Malnad College of Engineering

(An Autonomous Institute under VTU) Department of CSE (AI&ML) Report on Expert Talk



on "Algorithms Through Activities"

Title: Algorithms Through Activities Date: 12 July, 2024 Time: 3pm Speaker: Dr. B Uma

About the speaker: Dr. B Uma is currently serving as a Professor in the Department of Computer Science has, more than 10 years of experience. She has earned her B.E., M.Tech and Ph.D. degrees in Computer Science and Engineering. Over the years, Dr. B Uma has published around 26 research articles. Her work covers many important topics in computer science and has helped improve our understanding in this field. She is known for her dedication to teaching and research, and her contributions have earned her a lot of respect in the academic community. Dr. B Uma continues to inspire students and colleagues with her knowledge and passion for her subject.

Introduction:

The Design and Analysis of Algorithms Workshop, held on July 12, 2024, aimed to enhance students' understanding of algorithmic principles and their practical applications. Led by esteemed Dr. B Uma, the workshop featured a series of lectures, hands-on sessions, and interactive group activities.



Objectives:

- Enhance Understanding: To deepen students understanding of fundamental algorithmic concepts and techniques, including Bubble sort, Linear search, Binary search, Merge sort and Quick sort.
- **Programmatic Application**: Provide hands-on experience through interactive learning and activities to apply programmatic knowledge in solving real-world computational problems.
- **Skill Development**: Improve student skills in algorithm design, analysis, and implementation using modern tools and technologies.
- **Collaborative Learning**: Foster a collaborative learning environment where students can work together, share ideas and learn from each other's experiences.
- **Expert Insights**: Enable students to interact with and learn from Dr. B Uma, gaining insights into current trends and practices in algorithmic research and development.
- Algorithmic Efficiency: Teach students how to evaluate and optimize algorithms for time complexity, space complexity and overall efficiency.
- Inspiration and Resilience: Through Dr. B Uma's personal narrative titled "Alive: The Story of the Andes Survivors", inspire students with themes of resilience, perseverance and personal growth, illustrating the importance of these qualities in both life and the pursuit of algorithmic excellence.

Outcomes:

Dr. B Uma's involvement in the event proved instrumental in enriching the participants' understanding of advanced concepts in algorithm. Her expertise in algorithm design and optimization resonated deeply with the students, providing them with practical insights into tackling computational challenges. Through engaging presentations and interactive sessions, Dr. Uma not only elucidated complex programs but also inspired attendees to explore innovative approaches to problem-solving.

Conclusion:

The session was a profound exploration into the intricacies of algorithm design and optimization, leaving participants with a comprehensive understanding of foundational concepts and practical applications. Her engaging presentation style and depth of knowledge facilitated a dynamic learning environment where complex theories were made accessible and relevant. Through interactive discussions and hands-on exercises, attendees gained valuable insights into innovative problem-solving strategies that can be applied across various domains of Computer science.

