Lesson Plan No. 1	Course Name: AI for Managers Topic: Introduction to artificial Intelligence	Course No.: BCMMI - 405(D)

Objectives	At the end of the lesson the student shall be able to: a. To provide students with a clear understanding of the objectives, goals, and potential impact of Artificial Intelligence (AI). b. Advantages and disadvantage of Artificial Intelligence.
Teaching Aids (if any)	a. Video b. PPT
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. What is artificial intelligence? Discuss common AI applications that people encounter in their daily lives? 2. **Development** (30 minutes) a. Define AI and explain its purpose, emphasizing its capacity to perform tasks that typically require human intelligence. b. Why AI c. Goals of Artificial Intelligence d. Advantages and disadvantage of Artificial Intelligence e. Nptel video - https://www.youtube.com/watch?v=K9gH7hBAdpo 3. **Exercise (5 minutes)** Discuss scope of AI
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading -- https://builtin.com/artificial-intelligence/artificial-intelligence-future 3. Original Paper on AI - https://www.nist.gov/artificial-intelligence 4. Homework - Search news articles or reports related to Future of AI Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What, why, Who?). Allow students to answer and discuss. 2. Discussion or one minute paper Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 2	Course Name: AI for Managers Topic: History and Evolution	Course No.: BCMMI - 405(D)

Objectives	At the end of the lesson the student shall be able to: a. To provide students with a historical perspective on the development and evolution of Artificial Intelligence (AI). b. To highlight key milestones, breakthroughs, and influential figures in the history of AI.
Teaching Aids (if any)	a. Video b. PPT
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. - What does the term "Artificial Intelligence" mean, and when was it first coined? - Can you name any early philosophical or mechanical concepts that contributed to the development of ideas related to artificial beings or intelligence? 2. **Development** (30 minutes) - Discuss Maturation of Artificial Intelligence (1943-1952) - Discuss - The birth of Artificial Intelligence (1952-1956) - Discuss The golden years-Early enthusiasm (1956-1974) - The first AI winter (1974-1980) - A boom of AI. **3. Exercise (5 minutes)** Discuss - Considering the historical trajectory of AI, what do you think the future holds for artificial intelligence? What are some potential challenges and exciting possibilities? Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://www.linkedin.com/pulse/history-evolution-artificial-intelligence-journey-mark/ 3. Original Paper on AI - https://www.researchgate.net/publication/322234922_History_of_Artificial_Intelligence 4. Homework Search news articles or reports related to Future of AI Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What, why, Who?). Allow students to answer and discuss. 2. Discussion

	Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 3	Course Name: AI for Managers Topic: Artificial Intelligence (AI) concept	Course No.: BCMMI - 405(D)

Objectives	At the end of the lesson the student shall be able to: a. To provide an overview of Artificial Intelligence, its definition, key concepts b. To introduce students to key concepts in Artificial Intelligence (AI), including machine learning, neural networks, natural language processing, and robotics.
Teaching Aids (if any)	a. Video b. PPT
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. - How would you succinctly explain AI to someone who is unfamiliar with the concept? 2. **Development (30 minutes**) - Introduce the concept of AI. - Discuss machine learning, neural networks, natural language processing, robotics, ethics, and emerging trends. - Discuss machine learning, and how does it differ from traditional programming. - Discuss deep learning differ from traditional machine learning approaches, **3. Exercise (5 minutes)** Discuss - Based on the discussed key concepts, how do you foresee AI evolving in the coming years? What sectors or industries might be significantly impacted, and in what ways? Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=deb44af9d65763af055ec66b29e9b12f9b80f564 3. Original Paper on AI – https://sunscrapers.com/blog/the-basics-of-artificial-intelligence-understanding-the-key-concepts-and-terminology/ 4. Homework Search news and articles related to AI for further discussion class Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What, why, Who?). Allow students to answer and discuss. 2. Discussion

	Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 4	Course Name: AI for managers Topic: Artificial Intelligence (AI) Terminology	Course No.: COM-602

Objectives	At the end of the lesson the student shall be able to: a. To introduce students to the fundamental terminology used in the field of Artificial Intelligence (AI). b. To demonstrate comprehension of key artificial intelligence (AI) terminology by defining and providing examples of each term, and by explaining how these terms relate to real-world applications of AI..
Teaching Aids (if any)	a. Video b. PPT
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. Can you provide examples of AI technologies that have become ubiquitous in everyday life, such as virtual assistants Discuss the importance of AI terminology in understanding the field. 2. **Development** (30 minutes) a. Discuss essential AI terminology such as: b. Machine Learning c. Neural Networks d. Deep Learning e. Algorithms f. Data Mining g. Natural Language Processing (NLP) h. Robotics i. https://www.youtube.com/watch?v=ZPfTc9SFpbk 3. Exercise (5 minutes) – - Discuss - Engage students in a brief discussion about how AI is used in everyday life, such as in virtual assistants, recommendation systems, and autonomous vehicles. - Instruct students to match the scenarios with the appropriate AI terminology and discuss their reasoning.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://coe.gsa.gov/coe/ai-guide-for-government/what-is-ai-key-terminology 3. Original NIST Paper https://www.researchgate.net/publication/333693612_Artificial_Intelligence_Basics_and_Terminology 4. Homework

	- Search news articles or reports related to artificial intelligence and ethical concerns. Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What, why, Who?). Allow students to answer and discuss. 2. Quiz Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 5	Course Name: AI for managers Topic: Artificial Intelligence (AI) Application Areas	Course No.: BCMMI - 405(D)

Objectives	At the end of the lesson the student shall be able to: a. To introduce students to various application areas of AI and engage them in critical thinking about AI's impact on different industries..
Teaching Aids (if any)	a. Video b. PPT
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. - "Can you think of any everyday situations where you interact with or benefit from Artificial Intelligence without even realizing it?". 2. **Development (30 minutes**) - Discuss specific examples and how AI is utilized in each of these areas. - Present various application areas of AI, such as: - Healthcare - Transportation - Finance - Entertainment - Customer Service - https://www.youtube.com/watch?v=P2zdHfVj78Y **3. Exercise (5 minutes)** Discuss - Ask students to reflect on how AI is shaping the future of various industries and its potential benefits and challenges. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://cloud.google.com/discover/ai-applications. 3. Original Paper on AI - https://www.ijrti.org/papers/IJRTI2304061.pdf 4. Homework Search news and articles related to AI for further discussion class Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What, why, Who?). Allow students to answer and discuss. 2. Discussion

	Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 6	Course Name: AI for managers Topic: Artificial Intelligence (AI) Issues	Course No.: BCMMI - 405(D)

Objectives	At the end of the lesson the student shall be able to: a. To introduce students to key ethical and social issues related to Artificial Intelligence and foster critical thinking about the impact of AI on society
Teaching Aids (if any)	a. Video b. PPT
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. - What comes to mind when you think about the ethical and social implications of Artificial Intelligence? Can you think of any concerns or potential issues? 2. **Development (30 minutes)** - Explain the potential benefits and risks associated with AI technology. - Discuss Ethical and Social Issues in AI - Discuss - Ask students to reflect on how AI is shaping the future of various industries and its potential benefits and challenges. - Discuss real-life examples of ethical dilemmas and social challenges related to AI, showcasing how these issues are being addressed or may impact society - Question and answer round related to topic responses and discuss the answers. **3. Exercise (5 minutes)** Discuss - Explain the concept of data privacy in the context of AI. What measures can be taken to ensure data privacy in AI applications?. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://www.unesco.org/en/artificial-intelligence/recommendation-ethics/cases. 3. Original Paper on AI https://www.sciencedirect.com/science/article/pii/S2666659620300056 4. Homework Search news and articles related to AI for further discussion class Spend 5 minutes to wrap up and consolidate the learnings.

Evaluation	1. Reflective Questions (What, why, Who?). Allow students to answer and discuss. 2. Discussion Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 7	Course Name: AI for managers Topic: Artificial: Concerns and Ethical Considerations -1	Course No.: BCMMI - 405(D)

Objectives	At the end of the lesson the student shall be able to: a. To explore the ethical implications and societal concerns surrounding artificial intelligence (AI). b. Engage in discussions to evaluate different perspectives and propose solutions or recommendations for ethical challenges in AI development and implementation.
Teaching Aids (if any)	a. Video b. PPT
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. How do you think artificial intelligence is shaping various industries and aspects of society? How important do you think it is for individuals to be aware of the ethical considerations surrounding artificial intelligence? In your opinion, what role should education play in addressing the ethical implications of artificial intelligence? 2. **Development** (30 minutes) a. Concerns related to artificial intelligence (AI) cover a range of ethical, social, and technical issues. b. Social Impact c. Security d. Regulation and Governance e. Ethical Analysis and Mitigation Strategies 3. Exercise (5 minutes) – - AI in healthcare: How should patient privacy and data security be balanced with the benefits of predictive analytics? - AI in employment: What are the ethical implications of using AI for hiring decisions?
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading -- https://link.springer.com/article/10.1007/s10551-023-05339-7 https://www.frontiersin.org/articles/10.3389/fsurg.2022.862322/full 3. Original Paper on AI 4. Homework - Search news articles or reports related to artificial intelligence and ethical concerns.

	Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What, why, Who?). Allow students to answer and discuss. 2. Quiz Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 8	Course Name: AI for managers Topic: Artificial: Concerns and Ethical Considerations -case study	Course No.: BCMMI - 405(D)

Objectives	At the end of the lesson the student shall be able to: a. To explore the ethical considerations surrounding facial recognition technology in law enforcement b. Analyse the issue of bias. c. Discuss potential mitigation strategies
Teaching Aids (if any)	a. Video b. PPT
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. Give a brief overview of facial recognition technology. Define facial recognition technology and its basic functioning. Discuss how facial recognition algorithms may exhibit bias, leading to inaccuracies and disproportionate impact on certain demographics, such as people of color and women. Provide examples or case studies illustrating instances of facial recognition bias in law enforcement. 2. **Development** (30 minutes) a. Present a detailed case study or scenario involving facial recognition bias in law enforcement. b. Ethical Concerns c. Solution discussion covers. a. Audit and Transparency b. Diversity in Data and Testing c. Ethical Guidelines d. Community Engagement e. Continuous Monitoring and Improvement f. Legal and Regulatory Compliance 3. Exercise (5 minutes) – - A debate on the topic of facial recognition technology in law enforcement, with students taking on different roles and perspectives.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading -- https://ijlljs.in/wp-content/uploads/2021/07/Artificial-intelligence-ethical-and-legal-issues-and-its-application-converted.pdf 3. Homework

	- Read paper. https://www.isaca.org/resources/news-and-trends/newsletters/atisaca/2022/volume-51/facial-recognition-technology-and-privacy-concerns Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What, why, Who?). Allow students to answer and discuss. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 9	Course Name: AI for managers Topic: Artificial: Concerns and Ethical Considerations -1	Course No.: BCMMI - 405(D)

Objectives	At the end of the lesson the student shall be able to: a. To explore the ethical implications and societal concerns surrounding artificial intelligence (AI). b. Engage in discussions to evaluate different perspectives and propose solutions or recommendations for ethical challenges in AI development and implementation.
Teaching Aids (if any)	a. Video b. PPT
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. How do you think artificial intelligence is shaping various industries and aspects of society? How important do you think it is for individuals to be aware of the ethical considerations surrounding artificial intelligence? In your opinion, what role should education play in addressing the ethical implications of artificial intelligence? 2. **Development** (30 minutes) a. Concerns related to artificial intelligence (AI) cover a range of ethical, social, and technical issues. b. Social Impact c. Security d. Regulation and Governance e. Ethical Analysis and Mitigation Strategies f. AI in the Court of Law 3. Exercise (5 minutes) – - AI in healthcare: How should patient privacy and data security be balanced with the benefits of predictive analytics? - AI in employment: What are the ethical implications of using AI for hiring decisions?
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://www.linkedin.com/pulse/impact-ai-law-enforcement-criminology-criminal-justice-saheed-oyedele-a9sle/ 3. Original paper https://www.unesco.org/en/artificial-intelligence/recommendation-ethics/cases

	4. Homework - Search news articles or reports related to artificial intelligence and ethical concerns. Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What, why, Who?). Allow students to answer and discuss. 2. Quiz Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 10	Course Name: AI for Managers Topic: Future of Artificial Intelligence	Course No.: BCMMI - 405(D)

Objectives	At the end of the lesson the student shall be able to: a. Understand current trends and advancements in artificial intelligence. b. Explore potential future developments and applications of AI technology.
Teaching Aids (if any)	a. Video b. PPT
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. what artificial intelligence is and its significance in today's world. In what areas do you think artificial intelligence will have the most significant impact in the future, and why? 2. **Development** (30 minutes) a. Explore potential future developments in artificial intelligence, including advancements in machine learning, natural language processing, robotics, and automation. - AI in Education? - AI and Climate Change Solutions - Quantum Computing and AI - AI in Finance - Future Robo-advisors driven by AI. **3. Exercise (5 minutes)** Discuss the potential implications of Transportation related to AI
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://shorturl.at/kELQ6 3. Original Paper on AI - https://shorturl.at/bpvB7 4. Homework Search news articles or reports related to Future of AI Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What, why, Who?). Allow students to answer and discuss. 2. Discussion Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 1	Course Name: AI for Managers Topic: Machine learning- Supervised Learning	Course No.: BCMMI-405D

Objectives	At the end of the lesson the student shall be able to: a. Understand the concept of Machine Learning b. Understand the concept of supervised learning.
Teaching Aids (if any)	a. Video b. quiz
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. - Have you ever wondered how Netflix recommends movies or how your email knows which messages are spam? - Introduction of Machine Learning - Classification of Machine learning 2. **Development** (30 minutes) a. How Supervised Machine Learning Works? Cloud Service Models b. How machine can be trained using Google teachable machine c. Steps Involved in Supervised Learning d. Types of supervised Machine learning Algorithms 3. Exercise (5 minutes) – Describe the process of training a supervised learning model Collect responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading 4. Original Paper https://towardsdatascience.com/supervised-machine-learning-f3bea1794fbd 3. Homework 5. Search a case study involving a real-world problem that can be solved using supervised learning.. Spend 5 minutes to wrap up and consolidate the learnings
Evaluation	1. Reflective Questions (What, Why, Who?). Allow students to answer and discuss. 2. Quiz Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 2	Course Name: AI for Managers Topic: Machine learning- Supervised Learning – Classification	Course No.: BCMMI- 405D

Objectives	At the end of the lesson the student shall be able to: a. Understand the concept of classification in supervised learning and its significance in real-world applications.
Teaching Aids (if any)	a. Video b. quiz
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. - Provide examples of classification problems in everyday life? 2. **Development** (30 minutes) a. Discuss Classification algorithms b. Discuss Spam Filtering c. Examples of Supervised learning - Image Classification - Speech Recognition - Email Spam Detection - Medical Diagnosis - Challenges of supervised learning 3. Exercise (5 minutes) – What are some common challenges associated with collecting labeled data for supervised learning tasks?
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading 3. https://www.baeldung.com/cs/examples-supervised-unsupervised-learning 4. Homework Search a case study involving a real-world problem that can be solved using supervised learning.. Spend 5 minutes to wrap up and consolidate the learnings
Evaluation	1. Reflective Questions (What, Why, Who?). Allow students to answer and discuss. 2. Quiz Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 3	Course Name: AI for managers Topic: Machine learning- Supervised Learning – Advantages and disadvantages	Course No.: BCMMI 405 D

Objectives	At the end of the lesson the student shall be able to: a. Identify the advantages and disadvantages of supervised learning. b. Analyze real-world scenarios to determine when supervised learning is appropriate and when it may not be the best approach. c. Formulate strategies to mitigate the disadvantages of supervised learning..
Teaching Aids (if any)	a. Video b. quiz
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. - Define supervised learning and its importance in machine learning. 2. **Development** (30 minutes) a. Introduce the concept of advantages and disadvantages in the context of supervised learning. b. Discuss advantages of supervised learning using examples and real-world applications c. https://www.youtube.com/watch?v=tJmVf88l_ys d. Discuss the disadvantages of supervised learning using examples and real-world scenarios: 3. Exercise (5 minutes) – Discussion where students analyze various scenarios to determine whether supervised learning is appropriate and discuss potential advantages and disadvantages.?
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://limbd.org/supervised-machine-learning-types-advantages-and-disadvantages-of-supervised-learning/ 3. Homework Search a case study involving advantages of supervised learning Spend 5 minutes to wrap up and consolidate the learnings
Evaluation	1. Reflective Questions (What, Why, Who?). Allow students to answer and discuss. 2. Quiz Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 4	Course Name: AI for managers Topic: Machine learning- Supervised Learning – Regression	Course No.: BCMMI-405D

Objectives	At the end of the lesson the student shall be able to: a. Understand the fundamental principles of linear regression as a basic regression technique. b. Explore the assumptions underlying linear regression and their implications for model interpretation.
Teaching Aids (if any)	a. Video b. quiz
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. - Define supervised learning and its role in machine learning.. 2. **Development** (30 minutes) a. Define regression and its objective: predicting continuous values. b. Explain the difference between regression and classification tasks. c. Provide real-world examples of regression problems https://drive.google.com/file/d/1PpQo173XyVqle-SLvZz-IyIBvD97HxQV/view?usp=sharing 3. Exercise (5 minutes) – ABC Real Estate is a real estate agency looking to improve its pricing strategy for residential properties. They aim to predict housing prices accurately based on various features of the properties. To achieve this, decide to build a regression model using historical data on property sales.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading http://surl.li/rgwuk / 3. Homework Search a case study involving advantages of supervised learning-Regression Spend 5 minutes to wrap up and consolidate the learnings
Evaluation	1. Reflective Questions (What, Why, Who?). Allow students to answer and discuss. 2. Quiz Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 5	Course Name: AI for managers Topic: Applications of supervised learning in multiple domains - 1	Course No.: BCMMI-405D

Objectives	At the end of the lesson the student shall be able to: a. Explore the diverse applications of supervised learning in domains like healthcare, finance, marketing, and autonomous vehicles. b. Students will understand the practical applications of supervised learning
Teaching Aids (if any)	a. Video b. quiz
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. - Explain diverse range of real-world applications of AI 2. **Development** (30 minutes) a. Applications in Healthcare. b. Applications in Finance c. Applications in Autonomous Vehicles 3. Exercise (5 minutes) – Discuss how Supervised learning helps in Cancer detection.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading 3. http://surl.li/rgxda 4. Homework Search a case study involving advantages of supervised learning-Regression Spend 5 minutes to wrap up and consolidate the learnings
Evaluation	1. Reflective Questions (What, Why, Who?). Allow students to answer and discuss. 2. Quiz Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 6	Course Name: AI for managers Topic: Applications of supervised learning in multiple domains - AI tools	Course No.: BCMMI-405D

Objectives	At the end of the lesson the student shall be able to: a. To understand the concept of supervised learning. b. To explore various domains where supervised learning is applied. c. To identify AI tools used for implementing supervised learning algorithms.
Teaching Aids (if any)	a. Video b. quiz
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. - Explain examples of supervised learning tasks, such as classification and regression. 2. **Development** (30 minutes) a. AI finance tools b. Viz.AI – Health Care management c. Spyne AI Car Detection d. AI in Art e. Exercise (5 minutes) – How might the AI tool impact clinical decision-making and patient outcomes, and what measures can be taken to ensure transparency and accountability in its use?.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading 3. http://surl.li/rhuql 4. Homework Study - Case Study: Predictive Maintenance in Manufacturing Spend 5 minutes to wrap up and consolidate the learnings
Evaluation	1. Reflective Questions (What, Why, Who?). Allow students to answer and discuss. 2. One minute Paper Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 7	Course Name: AI for managers Topic: Application of supervised learning in solving business problems such as pricing	Course No.: BCMMI-405D

Objectives	At the end of the lesson the student shall be able to: a. To understand the concept of supervised learning and its application in solving business problems. b. To explore how supervised learning algorithms can be used for pricing optimization in various industries. c. To demonstrate the steps involved in building a supervised learning model for pricing prediction
Teaching Aids (if any)	a. Video b. quiz
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. - Explain examples of supervised learning tasks, such as classification and regression. 2. **Development** (30 minutes) a. Discuss the importance of supervised learning in business decision-making, particularly in pricing optimization. b. Demand Forecasting c. Price Optimization: d. Customer Segmentation e. Dynamic Pricing 3. Exercise (5 minutes) – Summarize the key concepts covered in the lesson, including the application of supervised learning in pricing optimization
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading 3. http://surl.li/rhxxh 4. Homework Study - Using supervised machine learning for B2B sales forecasting: A case study of spare parts sales forecasting at an after-sales service provider https://www.sciencedirect.com/science/article/pii/S0957417421012793
Evaluation	1. Reflective Questions (What, Why, Who?). Allow students to answer and discuss. 2. One minute Paper Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 8	Course Name: AI for managers Topic: Application of supervised learning in solving business problems -CRM	Course No.: BCMMI-405D

Objectives	At the end of the lesson the student shall be able to: a. To understand the concept of supervised learning and its application in solving business problems, specifically in CRM. b. To explore how supervised learning algorithms can be used to improve customer segmentation, churn prediction, and lead scoring in CRM.
Teaching Aids (if any)	a. Video b. quiz
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. - What is CRM. - Why is supervised learning important in CRM, and how does it benefit businesses? 2. **Development** (30 minutes) a. How can supervised learning algorithms be used to improve customer segmentation in CRM? b. Customer Segmentation c. Lead Scoring d. Next Best Action Recommendation e. sentiment Analysis 3. Exercise (5 minutes) – How can businesses ensure that supervised learning models remain effective and accurate over time as customer behavior and business dynamics change?
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading 3. http://surl.li/rhxxh 4. Homework Study - Improving Customer Relationship Management using Machine Learning techniques: A Tunisian Case Study https://www.sciencedirect.com/science/article/pii/S0957417421012793
Evaluation	1. Reflective Questions (What, Why, Who?). Allow students to answer and discuss. 2. One minute Paper Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No.9	Course Name: AI for managers Topic: Application of supervised learning in solving business problems -Sales and marketing	Course No.: BCMMI-405D

Objectives	At the end of the lesson the student shall be able to: a. Understand the concept of supervised learning and its relevance to sales and marketing. b. Explore various applications of supervised learning techniques in solving sales and marketing problems. c. Discuss real-world examples and case studies where supervised learning has been successfully applied in sales and marketing contexts
Teaching Aids (if any)	a. Video b. quiz
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. - What are some ways in which businesses can measure the effectiveness and performance of supervised learning models in their sales and marketing strategies? 2. **Development** (30 minutes) a. Discuss various applications of supervised learning in sales and marketing, such as: b. Customer segmentation and targeting c. Churn prediction. d. Demand forecasting. e. Sentiment analysis f. Personalized recommendations 3. Exercise (5 minutes) – Discuss real-world examples and case studies where supervised learning has been successfully applied in sales and marketing contexts.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://www.sciencedirect.com/science/article/pii/S0957417421012793 3. Homework Using supervised machine learning for B2B sales forecasting: A case study of spare parts sales forecasting at an after-sales service provider
Evaluation	1. Reflective Questions (What, why, Who?). Allow students to answer and discuss. 2. One minute Paper Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No.10	Course Name: AI for managers Topic: Supervised Learning – Case Study	Course No.: BCMMI-405D

Objectives	At the end of the lesson the student shall be able to: a. Understand the concept of supervised learning and study case studies. b. Understand the application of supervised learning in the context of MOBA (Multiplayer Online Battle Arena) games. c. Analyze the methodology and findings of the case study on supervised learning in Honor of Kings. d. Understand AI tool impact clinical decision-making and patient outcomes
Teaching Aids (if any)	a. Video b. quiz
Teaching Development	1. **Introduction** (5 minutes) - Ask questions. - What is MOBA games and their competitive nature. 2. **Development** (30 minutes) a. Discuss the case study titled "Supervised Learning Achieves Human-Level Performance in MOBA Games: A Case Study of Honor of Kings. b. Define AI and discuss its various applications in healthcare, particularly in clinical decision support systems. c. How might the AI tool impact clinical decision-making and patient outcomes, and what measures can be taken to ensure transparency and accountability in its use? 3. Exercise (5 minutes) – Discuss the lessons learned, challenges faced, and strategies employed to ensure transparency and accountability..
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading 3. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8521931/ 4. Homework Accessing Artificial Intelligence for Clinical Decision-Making
Evaluation	1. Reflective Questions (What, why, Who?). Allow students to answer and discuss. 2. Group discussion Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 1	Course Name: AI for Managers Topic: Unsupervised learning	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Understand the basic concept of Unsupervised learning. b. Describe the importance of Unsupervised Learning c. Examples of unsupervised learning.
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - What do you know about unsupervised learning? - Why use Unsupervised Learning? - Discuss advantages and disadvantages of unsupervised learning. 2. **Development** (30 minutes) a. Introduce the points of importance of unsupervised learning. b. Explain the benefits of unsupervised learning. c. Discuss some Real-World examples of unsupervised learning. 3.**Exercise** (5 minutes) d. Discussion related to unsupervised learning. e. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading-- https://www.javatpoint.com/unsupervised-machine-learning 3. Original Paper on AI-https://www.researchgate.net/publication/368983958_An_Unsupervised_Machine_Learning_Algorithms_Comprehensive_Review 4. Homework - Search news articles or reports related to unsupervised learning Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 2	Course Name: AI for Managers Topic: Types of Unsupervised learning	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Discuss the types of unsupervised learning. b. Difference between Supervised learning & Unsupervised Learning c. Examples of unsupervised learning.
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - Explain the different types of unsupervised learning? - What do you understand by clustering and association? - Discuss various examples of unsupervised learning. 2. **Development** (30 minutes) a. Introduce the points of importance of unsupervised learning. b. Compare and contrast supervised learning and unsupervised learning. c. Discuss some Real-World examples of unsupervised learning. 3.**Exercise** (5 minutes) d. Discussion related to unsupervised learning. e. Question and answer round related to topic responses and discuss the answers.
Closure	1. 1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading-- https://www.simplilearn.com/tutorials/machine-learning-tutorial/supervised-and-unsupervised-learning 3. Original Paper on AI- https://www.researchgate.net/publication/368983958_An_Unsupervised_Machine_Learning_Algorithms_Comprehensive_Review 4. Homework - Search news articles or reports related to types of unsupervised learning Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 3	Course Name: AI for Managers Topic: Algorithm of Unsupervised learning	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Discuss some popular unsupervised learning algorithms:. b. What is Hierarchical Clustering in Machine Learning c. Discuss approaches of Hierarchical Clustering in Machine Learning
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - Explain the different algorithms of unsupervised learning? - What do you understand by Hierarchical clustering. - Discuss various examples of Hierarchical clustering. 2. **Development** (30 minutes) a. Introduce the points of importance of algorithm used in unsupervised learning. b. Discuss hierarchical clustering in machine learning. c. Discuss the approaches of hierarchical clustering. 3.**Exercise** (5 minutes) d. Discussion related to algorithm of unsupervised learning. e. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading-- https://www.ibm.com/topics/unsupervised-learning 3. Original Paper on AI-https://ieeexplore.ieee.org/document/8387124 4. Homework - Search news articles or reports related to algorithm of unsupervised learning Spend 5 minutes to wrap up and consolidate the learning's.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 4	Course Name: AI for Managers Topic: Unsupervised learning algorithm	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. What do you mean by Agglomerative? b. How the Agglomerative Hierarchical clustering Work? c. Discuss Computing Distance Matrix
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - Explain the algorithms of Agglomerative in unsupervised learning? - Explain the working of Agglomerative Hierarchical clustering - Discuss some popular linkage methods. 2. **Development** (30 minutes) a. Introduce the points of importance of agglomerative algorithm used in unsupervised learning. b. Define the different ways of Inter Cluster distance/similarity c. Discuss the linkage methods. 3.**Exercise** (5 minutes) d. Discussion related to algorithm Agglomerative Hierarchical clustering. e. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading-- https://www.geeksforgeeks.org/hierarchical-clustering/ 3. Original Paper on AI-https://ieeexplore.ieee.org/document/8387124 4. Homework - Search news articles or reports related to Algorithm of unsupervised learning Spend 5 minutes to wrap up and consolidate the learning's.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 5	Course Name: AI for Managers Topic: Unsupervised learning	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Explain the Working of Dendrogram in Hierarchical clustering. b. Understand the concept of Divisive Clustering. c. Why hierarchical clustering
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - Explain the Dendrogram in Hierarchical clustering. - Explain the concept of Divisive Clustering - Discuss some examples of hierarchial clustering. 2. **Development** (30 minutes) a. Introduce the points of importance of Dendrogram in Hierarchical clustering b. Define the Divisive Clustering c. Discuss some examples of divisive clustering. 3.**Exercise** (5 minutes) a. Discussion related to Dendrogram in Hierarchical clustering b. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://www.javatpoint.com/hierarchical-clustering-in-machine-learning 3. Original Paper on AI-https://www.researchgate.net/publication/271616608_A_Clustering_Method_Based_on_K-Means_Algorithm 4. Homework - Search news articles or reports related to Hierarchical clustering Spend 5 minutes to wrap up and consolidate the learning's.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 6	Course Name: AI for Managers Topic: K-means clustering algorithm	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Understand the concept of K-Means Clustering Algorithm. b. Discuss the working of K-Means Clustering Algorithm.
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - Explain the concept of K-Means Clustering Algorithm. - Discuss the task of this algorithm - Discuss some examples of K-Means Clustering Algorithm. 2. **Development** (30 minutes) a. Introduce the importance of K-Means Clustering Algorithm b. Discuss some examples to explain its working. 3.**Exercise** (5 minutes) a. Discussion related to K-Means Clustering Algorithm b. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://www.javatpoint.com/k-means-clustering-algorithm-in-machine-learning 3. Original Paper on AI-https://www.ripublication.com/irph/ijict_spl/14_ijictv3n11spl.pdf 4. Homework - Search news articles or reports related to K-means clustering Spend 5 minutes to wrap up and consolidate the learning's.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 7	Course Name: AI for Managers Topic: Partitioning clustering	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Understand the concept of Partitioning clustering. b. Discuss the working of Partitioning Clustering Algorithm.
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - Explain the concept of Partitioning Clustering Algorithm. - Discuss the task of this algorithm - Discuss some examples of K-Means Clustering Algorithm. 2. **Development** (30 minutes) a. Introduce the importance of Partitioning Clustering Algorithm b. Discuss some examples to explain its working. 3.**Exercise** (5 minutes) a. Discussion related to Partitioning Clustering Algorithm b. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://www.geeksforgeeks.org/partitioning-method-k-mean-in-data-mining/ 3. Original Paper on AI-https://www.researchgate.net/publication/368983958_An_Unsupervised_Machine_Learning_Algorithms_Comprehensive_Review 4. Homework Search news articles or reports related to Partitioning Clustering Spend 5 minutes to wrap up and consolidate the learning's.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 8	Course Name: AI for Managers Topic: Applications of Unsupervised learning	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Discuss the applications of unsupervised learning in multiple domains. b. Also discuss the various domains where unsupervised learning is being used.
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - Explain the concept of Market Basket Analysis. - Discuss the Genomics and Bioinformatics - Discuss some other examples used in multiple domains of unsupervised learning. 2. **Development** (30 minutes) a. Introduce the importance of unsupervised learning in multiple domains. b. Discuss some examples used in different sectors. 3.**Exercise** (5 minutes) a. Discussion related in different areas where unsupervised learning is used. b. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://www.simplilearn.com/tutorials/machine-learning-tutorial/supervised-and-unsupervised-learning 3. Original Paper on AI- https://www.researchgate.net/publication/368983958_An_Unsupervised_Machine_Learning_Algorithms_Comprehensive_Review 4. Homework - Search news articles or reports related applications of unsupervised learning Spend 5 minutes to wrap up and consolidate the learning's
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 9	Course Name: AI for Managers Topic: Applications of unsupervised learning in multiple domains	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Discuss the applications of unsupervised learning in multiple domains. b. What are some real-life applications of unsupervised learning in business field?
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - Explain the concept of Market Basket Analysis. - Can you give examples of unsupervised learning applications in the energy sector? - What are the applications of unsupervised learning in social network analysis? 2. **Development** (30 minutes) a. What are examples of unsupervised learning applications in finance?. b. Discuss some examples used in different sectors. 3.**Exercise** (5 minutes) a. Discussion related in different areas where unsupervised learning is used. b. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading: https://pythonistaplanet.com/applications-of-unsupervised-learning/ 3. Homework: Explore anomaly detection and its significance in various industries. 4. .Spend 5 minutes to wrap up and consolidate the learning's
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

anomaly detection and its significance in various industries. anomaly detection and its significance in various industries.

Lesson Plan No. 1	Course Name: AI for Managers Topic: Problem-solving agents	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Students will comprehend the concept of problem-solving agents and their significance in artificial intelligence. b. Understand the functions of an Artificial Intelligence Agent
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - "What comes to mind when you think of a problem-solving agent, and how do you envision it navigating through complex tasks or environments?" - What is Problem Solving Agent? - Discuss steps in problem-solving in artificial intelligence. 2. **Development** (30 minutes) a. Explain AI Agent. b. Discuss main four rules all AI agents must adhere. c. Discuss the functions of an Artificial Intelligence Agent 3.**Exercise** (5 minutes) d. Discussion related to AI Agents e. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://cloud2data.com/what-is-the-problem-solving-agent-in-artificial-intelligence/#What_is_Problem_Solving_Agent 3. Original Paper on AI - https://www.jair.org/index.php/jair/article/download/13864/26863/32470 4. Homework 5. Research a real-life application of a problem-solving agent in the field of healthcare. 6. Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 12	Course Name: AI for Managers Topic: Types of Problem-solving agents	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Students will comprehend the different types of problem-solving agents in artificial intelligence. b. Understand the Structure of an Artificial Intelligence Agent
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - Give brief overview of problem-solving agents and their role in artificial intelligence. - What is Problem Solving Agent? - Discuss steps in problem-solving in artificial intelligence. 2. **Development** (30 minutes) a. Explain types of Agents in Artificial Intelligence. b. Discuss in details Simple reflex agents, Model-based reflex agents, Goal-based agents, Utility-based agents. c. What are agents composed of? d. Discuss the structure of an Artificial Intelligence Agent 3.**Exercise** (5 minutes) e. Discussion examples of types of Ai agents f. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://www.almabetter.com/bytes/tutorials/artificial-intelligence/agents-in-ai 3. Original Paper on AI - https://www.linkedin.com/pulse/genai-personal-problem-solver-case-study-gianni-giacomelli-i1b9c/ 4. Homework 5. Research a real-life real-world examples. 6. Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 3	Course Name: AI for Managers Topic: Problem-solving agents: Goal Formulation	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Students will understand the significance of goal formulation in problem-solving agents. b. Understand skills to Define, Structure, and Prioritize Goals in AI Systems
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions. - "Imagine you have a personal assistant AI. What goals would you set for it to help you in your daily life?" - What is Goal Formation? 2. **Development** (30 minutes) a. Discuss the key components of goal formulation: definition, structure, and prioritization. b. Discuss Skills to Define, Structure, and Prioritize Goals in AI Systems. c. Discuss examples of goal formulation, such as planning a study schedule, and explain how goals are defined, structured into actionable tasks, and prioritized. 3. **Exercise** (5 minutes) d. Discussion examples of Goal Formation e. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading http://surl.li/sqjlx 3. Original Paper on AI - https://www.linkedin.com/pulse/genai-personal-problem-solver-case-study-gianni-giacomelli-i1b9c/ 4. Homework 5. Study -Why problem formulation must follow goal formulation.. 6. Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 4	Course Name: AI for Managers Topic: Problem-solving agents: Problem Formulation	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Students will understand the importance of problem formulation in designing problem-solving agents, b. Understand and learn how to formulate problems effectively.
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions. - What problem-solving agents are and their significance in various domains such as AI, robotics, and decision-making systems. - Why is problem formulation important in designing problem-solving agents? 2. **Development** (30 minutes) a. Discuss the concept of problem formulation and its significance in AI b. Explain that problem formulation involves defining a problem in a way that a computer or an AI agent can understand and solve it. c. Discuss Problem Components 3. **Exercise** (5 minutes) d. Discussion examples of Problem Formation e. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://www.youtube.com/watch?v=3FganaskCSg 3. Original Paper on AI - https://stacks.stanford.edu/file/druid:xw061vq8842/xw061vq8842.pdf 4. Homework 5. Study -Why problem formulation must follow goal formulation. 6. Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 5	Course Name: AI for Managers Topic: Searching for solutions	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Students will understand uniformed search strategies in AI b. Understand and learn how these strategies explore search spaces and their suitability for different problem domains
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions. - What comes to mind when you hear the term 'search algorithms'? - Can you think of any real-life examples where search algorithms are used, and what do you think makes them effective? - Explain the concept of search algorithms in artificial intelligence **2. Development (30 minutes)** a. Discuss the concept of uniformed search strategies. b. Explain Types of Uniformed Search Strategies 3. **Exercise** (5 minutes) c. Discussion examples of Search Algorithm- Puzzle d. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading- https://www.javatpoint.com/ai-uninformed-search-algorithms. 3. https://www.geeksforgeeks.org/search-algorithms-in-ai/ 4. Original Paper on AI - https://www.researchgate.net/publication/364921310_Comparative_Analysis_of_Search_Algorithms_in_AI 5. Homework Explore practice implementing uniformed search algorithms. 6. Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 6	Course Name: AI for Managers Topic: Breadth-First Search	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Students will understand Breadth-First Search (BFS) as a uniformed search strategy in artificial intelligence. b. Understand the mechanics of BFS and its application in solving problems.
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions. - Define the concept of search algorithms in artificial intelligence? - Introduce Breadth-First Search (BFS) as one of the fundamental search strategies. - Discuss the characteristics and benefits of BFS. **2. Development (30 minutes)** a. Discuss the mechanics of BFS using visual aids or diagrams. b. Discuss real-world applications of BFS, such as route planning and puzzle solving. 3. **Exercise** (5 minutes) c. Discussion importance of BFS as a fundamental search strategy in AI problem-solving d. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Readinghttps://www.javatpoint.com/breadth-first-search-algorithm 3. Original Paper on AI - https://www.researchgate.net/publication/2727226_The_Nature_of_Breadth-First_Search 4. Homework Explore BFS and explore its applications further. 5. Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 7	Course Name: AI for Managers Topic: Depth-First Search	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Students will understand Depth-First Search (BFS) as a uniformed search strategy in artificial intelligence. b. Understand the mechanics of DFS and its application in solving problems.
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions. - Define the concept of search algorithms in artificial intelligence? - Introduce Depth-First Search (DFS) as one of the fundamental search strategies. - Discuss the characteristics and benefits of DFS. **2. Development (30 minutes)** a. Discuss the mechanics of DFS using visual aids or diagrams. b. Discuss real-world applications of DFS, such as route planning and puzzle solving. 3. **Exercise** (5 minutes) c. Discussion importance of DFS as a fundamental search strategy in AI problem-solving d. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading: https://www.javatpoint.com/depth-first-search-algorithmOriginal Paper on AI - https://www.jetir.org/view?paper=JETIR2207036 3. Homework Explore DFS and explore its applications further. 4. Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 8	Course Name: AI for Managers Topic: Informed (heuristic) search strategies- best-first search.	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Students will understand Informed search strategy in artificial intelligence. b. Understand the mechanics of Best first Search and its application in solving problems.
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions. - Define the concept of Informed search algorithms in artificial intelligence? - Introduce Best-First Search (BFS) as one of the fundamental search strategies. - Discuss the characteristics and benefits of BFS. **2. Development (30 minutes)** a. Discuss the mechanics of BFS using visual aids or diagrams. b. Discuss real-world applications of BFS, such as route planning and puzzle solving. 3. **Exercise** (5 minutes) c. Discussion importance of BFS as a fundamental search strategy in AI problem-solving d. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading: https://www.javatpoint.com/ai-informed-search-algorithms 3. https://www.mygreatlearning.com/blog/best-first-search-bfs/ 4. Original Paper on AI - https://www.irjet.net/archives/V3/i6/IRJET-V3I6111.pdf 5. Homework Explore BFS and explore its applications further. 6. Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 9	Course Name: AI for Managers Topic: Informed (heuristic) search strategies- best-first search- Variants and Applications	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Students will understand Best first search Variants b. Understand the mechanics of Best first Search and its application in solving problems.
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions. - Define the concept of BFS algorithms in artificial intelligence? - Discuss the characteristics and benefits of BFS. **2. Development (30 minutes)** a. Discuss the variants of BFS- Greedy Best First Search and A* Best First Search.. b. Discuss real-world applications of BFS, such as route planning and puzzle solving. 3. **Exercise** (5 minutes) c. Discussion importance of BFS as a fundamental search strategy in AI problem-solving d. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading: https://www.prepbytes.com/blog/artifical-intelligence/best-first-search-in-artificial-intelligence/ 3. https://www.mygreatlearning.com/blog/best-first-search-bfs/ 4. Original Paper on AI - https://www.irjet.net/archives/V3/i6/IRJET-V3I6111.pdf 5. Homework Explore BFS and explore its applications further. 6. Spend 5 minutes to wrap up and consolidate the learnings.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 1	Course Name: AI for Managers Topic: Natural language generation- Detecting Fake News and Cyber-Bullying	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Understand the basic concept of Natural language generation. b. Describe the importance of NLG c. Examples of Detecting Fake News and Cyber-Bullying
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - What do you know about Natural language generation? - Why use Natural language generation? - Discuss Fake news with Natural Language Processing. 2. **Development** (30 minutes) a. Introduce the points of importance of Natural Language Processing. b. Explain the workflow through NLP. c. Discuss some Real-World examples of NLP. 3.**Exercise** (5 minutes) d. Discussion related to Natural language generation. e. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://www.youtube.com/watch?v=wiscimXGqxg 3. Original Paper on AI- https://link.springer.com/article/10.1007/s11042-022-13428-4 4. Homework - Search news articles or reports related to Natural language generation. Spend 5 minutes to wrap up and consolidate the learning's.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 2	Course Name: AI for Managers Topic: Cyber-Bullying	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Understand the basic concept of Natural language generation. b. Describe the importance of Cyber-Bullying c. Examples of Detecting Fake News and Cyber-Bullying
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - What do you know about Cyber-Bullying? - Why use Natural language Processing? - Discuss Cyber-Bullying with Natural Language Processing. 2. **Development** (30 minutes) a. Introduce the points of importance of Cyber-Bullying in AI. b. Explain some common methods used for Cyber-Bullying. c. Discuss some Real-World examples of NLP in Cyber-Bullying. 3.**Exercise** (5 minutes) d. Discussion related to Cyber-Bullying. e. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://www.youtube.com/watch?v=wiscimXGqxg 3. Original Paper on AI- https://link.springer.com/article/10.1007/s11042-022-13428-4 4. Homework Search news articles or reports related to Cyber-Bullying Spend 5 minutes to wrap up and consolidate the learning's.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 3	Course Name: AI for Managers Topic: Social Media Monitoring	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Understand the basic concept of Social Media Monitoring. b. Describe the importance of Social Media Monitoring c. Examples of selecting social media monitoring tools.
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - What do you know about Social Media Monitoring? - How to use SMM to track, measure, evaluate and tune their social media activities? - Discuss about measuring social medial results. 2. **Development** (30 minutes) a. Introduce the points of importance of Social Media Monitoring. b. Identity the appropriate keywords and phrases used in SMM . c. Discuss some Real-World examples of Social Media Monitoring. 3.**Exercise** (5 minutes) d. Discussion related to Social Media Monitoring. e. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://www.youtube.com/watch?v=pakbeYcQ_zc 3. Original Paper on AI- https://www.researchgate.net/publication/368060163_Artificial_Intelligence_in_Social_Media 4. Homework - Search news articles or reports related to Natural language generation. Spend 5 minutes to wrap up and consolidate the learning's.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 4	Course Name: AI for Managers Topic: Automating Customer Service	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Understand the basic concept of Automating Customer Service. b. Describe the importance of Automating Customer Service c. Examples of selecting Automating Customer Service.
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - What do you know about Automating Customer Service? - How to automate customer service in AI? - Discuss about automating the customer service. 2. **Development** (30 minutes) a. Introduce the points of importance of Automating Customer Service. b. Strategies of implementing careful planning and integration with existing systems. . c. Discuss some Real-World examples of Automating Customer Service. 3. **Exercise** (5 minutes) d. Discussion related to Automating Customer Service e. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://www.youtube.com/watch?v=ixhA1XeGDgA 3. Original Paper on AI- https://www.researchgate.net/publication/334315006_The_Role_of_Artificial_Intelligence_on_Enhancing_Customer_Experience 4. Homework Search news articles or reports related to Automating Customer Service Spend 5 minutes to wrap up and consolidate the learning's.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 5	Course Name: AI for Managers Topic: Speech recognition: Use in business	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Understand the basic concept of Speech recognition: Use in business. b. Describe the importance of Speech recognition Used in business c. Examples of Speech recognition applied in business.
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - What do you know about Speech recognition that help in business? - How do you recognize the speech I AI that use in business? - Discuss about Speech recognition that use in business 2. **Development** (30 minutes) a. Introduce the points of importance of Speech recognition that use in business b. Discuss different ways of speech recognition that help in business . c. Discuss some Real-World examples of speech recognition. 3. **Exercise** (5 minutes) d. Discussion related to speech recognition used in business. e. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://www.youtube.com/watch?v=6altVgTOf9s 3. Original Paper on AI- 4. https://www.researchgate.net/publication/276499712_Artificial_Intelligence_for_Speech_Recognition_Based_on_Neural_Networks 5. Homework Search news articles or reports related to Speech recognition used in business. Spend 5 minutes to wrap up and consolidate the learning's.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 6	Course Name: AI for Managers Topic: Intelligent Virtual Agents(chat bot, Alexa, Gyant)	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Understand the basic concept of Intelligent Virtual Agents b. Describe the importance of Intelligent Virtual Agents used in business c. Examples of Intelligent Virtual Agents applied in business.
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - What do you know about Intelligent Virtual Agents? - What are chatbots, voice assistants like Alexa, Google Assistants and Gyants? - Discuss about Intelligent Virtual Agents(chat bot, Alexa, Gyant) that use in business. 2. **Development** (30 minutes) a. Introduce the points of importance of Intelligent Virtual Agents. b. Discuss different types of interfaces used in Intelligent Virtual Agents. c. Discuss some Real-World examples of Intelligent Virtual Agents. 3. **Exercise** (5 minutes) d. Discussion related to Intelligent Virtual Agents used in business. e. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://www.youtube.com/watch?v=6altVgTOf9s 3. Original Paper on AI- https://ieeexplore.ieee.org/document/9894253 4. Homework Search news articles or reports related to Intelligent Virtual Agents. Spend 5 minutes to wrap up and consolidate the learning's.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 7	Course Name: AI for Managers Topic: Robotic process automation	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Understand the basic concept of Robotic process automation. b. Describe the importance of Robotic process automation used in business c. Examples of Robotic process automation.
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - What do you know about Robotic process automation? - Why Robotic process automation is so beneficial to used in business? - Discuss about Robotic process automation, its significance, and why to automate the processes. 2. **Development** (30 minutes) a. Introduce the points of importance of Robotic process automation. b. Discuss the advantaged and disadvantages of using Robotic process automation. c. Discuss some Real-World examples of Robotic process automation 3. **Exercise** (5 minutes) d. Discussion related to Robotic process automation used in business. e. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://www.uipath.com/rpa/robotic-process- automation 3. Original Paper on AI- https://www.sciencedirect.com/science/article/pii/S1877050921001393 4. Homework Search news articles or reports related to Robotic process automation. Spend 5 minutes to wrap up and consolidate the learning's.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 8	Course Name: AI for Managers Topic: ChatGPT	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Understand the basic concept of ChatGPT. b. Describe the importance of ChatGPT. c. Examples of ChatGPT.
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - What do you know about ChatGPT? - Why ChatGPT is so important. - Discuss about ChatGPT, its significance and its benefits. 2. **Development** (30 minutes) a. Introduce the points of importance of ChatGPT. b. Discuss the advantaged and disadvantages of using ChatGPT. c. Discuss some Real-World examples of ChatGPT. 3. **Exercise** (5 minutes) d. Discussion related to ChatGPT. e. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading https://www.youtube.com/watch?v=Nz1MI8nsFTs https://openai.com/blog/chatgpt 3. Original Paper on AI- https://www.sciencedirect.com/science/article/pii/S266734522300024X 4. Homework Search news articles or reports related to ChatGPT. Spend 5 minutes to wrap up and consolidate the learning's.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents

Lesson Plan No. 8	Course Name: AI for Managers Topic: Recent Advancements in Artificial Intelligence Technology: Trends and Implications	Course No.: BCMMI -405(D)

Objectives	At the end of the lesson the student shall be able to: a. Understand and explore recent advancements in artificial intelligence (AI) technology b. Understand benefits of these advancements
Teaching Aids (if any)	a. PPT b. Quiz.
Teaching Development	1. **Introduction** (10 minutes) - Ask questions - What do you understand about artificial intelligence (AI) and its applications in today's world? - Discuss AI technology and discuss their implications. 2. **Development** (30 minutes) a. Discuss unprecedented advancements in artificial. intelligence (AI) technology, reshaping industries, economies, and daily interactions. b. Discuss AI technology architecture in brief. c. Discuss some Societal Impacts d. **Exercise** (5 minutes) e. Discussion related to latest trends. f. Question and answer round related to topic responses and discuss the answers.
Closure	1. Summarize the Lesson Learning Outcomes and get affirmation from students on these. 2. Suggested Reading: https://www.ibm.com/blog/artificial-intelligence-trends/ 3. Original Paper on AI-(PDF) Recent Advancements in Artificial Intelligence Technology: Trends and Implications (researchgate.net) 4. Homework Search news articles or reports related to AI and its latest trends. Spend 5 minutes to wrap up and consolidate the learning's.
Evaluation	1. Reflective Questions (What & Why?). Allow students to answer and discuss. 2. Spend 5 minutes to evaluate student assimilation of the lesson contents