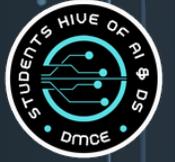




DATTA MEGHE COLLEGE OF ENGINEERING, AIROLI
DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE
STUDENT HIVE OF ARTIFICIAL INTELLIGENCE & DATA SCIENCE



AI SPECTRUM

VOLUME 1



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MESSAGE FROM THE PRINCIPAL



Dr. Prasadkumar Dode

PRINCIPAL

Dear Students, Faculty, and Esteemed Readers,

It is with great pleasure that I present to you the inaugural issue of Artificial Intelligence and Data Science Department Magazine, a platform that reflects the collective journey of growth, achievement, and Innovation.

In today's world, Artificial Intelligence and Data Science are not just fields of study, but driving forces that are shaping industries, transforming societies, and solving complex global challenges. As we embrace this digital revolution, AI & DS department strives to equip students with the skills, knowledge, and creative mindset required to lead in this ever-evolving landscape.

This magazine reflects the incredible work being done by our students, faculty, and staff. It showcases the talents, ideas, and dreams of our students, along with the dedication and hard work of our faculty and staff. It is a testament to our collective pursuit of knowledge, creativity, and personal development.

I encourage all of you to continue pushing boundaries, seeking new solutions, and contributing to the future of AI and Data Science. Let this magazine serve as a source of inspiration and a reminder of the collective potential we possess to shape the future.

With best wishes for your continued success and growth,

Warm regards,

Principal

Datta Meghe College of Engineering, Airoli

MESSAGE FROM THE HOD



Dr. Sanjay Patil
Head Of Department

Dear Students, Faculties and Staff Members,

It is with great pleasure that I extend my warm greetings to all of you as you engage with the first edition of our departmental magazine. This magazine serves as a testament to the hard work, creativity, and dedication of our students, faculty, and staff.

As we continue to advance in our academic endeavours, I encourage everyone to remain curious, innovative, and passionate about your fields of study. The contributions within this magazine highlight not only academic excellence but also the vibrant spirit of collaboration and growth that defines our department. Let us take pride in our collective achievements and continue striving towards greater heights. I hope this publication serves as a source of inspiration, knowledge, and unity for everyone associated with our department.

Thank you for your continuous support, and I look forward to seeing all the exciting possibilities our future holds.

Warm regards,
Head of Department
AI & DS

MESSAGE FROM SHAIDS COORDINATOR



Dr. Preeti Jain

SHAIDS COORDINATOR

Dear Readers,

It is with great pride and enthusiasm that I welcome you to the first edition of our most awaited technical magazine “**AI Spectrum**”. In this rapidly evolving world of technology, our magazine strives to be a beacon of innovation, knowledge, and inspiration. Each article, project, and feature presented here reflects the dedication and creativity of our contributors aiming to bridge the gap between theoretical insights and real-world applications.

I extend my heartfelt gratitude to the editorial team, authors, and readers who will support and enrich this platform. Together, let us embrace the spirit of learning, exploration, and excellence as we shape the future of technology.

Happy reading!

MESSAGE FROM MAGAZINE COORDINATOR



Dear Students, Faculty, and Esteemed Readers,

It is with immense pride and excitement that we present this edition of our department magazine. As the coordinators, we have witnessed firsthand the incredible talent and creativity that our department possesses. This magazine is a reflection of our collective effort to showcase the vibrant spirit and diverse voices that make our institution unique. Every article, artwork, and contribution in this magazine tells a story whether it's about academic achievements, campus events, personal journeys or the everyday moments that connect us all. It's a celebration of who we are, what we believe in, and how we continue to grow together. We would like to extend our gratitude to everyone who contributed to this magazine. Your hard work, creativity and dedication have made this magazine a true representation of our department's energy and enthusiasm. We also encourage each of you to be a part of future editions. Our magazine thrives on the ideas, talents, and experiences of each of you and together, we can continue to create something special.

Thank you for your support and involvement. Let's continue to make this magazine a space for inspiration, expression, and connection.

**Warm regards,
Mrs. Shradha Kawji
Mrs. Irin Solomon
Magazine Coordinator**

FACULTY



Dr. Sanjay M. Patil

PROFESSOR & HOD

QUALIFICATION: PH.D. : COMPUTER
SCIENCE AND TECHNOLOGY

INDUSTRY EXPERIENCE: 1.5 YEARS

EXPERIENCE: 31+ YEARS



Dr. Preeti Nitin Jain

ASSISTANT PROFESSOR

QUALIFICATION: PH.D. ELECTRONICS
ENGINEERING

EXPERIENCE: 22+ YEARS



Mr. Anil Satyadeo Londhe

ASSISTANT PROFESSOR

QUALIFICATION: M.E. ELECTRONICS
ENGINEERING

EXPERIENCE: 21+ YEARS

INDUSTRY EXPERIENCE: 2 YEARS

FACULTY

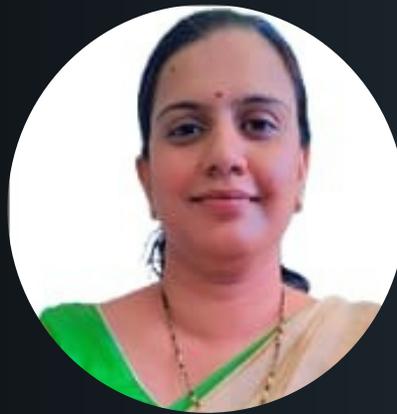


Mrs. Monal Nilesh Malge

ASSISTANT PROFESSOR

QUALIFICATION: M.E. COMPUTER
ENGINEERING

EXPERIENCE: 15+ YEARS



Mrs. Neha Kunal Kale

ASSISTANT PROFESSOR

QUALIFICATION: M.E. INFORMATION
TECHNOLOGY

EXPERIENCE: 6.5+ YEARS



Mrs. Deepti Jeetu Janjani

ASSISTANT PROFESSOR

QUALIFICATION: M.E. INFORMATION
TECHNOLOGY

EXPERIENCE: 8+ YEARS

INDUSTRY EXPERIENCE: 2 YEARS

FACULTY



Mrs. Poonam Amit Kamble

ASSISTANT PROFESSOR

QUALIFICATION: M.E. COMPUTER
ENGINEERING

EXPERIENCE: 6+ YEARS



Mrs. Aarti Raman Sonawane

ASSISTANT PROFESSOR

QUALIFICATION: M.E. COMPUTER
ENGINEERING

EXPERIENCE: 9+ YEARS

INDUSTRY EXPERIENCE: 2 YEARS



Mrs. Swati Sanket Parhad

ASSISTANT PROFESSOR

QUALIFICATION: M. TECH COMPUTER
ENGINEERING

EXPERIENCE: 5.6+ YEARS

INDUSTRY EXPERIENCE: 2 YEARS



Mrs. Amita Priyadarshan Suke

ASSISTANT PROFESSOR

QUALIFICATION: M.E. COMPUTER
ENGINEERING

EXPERIENCE: 10+ YEARS

FACULTY



Mrs. Irin Anna Solomon

ASSISTANT PROFESSOR

QUALIFICATION: M.TECH NETWORK & CYBER SECURITY

EXPERIENCE: 2+ YEARS

INDUSTRY EXPERIENCE: 3.5 YEARS



Mrs. Shraddha Ratish Kawji

ASSISTANT PROFESSOR

QUALIFICATION: M.E. COMPUTER ENGINEERING

EXPERIENCE: 4.5+ YEARS

INDUSTRY EXPERIENCE: 5 YEARS



Mrs. Anjalidevi Milind Patil

ASSISTANT PROFESSOR

QUALIFICATION: M.E COMPUTER SCIENCE AND ENGINEERING, PH.D. COMPUTER SCIENCE AND ENGINEERING (PURSUING)

EXPERIENCE: 18+ YEARS

SHAIDS COMMITTEE

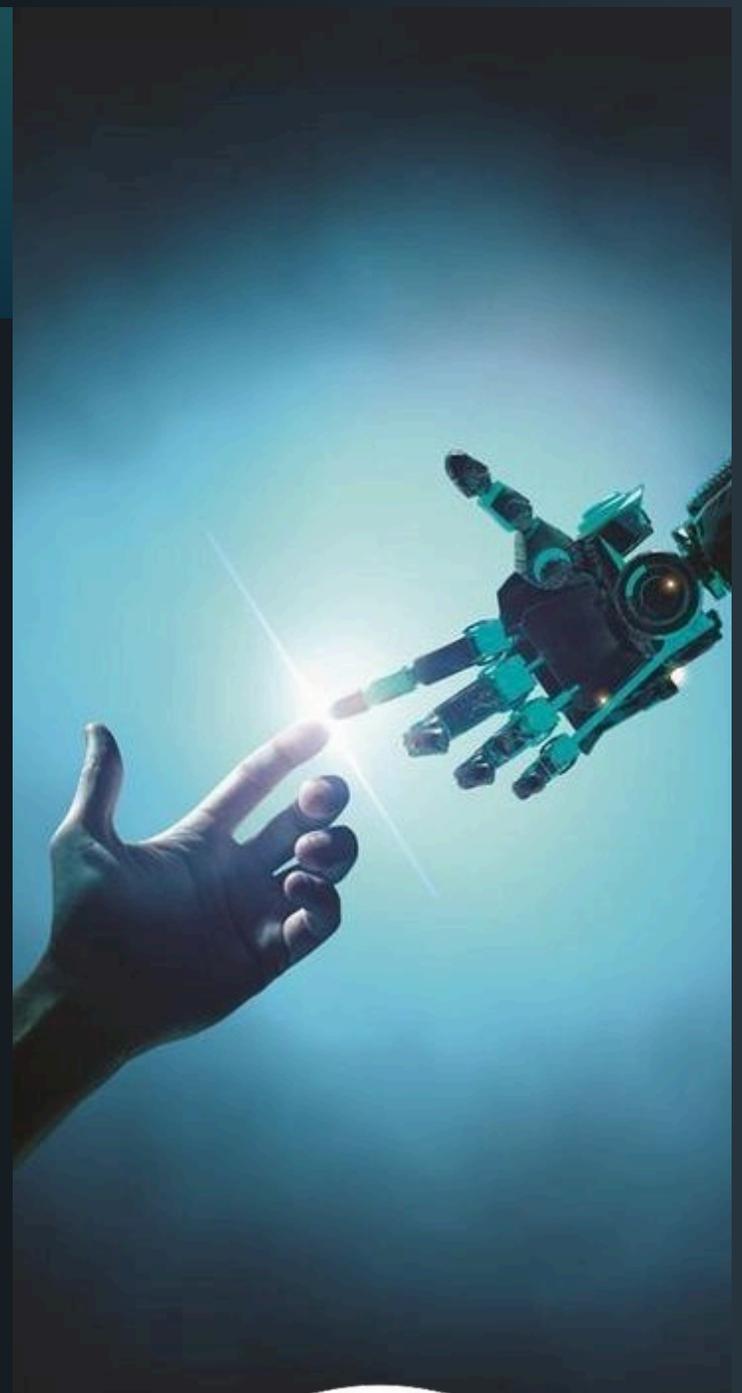
About SHAIDS - Student Hive of Artificial Intelligence and Data Science

Student Hive of Artificial Intelligence and Data Science (SHAIDS), is a dynamic initiative launched in 2023, aimed at cultivating a thriving community of students passionate about AI and Data Science.

This committee serves as a collaborative platform where members can engage in various activities such as workshops, hackathons, and projects that enhance their understanding of these cutting-edge fields.

By fostering an environment of creativity and innovation, SHAIDS encourages students to explore the latest advancements in technology while building essential skills for their future careers. The committee also emphasizes the importance of teamwork and networking, allowing members to connect with industry professionals and peers who share similar interests.

Through its initiatives, SHAIDS aspires to inspire the next generation of leaders in AI and Data Science, equipping them with the knowledge and experience necessary to excel in an increasingly data-driven world.



OUR VISION FOR THE FUTURE

At SHAIDS, our primary goal is to enrich the college experience by organizing a wide array of events that cover technical, cultural, and sports activities. We strive to create an environment that fosters growth and development by providing students with opportunities to enhance their skills, discover their potential, and showcase their talents. Our events are designed to be both educational and enjoyable, offering a platform for students to engage in a well-rounded learning journey. By focusing on personal and professional growth, SHAIDS aims to empower students to become versatile individuals capable of excelling in diverse fields and contributing positively to society.

At SHAIDS, we prioritize personal and professional growth by offering leadership opportunities, networking with industry professionals, and real-world event management experiences, empowering students to excel in diverse fields. Additionally, our initiatives include community outreach programs, sustainability efforts, and inclusive participation, ensuring everyone has a chance to contribute and grow.

“ OUR VISION FOR THE FUTURE ”

By joining SHAIDS, students embark on a journey of transformation, unlocking their potential and creating lasting memories while preparing to make a meaningful impact on society.

Our mission is to go beyond academics, fostering holistic growth by providing students with opportunities to enhance their skills, discover their potential, and showcase their talents. Technical events such as hackathons, coding challenges, and expert-led workshops encourage innovation and skill development, while cultural celebrations and artistic showcases offer a platform for self-expression.



FOUNDING COMMITTEE



Vedant Dal
GENERAL SECRETARY



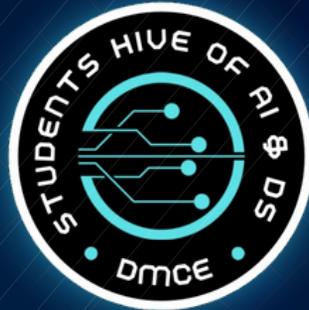
Sai Patil
PRESIDENT



Ajink Gupta
CO-GENERAL SECRETARY



Yash Dhole
CONVENER



Harsh Jain
TREASURER



Soham Jadhav
CULTURAL HEAD



Yash Bhangale
TECH. HEAD



Chinmayee Mayekar
GRAPHICS HEAD



Prakruti Khandagale
SPONSORSHIP HEAD



Vedang Bandi
PLANNING HEAD



Shivam Dagadu
SPORTS HEAD



Raj Sawant
PUBLICITY HEAD



Atharva Sawant
SOCIAL MEDIA HEAD

CURRENT COMMITTEE



GENERAL SECRETARY



Sahil Jadhav

PRESIDENT



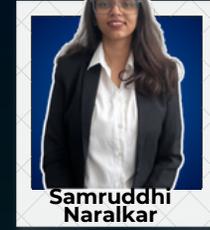
Siddhi Kambli

CO-GENERAL SECRETARY



Sadashiv
Sawant

TREASURER



Samruddhi
Naralkar

CONVENER



Ayush Bhosale

TECH HEAD



Aryan Gawade

GRAPHICS HEAD



Anuj Jadhav

DOCUMENTATION HEADS



Nimisha Patil



Anushka
Jagadale

PUBLICITY HEAD



Piyush Dokle

SOCIAL MEDIA HEAD



Rutuja
Wavdhane

PLANNING HEAD



Shraddha
Nimunkar

CULTURAL HEAD



Sairaj Unde

SPORTS HEADS



Rishita Chavan

SPONSORSHIP HEADS



Bhumika
Bandkar



Mandar Salvi

RANKERS (S.E.) 2023-24

1.

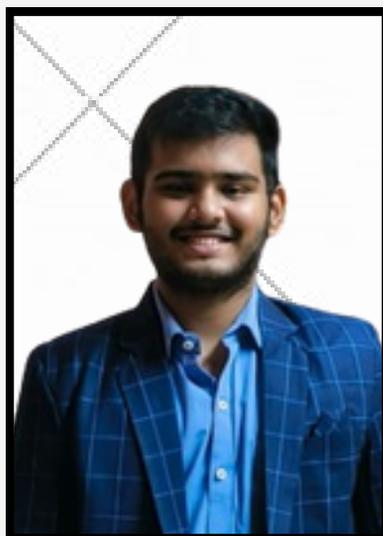
**KHANVILKAR
MANSI**



**DIVISION: A
CGPA: 9.78**

2.

**JADHAV
RAAJ**



**DIVISION: A
CGPA: 9.31**

3.

**INDULKAR
LAVANYA**



**DIVISION: A
CGPA: 9.27**



DATTA MEGHE COLLEGE OF ENGINEERING, AIROLI
DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

RANKERS (S.E.) 2023-24

1.

**KHANVILKAR
MANSI**



CGPA: 9.78

2.

**JADHAV
RAAJ**



CGPA: 9.31

3.

**INDULKAR
LAVANYA**



CGPA: 9.27



DATTA MEGHE COLLEGE OF ENGINEERING, AIROLI
DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

RANKERS (T.E.) 2023-24

1.

**PATHAK
JAINISHA**



CGPA: 9.8

2.

**RANADE
VEDANT**



CGPA: 9.77

3.

**TIMMAPURI
MOHD ZAUREZ**



CGPA: 9.44

RANKERS (T.E.) 2023-24

1.

**PATHAK
JAINISHA**



CGPA: 9.8

2.

**RANADE
VEDANT**



CGPA: 9.77

3.

**TIMMAPURI
MOHD ZAUREZ**



CGPA: 9.44

PLACEMENT DETAILS



**VEDANT
RANADE**

**CAPGEMINI
5.75 LPA**



**KIRTI
RANE**

**CAPGEMINI
4.25 LPA**



**VEDANT
DAL**

**CAPGEMINI
4.25 LPA**



**JAINISHA
PATHAK**

**CAPGEMINI
5.75 LPA**



**HARSH
ROKADE**

**TECHNOOK
4.5 LPA**



**TRUSHANK
VASHIKAR**

**CAPGEMINI
4.25 LPA**



**SOHAM
JADHAV**

**CAPGEMINI
4.25 LPA**



**YADNESH
BHANUSHALI**

**CAPGEMINI
4.25 LPA**



**ADITYA
CHEKKALA**

**CAPGEMINI
4.25 LPA**



**HARSH
JAIN**

**CAPGEMINI
4.25 LPA**



**SIDDHI
JADHAV**

**TECHNOOK
4 TO 6 LPA**



**ISHAAN
PARSONNE**

**CAPGEMINI
4.75 LPA**



**AJINK
GUPTA**

**CAPGEMINI
4.25 LPA**



**DEVESH
SHARMA**

**CAPGEMINI
4.25 LPA**



**RAJ
SAWANT**

**TECHNOOK
4 TO 6 LPA**



**NINAD
KATTI**

**CAPGEMINI
4.25 LPA**



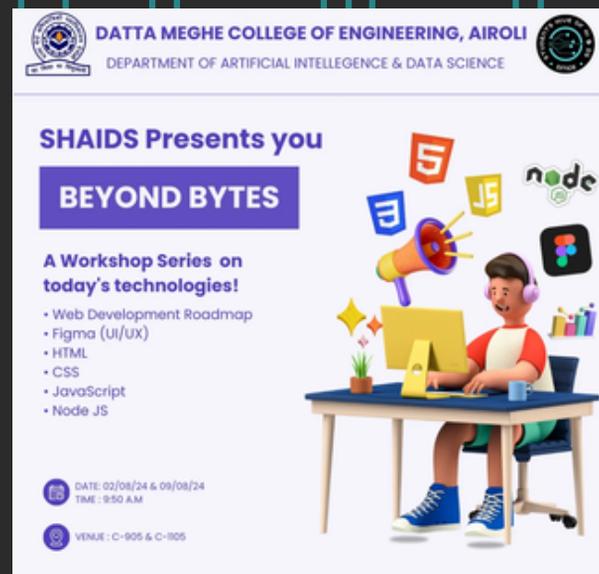
**YASH
DHOLE**

**CAPGEMINI
4.25 LPA**

Event Highlights

BEYOND BYTES

The workshop by Sahil Jadhav, Ayush Bhosale and Anuj Jadhav on CSS provided valuable insights into styling and layout techniques. Key topics included selectors, the box model, responsive design and advanced features like Flexbox and Grid. The session was engaging, with friendly speakers and a hands-on exercise to reinforce learning. It enhanced participants understanding of CSS and equipped them with practical skills for real-world projects.



The Node.js session at Beyond Bytes on August 9, 2024 was a success led by Nimish Sarpande and Raaj Jadhav. It covered core concepts with hands-on exercises, helping participants build apps and manage asynchronous operations. The interactive format and clear explanations received positive feedback, highlighting the seniors effective teaching.





Technitude

Technitude 2023 was an exciting and multifaceted event organized by the Artificial Intelligence and Data Science Engineering Department at DMCE, combining technology, creativity, and social awareness. The event featured a range of activities, including Prompt Quest, a challenge-based event focused on AI and data science.

Web Fusion, a celebration of web development trends. Human Foosball, a physically engaging twist on the classic game promoting teamwork and House of Secrets, a quiz raising awareness about mental health and family dynamics. Under the leadership of faculty members and student coordinators, Technitude 2023 not only showcased technical skills but also emphasized the importance of communication, collaboration, and mental well-being, making it an enriching and unforgettable experience for all participants. The event fostered a spirit of innovation and teamwork, encouraging participants to think critically and creatively.

TECHNITUDE

"Prompt Quest" was an exciting event organized by the Artificial Intelligence and Data Science Engineering Department at DMCE in September 2023. The event aimed to bring together students and professionals to explore and showcase the innovative applications of AI and data science through interactive challenges and thought-provoking sessions.

Under the leadership of Prof. Deepali Chavan, a respected faculty member, and with the dedicated efforts of student coordinator Srinivas Godihal, "Prompt Quest" became a platform for participants to enhance their skills, collaborate with like-minded peers, and gain valuable insights into the rapidly evolving fields of AI and data science.

2. Web Fusion



1. Prompt quest



"WEB FUSION" was a dynamic tech event organized by the Artificial Intelligence and Data Science Engineering Department at DMCE in September 2023. The event aimed to explore and celebrate the latest trends in web development, technology integration, and digital innovation, offering participants a platform to enhance their technical skills and gain hands-on experience. Under the guidance of Prof. Deepali Chavan, an esteemed faculty member, and with the leadership of student coordinator Nirakar Jena, WEB FUSION became an exciting and engaging event for students, professionals, and tech enthusiasts.



TECHNITUDE

3. Human Foosball



"HUMAN FOOSBALL" was an exhilarating event conducted by the Artificial Intelligence and Data Science Engineering Department at DMCE in September 2023. This unique and action-packed event was led by Prof. Monal Malge, with the student coordination of Raj Patil and Adarsh Murli.

Human Foosball is an exciting twist on the classic tabletop game, where the action takes place on a life-sized playing field. In this larger-than-life version, teams of four to six players are fixed to horizontal poles, just like the figures on a traditional foosball table. The challenge lies in synchronizing movements and strategies, as players can only move side-to-side along the poles, mimicking the fun and fast-paced nature of the original game.

4. House of Secrets

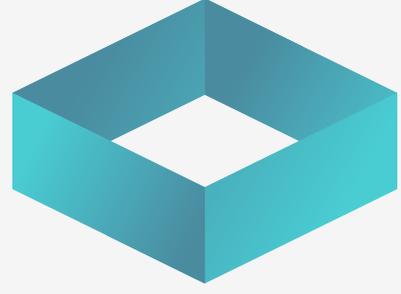


HOUSE of SECRETS was a treasure hunt event conducted by Artificial Intelligence and Data Science Engineering Department at DMCE in September 2023. The event was led by Prof. Anil Londhe and student coordinators- Harsh Rokade & Prathemesh Rane.

The event "House of Secrets" draws its inspiration from the tragic incident in Burari, Delhi. It aims to shed light on the importance of mental health, family dynamics, and the significance of open communication within households.



AI SPARK



“
The value of
an idea lies in
the using of
it

The AI Spark competition, organized by the SHAIDS committee, is a dynamic platform where the brightest minds come together to explore and showcase the transformative possibilities of artificial intelligence (AI). In a rapidly evolving technological world, AI Spark stands as a beacon of creativity, highlighting the power of innovation within our department.

The competition featured a remarkable blend of cutting-edge algorithms, inventive solutions, and boundless imagination. Participants tackled real-world problems across various sectors, turning abstract ideas into practical AI applications. The competition showcased how AI can address pressing challenges, improve efficiency, and drive sustainability.



AECC SEMINAR

Global Insights : Mastering the Art of Planning Your International Education

A seminar conducted by AECC Institute on International Education in our college, DMCE (Datta Meghe College of Engineering), was both enlightening and informative. The event brought together students and faculty to explore the myriad opportunities for studying abroad, emphasizing the benefits of global exposure, cultural diversity, and academic excellence. Attendees gained insights into various study destinations, scholarship options, and the application process for international universities. The seminar served as a valuable resource for those aspiring to pursue higher education abroad, providing them with a comprehensive overview of the international education landscape.



This seminar provided valuable insights into studying abroad. The event highlighted the benefits of global exposure, cultural diversity, and academic excellence. Attendees learned about various study destinations, scholarship opportunities, and the application process for international universities. The seminar served as an informative resource for students aspiring to pursue higher education abroad, offering a comprehensive overview of the global education landscape.

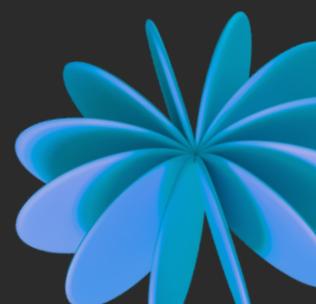


WORKSHOP ON ETHICAL HACKING



Understanding the ethical considerations and legal implications of hacking. Identifying and evaluating vulnerabilities in systems and networks. Also techniques and tools for simulating cyber-attacks to test system defenses. The Department of Artificial Intelligence & Data Science under the SHAIDS initiative conducted a two-day hands-on workshop on Ethical Hacking, focusing on Vulnerability Assessment and Penetration Testing. The event took place on the 11th and 12th of July and was led by Mr. Sridhar Chandramohan Iyer from D J Sanghvi College of Engineering. Participants gained practical experience in using ethical hacking tools and methodologies, strengthening their understanding of cybersecurity principles. The workshop also emphasized the importance of ethical practices and responsible behavior in the field of hacking.

Participants gained valuable insights into the ethical hacking process, the importance of securing systems against vulnerabilities, and practical experience with industry-standard tools. The workshop aimed to equip attendees with the knowledge and skills required to assess and improve the security of various systems and networks effectively.



Faculty Achievements



Number of research papers published by faculty in the Journals notified on UGC website for the year 2024-25

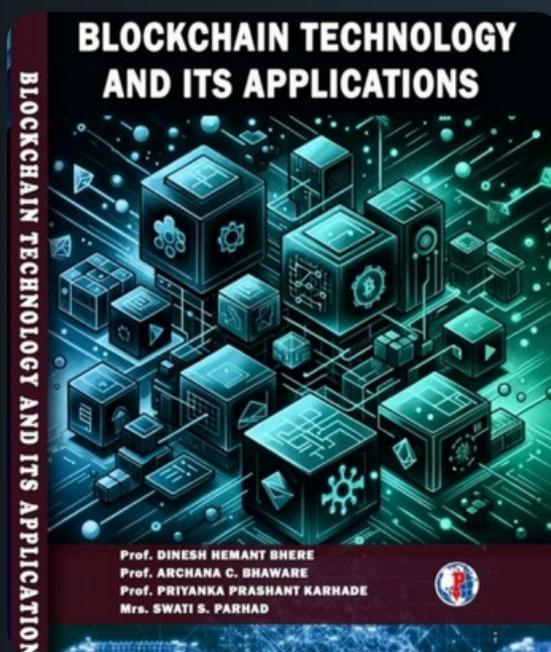
| Sr.No | Name of Faculty | Title of paper/Title of the book | Name of journal/publication | Year of publication |
|-------|------------------------|---|--|---------------------|
| 1 | Dr. Sanjay M Patil | Advanced Deep Learning Techniques for Defect Identification in Photovoltaic Cell via Electroluminescence Imaging | Journal of Engineering and Technology Management, Elsevier | 2024 |
| | | Classification of defects in Photovoltaic Cells from electroluminescence image using advanced learning techniques | 2nd IEEE DMIHER International Conference on "Artificial Intelligence in Healthcare, Education & Industry | Nov 2024 |
| | | Detection of Solar (PV) Panel using Dimension reduction Model | | |
| 2 | Dr. Sanjay M Patil | Unveiling market sentiments: Finbert - Powered Analysis of Stock news Headlines | International Journal of Scientific Research in Engineering Management (IJSREM) | Oct 2024 |
| | Mrs. Deepali Chavan | | | |
| 3 | Mrs. Neha Kale | Adaptive Music Recommendations Based on Real-time mood Detection | International Journal of Novel Research and Development (IJNRD) | August-2024 |
| | Mrs. Vrushali Dharmale | | | |
| 4 | Mrs. Anjalidevi Patil | Agriculture system for potato leaf disease detection using deep learning and GENAI | International Journal of Intelligent Systems and Applications in Engineering (IJISAE) | July-2024 |
| | | F.A.M.S (Facial Attendance Management System) | International Journal of Scientific Research in Engineering Management (IJSREM) | December-2024 |
| 5 | Mrs. Monal Malge | AI Virtual Mouse | International Journal of Scientific Research in Engineering Management (IJSREM) | August-2024 |

Patent released by our faculty

| Sr. No | Name of Faculty | Title of Patent | Name of the author/s | Registered at | Year of Registration |
|--------|----------------------|--|---|---|----------------------|
| 1 | Vrushali D. Dharmale | Emotional Insight Monitoring Wearable Device | Vrushali D. Dharmale Dr. Neerja Dharmale Dr. Rupesh Mahamune Mr. Harshvardhan Balkrushana Patil Mr. Aksh Ramesh Dudhe Mr. Venkatesh Bharti | The Patent Office, Government of India Certificate of Registration of Design | 2024-25 |

Books published by our faculty

| Sr.No | Name of Faculty | Title of Book | Name of the Author/s | Department of | Name of Publication | Year of Publication |
|-------|------------------------|---|---|-------------------|----------------------------------|---------------------|
| 1 | Mrs. Swati S. Parhad | Blockchain Technology and its Application | Mrs. Swati S. Parhad Prof. Dinesh Hemant Bhere Prof. Archana C Bhaware Prof. Priyanka Prashant Karhade | AIML/AIDS/IOT | Prime International Publications | 2024-25 |
| 2 | Mrs. Anjali Devi Patil | Recommendation Systems | Mrs. Anjali Devi Patil Dr. Radhika Nanda | CSE/AIML/AI DS/DE | Tech-Neo Publications | 2024-25 |



Student Achievements



Renuka Kiran Randhir

Thrilled to have won 2nd prize in the dance competition at Technitude 2023, organized by GITS (Group of Information Technology Students)! It was an incredible experience filled with passion, rhythm, and amazing talent all around. Grateful for the support and looking forward to more exciting performances!



Siddhi Subhash Jadhav

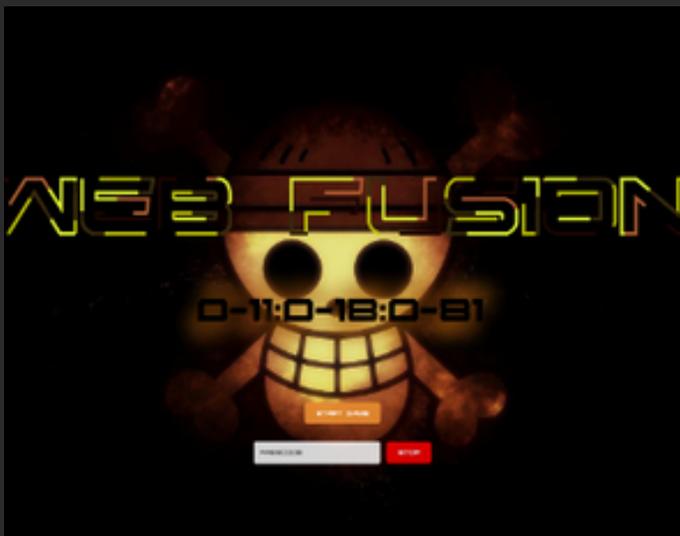
Participated in AVHAN-2023, the prestigious State Level Chancellor's Brigade-NSS Wing Training Camp on Disaster Management. Organized by Gondwana University, Gadchiroli, the camp equipped her with essential skills and knowledge to effectively handle disaster situations, highlighting her commitment to social responsibility and community service.



Student Achievements

Yash Bhangale

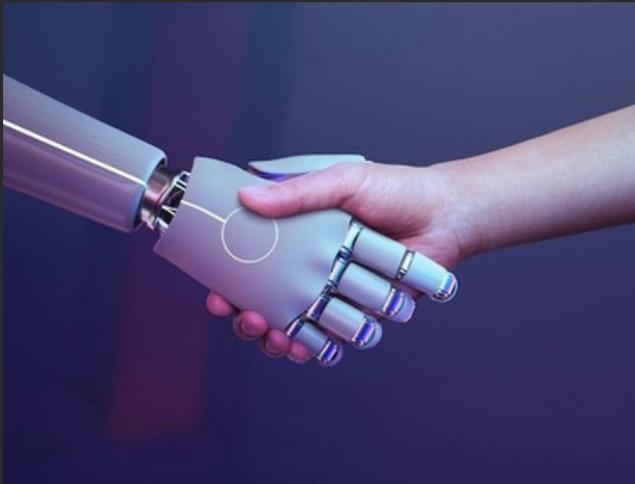
Made a significant contribution by developing the official website for SHAIDS. His technical expertise and dedication have provided the committee with a professional online platform, showcasing the talent and innovation within our college.



Yash Bhangale

Demonstrated his leadership and organizational skills by successfully conducting hackathons during Technitude, the institute's annual event. He organized engaging competitions like WebFusion and Prompt Quest, fostering innovation and creativity among participants while elevating the event's technical spirit.

Student Achievements



Chetana Lalchand Patil

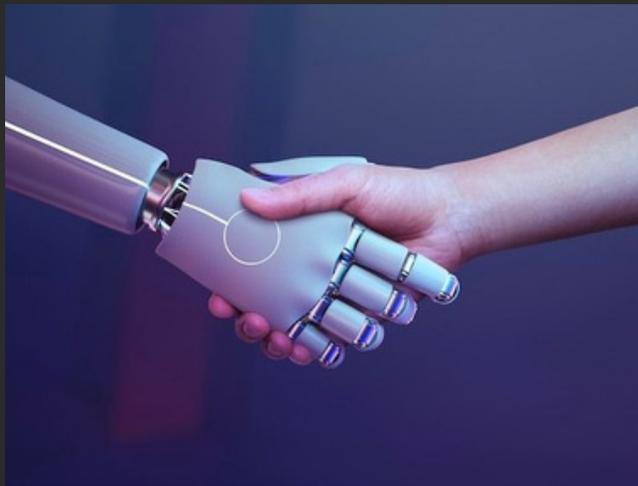
Serving as a Campus Ambassador at IIT Bombay. In this prestigious role, she bridges the gap between one of India's premier institutes and our institute, showcasing leadership, initiative, and a commitment to fostering meaningful connections and opportunities for students. Her efforts highlight the talent and potential at national stage.



Chetana Lalchand Patil

showcased her artistic skills by securing 3rd position at the District Level Rangoli Competition. Her creativity and dedication reflect her multifaceted talents, and spread awareness about water conservation, while bringing pride to our institute.

Student Achievements



Sai Sanjay Patil

A proud moment as she embarks on this journey to promote unity and diversity. Our NSS Volunteer Ms.Sai Patil from Department of AI&DS was selected to represent DMCE and Team Maharashtra at National Integration Camp held at Fatehabad Haryana. Congratulations and best wishes!



HACKATHONS AND COMPETITIONS

SIH (Smart India Hackathon) 2024

The Smart India Hackathon (SIH) serves as a platform for students from across the country to showcase their innovative ideas and technical skills. Teams from SHAIDS actively participate in this prestigious event, tackling real-world problems with creativity and technical expertise. By engaging with industry leaders and mentors, these teams not only develop cutting-edge solutions but also gain valuable experience that enhances their academic and professional growth.

Team : Code Geass

- | | |
|--------------------|------------------|
| 1. Ishaan Parsonse | 6. Yash Bhangale |
| 2. Jainisha Pathak | 7. Ninad Katti |
| 3. Rohan Prajapati | 8. Sanika Dixit |



Team : AI_SQUAD

- | | |
|-------------------|--------------------|
| 1. Sharvari Dubey | 6. Aniket Kodur |
| 2. Nirakar Jena | 7. Ajink Gupta |
| 3. Renuka Randhir | 8. Aditya Chekkala |

Team : MAHADEV

- | | |
|------------------|-----------------------|
| 1. Sumeet Pandey | 6. Kaustubh Pangerkar |
| 2. Chetana Patil | 7. Sujal Suthar |
| 3. Saurabh Singh | 8. Raj Upadhyay |



HACKATHONS AND COMPETITIONS

Mumbai Hacks Hackathon

Team Code Geass, comprising Ishaan Parson, Jainisha Pathak, Rohan Prajapati, and Yash Bhangale, has achieved a historic win at the Mumbai Hacks Hackathon, officially setting a Guinness World Record as the World's Largest Generative AI Hackathon! The team secured the top spot in the Professional Slab of the SaaS Track, taking home a prize worth ₹2,00,000. Hosted by the Tech Entrepreneurs Association of Mumbai (TEAM) at ATLAS SkillTech University, this event celebrated the future of AI innovation.

Team Code Geass's groundbreaking solution stood out for its technical excellence and real-world applicability, showcasing their creativity and teamwork. NVIDIA, Meta, and Quantipi for sponsored this groundbreaking event. This remarkable achievement highlights the brilliance of our young innovators and solidifies our institution's position as a leader in the tech and AI domain. Congratulations to Team Code Geass for this outstanding success!



HACKATHONS AND COMPETITIONS

IDEATHON (Eureka) at SIES College Nerul, Navi Mumbai

We are thrilled to spotlight the achievement of Yash Dhole and Shubhankar Majgaonkar, who secured the prestigious first prize, "Eureka," at the Ideathon competition held at SIES College, Nerul. This flagship event served as a platform to unleash creativity, problem-solving skills, and entrepreneurial flair, drawing some of the brightest minds from across the region. Participating in the Ideathon was a journey of immense learning and innovation for the team. Their dedication, countless hours of brainstorming, and unwavering commitment to developing impactful solutions were rewarded with this well-deserved recognition. Their dedication, countless hours of brainstorming, and unwavering commitment to

developing impactful solutions were rewarded with this well-deserved recognition. The event also proved to be a transformative experience, offering insights that will shape their future entrepreneurial endeavors. In addition to this victory, the team also included Devesh Sharma, Raj Sawant and Aditya Patil, who enthusiastically participated and gained valuable insights during the event. The spirit of collaboration and camaraderie added to the enriching experience. Congratulations to the team for their outstanding performance and for setting a new benchmark of success for our department!



HACKATHONS AND COMPETITIONS

Organized by: Data Security Council of India (NASSCOM) & British High Commission of India (New Delhi)

We are incredibly proud to announce that Vaishnavi Gajare, a final-year student, has brought immense honor to our department by securing: Maharashtra Rank 1, All India Rank 4 (out of 1,500 contestants).

Vaishnavi successfully represented Maharashtra at the national level in the prestigious CyberForHer Hackathon Grand Finale, an event dedicated to fostering innovation and excellence in cybersecurity. Competing against some of the brightest minds from across India, she showcased exceptional technical acumen, problem-solving skills, and innovative thinking in tackling real-world cybersecurity challenges.

Her remarkable achievement underscores the growing influence and contributions of women in cybersecurity, breaking barriers and setting new benchmarks in the field. Vaishnavi's success serves as a beacon of inspiration for aspiring students, proving that dedication, knowledge, and perseverance can lead to extraordinary accomplishments.

Congratulations to Vaishnavi Gajare on this outstanding success! We wish her even greater achievements in the future.



TECHNICAL WRITING



Research paper on “Unveiling Market Sentiments: Finbert Powered Analysis of Stock News”

¹Yash Bhausaheb Dhole, Datta Meghe Collage of Engineering, Airoli Navi Mumbai

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³Dr. Sanjay Patil, Datta Meghe Collage of Engineering, Airoli Navi Mumbai

⁴Prof. Deepali Chavan, Datta Meghe Collage of Engineering, Airoli Navi Mumbai

Abstract - This document Sentiment analysis based on news and headlines is a big part of financial markets. Through the utilization of Hugging Face and FinBERT-a specialized model for financial sentiment analysis-and advanced natural language processing techniques, this study makes use of the flexibility of Hugging Face. This study concentrates on pre-processing techniques and the implementation of a model, emphasizing the critical evaluation and correction of inherent biases in sentiment analysis. Results of the experiment show that FinBERT is effective in addressing and reducing biases while extracting diverse sentiments from stock market headlines. This study emphasizes the importance of bias-conscious sentiment analysis for making more informed decisions in financial markets. It highlights the importance of advanced natural language processing models (NLP) like FinBERT and powerful frameworks like Hugging Face.

Key Words: optics, Financial Sentiment Analysis, FinBERT, Hugging Face, Natural Language Processing (NLP), Bias Mitigation, Stock Market, Sentiment Analysis, Machine Learning, News Headlines, Investment Decision-making, Data Pre-processing, Neural Networks, Market Sentiments, Text Classification, NLP Frameworks

1. INTRODUCTION

Utilization of industrial waste products in concrete has attracted attention all around the world due to the rise of environmental consciousness. When it comes to financial markets, it is very important to make smart decisions by understanding what people think about the news. Advanced natural language processing (NLP) techniques will be used in this study to explore financial sentiment analysis. This study focuses on the complex interpretation of sentiment in stock market news headlines by utilizing FinBERT, a custom model for financial sentiment analysis, and Hugging Face's versatile features.

Furthermore, this study focuses on bias, a crucial element that sentiment analysis often ignores. The study carefully examines models' biases in order to make sentiment assessments more accurate and equal. Not only does it seek to identify these biases, but it also tries to reduce their effects, which ensures a more complete and unbiased interpretation of financial sentiments based on textual data.

2. LITRATURE REVIEW

Financial sentiment analysis is essential for making investment decisions and understanding market dynamics. This review provides a comprehensive understanding of current methodologies, models, and problems related to financial sentiment analysis. It emphasizes the implementation of FinBERT, Hugging Face, and bias mitigation strategies.

A. Sentiment Analysis in Financial Markets.

In addition to stressing the development of sentiment analysis approaches for precisely extracting sentiments from textual data, Smith and Johnson [1] underline the critical role that sentiment analysis plays in guiding investment decisions. They stress how crucial it is to accurately evaluate emotion in erratic financial environments.

B. Role of Advanced NLP Models.

BERT, a basic model presented by Devlin et al. [2], had a major impact on later developments in sentiment analysis. By fully using large-scale pretraining approaches, Liu et al. [3] improved BERT's architecture with RoBERT a enhancing NLP models designed for financial sentiment analysis.

F. Comparative Analysis

The table below summarizes the key differences and performance metrics between FinBERT and other models:

Table -4: Comparative Analysis

| Model | Domain Specificity | Accuracy | F1-Score | Bias Mitigation | Integration | Use Case Success |
|---------|--------------------|-----------|-----------|-----------------|-------------|------------------|
| BERT | No | Medium | Medium | Low | Yes | Moderate |
| RoBERTa | No | High | High | Low | Yes | High |
| GPT-3 | No | High | High | Medium | Yes | High |
| FinBERT | Yes | Very High | Very High | High | Yes | Very High |

3. CONCLUSIONS

FinBERT stands out as the superior model for financial sentiment analysis due to its domain-specific training, higher accuracy, effective bias mitigation, and seamless integration with Hugging Face. These attributes make it an invaluable tool for stakeholders seeking to extract meaningful insights from financial texts, ultimately supporting more informed and equitable decision-making in the financial markets. The ability to provide precise and unbiased sentiment analysis makes FinBERT a crucial asset for financial analysts, investors, and researchers who rely on accurate sentiment data to drive their strategies and decisions [6].

ACKNOWLEDGEMENT

We would like to extend our heartfelt gratitude to **Dr. Sanjay Patil**, Datta Meghe College of Engineering, Airoli, Navi Mumbai, for his invaluable guidance and encouragement throughout this research on "Unveiling Market Sentiments: FinBERT-Powered Analysis of Stock News Headlines." His expertise and insights were instrumental in shaping our approach and achieving our objectives.

Our sincere thanks also go to **Prof. Deepali Chavan**, Datta Meghe College of Engineering, Airoli, Navi Mumbai, for her dedicated support and continuous feedback. Her mentorship greatly contributed to the successful completion of this study. Finally, we are grateful to everyone who assisted and supported us, directly or indirectly, making this research possible.

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BIOGRAPHIES**Yash Bhausahab Dhole**

A student at Datta Meghe College of Engineering, Airoli, Navi Mumbai, Yash is specializing in Artificial Intelligence and Data Science. His interests include financial sentiment analysis and natural language processing, which inspired his current research on market sentiment using FinBERT. Yash is passionate about exploring AI applications in finance and is dedicated to contributing valuable insights through data-driven methodologies.

**Devesh Rampravesh Sharma**

Devesh is a student of Artificial Intelligence and Data Science at Datta Meghe College of Engineering, Airoli, Navi Mumbai. With a keen interest in deep learning and sentiment analysis, he co-authored the current research on analyzing stock market sentiments using advanced NLP models. Devesh is focused on harnessing AI and machine learning to deliver impactful solutions in the financial sector.

**Dr. Sanjay Patil**

Dr. Sanjay Patil is the Head of the Department of Artificial Intelligence and Data Science at Datta Meghe College of Engineering, Airoli, Navi Mumbai. With extensive expertise in AI and data analysis, Dr. Patil has been instrumental in guiding students through complex research areas. His mentorship has been invaluable in supporting projects that explore innovative AI applications in finance and other domains.

**Prof. Deepali Chavan**

Prof. Deepali Chavan serves as a faculty member at Datta Meghe College of Engineering, Airoli, Navi Mumbai, specializing in artificial intelligence and data science. Known for her dedication to fostering students' academic growth, Prof. Chavan has provided critical guidance for the research on sentiment analysis. Her focus on applied AI and student mentorship has significantly enhanced the research outcomes for her students.

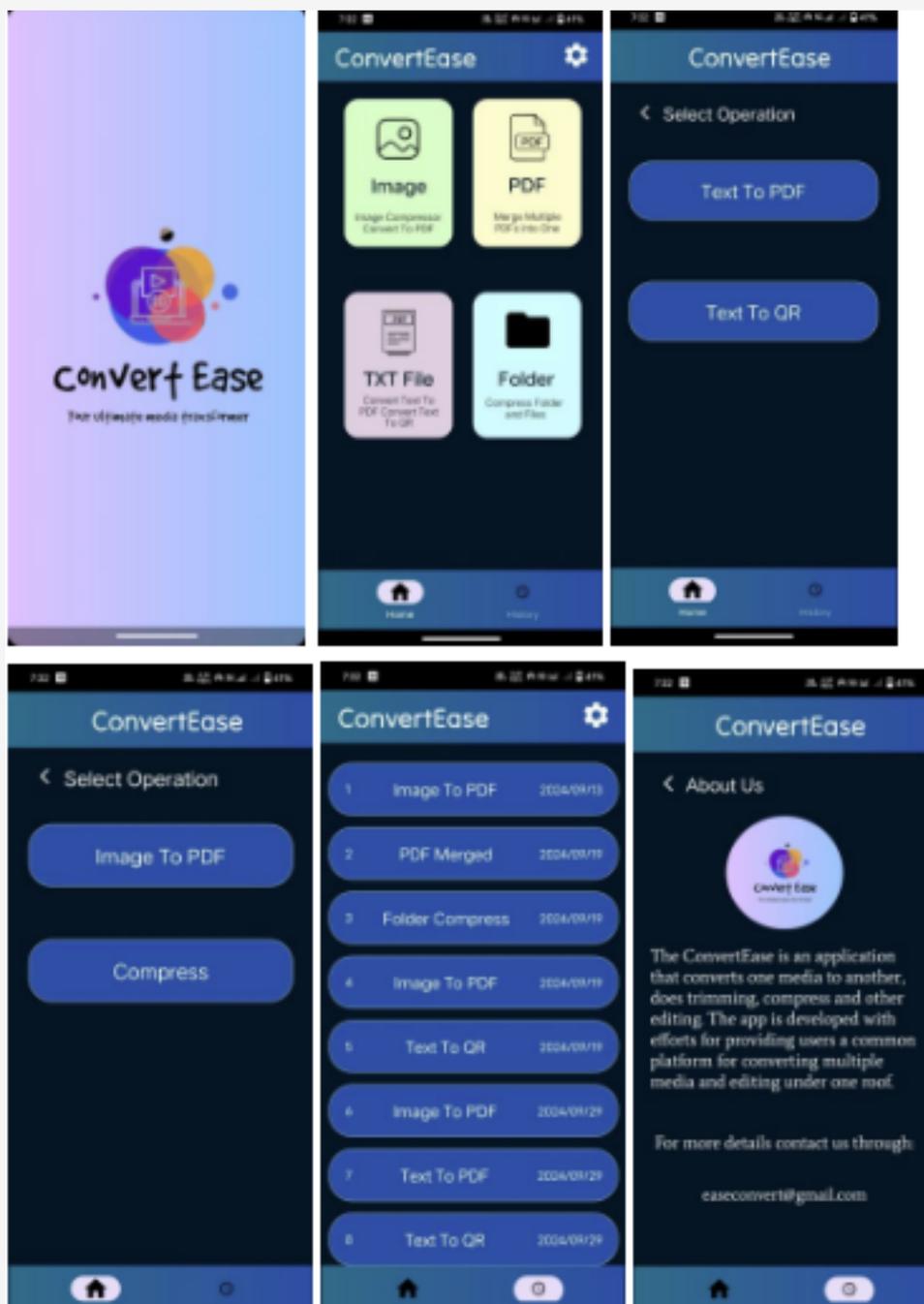
ConvertEase: A Comprehensive Multimedia Converter Android App

Overview: - ConvertEase is a versatile Android app designed for converting multimedia files across various formats. It simplifies tasks like image-to-pdf conversion, pdf splitting, Text-to-QR Code, Text-to-pdf, offering an all-in-one solution for efficient file management.

Self made app as a final year Diploma Project

Key Features: -

1. Convert Image into PDF.
2. Compress Image.
3. Merge two or more PDF's.
4. Convert Text into PDF
5. Convert Text into QR Code.
6. No Need of an internet connection



Project by Divesh Dalvi

TECH ARTICLES

Article by Abhisha Whawal

The Evolution of Artificial Intelligence and Data Science: Shaping the Future

Introduction

Artificial Intelligence (AI) and Data Science are among the most transformative technologies of our era. These fields have rapidly evolved, revolutionizing industries, businesses, and even our daily lives. The synergy between AI and Data Science has paved the way for innovations, making it essential to understand their advancements, applications, and future potential.

The Rise of Artificial Intelligence

AI refers to the development of computer systems that can perform tasks that typically require human intelligence. These tasks include problem-solving, decision-making, speech recognition, visual perception, and language translation.

Over the years, AI has transitioned from basic automation to more complex techniques like machine learning (ML) and deep learning (DL). These advancements enable machines to learn from vast amounts of data and improve their performance over time.

Key AI Applications:

1. Healthcare:

AI algorithms assist in diagnosing diseases, analyzing medical images, and predicting patient outcomes. Personalized treatment plans and drug discovery have also been significantly enhanced by AI.

2. Finance:

Fraud detection, credit scoring, algorithmic trading, and risk assessment are some financial services improved by AI, making them more efficient and secure.

3. Autonomous Vehicles:

Self-driving cars heavily rely on AI for navigation, obstacle detection, and real-time decision-making, promising safer and more reliable transportation.



4. Customer Service:

AI-powered chatbots and virtual assistants are now standard tools for businesses, handling customer queries and providing personalized support.

Data Science: The Backbone of AI

Data Science involves extracting, analyzing, and interpreting vast amounts of data to uncover hidden patterns and insights. It integrates techniques from statistics, computer science, and domain knowledge, enabling organizations to make informed decisions.

As the backbone of AI, Data Science provides the essential data required for training AI models and making accurate predictions.

Key Data Science Techniques:

- **Data Mining:**
 - The process of discovering patterns from large datasets using machine learning, statistics, and database systems.
- **Data Visualization:**
 - Creating visual representations of data to help stakeholders understand trends, outliers, and patterns.
- **Predictive Analytics:**
 - Using historical data to predict future outcomes, which is essential in fields like marketing, finance, and healthcare.

Natural Language Processing (NLP):

A subfield of AI and Data Science that focuses on enabling computers to interact with humans through natural language, powering chatbots, translation services, and sentiment analysis.

Article by Bramha Navale

The Journey, The Company, and The Destination

Life often brings us to a crossroads, leaving us wondering what's truly important. Is it the journey, the destination, or the company? The answer to this question matters because it shapes how we live, what we prioritize, and what we care about most. But before we can answer, we need to take a step back and ask ourselves: what is life? How do we even make sense of it?

Some people see life as a journey of experiences. It's not about just getting from point A to point B but about the moments in between—the little, sometimes unremarkable moments that end up meaning the most. Life becomes a series of experiences, like walking through different seasons, where every step is a new chapter. People who believe this see life's value in the present—the "now." It's not about the end result but the path that gets us there. To them, every conversation, every small victory, every setback is all part of something bigger.

On the flip side, some people see life differently. For them, life isn't so much a journey as it is just existing until death. They're not focused on the experiences, but rather on the fact that no matter what, life ends. There's a strange comfort in this—a finality that makes everything feel temporary, but in a way, manageable. It's about going through the motions, knowing that the ups and downs are fleeting, and eventually, we all reach the same destination.

Happiness and sadness, success and failure, they come and go, but in the end, we're all heading toward that same inevitable end.

These two perspectives—one filled with hope, the other with a sort of resigned realism—both come from real places. People's experiences shape how they see the world. Some people have found joy in life's small moments, and others have faced enough hardship to see life as something you simply endure. And maybe the truth lies somewhere in the middle. Life is a blend—a mix of wonder and the undeniable fact of death. We can't escape the thrill of possibility, but we also can't ignore the reality that nothing lasts forever.

Challenges and Ethical Considerations

Despite their many advantages, AI and Data Science face significant challenges.

- 1. Data Privacy and Security:** With vast amounts of data being processed, ensuring privacy and security is a major concern.
- 2. Bias in AI Algorithms:** AI models trained on biased datasets can produce discriminatory or unfair outcomes.

Ethical Issues:

Ensuring transparency, accountability, and the ethical use of AI is crucial for building trust and avoiding misuse. Addressing these challenges is essential for fostering the responsible development of AI and Data Science.

Future Prospects

The future of AI and Data Science looks promising, with continuous research and technological advancements paving the way for more innovative applications.

Emerging technologies, such as quantum computing, are expected to revolutionize these fields, enabling faster processing and analysis of data.

AI will likely become more integrated into everyday applications, from smart homes and healthcare to finance and education, creating smarter systems capable of anticipating needs and delivering personalized experiences.

Conclusion

Artificial Intelligence and Data Science are at the forefront of technological innovation. These fields hold the potential to solve complex problems, improve efficiencies, and offer new insights across various domains.

Understanding their principles and keeping up with the latest developments will be essential for anyone looking to thrive in a data-driven future. As AI and Data Science continue to evolve, they promise to shape a smarter, more innovative world.

These two perspectives—one filled with hope, the other with a sort of resigned realism—both come from real places. People’s experiences shape how they see the world. Some people have found joy in life’s small moments, and others have faced enough hardship to see life as something you simply endure. Life is a blend—a mix of wonder and the undeniable fact of death. We can’t escape the thrill of possibility, but we also can’t ignore the reality that nothing lasts forever.

Now, when it comes to the question of what matters most in life, it usually boils down to three things: the journey, the destination, and the company. Each one plays a role, and each has its own importance, but understanding them means digging a bit deeper.

The Journey

The journey is the day-to-day grind. It’s the stuff we go through, the highs and the lows, the things that make us who we are. It’s where we learn the hard lessons, face challenges, and grow as people. The journey is messy, unpredictable, and often full of detours. But without it, life would be flat and boring. It’s during the journey that we figure out what we’re capable of, what we believe in, and what matters to us. It’s the process of becoming, even if we don’t always know what we’re becoming.



The Company

Then there’s the company—the people we choose to bring along on this ride. While the journey is full of personal growth, the company we keep makes it richer. Friends, family, partners, even strangers we meet along the way—they shape how we experience life. Good company makes the hard times bearable, and the good times even better. They lift us up when we’re down, and sometimes, just having someone there to walk beside you is enough. But bad company can drag us down, making even the easiest path feel like a burden. Who we surround ourselves with matters just as much as what we do, because they affect how we see the world, how we handle challenges, and ultimately, how we live.

The Destination

Finally, the destination. It’s the goal, the place we’re all trying to get to. Whether it’s a career, a relationship, personal growth, or even something bigger, like a sense of purpose, the destination gives meaning to the journey. It’s the reason we keep moving forward when things get tough. Without a destination, we’d be wandering without direction, and the journey wouldn’t feel like it had a point. But here’s the thing—once we get there, the destination itself is often less important than we thought. It’s when we look back at the journey that we realize why it mattered. Every challenge, every detour, it all led us to this point, and reaching the destination brings a sense of clarity, as if everything suddenly makes sense.

The Connection Between Journey, Company, and Destination

The truth is, these three things—journey, company, and destination—are all connected. They don’t exist on their own. The journey shapes the destination, the company affects the journey, and the destination gives meaning to both. Along the journey, the company we keep is what really matters. The right people make the road less lonely, and the wrong people can make even the shortest trip feel unbearable. And when we reach the destination, it’s the journey and the people who were with us that make it worth it. At the end of the day, all three are essential. Life isn’t just about where we’re going, but how we get there and who we bring along for the ride. The journey, the company, and the destination—they all come together to shape our lives.

Article by Chirag Sawant

AI: A Game Changer in Modern Warfare

Introduction

In recent years, Artificial Intelligence (AI) has emerged as a transformative force in modern warfare, reshaping the way military operations are conducted. From autonomous drones to AI-assisted command centers, the military is increasingly relying on AI to enhance decision-making, improve operational efficiency, and gain a strategic edge over adversaries. With the ability to process vast amounts of data quickly and accurately, AI is revolutionizing warfare and the dynamics of defense strategies.

AI in Military Operations

AI is making its mark in several key areas of modern warfare, significantly altering traditional military tactics and strategies. Some notable developments include:

AI-Assisted Command Centers

One of the most promising uses of AI in warfare is in the development of AI-assisted command centers. A notable example is the Royal Navy's StormCloud project, which brings together tech giants like Microsoft and Amazon Web Services along with military contractors to create a highly advanced command center. This AI-powered system helps military commanders make real-time, data-driven decisions by processing large amounts of information quickly and efficiently. This rapid analysis allows military forces to respond more effectively to evolving situations on the battlefield.

Autonomous Drones and AI-Powered Fighter Jets

AI's influence is also evident in the development of autonomous drones and AI-powered fighter jets. These systems are capable of performing surveillance, executing combat missions, and even engaging in combat maneuvers with minimal human intervention. The U.S. Air Force's experimental AI fighter jet, Valkyrie, is a key example of how AI is enhancing aerial combat. The Valkyrie is designed to operate autonomously, carrying out missions and dogfighting with other aircraft while being controlled by AI systems.

Faster and More Accurate Decision-Making

AI enables military forces to make faster, more accurate decisions by analyzing vast amounts of data from multiple sources in real-time. Whether it's satellite imagery, sensor data, or battlefield intelligence, AI systems can process and interpret this information quickly, enabling military personnel to make informed decisions more rapidly than ever before. This capability allows military forces to maintain a strategic advantage and stay one step ahead of potential threats.

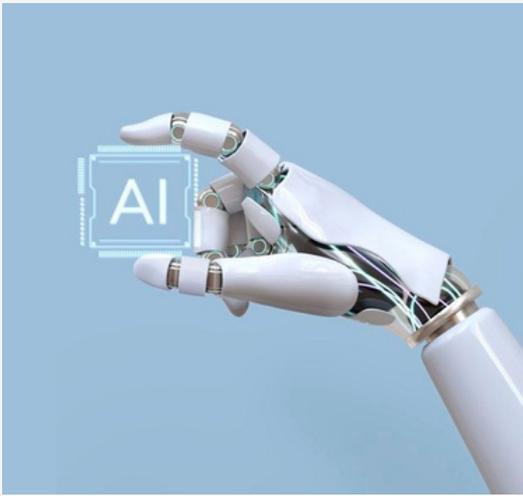
Ethical and Security Concerns

While AI has the potential to revolutionize warfare, its increasing reliance in military operations raises a host of ethical and security concerns:

Lack of Compassion and Empathy

One of the main concerns with AI in warfare is the lack of human compassion and empathy. AI systems, despite their sophisticated capabilities, do not have the emotional intelligence required to assess the human impact of their actions. This detachment can lead to unintended casualties, especially in complex combat situations where moral judgment plays a key role. The absence of ethical reasoning in AI systems raises important questions about the morality of using AI in life-and-death military decisions.



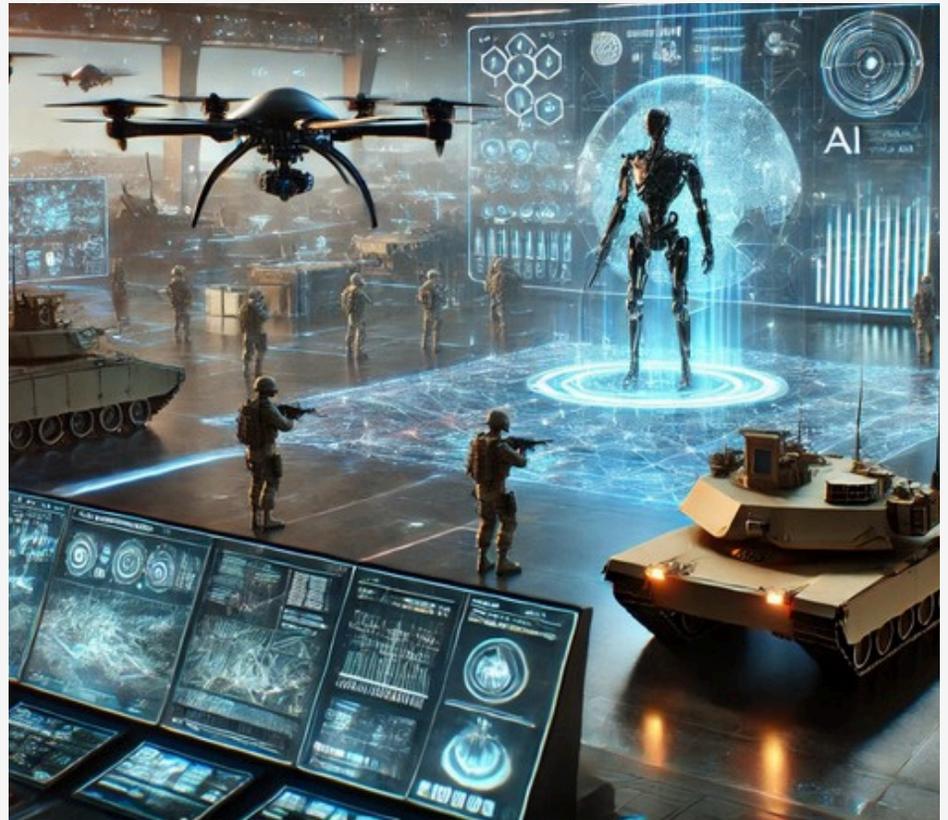


Vulnerability to Cyberattacks and Data Poisoning

AI systems, like any technology, are vulnerable to cyberattacks and data manipulation. Adversaries could potentially hack into AI-driven systems, causing them to malfunction or making them susceptible to data poisoning—where malicious actors feed incorrect data to AI systems to alter their decision-making processes. These vulnerabilities could have disastrous consequences, potentially undermining military operations and compromising national security.

Autonomous Weapons and Accountability

Another significant ethical concern is the use of autonomous weapons systems that can make lethal decisions without human intervention. If these systems are deployed, the question arises: who is accountable for their actions? The absence of a human operator makes it difficult to assign responsibility for mistakes or unlawful actions carried out by AI-powered weaponry.



The Need for Regulation and Oversight

As AI continues to play an increasingly prominent role in modern warfare, it is essential to establish comprehensive regulations and oversight mechanisms to ensure these systems are developed and deployed responsibly. Some developers, aware of the moral implications, have even called for a moratorium on the development of AI-based weapons systems until ethical guidelines and international agreements can be established. There is a growing recognition that AI's role in warfare must be carefully monitored to prevent its misuse and mitigate the risks associated with its deployment.

Conclusion

AI is undeniably a game-changer in modern warfare, offering unprecedented advantages in terms of efficiency, precision, and decision-making speed. From autonomous drones to AI-assisted command centers, military operations are being transformed. However, as AI becomes more integrated into warfare, it is crucial to address the ethical, moral, and security challenges that come with it. Responsible development, regulation, and oversight are vital to ensure that AI in warfare is used for strategic advantages while minimizing its potential for harm. The debate over the ethical implications of AI in military applications will continue to evolve, and it is essential for policymakers, developers, and military leaders to navigate this complex terrain with caution and foresight.



Article by Mayuri Shinde

Deepfakes and Multimedia AI: The Challenges and Future Implications

Introduction

In recent years, the rapid evolution of deepfakes and multimedia AI has sparked a mix of intrigue and concern. What began as a tool for creating fictional characters in entertainment and digital art has evolved into a powerful yet potentially vicious technology. Deepfakes, created using sophisticated AI techniques like Generative Adversarial Networks (GANs), can produce hyper-realistic images, videos, and audio. These advancements have led to significant improvements in various industries, but they also present considerable risks in the realms of privacy, security, and misinformation.

What Are Deepfakes?

Deepfakes are a form of AI-generated content that uses machine learning algorithms to create fake media—especially audio and video—that closely mimics real-life people. Initially developed through Generative Adversarial Networks (GANs), deepfake technology works by having two neural networks collaborate: one generates the fake content, while the other attempts to identify and correct discrepancies. This back-and-forth allows the system to refine its output, making deepfakes increasingly difficult to detect.

Over time, deepfake technology has evolved, incorporating voice synthesis and realistic facial movements, which further blurs the lines between reality and artificial creation.

Applications of Deepfakes in Various Industries

- 1. Entertainment:** Deepfakes have made significant waves in the entertainment industry, enabling filmmakers to de-age actors, resurrect deceased performers, or even create new characters.
- 2. Advertising:** Brands are using deepfake technology to craft personalized advertisements, offering targeted content that resonates with specific consumer demographics.
- 3. Education:** Deepfakes are also being employed in educational settings for simulations and virtual learning environments, making training more interactive and realistic.
- 4. Social Media:** With platforms like YouTube, TikTok, and Instagram being central to digital communication, deepfake technology has found its way into influencer marketing and social media content.

The Dark Side of Deepfakes: Privacy, Security, and Misinformation

While deepfakes have legitimate uses, their potential for misuse is alarming. The technology has been exploited in the following ways:

Identity Theft and Fraud:

Deepfake audio and video are increasingly being used by cybercriminals for identity theft. In one notable case, criminals used a deepfake of a CEO's voice to authorize a fraudulent transfer of \$243,000, demonstrating how dangerous this technology can be in financial sectors. Banks and corporations that rely on voice verification for security are particularly vulnerable.

Article by Yash Dhole

How Working with Data Helps Us Understand Quantum Simulations and the Matrix of the World

In our rapidly evolving technological landscape, data has emerged as a fundamental key to unlocking the mysteries of the universe. As we venture deeper into the realms of artificial intelligence (AI), quantum computing, and machine learning, we're starting to explore concepts once thought purely theoretical, like quantum simulations and the idea of a "matrix" of the world. But how does data help us make sense of these complex, abstract ideas?

The Intersection of Data and Quantum Simulations

Quantum simulation involves creating virtual models of quantum systems, allowing researchers to explore their behavior without physical experiments. These simulations are crucial in advancing technologies in areas like materials science, chemistry, and cryptography.

Disinformation and Manipulation:

Deepfakes have also emerged as a powerful tool in disinformation campaigns, particularly on social media. Cybercriminals are impersonating public figures, political leaders, and even ordinary individuals to spread fake news, manipulate opinions, or incite violence. These AI-manipulated videos and audio clips are often indistinguishable from real footage, making it challenging for viewers to discern truth from fiction.

Phishing and Social Engineering:

Cybercriminals leverage deepfakes in phishing schemes and social engineering attacks. By mimicking familiar voices and faces, they trick individuals into participating in fraudulent activities, such as providing sensitive information or downloading malware. Social platforms like YouTube are often exploited to distribute malicious content, as the platform's algorithms may promote deepfake videos based on user engagement, increasing their reach.

Combating Deepfake Threats: Technological and Regulatory Measures

Given the growing risks posed by deepfakes, several strategies are being implemented to combat their misuse:

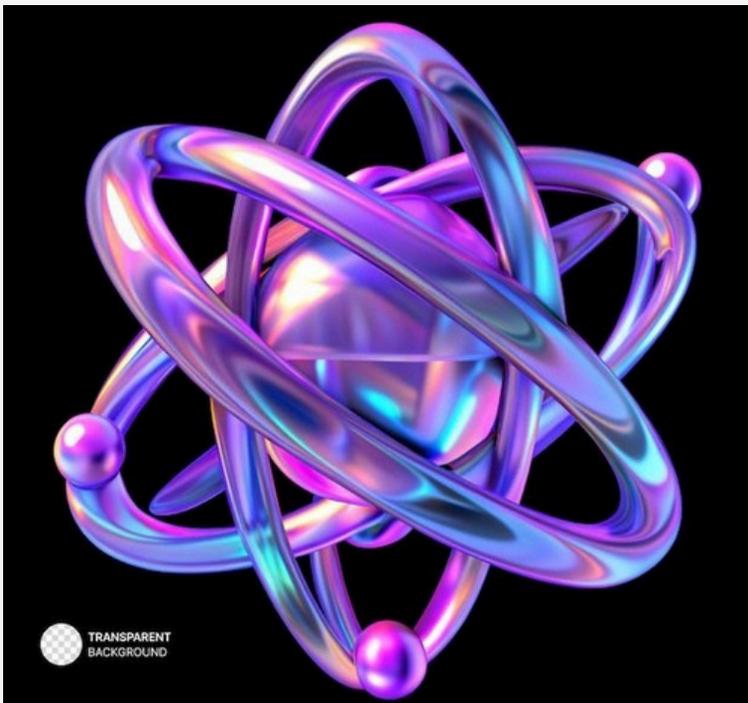
Technological Solutions:

To counter the spread of deepfakes, advanced detection tools are being developed. AI-driven algorithms that can identify inconsistencies in videos and audio are becoming increasingly sophisticated. Additionally, blockchain-based systems are being explored as a way to verify the authenticity of digital content, offering a transparent and tamper-proof method of tracking the origin and integrity of media.

Conclusion

Deepfake and multimedia AI advancements offer innovation but pose risks to privacy, security, and misinformation. Vigilance, regulation, and detection efforts are essential to balance progress with ethical concerns.





However, quantum systems are incredibly intricate, governed by principles like superposition (where particles can exist in multiple states at once) and entanglement (where particles are connected across vast distances).

This is where data comes in. Large datasets help us model these quantum systems, revealing patterns and relationships that might not be visible through traditional methods. With the power of machine learning and AI, we can train algorithms to predict the behavior of these complex systems. This enables researchers to develop efficient simulations, ultimately advancing our understanding of quantum physics.

As computational power grows, AI-driven insights could lead to breakthroughs in quantum computing and cryptography. These advancements have the potential to revolutionize fields like materials science, drug discovery, and secure communication.

The Matrix of the World: Unraveling Complexity

The term "matrix" often refers to the interconnected fabric of reality, where everything is governed by fundamental rules, interactions, and dependencies. It draws parallels with the simulation theory, which suggests that our universe could be a sophisticated virtual construct. Although simulation theory is still speculative, data plays a significant role in exploring the hidden structures beneath reality. By analyzing vast datasets,

scientists can uncover relationships between seemingly unrelated phenomena. This is akin to discovering the underlying "code" of the universe—whether in biological systems, climate models, or human behavior.

Through data analytics, we can break down complex systems into quantifiable patterns. This helps us navigate the intricate web of interactions shaping our world. In a way, data illuminates the matrix-like structure of reality, allowing us to better understand its rules and dependencies.

Data: The Bridge to Quantum Reality

Understanding quantum simulations and the "matrix-like" structure of the world is no longer the exclusive domain of theoretical physicists. With the right tools, anyone with the right data can begin to model, simulate, and comprehend the systems that form the foundation of our reality.

By exploring data, we gain a deeper understanding of both quantum and macroscopic systems, bringing us closer to answering some of the universe's most profound questions. Whether through AI, machine learning, or quantum computing, data science is transforming our ability to decode the mysteries of existence.

A New Frontier for Exploration

As data science continues to advance, its role in quantum simulations and uncovering the matrix-like fabric of the universe becomes even more significant. This new frontier holds the promise of technological breakthroughs and could offer profound philosophical insights into our place in the world.

For data scientists, physicists, and anyone fascinated by the nature of reality, the intersection of data and quantum theory presents an exciting area for exploration. The more we delve into these fields, the closer we get to unraveling the mysteries of our universe.

In the end, data isn't just about numbers—it's the key to unlocking the secrets of existence.

CREATIVE CORNER



“THE BOY WHO ONCE FLEW”

-by Anandu Nair SE-A

HE DREAMT OF BIRDS, TO BE FREE AND NOT BOUND BY ANYTHING, TO FLY ACROSS THE SKYLINE, TO BE HUGGED BY THE MISTY MOONLIGHT.

HE WORKED FOR HIS DREAMS, FASHIONED WINGS OF WAX AND FEATHERS, FLEW LIKE THE BIRDS HE ADMIRER, NOT BOUND BY MORTAL RESTRAINTS HIS GODS PUT ON HIM.

HE ESCAPED WITH HIS FATHER, WITH A WING FULL OF OPPORTUNITIES, LOOKING FORWARD TO EACH AND EVERY DAY HE'D LIVE FOR, HIS FATHER WITH A FACE HE'D NEVER FORGET.

HE WAS DEVoured, HE WAS DEVoured IN BLISS SO MUCH THAT HE DIDN'T KNOW, "DON'T GO TOO CLOSE TO THE SUN" HIS FATHER WARNED.

HE COULDN'T HOLD BACK, FOR HE THOUGHT HE WAS FREE, FOR THE GLIMPSE OF HAPPINESS HE HAD WAS NOTHING BUT SOOT.

HE WAS BURNT BY THE SUN, HE WAS TURNED TO SOOT, HE WAS THE BOY WHO FLEW TOO CLOSE TO THE SUN.

HE WAS ICARUS, ONCE I TOO WAS ICARUS, ONLY TO BE BURNT BY THE WARMTH I NEED SO BADLY.



“WAQT”

-by Sumit Patil SE-B



WAQT KI RET PAR JAB KADAM
RAKHTA HAI INSAAN, HAR KADAM
PAR LIKHI JAATI HAI EK NAI
PEHCHAAN.

KUCHH MIT'TI HAIN, KUCHH SANWAR
JAATI HAIN LAKEEREIN, YAADEIN BAN
KAR REH JAATI HAIN WOHO ADHOORI
TASVEEREIN.

SAPNON KA KAARWAAN CHALTA HAI
HAR ROZ NAYE SAFAR PAR,
KUCHH HAASIL HOTE HAIN, KUCHH
KHO JAATE HAIN IS ZAME PAR.
HAR MOD PAR MILTE HAIN
SAWAALON KE NISHAAN, JAWAAB
DHOONDHTE-DHOONDHTE GUZARTA
HAI POORA JAHAN.

PHIR BHI, HAUSLA SAATH REHTA HAI,
UMMEED KI DHAARA, KABHI HAARTE
NAHIN, KYUNKI JEET HAI MANZIL KA
SAHAARA.

GIRTE HAIN, UTH'TE HAIN, PHIR AAGE
BADHTE HAIN HUM, KYUNKI JEEVAN
KA ARTH HAI HAR SHAN KO JEENA
HARDUM.

WAQT NA KISI KA THA, NA KISI KA
RAHEGA,
BAS HUM HAIN JO ISKE SAATH
CHALTE RAHENGE. RUKNA NAHIN,
THAMNA NAHIN, YAHAI HAI ASLI JEET,
KYUNKI ANT MEIN WAQT KI RET PAR
HI MILTI HAI APNI PREET.

SAATH BITAO.. TOH "AMAN" HO. TUM
DARD SAMJHO.. TOH "HUMSAFAR"
HO. TUM
HAR KHUSHI MEIN.. TOH "MUSKAN"
HO. TUM KHAABON MEIN AAYE.. TOH
"MOHABBAT" HO. TUM
DILON KI DHADKAN.. TOH "SAWAAL"
HO. TUM

TANHAAI MEIN.. TOH "ROSHNI" HO.
TUM JEE LOON.. TOH "SAANS" HO.
TUM
HAR LAMHA.. TOH "IK DUA" TUM HO,
JO MERI ZINDAGI KA HO ASAL
MAQSAD HO. TUM
AGAR SACH KAHU TOH SAB KUCH HO
TUM SAB KUCH HO TUM..

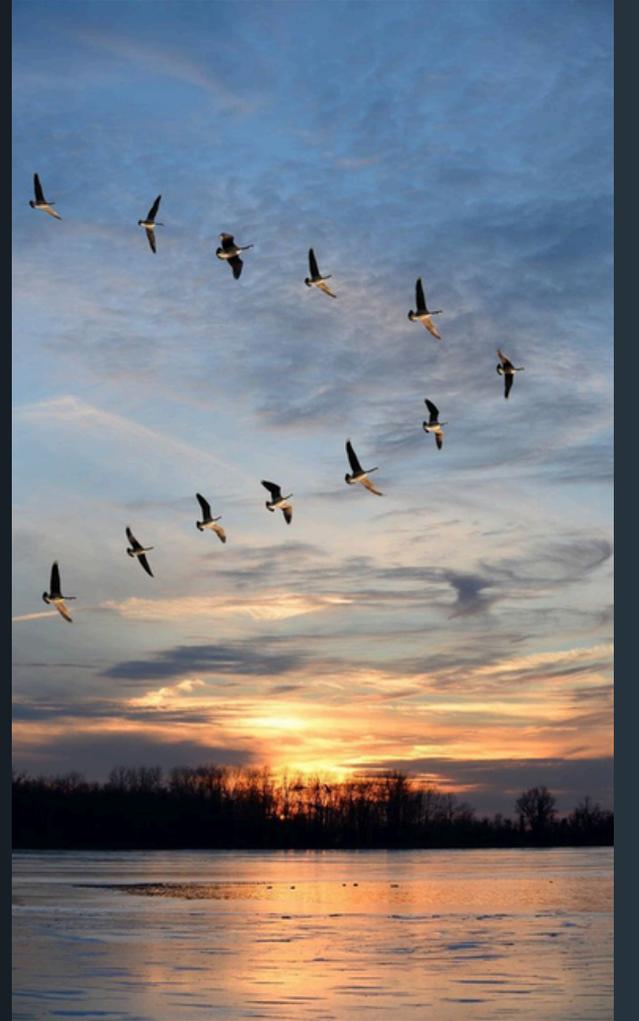


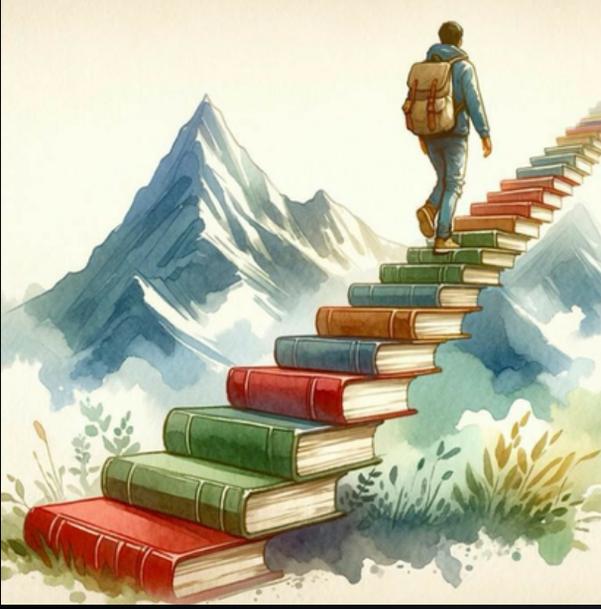
शायरिया

-by Jaysmith Chaudhar SE-A

//
मंजिल तक सीधा रास्ता चुनते हैं जो
भटकना भूल जाते है मंजिल पा तो लेते हैं
पर खुदको परखना भूल जाते है
कुछ असमन तक पोहोचते ज़रूर है
पर चमकना भूल जाते हैं

//
आसमान में उड़ते रहना एहमीयत रखता
है
गिरता वो है जो गिरने की बात करता है
और वो तो बेवकूफ़ है जो
खुले आसमान को चीरने की बात करता
है
गिरा तो चोट आएगी और ये ज़माना मज़ा
भी लेगा
हौसले का एक पेड़ लगाना , गिरोगे तो बचा
भी लेगा
//





लक्ष्य को पाने के लिए
यदि हम तन,
मन और धन लगा देते
हैं,
सच कहता हूँ दोस्तों,
कुंडली के सितारे भी
अपनी जगह बदल देते
हैं !

उलझनों से डरे नहीं,
कोशिश करें
बेहि साब,
इसी का नाम है
जिंदगी चलते रहिए
जनाब।



संघर्ष कर अभी
बहुत दूर जाना है
जिन्होंने कहा तेरे
बस का नहीं अभी
उन्हें भी करके
दिखाना है।

-by Vidhan Chavan SE-A

आई बाबा (देव)

-by Chetna Patil TE-B



आई बाबा (देव)

देतो तो देव ,घेतो तो माणूस ,
देतात ते आई - वडील ,घेतात ती मुलं .

इच्छा मागतो माणूस ,इच्छा पूर्ण करतो तो
देव ,
आपली इच्छा पूर्ण करणारे आई-बाबा
इच्छा मागणारे आपण .

अन्न उगवणारा देव , अन्न खणारे आपण ,
पोट भरणारे आई-वडील ,पोट भरून
जेवणारे आपण .

जन्म देतो तो देव ,जन्म घेतो तो माणूस ,
जन्म देतात ते आई-वडील ,जन्म घेणारे
आपण त्यांची मुले .

सुख देणारा देव ,दुःख देणार देणारा
माणूस ,
सुख देतात ते आई-वडील , दुःख देणारे
आपण त्यांची मुलं .

अंधारात एक किरण दाखवणारा देव ,
त्यातून मार्ग काढणारा आयुष्य ,
दिशा दाखवतात ते आई-वडील , त्या
दिशेतून ध्येय गाठणारे आपण .

देव तो देवाचं असतो पण आई-वडील
सुद्धा देवच असतात ,
आई-बाबा देवासारखे नसून देवच आहेत .

जसं देवाला शोधायचं नसतं , त्याला
जाणून घ्यायचं असतं ,
तसं बाहेरच्या देवाला न शोधता , घरातल्या
देवाला (आई - बाबा) समजून घ्या .

ज्या मुलांनी आई-वडिलांच्या विश्वास
जिंकला व त्यांनी,
दिलेले संस्कार स्वतः उतरवले तर त्यांनी
सारे विश्व जिंकले .

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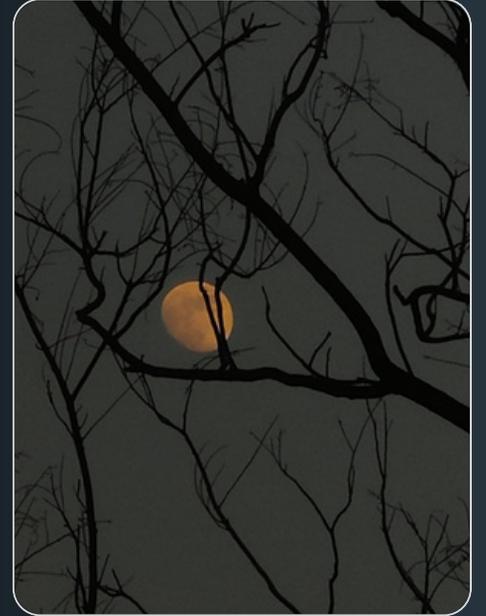
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CONCLUSION

Editorial Team Closing Remarks:

As we bring this edition of our magazine to a close, we reflect on the incredible journey of curating insights, creativity, and achievements from our vibrant community. This magazine serves as a testament to the dedication and passion of our students and faculty, showcasing their ideas, research, and talents. We hope that the stories and creativity within these pages have inspired, informed, and sparked curiosity. Let this be a reminder that knowledge is ever-evolving, and together, we continue to push boundaries and redefine excellence.

Acknowledgments:

This magazine would not have been possible without the collective efforts of our dedicated contributors, faculty members, and editorial team. We extend our heartfelt gratitude to our writers, designers, and reviewers who worked tirelessly to bring this edition to life. A special thanks to our department leadership for their constant guidance and encouragement, and to every student and faculty member who shared their knowledge and creativity. Lastly, we thank our readers for their unwavering support—your engagement fuels our motivation to continue this journey of learning and expression.





In the age of AI and Data Science, knowledge is not just power—it is intelligence in action. Let data guide us, let AI empower us, and let innovation define us

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