

AIML QUEST

NEWSLETTER

DEPARTMENT OF
ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING



VOLUME 1

ISSUE 1

JUNE 2022



VISION, MISSION AND OBJECTIVES OF THE INSTITUTE

VISION

- To be one of the premier Institutes of Engineering and Management Education in the country

MISSION

- To provide Engineering and Management education that meets the needs of human resources in the country
- To develop leadership qualities, team spirit and concern for environment in students

OBJECTIVES

- To achieve educational goals as stated in the vision through the mission statements which depicts the distinctive characteristics of the Institution
- To make teaching-learning process an enjoyable pursuit for the students and teachers

VISION, MISSION AND OBJECTIVES OF THE DEPARTMENT

VISION

- To be renowned department for education in Artificial Intelligence and Machine Learning in Karnataka state moulding students into professional engineers

MISSION

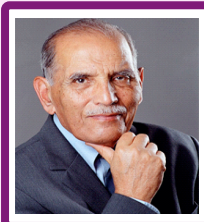
- Impart rigorous training to generate knowledge through the state-of-the-art concepts and technologies in Artificial Intelligence and Machine Learning
- Mould students to be technically competent through innovation and leadership
- Inculcate values of professional ethics, social concerns, environment protection and life-long learning
- Establish centres of excellence in leading areas of computing and artificial intelligence

OBJECTIVES

AFTER 2/3 YEAR OF GRADUATION, THE STUDENTS WILL HAVE THE ABILITY TO:

- Apply appropriate theory, practices and tools to provide solution for multi disciplinary challenges
- Function effectively in the workplace for professional growth
- Adapt, contribute and innovate new technologies in the key domains of Artificial Intelligence and Machine Learning during higher studies/ product development

DEDICATED TO.....



Faqir Chand Kohli (19 March 1924 – 26 November 2020) was founder and first CEO of TCS Tata Consultancy Services. He is referred to as the "Father of the Indian IT Industry". He received India's third-highest civilian honor, Padma Bhushan in 2002 for his contributions towards the Indian software industry.

In 1966, he introduced digital and mainframe computers for power system design and control at Tata Institute of Fundamental Research. He is likely to lead the company for the next three decades before stepping down as the CEO in 1996. Kohli also played an important role in the advancement of technical education in the country. He was president, and chairman of the Indian IT services advocacy body, NASSCOM between 1995 and 1996. Later as a part of the body's executive committee, he helped to shape global partnerships and showcase opportunities to deliver IT services from India.

INSIDE

AIML QUEST

- Editor's Desk
- Department Overview
- Technical Articles
- Department Activities
- Faculty Achievements
- Students Achievements



B. N. M. Institute of Technology

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Editor's Desk.....

Dear readers, we welcome you to the QUEST of AIML

With the start of a new department for the undergraduate program, new ambitions, hopes, aspirations, and events have emerged. We are happy to bring out the first issue of AIML Quest the Department of Artificial Intelligence and Machine Learning Newsletter. The newsletter is a platform to exhibit the literary skills and innovative ideas of faculty members and students and also presents the achievements of students and the contributions of faculty members.

The current edition focuses on AI and IOT, ML, automation and many more applications. It also highlights the immense enthusiasm of our students and faculty members in contributing to this magazine and their achievements.

The Editorial Board would like to thank all contributors. We want to express our deepest gratitude to our Management for showing the keen interest, guidance and active support. We look forward to receiving constructive suggestions from readers to improve the Newsletter content.

Happy Reading...!!

Department Overview

AICTE-VTU approved the Department of Artificial Intelligence & Machine Learning (AIML) from the academic year 2020-21. We have started our exciting journey in the year 2020 where the department offers an undergraduate B.E. program with an intake of 120 students.

The Department boasts of well qualified teaching faculty with rich research, teaching and industrial experience and is committed to impart rigorous training to students to generate knowledge through the state-of-the-art concepts and technologies in AIML, and transform the Department as a leader in imparting AIML education and research.

The Department practices an Outcome-Based Education (OBE) right from the inception and has an adequate infrastructure with state-of-the-art laboratories and other supporting facilities to provide enhanced learning environment. The Department attracts the best of engineering aspirants from all over the country. Industry 4.0 demands smart systems integrated with intelligence to have better human-machine interface. To cope up with upcoming emerging industrial demands, it is expected to bring translational skills among the students of the Artificial Intelligence and Machine Learning undergraduate programme.

Technical Articles

ARTIFICIAL INTELLIGENCE TO HELP COMBAT COVID-19.

In the last decade, Artificial Intelligence has advanced at an exponential rate. As we adopt social distance and work-from-home choices in view of the pandemic, we have become more dependent on technology. Artificial intelligence and machine learning allow people to make better judgments by combining data from multiple domains. One such application is the employment of Artificial Intelligence to aid in the fight against COVID-19.

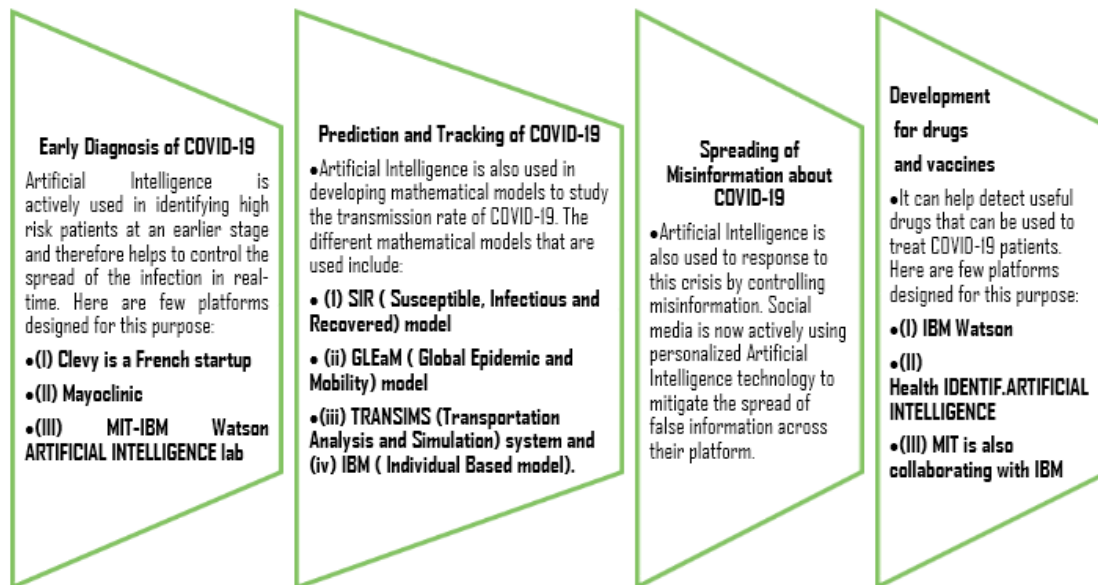
Accelerating research Open data projects and distributed computing to find AI-driven solutions to the pandemic, e.g. drug and vaccine development	Detection	Early warning Detecting anomalies and digital "smoke signals", e.g. <i>BlueDot</i>	Diagnosis Pattern recognition using medical imagery and symptom data, e.g. <i>CT scans</i>	
	Prevention	Prediction Calculating a person's probability of infection, e.g. <i>EpiRisk</i>	Surveillance To monitor and track contagion in real time, e.g. <i>contact tracing</i>	Information Personalised news and content moderation to fight misinformation, e.g. <i>via social networks</i>
	Response	Delivery Drones for materials' transport; robots for high-exposure tasks at hospitals, e.g. <i>CRUZR robot</i>	Service automation Deploying triaging virtual assistants and chatbots, e.g. <i>Canada's COVID-19 chatbot</i>	
	Recovery	Monitor Track economic recovery through satellite, GPS and social media data, e.g. <i>WeBank</i>		

Figure 1. Examples of Artificial Intelligence applications at different stages of the COVID-19 crisis

Using artificial intelligence to detect, respond and recover from COVID-19.

As the outbreak of COVID-19 has now become a global pandemic, ARTIFICIAL INTELLIGENCE techniques and technology are used to aid policymakers, the medical community, and society at large in managing every stage of the crisis and its aftermath, including identification, prevention, response, and recovery, as well as to speed up research (Figure 1).

Accelerating research using Artificial Intelligence to understand and treat COVID-19



Conclusion:

Artificial Intelligence has successfully helped in early diagnosis, tracking, curbing the spread of misinformation, and developing of possible treatments and vaccines. It has always complemented the activities of the healthcare business, not just during the pandemic. It is one of the few resources that helped us create vaccines and treatments for SARS-COV-2 at a cost-effective and time-efficient manner.

Dr. Sunitha R, Associate Professor, Dept. of AIML

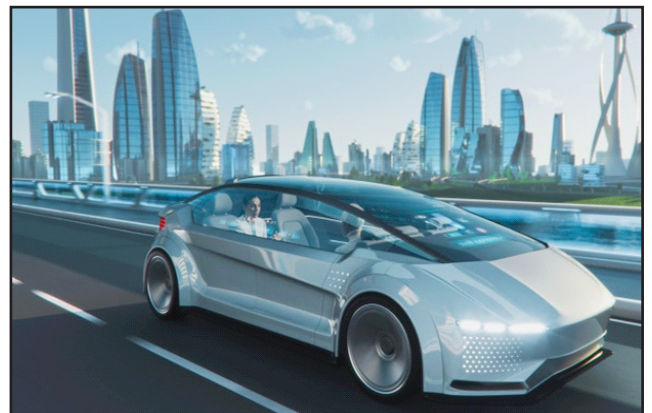
SELF-DRIVEN CARS

There has been a considerable buzz surrounding the prospect of self-driving cars or autonomous vehicles for quite some time. We have even seen a few in action on the roads. This article gives a brief on this hot subject.

To understand the working of an autonomous car, we must know what goes into making the car. The components of an autonomous car include the Lidar, Radar, sophisticated cameras, an integrated photonics circuit, Mach-Zender modulator, a central computer, and the software that runs in the background to make the car functional. In addition to the list of software and tools mentioned above, the data is stored in the cloud. The control algorithms are trained on highly sophisticated deep learning and machine learning models, namely Decision Matrix algorithms (Adaboost algorithm), Clustering algorithms (K-means clustering algorithm), Data Reduction algorithms (Principal Component Analysis (PCA), Support Vector Machine (SVM)) and Regression based algorithms (Simple Linear Regression).

The car's main computer, which is usually found in the trunk, is in charge of all the loaded software. It gathers information from all sensors, analyses it, and makes decisions using highly accurate deep learning models. Every decision the computer makes teaches it something new, and the more the automobile is driven, the better it becomes. The computer also needs a high-quality, low-latency Internet connection, preferably employing 5G technology.

Radar sensors are strategically placed around the car assist in the detection of road objects and impediments. They also aid in determining the vehicle's distance from obstructions. It is critical to prevent colliding with stationary objects, pedestrians, or animals. It also helps with lane changes, turning, and speed adjustments.



However, simply identifying the presence of an object is insufficient for the car to drive safely. To identify what the object is, one will need an equipment that can detect it and its distance from the one, and its shape and density because a pedestrian does not travel in the same manner as a car on the road. In this situation Lidar comes into play. Lidar uses a series of super-short laser pulses to determine the object's depth resolution. An integrated photonics circuit periodically blocks the light so that these laser pulses can be shot correctly at regular intervals.

The Internet's data is sent by precision timed light pulses fired every 100 picoseconds. It is accomplished by the use of a 'Mach-Zehnder modulator,' which employs wave interference to achieve this purpose. The depth resolution is a few centimetres due to the 100 picosecond light pulse.

High-tech cameras, in addition to radars and lidars, are employed to identify and analyze traffic lights and calculate the distance between different objects on the road. They are also employed to hide any potential blind spots. Majority of traffic jams are caused by disruption of the traffic flow by accidents and fender benders. Autonomous vehicles can massively decrease the time spent on the road. We will be able to commute faster and use less fuel, which will, in turn save money.



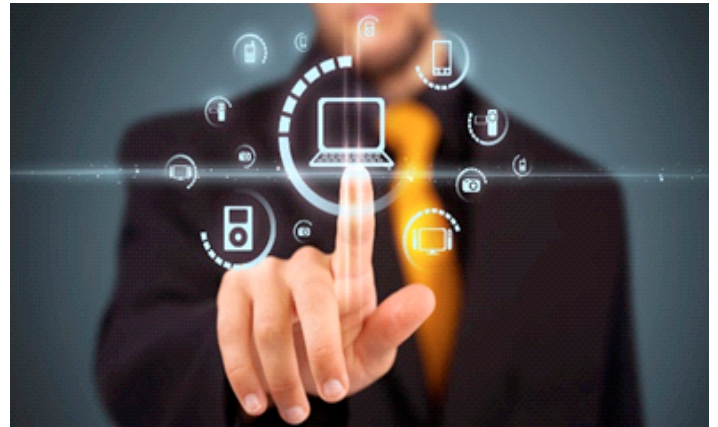
-Greeshma L (1BG20AI035), Dept. of AIML

EMPOWER, EMERGE AND EVOLVE

"Empowerment is the beginning of innovation."

Embracing the concepts of empowerment, emergence, and evolution is crucial for personal and professional growth in today's rapidly growing world. Technology serves as a powerful catalyst for individuals and organizations to adopt these principles.

Empowerment is a fundamental need for creating a better future. By empowering individuals, we unlock their potential, driving innovation and problem-solving. Technology empowers individuals by providing tools and resources to enhance their capabilities. Today, the barriers of time and location are broken by online learning, allowing individuals to acquire new skills at their own pace. Emerging technologies like artificial intelligence enable businesses to make data-driven decisions and automate processes, gaining a competitive edge.



Emergence unleashes the power of collective intelligence. When individuals come together, share ideas, and collaborate, new perspectives and insights emerge. By valuing diverse viewpoints and fostering an inclusive environment, we create the conditions for creative solutions. Disruptive technologies have revolutionized industries and transformed our lives. For instance, The Internet of Things (IoT) has interconnected devices, enabling the emergence of smart cities, intelligent transportation systems, and connected healthcare devices. Blockchain technology has given rise to decentralized applications, providing secure solutions for finance, supply chain, and identity verification.

As we evolve, we adapt and discover new technologies, methodologies, and ideas that are next level to existing paradigms. This fuels innovation and drives positive change across various domains. Evolution encourages us to think creatively, challenge and explore uncharted territories. It inspires us to identify emerging trends, anticipate future needs, and proactively adapt. Software development practices have shifted from traditional waterfall models to agile methodologies, fostering iterative and collaborative approaches. Cloud computing has revolutionized business operations, offering scalability, flexibility, and cost-effectiveness. Data analytics and business intelligence tools have helped organizations derive actionable insights from vast amounts of data, facilitating data-driven decision-making.

We can shape a brighter future filled with growth, resilience, and positive transformation by empowering ourselves, embracing innovation, and evolving continuously fueled by progress, transformation and realization of our full potential. Smallest Idea today can make hugest difference tomorrow.

-Kotta Snigdhasree(1BG20AI048), Dept. of AIML

THE FUTURE OF SMART CITY



Smart city is an important concept for the development of any nation. It should be equipped with different electronic devices based on IoT. Due to the breadth of technologies that have been implemented under the smart city label, it is difficult to distill a precise definition of a smart city. The smart cities are already being created and soon, every one of us can be called smart citizens. Our lives will change, and a mass of new advantages will appear: fluid and efficient operations of public transportation and competently distributed traffic, low crime rates, process automation, service quality improvement, and much more. Large IT, telecommunication and energy management companies such as Apple, Huawei, Google, Microsoft, Cisco and many more companies have been launching market initiatives for smart cities.

Internet of things is an emerging technology that creates a massive network of things communicating with one another. For a developing country such as India, which has quite limited technology penetration at the national level, an efficient architecture is required for IoT. It should be based on present technology advances, capabilities that supply affordable and sustainable solution, and entrepreneurial and social value. Due to the rapid growth of the population density in urban cities, infrastructure and services are needed to supply the necessities of the city residents. On this basis, there is a significant increase in digital devices, e.g., sensors, actuators, and smart phones that drive huge business potentials for the IoT, since all devices can interconnect and communicate with each other on the Internet. Existing smart city concepts include within themselves a variety of equipment with sensors for cameras for monitoring, automated stoplights, and any other equipment. This makes collecting of personal data an inevitable fact, which is why it is necessary to prevent this data from being accessed by unwanted third parties. The collection and storage of personal data create a risk for the personal lives of every human being.



There are many solutions that IOT and blockchain technology for cities of the future. Blockchain does the job of storing smart contracts due to its security and technological immutability. Solutions for logistics and the management of finances with blockchain technology at a city level can increase efficiency and guarantee transparency by dropping unnecessary verification steps. Blockchain technology can aid in this matter and will solve many ethical problems.

Technology is gradually becoming a necessary part of our lives. The creation of smart cities is inevitable. Thus, it is necessary to develop solutions for them that are secure from the point of view of transparency and user confidentiality. Blockchain technology can aid in this matter and will allow solving many ethical problems. Even though there are many benefits of smart city like automation, the emerging technologies have many criticisms. In the smart city environment, there are many threats that affect the privacy of individuals. The technology is involved in scanning, identification, checking the current location, including time and direction of movement. A smart city, as a scientifically planned city, would defy the fact that real development in cities is often haphazard.

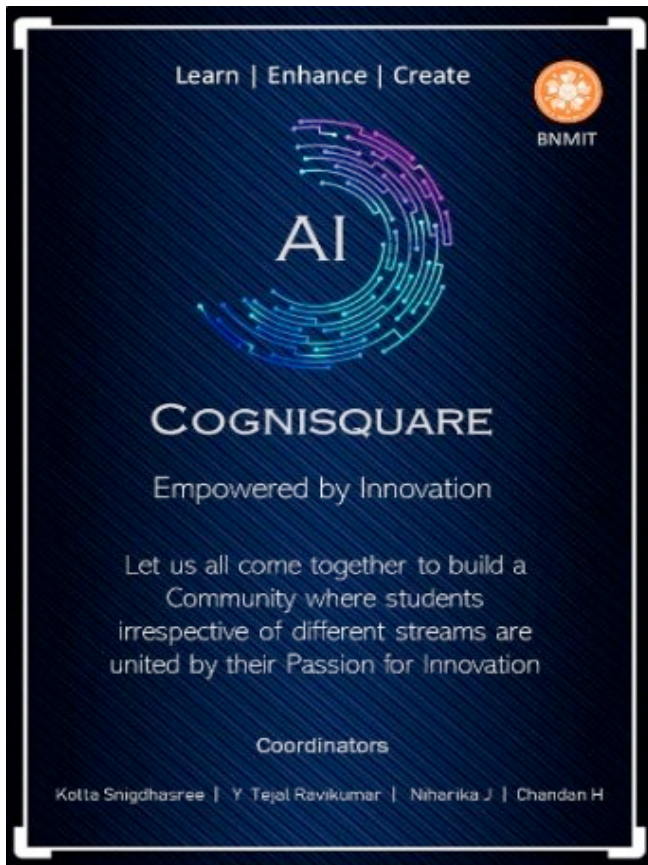
The focus of the concept of smart city may lead to an underestimation of the possible negative effects of the development of the new technological and networked infrastructures needed for a city to be smart. If a smart city strategy is not planned considering people with accessibility problems, such as persons with disabilities affecting mobility, vision, hearing, and cognitive function, the implementation of innovative technologies could create new barriers.

-Jayasri A, (1BG20AI043), Dept. of AIML

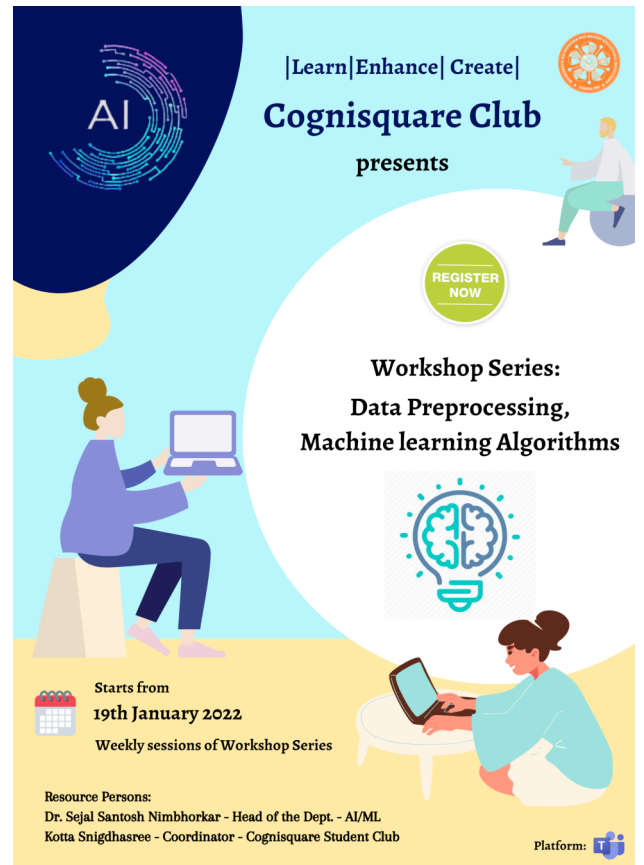
Department Activities



Dept. of AIML has signed MoU with Ray Vector Technologies Pvt. Ltd. on 23rd Feb 2022 for AR/VR/AI technology collaboration, Entrepreneurial skill development, Placement, and related services. This MoU is promoting BNMIT students to explore research opportunities and real-world experience. The collaborative program provides students with the opportunity to shape the development of tech innovations and get a first-hand look at the process, gaining valuable knowledge and experience that employers seek in future employees.



Happy to inform that Dept. of AIML is focussed on building a community where students irrespective of different streams are united by their passion for Innovation.



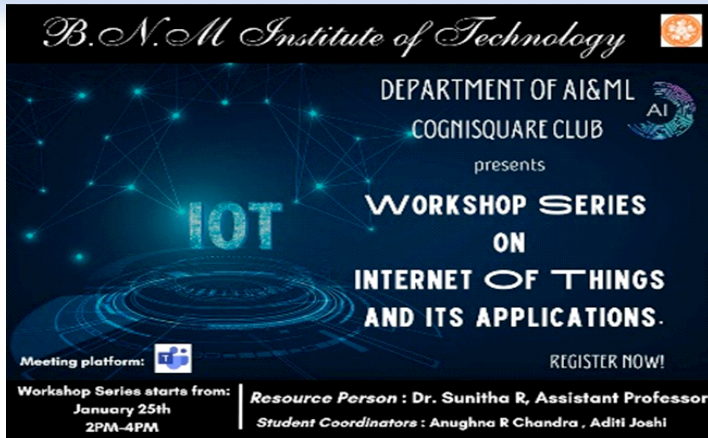
Workshop Series on “Data Processing, Machine Learning Algorithms” was conducted under “COGNISQUARE” club.

Guess the AI!!



1. This AI was named after a character in a classic sci-fi novel.
2. It was created in 2011 by a team of researchers at IBM.
3. It famously competed on the game show Jeopardy! in 2011, defeating two former champions.

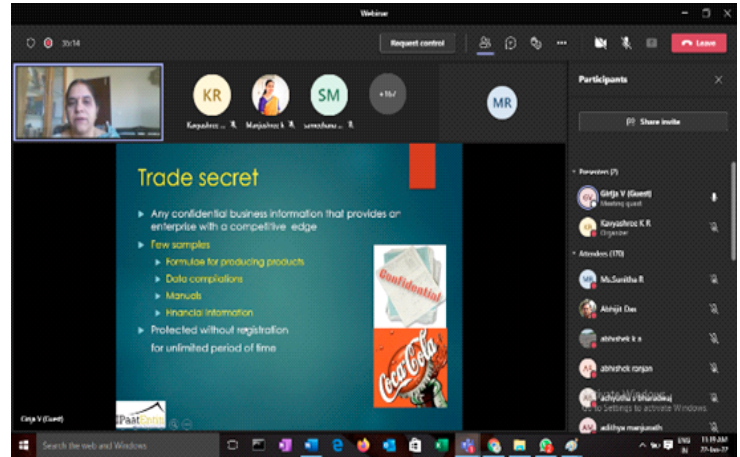
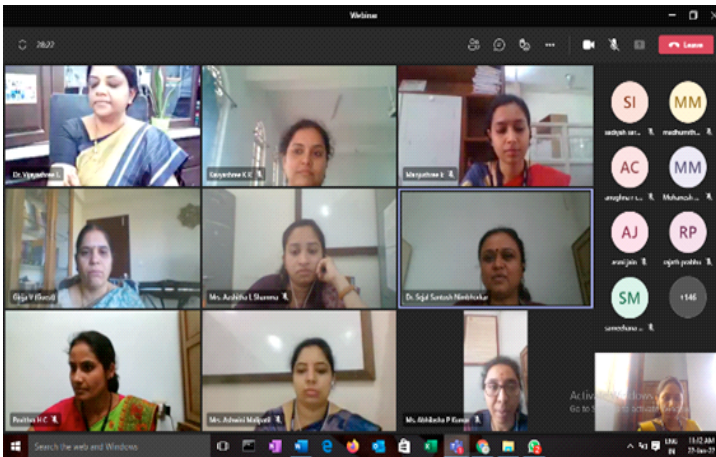
Ans: Watson



Workshop Series on “Internet of Things and Its Applications” was conducted under “COGNISQUARE” club.

Navratri Celebration at the department on 13th October 2021.

Virtual Webinar on Intellectual Property Rights - Patent, Industrial Designs and Copyrights was conducted on 23rd March, 2022 for 3rd semester students and faculty members. Ms. GIRIJA V, Founder of IPaatEntiti IP Solutions, Patent Attorney & Agent, Trademark Attorney was the Resource Person for this webinar.



Bootcamp on “Facial Recognition” under Learning with Vodafone University Engagement Program on 3rd December, 2021. Mr. Prasad Kumbhare, Senior Technical Architect, Tech_VOIS, India was the Resource Person for the bootcamp. During the session, students learned to implement python code and gained practical knowledge on facial recognition. The bootcamp was quite informative and beneficial for the students.



Students learning about methods and essential technologies used in Computer Vision and its applications

TECHNICAL TALK

A Technical talk on Achieving Problem - Solution Fit and Product-Market Fit was conducted for the 3rd semester students on 24th December, 2021. Dr. Vijayashree L, Professor and Head, NEWGEN-IEDC, Mr. Shreyas S P, Co-Founder, Director, HyCube Works Pvt Ltd. Bangalore, Mr. Reethan D L, Co-Founder, Director, HyCube Works Pvt Ltd. Bangalore, Mr. Sridhar Venkannachar, Techno Entrepreneur were the Resource Persons for the Technical talk. During the talk, Students learned about how to start project, identifying problem statement, working on problem solution, how to work for product development and how to marketize the product.



Lecture by Dr. Vijayashree L, Professor and Head



Lecture by Mr. Shreyas S P, Co-Founder, Director, NEWGEN-IEDC HyCube Works Pvt Ltd. Bangalore

A Technical talk on AI-Breakthroughs, Technology and Applications was conducted for the students under ISTE-BNMIT student chapter on 18th Nov, 2021. Dr. Ragoth Sundararajan, Head-Data Science, NicheSoft Inc., Bengaluru was the Resource Person for the Technical talk. During the talk, students learned about basics of Artificial Intelligence (AI), History and Important Milestones of AI, Math, Science and Technology in AI, Applications of AI, Education and Training in AI. The program was informative and beneficial for the students.



Talk by Speaker Dr. Ragoth Sundararajan



Dr. Sejal Santosh Nimbhorkar, HOD, Dept.of AIML with students during the talk

INDUSTRIAL VISIT

An Industrial Visit to “EXCON-2022” was organized for the 4th-semester AIML students under ISTE-BNMIT student chapter on 19th May, 2022. 28 Students and 3 Faculty Members visited the EXCON- 2022 event organized with the theme of construction and infrastructure development by Confederation of Indian Industry (CII), India's Premier Industry Association. The event had AI Pavilion where in AI products were exhibited by various companies and a conference was conducted on AI, IoT, and Automation. The objective of the visit was to give exposure to the students about the usage of AI technologies in real-world applications. The program was informative and beneficial for the students..



Students attended conference on AI, IoT and Students learnt about the use cases of AI Automation technologies in real world application

WORKSHOP ON ANDROID APPLICATION DEVELOPMENT.



Students learning about Introduction of OOC, JAVA and Android

A two-day workshop on “**Android Application Development**” was conducted for the 4th semester AIML students in association with BNMIT NewGen IEDC and Student Chapter ISTE-BNMIT during June 16th - 17th, 2022 and July 12th- 13th 2022. Dr. Vishwa Kiran S, Consultant and Corporate trainer, Aprameyah Technology Pvt. Ltd. Associate Professor, Dept. of AI & ML, BMSIT was the Resource Person for the workshop. Dr. Vishwa Kiran S started the workshop with an introduction to Object Oriented Programming and Java followed by hands-on using the android studio to gain practical knowledge on the subject throughout the workshop along with the theoretical discussions.

WORKSHOP ON IOT AND ITS APPLICATIONS.

A two-day workshop on “**IoT and its applications**” was conducted for the 4th semester AIML students under the COGNISQUARE student club during June 16th - 17th, 2022 and July 12th- 13th 2022. Dr. Srinivas Shetty, Professor, Dept. of CSE, BNMIT, Dr. Sunitha R, Associate Professor, Dept. of AI&ML, and Prof. Pavithra H C, Assistant Professor, Dept. of AI&ML were the Resource Persons for the workshop.



Students learning about basic concepts of Internet of things



Inauguration of the workshop by welcoming Resource Persons

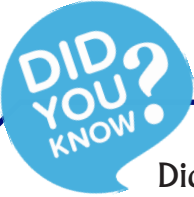
Achievements of Staff

1. **Dr. Sejal Santosh Nimbhorkar, Prof. and Head, Dept. of AIML** was a reviewer for Sixteenth International Conference on Information Processing (ICInPro)- 2021 from October 22nd to 24th, 2021, Bangalore, India.
2. **Dr. Sejal Santosh Nimbhorkar, Prof. and Head, Dept. of AIML** was a reviewer for IEEE MYSURUCON 2021- The First Edition of the Flagship International Conference Series of IEEE Mysore Sub Section in association with IEEE Bangalore Section at NAVKIS College of Engineering, Hassan on 24th and 25th October 2021.
3. **Dr. Sejal Santosh Nimbhorkar, Prof. and Head, Dept. of AIML** was the Session Chair of “Data Science” session of the Sixteenth International Conference on Information Processing (ICInPro)- 2021 from October 22nd to 24th, 2021 by Computing Professional Charitable Trust Bengaluru and University Visvesvaraya College of Engineering, Bangalore University, Bengaluru.
4. **Dr. Sejal Santosh Nimbhorkar, Prof. and Head, Dept. of AIML was the Session Chair.**For International Conference on Mobile Networks and Wireless Communications (ICMNBC-2021) organized by Dept. of Electronics and Telecommunications Engineering, Sri Siddhartha Institute of Technology, Tumkur in association with IEEE Bangalore Section and Co-Sponsored by Technical Institute For Engineers (TIE) during 03-04 December, 2021.
5. **Dr. Sejal Santosh Nimbhorkar, Prof. and Head, Dept. of AIML** contributed as resource person in AICTE Training and Learning (ATAL) Academy Online Elementary FDP on “Machine Learning in Infotainment Systems” from 13th December to 17th December at BNM Institute of Technology.
6. **Dr. Sejal Santosh Nimbhorkar, Prof. and Head, Dept. of AIML** granted with copyright for the work “Underwater Image Enhancement using Generative Adversarial Network(GAN) with Residual Blocks and EDL Penalty” on 24th August, 2021 from Copyright Office, Government of India.
7. **Mrudula K, Harsh R Jain, Jayanth Bhansali, Sejal S N** presented a paper titled Plant- wies Comparison of Various CNN Algorithms for Detection of pest Infestation in IEEE Pune Section International Conference (Pune Con) organized by MITADT University, Pune, India. Dec 16-19, 2021.
8. **Prof. Sunitha R, Assistant Professor, Dept. of AIML** is awarded with the degree Doctor of Philosophy on the theses titled “Deploying Soft computing techniques for Energy efficient pattern mining in wireless sensor network” in Faculty of Computer & Information Sciences form Visweswarya Technological University, Belagavi.
9. **Dr. Sunitha R, Assistant Professor, Dept. of AIML** contributed as resource person for the Three Day Student Enhancement Program on “Let's Talk IoT” organized in collaboration with IQAC- GMIT & Bhimart, Bengaluru conducted from 23rd to 25th of December 2021.
10. **Dr. Sunitha R, Assistant Professor, Dept. of AIML** was a reviewer for IGI Global book chapters “Introduction to Cyber Security” and “Data Encryption and Hiding for secured data transmission”.
11. **Dr. Sejal Santosh Nimbhorkar, Professor and HOD, Dept. of AIML** has delivered a Guest Lecture on Role of Artificial Intelligence in Pharmaceutical Industry organized by department of Pharmaceutics, Sree Vidyanikethan College of Pharmacy, Tirupati on 8th April 2022.
12. **Dr. Sunitha R, Associate Professor, Dept. of AIML** was a Resource person for the two day hands on workshop on “Blockchain Technology & It's applications” at department of ISE, MCE, Hassan on 29th April and 30th April 2022.
13. **Dr. Sejal Santosh Nimbhorkar, Professor and HOD, Dept. of AIML** has delivered an Invited Talk for the Virtual Webinar on “Intellectual Property Rights” organized by BNMIT in association with T. John Institute of Technology, Bengaluru under Mentor-Mentee Program of MOE's Innovation Cell on 4th May 2022.
14. **Dr Sejal Santosh Nimbhorkar, Professor and HOD, Dept. of AIML, Dr. Sunitha R, Associate Professor, Prof. Mohanesh B M, Assistant Professor, Prof. Pavithra H C, Assistant Professor, Abhilasha P Kumar, Assistant Professor, Dept. of AIML** was a Resource person of an Invited talk on “AI and its Applications” followed by a hands-on session on IoT for BNM School teachers at BNMIT on 10th May 2022.
15. **Dr. Sunitha R, Associate Professor, Prof. Pavithra H C, Assistant Professor, Dept. of AIML** was a Resource person for the two day hands on workshop on “IoT & it's Application” organized by Dept. of AIML under COGNISQUARE Club

Achievements of Students

1. **Kotta Snigdhasree of 3rd semester AIML** department was awarded with certificate of completion for an outstanding contribution during the session (Jul 2021- Aug 2021) of Graduate Rotational Internship Program at The Sparks Foundation on 01-Oct-2021.
2. **Kotta Snigdhasree of 3rd semester AIML** has successfully secured Content writing internship at **Hariyali** through Internshala during June, 2021.
3. **Kotta Snigdhasree of 3rd semester AIML** department was awarded with certificate of completion on Technology Consulting Virtual Internship over the period of July, 2021 at Deloitte, Bengaluru
4. **Varuniha M of 3rd semester AIML** was awarded with certificate of excellence for completing an Internship as a “Youth Influencer” under ULead an initiative by Unschool, for a duration of one month ending on 27th August, 2021.
5. **Kotta Snigdhasree of 3rd semester AIML** has successfully completed internship program in “Artificial Intelligence with Python” from 30th October to 30th December, 2021.
6. **Balaji B of 3rd semester AIML** has participated in VTU Inter-Collegiate Table Tennis(Men & Women) Bangalore Central zone Tournament held at Vemana Institute of Tehnology, Bengaluru on 24th- 25th Nov 2021.
7. **Shreyas N M of 3rd semester AIML** has secured 1st place in DEBATE organized by IEEE-BNMIT Student branch in association with IEEE Nanotechnology Council on 4th October 2021 between 3 PM to 5PM.
8. **Arpitha N D of 3rd semester AIML** has participated in the IOT Workshop conducted during the National Level Annual Technical Symposium Phase Shift 2021, held at BMSCE on 26th and 27th of November, 2021.
9. **Balaji N of 3rd semester AIML** has participated in the IOT Workshop conducted during the National Level Annual Technical Symposium Phase Shift 2021, held at BMSCE on 26th and 27th of November, 2021.
10. **Gangothri s hiremath of 3rd semester AIML** has participated in the IOT Workshop conducted during the National Level Annual Technical Symposium Phase Shift 2021, held at BMSCE on 26th and 27th of November, 2021.
11. **Greeshma L of 3rd semester AIML** has participated in the IOT Workshop conducted during the National Level Annual Technical Symposium Phase Shift 2021, held at BMSCE on 26th and 27th of November, 2021.
12. **A Sai Kaarthik of 3rd-semester AIML** has participated in a two-day Hackathon on Cybersecurity under Technohabba-21, organized by the Department of Information Science & Engineering in association with NewGen IEDC and BNMIT-CSI students' chapter, on 17th & 18th December 2021.
13. **Kotta Snigdhasree of 3rd semester AIML** has successfully completed the requirements to be recognized as a Microsoft Technology Associate for Introduction to Prgramming using Python on 10th March 2022.
14. **Kotta Snigdhasree of 4th semester AIML** has secured a first place in “Poster Making” conducted during the year 2021-22 at the Kalabhageerathi event- BNMIT.
15. **Kotta Snigdhasree of 4th semester AIML** has secured a first place in “Collage Making” conducted during the year 2021-22 at the Kalabhageerathi event- BNMIT.
16. **Himaja G of 4th semester AIML** has secured third place in “BNM IDOL” conducted during the year 2021-22 at the Kalabhageerathi event- BNMIT.
17. **Himaja G of 4th semester AIML** has secured second place in “Group Song” conducted during the year 2021-22 at the Kalabhageerathi event- BNMIT.
18. **Himaja G of 4th semester AIML** has secured third place in “Semi Classical Vocal” conducted during the year 2021-22 at the Kalabhageerathi event- BNMIT.
19. **Mohammed Mudassir Viqar of 4th semester AIML** has secured second place in “Photography” conducted during the year 2021-22 at the Kalabhageerathi event- BNMIT.
20. **R N Arjun of 4th semester AIML** is appreciated for competing in ROUND-1 of FANTOM CODE-2022, conducted by RV Institute of Technology and Management held on 4th June 2022.

21. **R N Arjun and Niharika J of 4th semester AIML** has participated in Faculty development program on “Helping Students Develop their Code Writing Skills with Parsons Problems” organized by the Department of Computer science and Engineering, in association with BITES, Bengaluru held on 18th June 2022.
22. **Shreya M, Sampada Purushotham and Sahana R of 4th semester AIML** has participated in the workshop on “Design and Implementation of Humanoid Robots” organized by ISTE- Student chapter BNMIT from 7th to 9th April 2022.



Did you know that the first computer virus was created in 1971? Known as the "Creeper virus," it was an experimental self-replicating program created by computer engineer Bob Thomas to demonstrate the vulnerabilities of computer networks. It was designed to infect the ARPANET (the precursor to the internet) and display the message "I'm the creeper, catch me if you can!" on infected machines. This led to the development of the first antivirus program, known as "Reaper," which was designed to remove the Creeper virus. Since then, computer viruses and other types of malware have become increasingly sophisticated, with some even using artificial intelligence and machine learning to evade detection. Today, Cybersecurity is a critical concern for individuals and organizations alike, with billions of dollars being spent each year to prevent cyber attacks and data breaches.

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