



## Department of Computer Engineering

Academic Year: 2024-25

Semester: VI

Class / Branch: TE Computer

Subject: AI Lab

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### CASE STUDY REPORT FORMAT

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#### 1. Introduction

- Overview of the AI topic
- Importance and relevance in today's technological landscape
- Objectives of the case study

#### 2. Background and Context

- History and evolution of the AI technology
- Key developments and breakthroughs
- Current state of research and industry adoption

#### 3. Applications of the AI Technology

- Real-world use cases across various industries
- Case examples of companies or projects implementing the AI technology
- Benefits and value propositions

#### 4. Technical Aspects & Limitations

- Core technologies and methodologies used (e.g., machine learning models, deep learning architectures, NLP techniques)
- Infrastructure and computational requirements
- Existing technical challenges and constraints

#### 5. Ethical, Legal, and Social Considerations

- Ethical dilemmas (e.g., bias, fairness, transparency)
- Legal and regulatory challenges
- Societal impact and public perception

#### 6. Potential Impact on Industries and Society

- Short-term and long-term effects on businesses, economy, and workforce
- Disruptions and transformations in different sectors
- Opportunities for innovation and growth

#### 7. Challenges and Future Directions

- Current roadblocks hindering widespread adoption
- Ongoing research and future advancements
- Recommendations for addressing challenges

#### 8. Conclusion & Key Takeaways

- Summary of findings
- Final thoughts on the potential and risks associated with the AI topic
- Future outlook and research opportunities

## **9. References**

- Cite all sources, research papers, and reports used in the study