A Report on Webinar titled
"Smart Surveillance: Advancements in Video Analytics with Machine Learning"
Organized by Department of Computer Science & Engineering
On 04.05.2024

Report Submitted by : Mr. J. Nagaraj, Assistant Professor, Department of Computer Science & Engineering
Resource Person Details: Dr. B. Prabha, Assistant Professor, SRM Institute of Science and Technology
Attendance: 89 participants (Internal)
Mode of Conduct: Online

Report Received on 08.05.2024

The Department of Computer Science & Engineering in association with CSI, organized a webinar on the topic **"Smart Surveillance: Advancements in Video Analytics with Machine Learning"** for the CSE students on 04/05/2024 from 10.00 AM to 11.30 AM in Seminar Hall A. **Dr. B. Prabha**, Assistant Professor, SRM Institute of Science and Technology was the resource person for the programme.

The welcome address was given by **Mr. J. Nagaraj**, Assistant Professor, Department of CSE, to the gatherings. **Dr. R. Kalpana**, Professor & Head, Department of CSE shared the importance of learning the modern technologies and importance of organizing this webinar on the topic "Smart Surveillance: Advancements in Video Analytics with Machine Learning". The resource person started the session by extending her hearty thanks to the participants, organizing members, HoD, Principal and Management of MITS Madanapalle for giving her opportunity to share her knowledge and experience. The resource person shared her amazing ideas on the latest trending topics Machine Learning.

The webinar highlighted with the following topics:

1. Introduction to Smart Surveillance

- Overview of smart surveillance technologies
- The role of AI and machine learning in enhancing surveillance systems
- Historical context and evolution of video analytics

2. Core Technologies in Video Analytics
- Introduction to the primary technologies used in video analytics, including AI algorithms like convolutional neural networks (CNNs)
- The process of video data collection, processing, and analysis
- Live demonstrations or case studies of technology in action

3. Applications of Smart Surveillance
- Case studies highlighting the use of smart surveillance in various sectors such as public safety, retail, and transportation
- Discussion on the effectiveness of smart surveillance in real-world scenarios
- Benefits and outcomes of deploying advanced surveillance systems

4. Ethical Considerations and Privacy
- Discussion on the balance between security and privacy
- The impact of surveillance on public privacy
- Guidelines and regulations governing the use of surveillance technologies

5. Advances and Future Trends
- Latest advancements in the field of video analytics
- The role of emerging technologies like edge computing and 5G in surveillance
- Predictions for the future of surveillance technologies

6. Interactive Q&A Session
- Open floor for questions from attendees to experts
- Discussion on common challenges and solutions in smart surveillance
- Advice on pursuing careers or further study in this field

7. Conclusion and Resources for Further Learning
- Summary of key points covered
- Resources for further exploration, including books, courses, and websites
- Information on upcoming webinars or events in related fields

The outcome of the programme:

The program outcomes for students attending a webinar on "Smart Surveillance: Advancements in Video Analytics with Machine Learning" could include several educational and skill-based benefits.

- Students will gain a foundational understanding of how machine learning is applied in the field of smart surveillance, including the basics of video analytics technologies.

- Exposure to the latest tools and software used in the industry for smart surveillance, such as deep learning algorithms and video analysis software.

- Opportunities to understand the technical aspects of designing and deploying video analytics systems, such as setting up cameras, data processing, and interpreting outputs.

- Enhancement of problem-solving skills through case studies or discussions on overcoming challenges in smart surveillance, such as dealing with diverse and unpredictable real-world scenarios.

The session was concluded at 11.30 AM followed by a vote of thanks, given by Coordinator of the webinar **Mr**. **T. Thangarasan**, Assistant Professor, Department of Computer Science & Engineering, MITS, Madanapalle.