दीन दयाल उपाध्याय कॉलेज
DEEN DAYAL UPADHYAYA COLLEGE
(दिल्ली विश्वविद्यालय) (UNIVERSITY OF DELHI)

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REPORT
"HackArena Hackathon"
Under the aegis of DBT Star College Program and Science Foundation

Organized by
DDUC ACM STUDENT CHAPTER and SANGANIKA

KEY HIGHLIGHTS:

DATE: 21-28 February 2025
TIMING: 11:00 a.m. – 5:00 p.m.
VENUE: Lecture Hall (Room No. 412), Deen Dayal Upadhyaya College, New Delhi

NO OF PARTICIPANTS: 250+ **(Round 1),** 60 **(Round 2)**

Faculty Sponsor, DDUC ACM Student Chapter :
Dr. Rajni Bala

SESSION COORDINATORS:

Dr. Rajni Bala
Mr. Sanjeet Kumar

JUDGING PANEL:

Dr. Harender Pratap Singh
Ms. Geetanjli Kher
Mr. Suyash Mehra

Introduction:

From 21 to 28 February 2025, the DDUC ACM Student Chapter and Sanganika, under the DBT Star College Program and Science Foundation, organized HackArena, an exhilarating Deep Learning and NLP Hackathon aimed at bridging the gap between theoretical AI knowledge and real-world applications. The event provided students with a platform to hone their problem-solving skills, apply machine learning techniques, and tackle pressing technological challenges.

With Artificial Intelligence revolutionizing industries and research, HackArena aimed to serve as a stepping stone for students, allowing them to experiment with innovative solutions while competing in an intellectually stimulating environment.

It featured two distinct problem statements:

1. **Plant Species Identification App** – This task required participants to develop a mobile application capable of identifying native Indian plant species from images, highlighting AI's role in environmental sustainability and biodiversity research.
2. **Multilingual (Hinglish) Sarcasm Detection** – In an era of digital communication and social media, teams were challenged to build an NLP model capable of detecting sarcasm in code-mixed posts written in both Hinglish, making it an exciting and highly relevant challenge in computational linguistics.

The competition was structured in two phases—an online submission round, followed by an offline final presentation round—ensuring that participants not only developed machine learning-based solutions but also refined their skills in communicating technical ideas and justifying their approaches to experts.

Event Structure:

Round 1: Online Submission

The first phase of HackArena took place from February 21st to 25th, 2025, where teams were required to submit their initial project ideas and working implementations. The round saw an overwhelming response, with several teams participating in both themes, demonstrating their technical skills, research abilities, and innovation.

Participants leveraged a variety of machine learning techniques, ranging from convolutional neural networks (CNNs) for image classification in the plant identification task to transformer models and deep learning-based sentiment analysis for sarcasm detection. The submissions reflected creativity and technical proficiency, showcasing diverse approaches to solving the problem statements.

The top-performing teams were carefully evaluated based on model accuracy, efficiency, novelty, and real-world applicability. The most promising projects moved forward to Round 2, where teams would present their solutions to a panel of esteemed judges.

Round 2: Offline Presentations

The final round was held on February 28th, 2025, at the DDUC campus, marking an exciting culmination of the hackathon. The event opened with an introductory speech, welcoming participants and addressing the distinguished panel of judges. Their presence added immense value, providing insightful feedback and a rigorous evaluation of each project.

The finalists took centre stage, delivering well-structured presentations that not only showcased their technical prowess but also emphasized the real-world impact of their solutions. Teams defending the plant species identification challenge discussed the importance of AI in ecological conservation, while those working on sarcasm detection delved into the complexities of linguistic models and sentiment analysis.

The event saw spirited competition, with teams actively engaging in Q&A sessions with judges, justifying their methodologies, and their problem-solving strategies. After an intense and thought-provoking round of presentations and evaluations, the top-performing teams were awarded certificates and cash prizes to commend their efforts and encourage future innovation.

To conclude the event on a high note, a fun, impromptu computer riddles quiz was conducted, adding a light-hearted yet intellectually stimulating touch to the closing ceremony, making for a memorable and engaging finale.

Conclusion:

HackArena provided as a dynamic learning experience, fostering a spirit of innovation, collaboration, and technical excellence. By challenging students to develop machine learning solutions for real-world problems, the event demonstrated the growing impact of machine learning and deep learning in research and industry.

The two-round structure allowed participants to not only apply theoretical knowledge to practical applications but also develop essential skills in presentation, critical thinking, and problem-solving under pressure.

It aimed to highlight the vast potential of artificial intelligence and machine learning in tackling scientific, environmental, and technological challenges.

This event's success underscored the importance of encouraging and providing a platform to students enthusiastic about machine learning's potential for social and scientific revolution, equipping them with the skills and confidence to tackle complex problems and drive future technological advancements.