



NEW HORIZON
COLLEGE OF ENGINEERING

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DATAVERSE DIGEST

DEPARTMENT OF
COMPUTER SCIENCE
ENGINEERING-DATA SCIENCE



LETTER FROM HOD



It is with great pleasure that I unveil this edition of our newsletter for the Academic Year 2023-2024 , Volume 1, Issue 2 .

This newsletter celebrates the vibrant culture of innovation, creativity, and excellence that defines our department, serving as a platform for students and faculty to showcase their achievements, share ideas, and inspire others to think beyond boundaries. The department continually strives to create opportunities for students to grow academically, professionally, and personally. With various professional development programs, workshops, and hands-on activities, we equip our students with skills that are essential for excelling in the dynamic technological landscape.

I want to extend my heartfelt congratulations to the students and faculty for their relentless efforts and achievements, which are the cornerstone of our department's success. A special thank you to the editorial team for their hard work and creativity in curating this wonderful edition.

This newsletter reflects the department's journey, celebrating not only academic accomplishments but also co-curricular and extracurricular triumphs. I hope it inspires everyone to push boundaries, explore new horizons, and continue striving for excellence in all endeavors.

Regards,

Dr.B.SWATHI,

HOD-CSE(DATA SCIENCE)

ABOUT THE DEPARTMENT



The Department of Computer Science and Engineering(Data science) at NHCE offers graduate programs. The Computer Science & Engineering (Data science) department strongly emphasises on learning fundamentals and analysing the latest technology to develop students' creativity by encouraging them to take up projects with varying levels of complexity.

To meet the dynamic technological changes, efficient training sessions are provided on curriculum subjects and beyond. The course work is designed in such a way that, keeping in mind the vision of the CSE(DS) Department, and provides excellent quality of education which will provide the students with the necessary skills to build computing systems for a better world. The department is wide open to innovative ideas and methodologies, and is constantly striving to establish itself as the most sought after excellent learning center in the state of Karnataka.

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VISION & MISSION



VISION

To emerge as a department of eminence in Computer Science and Engineering(Data science) in serving the Information Technology Industry and the nation by empowering students with a high degree of technical and practical competence.

MISSION

- To strengthen the theoretical and practical aspects of the learning process by strongly encouraging a culture of research, innovation and hands-on learning in Computer Science and Engineering(Data science)
- To encourage long-term interaction between the department and the IT industry, through the involvement of the IT industry in the design of the curriculum and its hands-on implementation.
- To widen the awareness of students in professional, ethical, social and environmental dimensions by encouraging their participation in co-curricular and extracurricular activities.

MESSAGE FROM PRINCIPAL



It gives me great pleasure to give my best wishes to the editorial committee of the Department of computer science and engineering Computer Science and Engineering (Data Science) , New Horizon College of Engineering. The students and faculty of the department are always proactive in taking initiative in all kinds of events. I congratulate all the achievers, contributors, and students for bringing out such an informative newsletter. I hope this newsletter reflects all activities of the department and inspires others to do their best.

Thanking you,
Regards
Dr. Manjunatha

ODD SEM

EVENTS AND WORKSHOPS

**August 2025
to
December 2025**

WORKSHOP

SELF-ORGANIZING NETWORKS (SONS) IN 5G USING AI

~ 16 SEPTEMBER, 2025

ABOUT

On the 16th of September 2025, the Department of Computer Science and Engineering (Data Science) hosted a workshop for 7th-semester students on the role of a Data Engineer and the use of ETL (Extract, Transform, Load) tools.



On 16 September 2025, the Department of Computer Science and Engineering (Data Science) conducted a workshop for 7th-semester students on the role of a Data Engineer and ETL tools. The session was led by Mr. Saubhagya Ranjan Sahoo, Data Engineer at Pentland Brands, who explained how data engineers design and maintain scalable data pipelines, integrate multiple data sources, and ensure data quality for analytics.

The workshop also introduced key tools such as AWS S3 for data storage, Snowflake for cloud data warehousing, and ETL/ELT tools for data processing. The session highlighted how cloud platforms and ETL tools help build efficient and automated data pipelines for business insights.



WORKSHOP

DATA TO DECISIONS

~ 19 SEPTEMBER, 2025

ABOUT

On 19th September 2025, the Department of Computer Science and Engineering (Data Science) at New Horizon College of Engineering organized a technical workshop titled “Data to Decisions: Building Real-world Pipelines



On 19th September 2025, the Department of Computer Science and Engineering (Data Science) at New Horizon College of Engineering organized a technical workshop titled “Data to Decisions: Building Real-world Pipelines with Matillion, GitHub, and Power” exclusively for 5th-semester students. The workshop was conducted by Mr. Anand Jha, Lead Data Engineer at Tiger Analytics, and assisted by Ms. Hema Gupta, System Engineer at TCS.

The session was designed to bridge the gap between classroom learning and industry practices, focusing on modern data engineering workflows and decision-making through analytics. It emphasized hands-on learning, ensuring students not only understood theoretical concepts but also gained practical exposure to widely used tools like Snowflake, Matillion, GitHub, and Power BI.



GUEST TALK

AI-DRIVEN CYBER SECURITY: FUNDAMENTALS, CONCEPTS, AND PRACTICES

~ 7 OCTOBER, 2025

ABOUT

On 7th October 2025, the Department of Computer Science and Engineering (Data Science) hosted a guest lecture titled “AI-Driven Cyber Security: Fundamentals, Concepts, and Practices” for 5th semester students



The Department of Computer Science and Engineering (Data Science) hosted a guest lecture titled “AI-Driven Cyber Security: Fundamentals, Concepts, and Practices” for 5th semester students. Delivered by Mr. Anil B P Rao, Vice President at REZILYENS, the session highlighted the growing digital dependence and the rising need for cyber security.

Mr. Rao explained core principles like the CIA triad and key domains such as network, application, and information security. He introduced essential tools including firewalls, IDPS, and SIEM systems, and emphasized predictive security using AI. Practical safety tips and career guidance were shared, followed by an interactive Q&A. The session offered valuable insights and inspired students to explore careers in cyber security and data science.



WORKSHOP

MACHINE LEARNING IN HEALTHCARE

~ 10 OCTOBER, 2025

ABOUT

The Department of Computer Science and Engineering (Data Science) organised a workshop titled “Machine Learning in Healthcare – From Data to Decisions” on 10th October 2025.



Mr. Pavan provided a compelling overview of how Machine Learning (ML) and Artificial Intelligence (AI) are revolutionizing the healthcare industry. He explained how data from medical imaging, wearable devices, and electronic health records can be transformed into meaningful insights using ML techniques such as regression, classification, and clustering.

The session also covered essential data preprocessing steps and emphasized the importance of ethical data handling and privacy in healthcare applications. Real-world examples like early cancer detection and predictive analytics, helped students connect theory with practice.

This session not only deepened students' technical understanding but also inspired them to apply data science for societal impact—particularly in improving healthcare accessibility and precision medicine.

[Report](#)



WORKSHOP

AI-DRIVEN CLOUD AND INFRASTRUCTURE OPERATIONS

~ 14 OCTOBER, 2025

ABOUT

On 14th October 2025, the Department of Computer Science and Engineering (Data Science), New Horizon College of Engineering, organized a workshop titled “AI-Driven Cloud and Infrastructure Operations” for 5th-semester students.



The session was led by Ms. Sushma D S, IT Technology Services Senior Specialist at SAP.

The workshop explored how Artificial Intelligence (AI) and Machine Learning (ML) are transforming IT Infrastructure Management through AIOps. Key topics included System and Network Monitoring, Incident and Security Management, IT Service Automation, and Capacity Planning. Ms. Sushma highlighted AI capabilities such as predictive analytics, automated root cause analysis, anomaly detection, and cloud resource optimization.

Participants gained insights into the benefits of AIOps-enhanced efficiency, reduced costs, faster issue resolution, and improved cybersecurity—alongside challenges like implementation costs, skill gaps, and ethical concerns. The session concluded with an engaging Q&A, encouraging students to explore careers in AI, Cloud, and Intelligent Infrastructure Management.



EXTENSION PROGRAMME

COMMUNITY OUTREACH VISIT TO MAKKALA DHAMA ORPHANAGE

~ 30 OCTOBER, 2025

ABOUT

On 30th October 2025, the Department of Computer Science and Engineering (Data Science) organised a community outreach visit to Makkala Dhama Orphanage, located in Bettakote.



The visit aimed to extend care and support to the children of the orphanage while providing students an opportunity to engage meaningfully with the community and understand the importance of social responsibility.

A donation drive was held on campus where students voluntarily contributed funds for the cause. The collected amount was accounted for and used to purchase essential groceries. Faculty and students personally delivered the items and engaged with the children. Groceries like rice, pulses, cooking oil, snacks, and other essentials were handed over to the orphanage authorities. Students also participated in informal activities and conversations with the children, deepening their understanding of empathy and gratitude.

The orphanage staff shared insights on childcare and the challenges faced by such institutions. The experience left a lasting impact, inspiring students to continue contributing to society through future outreach programs.



GUEST TALK

GRADUATOR TO INNOVATOR: LEVERAGING AI AND LLMs IN YOUR CAREER JOURNEY

~ 5 NOVEMBER, 2025

ABOUT

The Department of Computer Science and Engineering (Data Science) organised a guest talk titled “From Graduator to Innovator: Leveraging AI and LLMs in Your Career Journey” on 5th November 2025 for third-semester students.



The session was conducted by Mr. Rahul Rao, Software Engineer III at Refyne India, who introduced students to the role of Artificial Intelligence in the modern IT industry. The talk covered fundamental AI concepts and their real-world applications across various sectors. Students were introduced to widely used AI tools such as ChatGPT, Google Bard, TensorFlow, IBM Watson, and Microsoft Azure AI. The speaker explained important AI domains including Machine Learning, Deep Learning, Natural Language Processing, Computer Vision, Robotics, Generative AI, and Agentic AI. He also discussed how Generative AI can create new content and how Agentic AI enables autonomous decision-making. The session highlighted benefits of AI such as automation, improved efficiency, and enhanced decision-making. Challenges including high implementation costs, ethical concerns, job displacement, and data dependency were also addressed. Overall, the session encouraged students to continuously learn AI technologies and adapt to the rapidly evolving tech landscape.



WORKSHOP

PROMPT ENGINEERING AND RAG

~ 7 NOVEMBER, 2025

ABOUT

The Department of Computer Science and Engineering (Data Science) organised a workshop titled “Prompt Engineering and RAG” on 7th November 2025 for third-semester students. The workshop was held on 5th November 2025 for third-semester students.



The session was conducted by Mr. Vinod Tigadi, Senior Engineering Manager at Enphase Energy, introducing students to essential AI skills for modern data science. The workshop focused on prompt engineering and Retrieval-Augmented Generation (RAG), explaining how well-structured prompts improve the accuracy and performance of Large Language Models. Students learned key principles such as clarity, specificity, and iterative refinement while designing prompts for different tasks. The concept of RAG was explained as a method that combines LLMs with external knowledge sources to produce more accurate and context-aware responses. Hands-on activities included building simple RAG pipelines and experimenting with prompts for data analysis, question answering, and content generation. Real-world applications of these techniques in automation, research, and decision-making were also discussed. Overall, the session helped students understand how prompt engineering and RAG can be used to build reliable and intelligent AI-powered solutions.



WORKSHOP

ESCALATING CYBER ATTACKS

~ 19 NOVEMBER, 2025

ABOUT

The Department of Computer Science and Engineering (Data Science) organized a workshop titled “Escalating Cyber Attacks: Public Awareness and Safety Approaches” on 19 November 2025.



The session was conducted by Mrs. Manju Mehra, a Cyber Crime Intervention Officer and Certified Cyber Criminologist, to educate students about growing cyber threats and online safety practices. The workshop focused on understanding cybercrime, including phishing, identity theft, malware, ransomware, and online fraud. She explained social engineering tactics used by cybercriminals and highlighted the importance of verifying sources before sharing personal information. The session also covered safe online practices such as strong password management, multi-factor authentication, updating software, and recognizing suspicious links and emails. Mrs. Mehra discussed digital footprints, privacy protection, and ways to reduce personal data exposure online. She also introduced Indian cyber laws, the IT Act, and explained how to report cybercrimes through official portals like cybercrime.gov.in. The session concluded with an interactive Q&A, where students gained practical strategies to stay safe and maintain good cyber hygiene in the digital world.



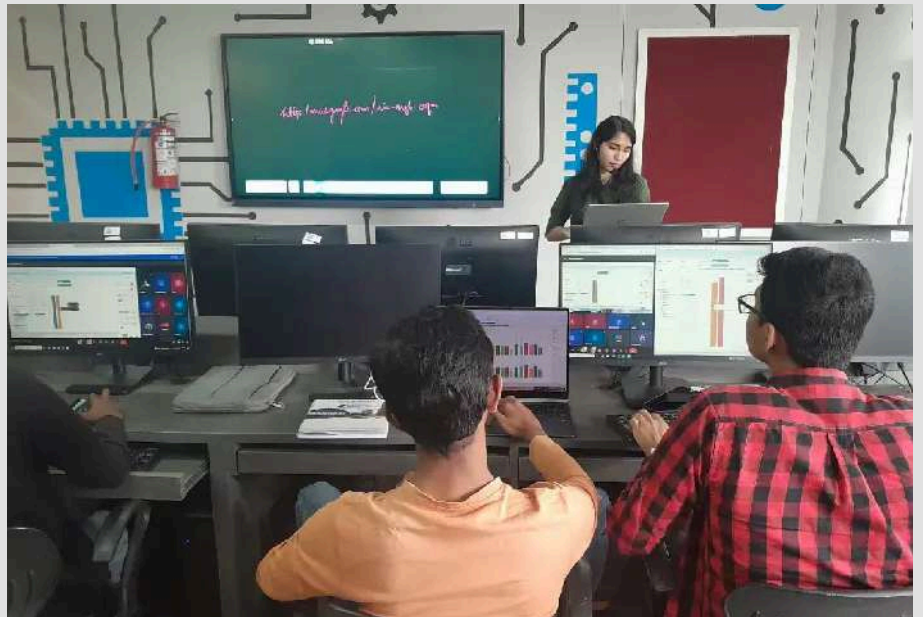
WORKSHOP

START TO END: DATA TO VISUALIZATION AND DECISION MAKING IN TABLEAU

~ 26 NOVEMBER, 2025

ABOUT

The Department of Computer Science and Engineering (Data Science), organized a workshop titled Start to End: Data to Visualization and Decision Making in Tableau on 26th November 2025 for 7th semester students.



The session was conducted by Ms. Anisha K, a Data Analyst, who introduced students to practical data analytics and visualization techniques. The workshop focused on building foundational skills in importing, connecting, and analyzing datasets using Tableau. Students learned how to clean and organize data before creating visual representations. Ms. Anisha demonstrated how to establish connections between multiple data sources and select appropriate chart types. Hands-on sessions enabled students to create various charts and visualizations to solve business problems. Participants explored how visual insights help identify trends, patterns, and comparisons.

The workshop emphasized the role of dashboards in presenting complex data clearly and supporting decision-making. Students were trained to design interactive dashboards by combining multiple charts into a single view. Real-world exercises helped students understand how businesses use visual analytics to reduce losses and drive growth. The session enhanced students' analytical thinking and problem-solving abilities.



STUDENT ACHIEVEMENTS



The **5th-semester** CSE (Data Science) students achieved a remarkable milestone at the **Silver Spectrum TechFest 48-Hour Hackathon**, held at New Horizon College of Engineering, Bengaluru, from **October 28–30, 2025**. Competing at the national level across five domains—**AIML, GenAI, Cybersecurity, IoT, and Web3.0**—they demonstrated exceptional creativity and technical expertise. Their resilience and teamwork stood out during the intense 48-hour challenge.

Team Members:

Kushith Gowda (INH23CD079) – Team Lead

Krishna Rathnam (INH23CD078)

Gowtham N (INH23CD054)

Varun S (INH23CD197)

Keerthana S (INH23CD074)

This success highlights their strong skills in applied machine learning, full-stack development, and collaborative problem-solving. Their achievement sets an inspiring benchmark for future hackathons and technical competitions.

STAFF EDITORIAL COMMITTEE



Swathi B
HOD CSE(DS)



Shefali Sharma
Assistant professor

STUDENT EDITORIAL COMITTEE



Samarth HG Hegde
1NH23CD141



Shrajana S Shetty
1NH23CD160



Swathi Pai Hosdurg
1NH23CD173

STUDENT EDITORIAL COMITTEE



Shreys Sudhakar
1NH23CD161



Sikha Shivani
1NH23CD164



www.newhorizonindia.edu

Ring Road, Bellandur Post, Near Marathahalli,
Bengaluru, Karnataka 560103, India.