

National Education Society(R.)



Jawaharlal Nehru New College of Engineering



Shivamogga - 577204

Approved by AICTE, New Delhi, certified by UGC 2f & 12B, Accredited by NAAC - 'B',
Recognized by Govt. Of Karnataka & affiliated to VTU

AIML MATTERS

Newsletter

Oct, Nov, Dec 2023 - Jan 2024



Department Of Artificial Intelligence
& Machine learning

Email : hod_aiml@jnncce.ac.in

Issue 8

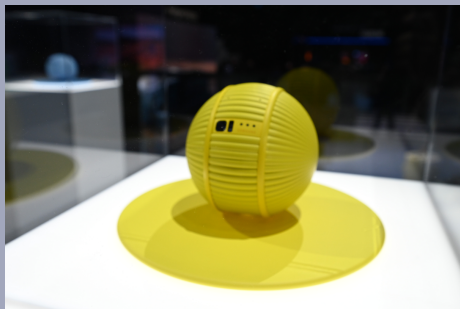
Frequency : Monthly

Dept. Of AI&ML

AIML NEWS

FLASH

- Preface -



Samsung Ballie:

Samsung's Ballie is a personal home assistant that autonomously moves around to help with various tasks. It connects to and manages home appliances, learning from users' habits to offer personalized services. Ballie also provides peace of mind by sending video updates of pets or loved ones when users are away. Additionally, it can enhance home activities like exercising, working, or relaxing by projecting videos, playing music, and answering calls, making home life more productive and enjoyable.



Tata Elxsi:

Tata Elxsi has played a crucial role in technological progress over the past 25 years. They have contributed to innovations like self-driving cars and video analytics through the use of artificial intelligence and data analytics. The Tata Elxsi Artificial Intelligence Center of Excellence (AICoE) is committed to addressing the increasing demand for intelligent systems. By utilizing cloud-based integrated data analytics frameworks, including patented technologies, customers can easily adapt, transforming the landscape and gaining actionable insights for better results.

"Transforming data into insights, and algorithms into actions, reshaping the future of innovation."



FACULTY DESK



Mr. Ranjan V

Assistant professor,
Dept. of AIML

Prof. Ranjan V stands out as a highly motivated faculty member, infusing contagious enthusiasm into the academic environment at Jawaharlal Nehru New College of Engineering (JNNCE), Shivamogga. With a solid educational foundation from Vishweshwariah Technological University, Belagavi, where he earned both B.E and M.Tech degrees, Prof. Ranjan brings more than academic excellence to the table; he holds over 8.5 years of teaching experience and a rich background of over 2 years in the industry. Currently pursuing a Ph.D., his research interests encompass various facets of AI and ML, including Artificial Intelligence, Data mining, Machine Learning, NLP, and Deep Learning.

Beyond academics, Prof. Ranjan is actively involved in professional bodies like ISTE and IFERP and has significantly contributed to the community through social initiatives under the aegis of the rotary club shimoga's engineer social responsibility. His achievements span publications, technical talks, workshops, project guidance, and a commendable involvement in numerous FDPs and workshops throughout his teaching tenure.

Ms. Shaziya Banu S, Assistant Professor in the Department in AI & ML, JNNCE, Shimoga. Ms. Shaziya holds her Master of Technology in Computer Science and Engineering from Visvesvaraya Technological University and a BTech from PES Institute of Technology and Management in Karnataka. Currently, Ms. Shaziya is pursuing Ph.D. at Visvesvaraya Technological University, demonstrating a commitment to advancing knowledge in the field of AI and Data Science. With 5 years of teaching experience, 1 year of Industrial experience, Ms. Shaziya has ISO certification in Data Science.



Ms. Shaziya Banu

Assistant professor,
Dept. of AIML

Ms. Shaziya has experience in executing projects and administrating project-centric learning, and accompanying Btech students in the same regard. She has created various projects on data science which is available in her GitHub account. Ms. Shaziya is also a IAENG [INTERNATIONAL ASSOCIATION OF ENGINEERS] Member.

BLOGS AND ARTICLES



NAVIGATING THE AI FRONTIER: A COMPREHENSIVE LOOK AT LARGE LANGUAGE MODELS

In recent years, large language models have emerged as game-changers in the field of artificial intelligence and technology. These digital marvels have found applications ranging from content generation and language translation to assisting developers in coding. However, for tech enthusiasts who may not have a deep understanding of machine learning, grasping the intricacies of these models can be challenging. In this comprehensive guide, we'll unravel the mysteries of large language models, exploring their inner workings, exciting possibilities, concerns, and the ever-evolving future they represent.

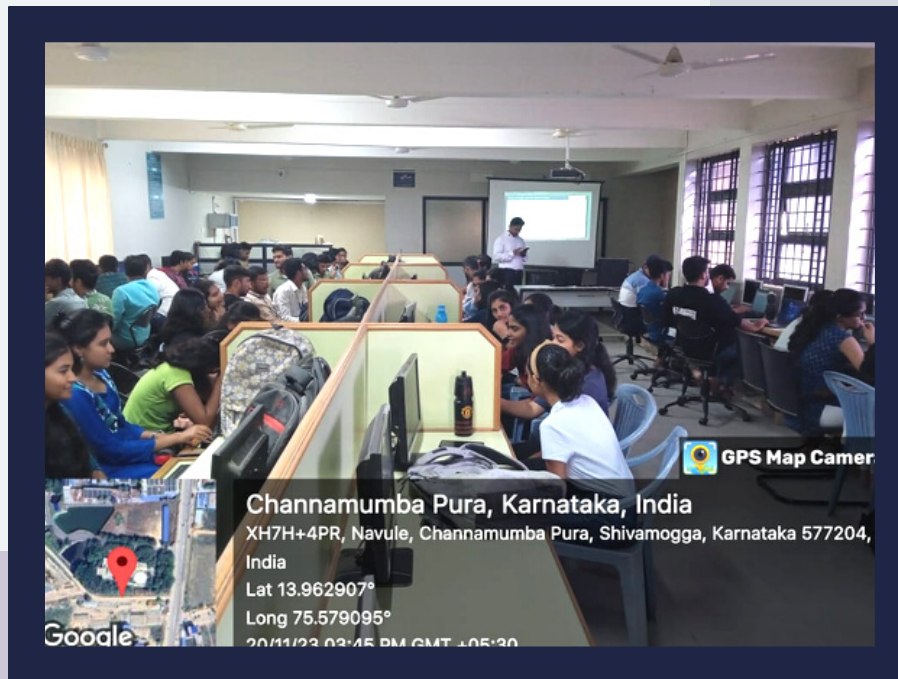
The Basics: What Are Large Language Models?

At their core, large language models are complex computer programs designed to process and generate human-like text. They are like digital polyglots, capable of understanding and generating text in various languages. The key to their power lies in their ability to learn from vast amounts of text data. Imagine a massive digital library filled with books, articles, websites, and conversations, and these models are the librarians who've read it all.

To continue reading...

Visit: <https://medium.com/@rakeshnandithale/navigating-the-ai-frontier-a-comprehensive-look-at-large-language-models-26f452d817ad>

STUDENT DEVELOPMENT PROGRAM



The department, in collaboration with the Edunet Foundation, organized a 5-day Student Development Program focused on "Fundamental Courses" by Microsoft and SAP, as part of Techsaksham. Approximately 400 students from the departments of Computer Science and Engineering (CSE), Electronics and Communication Engineering (ECE), Artificial Intelligence and Machine Learning (AIML), and Information Science and Engineering (ISE) actively participated in the program.

The training sessions were led by Mr. Piyush Pankaj and Mr. Vignesh from Edunet Foundation, providing valuable insights into fundamental courses offered by industry leaders Microsoft and SAP. Students who successfully completed the program with a minimum attendance of 60% were awarded Techsaksham Learning Platform credentials, recognizing their dedication and proficiency in the covered subjects. This initiative aimed to equip students with essential skills and knowledge, fostering their professional development in the field of technology.

ORIENTATION DAY



The AIML department at JNNCE College set the stage for a promising academic year as it unfolded its vibrant Orientation ceremony. Amidst the eager faces of the first-year students, the event was graced by the presence of luminaries, including our esteemed Head of Department, Dr. Chetan KR, and distinguished faculty members - Dr. Ashwini J P, Mr. Sayed Johar, Mr. Ranjan V, and Miss Shaziya Banu. Their collective expertise promises an exciting journey into the realms of Artificial Intelligence and Machine Learning. To symbolize the nurturing environment within our department, the ceremony commenced with the watering of a plant—a metaphor for growth and prosperity.

Dr. Chetan KR, our Head of Department, shared words of wisdom, setting the tone for the academic excellence that awaits our AIML enthusiasts. Each faculty member brought a unique perspective to the table. Dr. Chetan K R delved into the cutting-edge advancements and research opportunities within AI . Mr. Ranjan V bridged the gap between theory and real-world applications, drawing from his rich industry experience , while Miss Shaziya Banu illuminated exciting projects and initiatives within the department.

GLIMPSES



ORIENTATION DAY



At JNNCE, the heartbeat of our department is the ACM Student Chapter. For the second consecutive year, students take the reins of organizing and managing all department events. A heartfelt congratulations was extended to the previous year's ACM Student Chapter representatives, whose dedication paved the way for the continued success of the chapter.

New Faces, New Leaders: ACM Student Chapter Representatives.

Introductions were made as the torch passed to the new ACM Student Chapter representatives. Their passion and commitment are set to propel the chapter to new heights, fostering a spirit of innovation and collaboration.



To conclude the orientation on a lighter note, the attendees engaged in a fun and interactive game of INTRA-INTRO, strengthening bonds and fostering camaraderie amongst the AIML family, where all the newbies were interacted with each other and mad into groups in random to take a small personality quiz which made them understand each other in a better way.

DEFUSION



On the 29th of December 2023, the Department of Artificial Intelligence and Machine Learning (AI and ML) orchestrated a groundbreaking event named "De-fusion", illuminating the year's end with a celebration of technology and creativity. The event focused on the convergence of artificial intelligence, machine learning, and artistic expression, inviting participants to explore the realm of image creation through innovative prompts. In the first phase, participants unleashed their creativity by crafting unique images guided by AI-generated prompts.

This segment not only showcased the participants' artistic flair but also highlighted the symbiotic relationship between human ingenuity and machine intelligence. The second segment of De-fusion added a fascinating layer to the event, challenging participants to recreate images based solely on textual prompts. This exercise delved into the intricate connections between words and visual representation, pushing the boundaries of what could be achieved through the marriage of language and technology.



SECRET SANTA



On the 27th of December, the Department of Artificial Intelligence and Machine Learning continued its festive spirit with an enthralling extension of the Secret Santa event. The post-Christmas celebration served as an opportunity for participants to come together once again and share their experiences, creating an atmosphere of joy and connection. The virtual gathering on the 27th featured a lively discussion where participants exchanged anecdotes about their Secret Santa experiences. The AI and ML.

Through this event, the Department of AI and ML showcased not only its academic prowess but also its ability to foster a sense of belonging and unity among its members. As the evening drew to a close, memories of laughter and shared moments lingered, leaving a lasting impression on all who participated. The Secret Santa event stood as a testament to the department's vibrant and inclusive spirit, embodying the true essence of the holiday season.

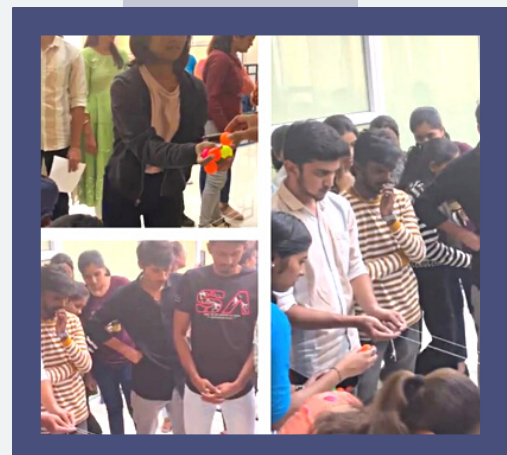


FUN FAIR



The Fun Fair extravaganza that unfolded in our department on January 19, 2024, was nothing short of a carnival of joy and excitement. As the sun cast its golden rays over the campus grounds, more than 60 eager students converged to participate in an array of exhilarating games and activities meticulously planned to delight and entertain.

The air buzzed with anticipation as participants lined up for the first challenge: "Air Drop." In this daring feat, contestants braved heights and obstacles as they descended with grace and skill. The cheers and applause from the spectators echoed through the air, adding to the adrenaline rush of the competitors.



Meanwhile, "Nose dive" beckoned those with a penchant for agility and precision. Participants navigated through a series of intricate obstacles, testing their reflexes and dexterity. The atmosphere was electric as contestants raced against the clock, each maneuver more daring than the last.

Across the fairgrounds, laughter and excitement filled the air as students tried their hand at "Thread the needle." This test of finesse and concentration challenged participants to weave through narrow openings with expert precision. The crowd erupted in cheers as each successful attempt brought them one step closer to victory.

The festivities continued with the whimsical "Balloon relay," where teamwork and coordination took center stage. Participants raced against time, passing balloons with care and agility, their determination palpable with each step. Laughter rang out as balloons bobbed and weaved through the crowd, adding a colorful flair to the event.



Amidst the excitement, "Float and build it" offered a creative outlet for participants to showcase their ingenuity. Armed with imagination and resourcefulness, teams worked tirelessly to construct awe-inspiring structures that defied gravity and logic. From towering monuments to whimsical sculptures, each creation was a testament to the boundless creativity of the human spirit.

As the sun began to set on the horizon, casting a warm glow over the festivities, the Fun Fair drew to a close. But the memories forged on that day would linger for years to come, a testament to the spirit of camaraderie and joy that permeated every corner of the event. With hearts full and spirits lifted, participants bid farewell to the Fun Fair, already counting down the days until the next exhilarating adventure awaits.

WINNERS

1ST PLACE	2ND PLACE	3RD PLACE
 Anusha Kanale Dhanalakshmi C Tanu B Aishwarya R Sahana S K Vidyashree Y C Srinivas S S Kushan Gowda G H Manjappa Gowda Kishan	 Dhanush Kalkur Samarth Yashwanth Patel G J Tarun K V Suraj S G Yashaswini S Gowda Manoj C R Irfan Ron Chandana Sanjana	 Deepika T M Shreya R CHittaragi Sahana N Shanavi V Suchet H S Aishwarya B R Prajwal S Akash N V Sathwik P Nikhil Harsha

AI NEWS

Google Gemini

Ananya G Yadagere



As part of AI News, Ms. Ananya G Yadagere (4JN22AI006), III Sem, AIML gave a seminar on the topic “Google Gemini” on 23-01-2024. Gemini is the result of large-scale collaborative efforts by teams across Google. It was built from the ground up to be multimodal, which means it can generalize and seamlessly

understand, operate across and combine different types of information including text, code, audio, image and video. Gemini is also the most flexible model yet — able to efficiently run on everything from data centers to mobile devices. Its state-of-the-art capabilities will significantly enhance the way developers and enterprise customers build and scale with AI. Gemini is available in three different sizes: Gemini Ultra (for largest and most capable model for highly complex tasks), Gemini Pro (best model for scaling across a wide range of tasks) and Gemini Nano (most efficient model for on-device tasks). Gemini Ultra’s performance exceeds current state-of-the-art results on 30 of the 32 widely-used academic benchmarks used in large language model (LLM) research and development. This helps Gemini seamlessly understand and reason about all kinds of inputs from the ground up, far better than existing multimodal models and its capabilities are state of the art in nearly every domain. Its remarkable ability to extract insights from hundreds of thousands of documents through reading, filtering and understanding information will help deliver new breakthroughs at digital speeds in many fields from science to finance.

AI NEWS

ETHICAL AI Mohammed Anas



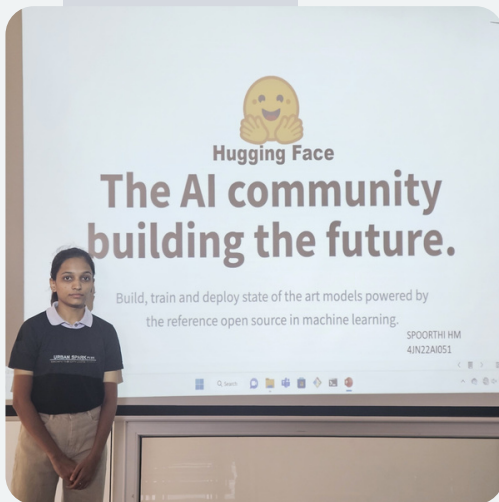
As part of AI News, Mr. Mohammed Anas (4JN22AI030), III Sem, AIML gave a seminar on the topic “Ethical AI” on 26-12-2023. Ethical AI is artificial intelligence that adheres to well-defined ethical guidelines regarding fundamental values, including such things as individual rights, privacy, non-discrimination

, and non-manipulation. Ethical AI places fundamental importance on ethical considerations in determining legitimate and illegitimate uses of AI. Organizations that apply ethical AI have clearly stated policies and well-defined review processes to ensure adherence to these guidelines. AI has the potential to be used for both good and evil purposes. The benefits from the ethical uses of AI are numerous and significant. The application of AI can help organizations operate more efficiently, produce cleaner products, reduce harmful environmental impacts, increase public safety, and improve human health. But if used unethically – e.g., for purposes such as disinformation, deception, human abuse, or political suppression – AI can cause severe deleterious effects for individuals, the environment, and society. Laws and regulations are generally insufficient to ensure the ethical use of AI. It is incumbent on individuals and organizations who use AI – as well as those who develop and provide AI tools and technology – to practice ethical AI. Users and purveyors of AI must take proactive steps to make sure they are using AI ethically.

AI NEWS

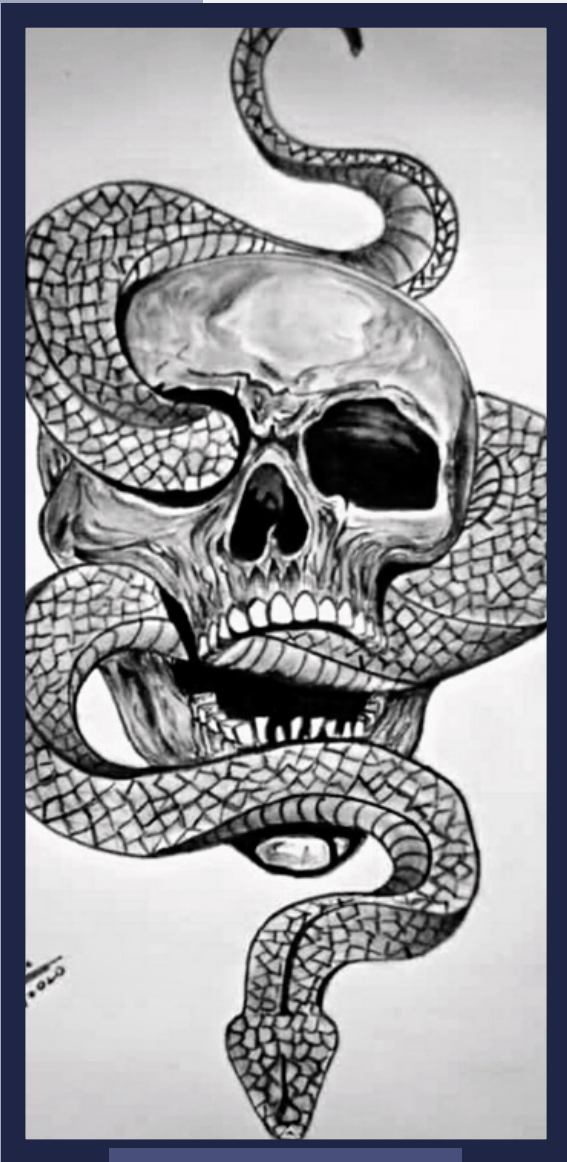
Hugging Faces Library

Spoorthi H M



As part of AI News, Ms. Spoorthi H M (4JN22AI051), III Sem, AIML gave a seminar on the topic “Hugging Faces Library” on 26-12-2023. Hugging Face, Inc. is a French-American company based in New York City that develops computer tools for building applications using machine learning. It is most notable for its transformers library built for natural

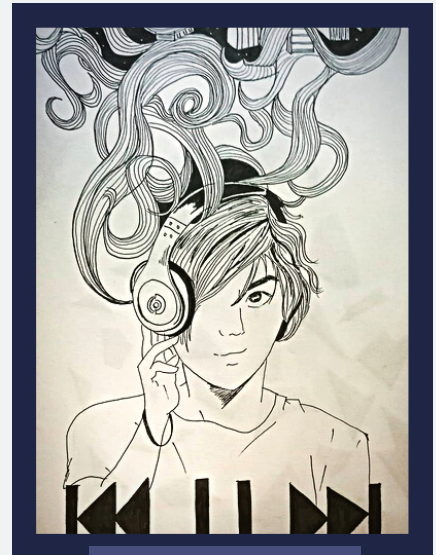
language processing applications and its platform that allows users to share machine learning models and datasets and showcase their work. Hugging Face is a community and data science platform that provides tools that enable users to build, train and deploy ML models based on open source (OS) code and technologies. It is a place where a broad community of data scientists, researchers, and ML engineers can come together and share ideas, get support and contribute to open source projects. Hugging face aims to become the largest collection of models and datasets with the goal of democratising AI for all. Hugging Face is known for its Transformers Python library, which simplifies the process of downloading and training ML models. The library gives developers an efficient way to include one of the ML models hosted on Hugging Face in their workflow and create ML pipelines. In 2023, the company announced a partnership with Amazon Web Services to make Hugging Face products available to AWS customers for building custom applications. Google, Amazon and Nvidia are just a few of the companies that have invested in the startup.



Nithin Kumar S N

- Pencil sketch

OUR WORKS



Sathwik P

- Anime Art



Interesting Facts and Stuffs !!

>> The first computer virus, named "Creper," was created in the early 1970s as an experimental self-replicating program.

>> The concept of a "bit" (short for binary digit) was coined by Claude Shannon in his 1948 paper "A Mathematical Theory of Communication."

>> The "404 Not Found" error code, commonly encountered on the internet, originated from an April Fool's joke at CERN in 1990.

Fun facts!!

The first alarm clock could only ring at 4 a.m., the time its inventor, Levi Hutchins, wanted to wake up. There was no way to adjust the time.



Edited by : Apoorva D
Nithin Kumar S N

Email : hod_aiml@jnnce.ac.in