

# AI&DS

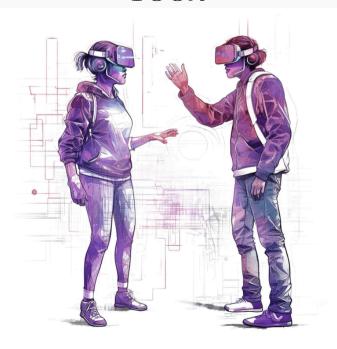
**Monthly Awareness Bulletin** 

# Insights

ISSUE 02 | October 2024

"Collaboration and curiosity drive progress, making our department a hub of learning and creativity."

#### **TOON**





# **Ganpati Festival**

As we move beyond the vibrant celebration of Ganpati Festival, let us carry forward the spirit of devotion, unity, and renewal into our daily lives. The festival, honoring Lord Ganesha, reminds us of the power of wisdom, prosperity, and the removal of obstacles. As we celebrate this revered tradition, we are reminded of the significance of faith, perseverance, and gratitude that lie at the heart of this festival.

The joyous immersion of Ganesha idols symbolizes the cycle of creation and dissolution, encouraging us to let go of the old and embrace the new with optimism. With each prayer and offering, we reaffirm our connection to the values of humility, inclusivity, and compassion. The energy of the festival, embodied in the vibrant processions and heartfelt chants, brings together communities, fostering a sense of shared purpose and collective strength.

Let us be the custodians of these traditions, ensuring that the essence of Ganpati Festival extends beyond its days of celebration. With every step, may we reflect the values of compassion, wisdom, and unity, ensuring a future where cultural heritage is preserved and cherished. With a heart full of gratitude and a mind focused on progress, let us move forward, united in the promise of a better tomorrow, rooted in the blessings of Lord Ganesha. text

# Alumni

As an alumnus of the Department of Artificial Intelligence and Data Science, I can confidently say it is a dynamic and forward-thinking department. The well-structured curriculum lays a solid foundation in AI and data science, with faculty members who are both knowledgeable and passionate about their fields. One of the key highlights of my time there was the opportunity to work on real-world projects, applying theoretical knowledge to solve practical challenges, which greatly prepared me for my career. The department fosters a collaborative and supportive environment, encouraging innovation and critical thinking. With access to state-of-theart labs and industry experts, the overall experience was highly enriching and provided the essential skills needed to excel in AI and data science.

Varad Sandeep Ingale
JP Morgan Chase



# **Students Achievements**



#### Sustainable MedTech, TY

She successfully completed an internship at Amazon Development Centre India Pvt. Ltd. from June to July 2024, contributing to the REFRAIN Migration to RCPS project with the WW Returns & ReComm Tech & Inn (7799) team. Grateful to Amazon for the opportunity and my mentors for their guidance!

#### Dushyant Gajipara, B.Tech

The team Codewavers's members: Bhavesh Patil, Amey Pathe and Soham Borkarclinched secured the top spot at Innovo SSGMC 2024, impressing judges with their innovative solution's blend of creativity, technical excellence, and practicality.



#### INNOVATION EXPO, TY

She successfully completed an internship at Amazon Development Centre India Pvt. Ltd. from June to July 2024, contributing to the REFRAIN Migration to RCPS project with the WW Returns & ReComm Tech & Inn (7799) team. Grateful to Amazon for the opportunity and my mentors for their guidance!

## **ACTIVITIES**



## 1. Ganesh Chaturthi Celebration

During Ganesh Chaturthi, faculty members celebrated with enthusiasm, fostering unity and cultural appreciation among staff and students. Traditional rituals created a joyful and spiritually uplifting atmosphere for all.

# 2. Teachers Day

The Teacher's Day celebration featured the launch of the first AIDS Department Bulletin, emphasizing the department's commitment to AIDS awareness and health education. This initiative aims to provide students with valuable information and resources, supporting the mission to build a well-informed community.





# 3. Parents Meeting

A constructive parents' meeting led by the HOD and faculty discussed students' academic progress and well-being. The session aimed to enhance student performance and improve communication between parents and the institution, fostering a supportive environment for student success.

# **Faculty Publication**

 "Deep Learning-Infused Hybrid Security Model for Energy Optimization and Enhanced Security in Wireless Sensor Networks, "SN Computer Science-Springer Nature" Aug2024, Prof Shubham Joshi, K. Ramul · S. V. S. Rama Krishnam Raju, Satyanand Singh, Venubabu Rachapudi, M. Anitha Mary5, Vandana Roy6.

# Topic of the Month Augmented Reality (AR) vs Virtual Reality (VR)

Technology is rapidly transforming how we interact with our surroundings, and two significant innovations at the forefront of this transformation are Augmented Reality (AR) and Virtual Reality (VR). While often used interchangeably, these technologies offer vastly different experiences, each with unique applications

What Is Augmented Reality (AR)?

Augmented Reality enhances the real world by overlaying digital elements—such as images, videos, and sounds—onto the user's environment. Unlike VR, AR enriches the user's physical world with contextual information through devices like smartphones, tablets, or smart glasses. A popular example is Pokémon Go, where players see Pokémon characters integrated into their real-world environments. AR is widely used in retail, navigation, and gaming, allowing users to interact with digital content alongside their physical surroundings.

What Is Virtual Reality (VR)?
Virtual Reality immerses users in a completely digital environment, shutting off the physical world entirely. VR requires specialized equipment such as headsets (like Oculus Rift or HTC Vive) to create an immersive experience. In VR, users can explore entirely virtual worlds, whether it's fighting zombies or touring outer space, providing a fully engaging experience.

Key Differences Between AR and VR

Level of Immersion:

- o AR: Enhances the real world, keeping users aware of their surroundings.
- VR: Fully immersive, disconnecting users from the real world.

Equipment:

- AR: Requires smartphones, tablets, or AR glasses.
- VR: Needs VR headsets and often motion controllers.

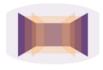
- Interaction with the Real World:
   AR: Bridges the gap between the real and digital worlds.
  - VR: Completely replaces the real world with a virtual environment.

The Future of AR and VR

- 1. AR in Everyday Life: Expect AR to become more integrated into daily life through devices like AR glasses, providing real-time information and notifications seamlessly
- 2. VR and the Metaverse: The Metaverse concept is gaining traction, with companies like Meta investing in create virtual environments for social interactions and meetings.

#### VIRTUAL REALITY (VR)

Fully artificial environment



Full immersion in virtual



AUGMENTED REALITY (AR)

Virtual objects overlaid on real-world environment



The real world enhanced with digital objects



REALITY (MR)

Virtual environment combined with real world



Interact with both the real world and the virtual environment



Current Applications

Gaming and Entertainment:

- o AR: Games like Pokémon Go and AR filters on social media enhance user engagement.
  - VR: Immersive gaming experiences like Beat Saber and virtual concerts

- Education and Training:
   AR: Apps like Google Lens overlay interactive content on real-world objects to enhance léarning.
  - VR: Provides realistic simulations for training in fields like aviation and medicine.

Healthcare:

- AR: Used in guided surgeries to overlay medical images,
- improving precision. VR: Helps with pain management and mental health therapies through immersive environments.

- AR: Apps like IKEA Place allow users to visualize furniture in their homes before purchase.
- VR: Offers the potential for virtual shopping experiences.

References: Open AI,

https://datasciencedojo.com/blog/natural-language-processing-applications



-Rushikesh Gaikar (SY-A)







Arman <u>Tamboli</u> Patil



Pranav



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