained the system with data showing the target person with their eyes open. Divided into two parts, one learns to recognize faces, and another part of the system repeatedly creates images based on the data of the first part.

UP POLICE TO USE AI, FACE RECOGNITION APP TO NAB CRIMINALS: Utter Pradesh police on Thursday, December, 27,2018 launched AI-based facial recognition app 'Trinetra' which it will use to nab criminals. The app contains a database of five lakh criminals collected from criminal records of the state police, the prisons department and government railway police. It will assist policemen at ground level

By - Akansha Pandey (CSE 4th sem)

Artificial Intelligence Technologies to Look for in 2019:

Natural Language Generation: Natural language generation is an AI sub-discipline that converts data into text, enabling computers to communicate ideas with perfect accuracy. It is used by companies like Attivio, Automated Insights, Cambridge Semantics, Digital Reasoning, Lucidworks, Narrative Science, SAS, and Yseop.

Decision Management: The enire decision process can be refactored to use the relative strengths and weakness of both machine and human to maximaize value generation and redistribute decision making .

Biometrics: This technology can identify, measure and analyze human behavior and physical aspects of the body's structure and form such as interactions related to touch, image, speech, and body language recognition, and is big within the market research field.3VR, Affectiva, Agnitio, FaceFirst, Sensory, Synqera and Tahzoo are all biometrics companies working hard to develop this area.

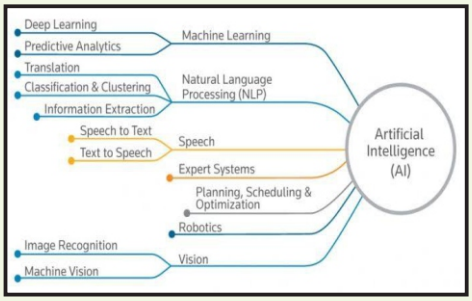
Robotic Processes Automation: Robotic processes automation uses scripts and methods that mimic and automate human tasks to support corporate processes. A good example of this is Adext AI, Automation Anywhere, Blue Prism, UiPath, and WorkFusion are other examples of robotic processes automation companies.

Text Analytics & NLP (Natural Language Processing): This technology uses text analytics to understand the structure of sentences, as well as their meaning and intention, through statistical methods and ML. Text analytics and NLP are currently being used for security systems and fraud detection.

Digital Twin/AI Modeling: A digital twin is a software construct that bridges the gap between physical systems and the digital world. General Electric (GE), for example, is building an AI workforce to monitor its aircraft engines, locomotives and gas turbines and predict failures with cloud-hosted software models of GE's machines.

Compliance: Compliance is the certification or confirmation that a person or organization meets the requirements of accepted practices, legislation, rules and regulations, standards or the terms of a contract, and there is a significant industry that upholds it.

Knowledge Worker Aid: While some are rightfully concerned about AI replacing people in the workplace, let's not forget that AI technology also has the potential to vastly help employees in their work, especially those in knowledge work.



Peer-to-Peer Networks: Peer-to-peer networks, in their purest form, are created when two or more PCs connect and share resources without the data going through a server computer. But peer-to-peer networks are also used by cryptocurrencies, and have the potential to even solve some of the world's most challenging problems, by collecting and analyzing large amounts of data, says Ben Hartman, CEO of Bet Capital LLC, to Entrepreneur. Another player utilizing peer-to-peer networks and AI is Presearch, a decentralized search engine.

Emotion Recognition: This technology allows software to "read" the emotions on a human face using advanced image processing or audio data processing. Law enforcers can use this technology to try to detect more information about someone during interrogation.

Image Recognition: AI can search social media platforms for photos and compare them to a wide range of data sets to decide which ones are most relevant during image searches. Image recognition technology can also be used to detect license plates, diagnose disease, analyze clients and their opinions and verify users based on their face.

Marketing Automation: Marketing divisions have benefitted so much from AI so far, and there is great faith placed in AI within this industry for good reason. Fifty-five percent of marketers are sure AI will have a greater impact in their field that social media has. What a statement. One of the leaders in this field is Adext AI, whose audience management platform can boost ad spend efficiency by up to +83% % in just 10 days.

A New Era of AI comes with Digital Marketing

Marketing and advertising are no longer as they were before. We could even say that they've been transformed into completely different fields in the last few years. Because of the arrival of the internet.
But the ultimate goal of every business remains the same: getting customers. The best way to get customers is by promoting yourself.
Today with the advent of digital marketing, promoting you is quite easier, if you know how to do it.
The consumer has changed and evolved thanks to technology, which is why advertising is now perceived in a completely different way.
Due to the amount of data received and processed by digital platforms today, which is growing larger every day, keeping tabs on them is no longer a simple task.
The monstrous amount of information has made things more complicated for companies who want to decipher the data. As a result, most companies have to navigate a sea of uncertainty and invest a considerable amount of time trying to get where they want to go. Due to which their productivity reduces.
So to overcome this problem company uses AI. The future of marketing involves AI it uses many technologies to complete a lot of difficult tasks and it can work on your behalf with minimal effort which seems to be dream for many companies.
AI marketing solutions are much more efficient than any other solution today because they are not based on speculation, do the work quickly, and deliver the best results.
Automatic learning, search algorithms, predictive analytics, automatic planning and data processing are just a few of the technologies involved in digital marketing with artificial intelligence.
They may seem like unpronounceable, extravagant concepts right now, but if anything is certain in this world, it's that sooner or later they'll be familiar to you. They are already entering your life quietly.

By - Ankit Pithalia (CSE 4th sem)

Events Organized by CSE

A college thrives when its faculty and students work together to yield the results on which the SSIPMT kin can be proud of. Various workshops on cybersecurity, OOPS ,UNITY GAME ENGINE by ColonBreakers, Robot Process Automation were conducted. The technical festival 'Agresita 2018' unfolded numerous CSE prodigy who excelled in Coderex-coding contest, ABCD- project presentation, Template Designing, LAN Gaming .

Our department has indulged into festivities such as farewell ceremony 'Lamhe ' where all the pre-graduates received a warm adieu by the CSE kinship.We honor these individuals who have excelled in their endeavors and we are immensely proud of their success. The ColonBreakers of CSE conducted a illustrious workshop on Unity Game Engine for the students. The innovative idea of team Project Trojan was selected in Smart India Hackathon SKY.

Placements


Anjali Tripathy
Techment Technology,
E-Team, Cognizant


Masoom Agrawal
Collabera, E-Team


Rishika Gupta
SGS, Pinclick


Shatakshi Shrivastava
Techment Technology


Nisha Nayak
Herman Connect,
Diaspark

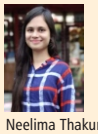

Rakhi Khubchandani
Cognixia


Geetanjali Manik
Cognixia


Kushboo Verma
Globussoft,Cognixia


Deepti Singh
E-Team, Amicus
Technology, Cogonizant


Leena Mandraha
E-Team, Genpact


Neelima Thakur
Genpact


Priyanka Kashyap
E-Team


Hrishita Singh
Globussoft


Gunjan Bedi
Cognixia,
Cognizant


Daraksha Naazreen
Pinclick, E-Team


Aniket Tiwari
Globussoft


Aarohi Soni
Globussoft


Avishi Shukla
Genpact, Appeal Soft


Ujjawala Katakwar
Globussoft

Achievement

Event	Participant	Position
Any Body Can Develop	Somnath Yadu (6th Sem)	1st
	Aakash Sinha (6th Sem)	2nd
Template Design	Parul Kashyap (4th Sem)	2nd
	Manoj Dewangan (6th Sem)	3rd
Coderex	Nikhil Gautam (6th Sem)	1st
	Chandrakant Sahu (6th Sem)	2nd
	Stuti Agrawal (4th Sem)	3rd
Lan Gaming	Rohan Kumar Sinha (4th Sem)	1st
	Akshat Singh Parihar (6th Sem)	2nd
International speech Contest (club level)	Kuldeep Singh (4th Sem)	2nd
International speech Contest (area level)	Kuldeep Singh (4th Sem)	3rd
Table Topics Contest(club level)	Shubhi Shrivastava (4th Sem)	3rd
Table Topics Contest(area level)	Shubhi Shrivastava (4th Sem)	3rd
Pathway ChangeMaker award	Ssipmt Spellbinders Toastmasters club	
Appreciation(hydrabad)for good work token	Apurva Shukla (4th Sem)	
	Kuldeep Singh (4th Sem)	
Appreciation(from hydrabad) for Public relations (offline) team for Master Orator Championship	Apurva Shukla (4th Sem)	
	Rishikesh Shrivastava (4th Sem)	

TRAY Internship


Manoj Dewangan
CSE 6th sem


Shimeer Hablani
CSE 6th sem

GATE Qualifiers

S. No	Name of Stud	AIR
1	NindaShukla	107
2	Devashish Dewa	1294
3	Ali Akber Faiz	4669
4	Apporva Ojha	9923
5	Shreya Sarkar	13398
6	Ambuj Sahu	14872

Upcoming cover theme for November 2019 issue is LoRaWAN. Students may submit their articles in categories such as: Technical Trends, Interesting Facts, Small Technical Game. Please send your contributions by 5th October,2019.

Please note that Cyber Trinity is a Newsletter for members for large and not a journal for publishing full-fledged research papers. Therefore, we expect articles written at the level of general audience. Please send your article in MS-Word format to Editor in Chief, Shubham Patel in the email id **cse.newsletter@ssipmt.com** with the details of the sender(name, semester, branch).

Issued on the behalf of Computer Science Department,

Shri Shankracharya Institute of Professional Management and Technology, Raipur

Pin Code: 492015, Raipur, Chhattishgarh

Phone: 0771-277289, 2120555, 2120666, Fax: 0771-2120555