

DegreeLive

COMMUNICATING WITH AI

BBA Semester 5 – Calicut University

DegreeLive

MODULE 1: ARTIFICIAL INTELLIGENCE AND BUSINESS ADMINISTRATION

Basics of Artificial Intelligence (AI)

AI

1. Artificial Intelligence is the ability of machines to perform tasks that normally require human intelligence.
2. Includes learning, reasoning, problem solving and decision making.

Scope

1. Business.
2. Healthcare.
3. Education.
4. Finance.
5. Transportation.

Historical Context and Evolution of AI

Evolution

1. **1950s:** Early AI concepts.
2. **1960s–80s:** Rule-based systems.
3. **1990s–2000s:** Machine learning growth.
4. **Present:** Generative AI, deep learning and automation.

Key Development

1. Increased computing power and data availability.

Applications of AI

In Business

1. Customer service.
2. Marketing.
3. Fraud detection.
4. Demand forecasting.
5. Recruitment.

In Daily Life

1. Voice assistants.
2. Recommendation systems.
3. Navigation apps.
4. Smart devices.

Ethical Considerations in AI

Issues

1. Privacy concerns.
2. Bias and discrimination.
3. Data misuse.
4. Lack of transparency.
5. Job displacement.

Need

1. Fairness.
2. Accountability.
3. Responsible AI usage.

AI in Business Administration

Role of AI

1. Automates routine tasks.
2. Improves decision making.
3. Enhances productivity.

AI and Decision Making

1. Faster analysis.
2. Better predictions.
3. Data-driven decisions.

AI in Marketing

1. Customer targeting.
2. Personalized advertising.
3. Chatbots.

AI in Finance

1. Risk assessment.
2. Fraud detection.
3. Algorithmic trading.

AI in HR

1. Resume screening.
2. Recruitment automation.
3. Employee analytics.

AI in Operations

1. Inventory management.
2. Supply chain optimization.
3. Process automation.

Successful AI Implementations

Examples

1. **Netflix:** Recommendation systems.
2. **Amazon:** Product recommendations and logistics.
3. **Google:** Search and AI assistants.
4. **Tesla:** Autonomous driving features.

Benefits

1. Efficiency.
2. Cost reduction.
3. Better customer experience.

Challenges and Risks of AI

Challenges

1. High implementation cost.
2. Lack of skilled workforce.
3. Data quality issues.
4. Integration difficulties.

Risks

1. Security threats.
2. Ethical concerns.

3. Overdependence on technology.

AI and Business Strategy

AI Integration Strategies

1. Identify business needs.
2. Select suitable AI tools.
3. Train employees.
4. Monitor performance.

Impact on Business Models

1. Automation of services.
2. Personalized customer experiences.
3. New revenue opportunities.

Competitive Edge

1. Faster decisions.
2. Better efficiency.
3. Improved innovation.

MODULE 2: BUSINESS ANALYTICS AND DECISION SUPPORT SYSTEMS

Business Analytics

Meaning

1. Process of analyzing data to support business decisions.

Significance

1. Better planning.
2. Improved performance.
3. Competitive advantage.

Types

1. **Descriptive Analytics:** What happened?
2. **Predictive Analytics:** What may happen?
3. **Prescriptive Analytics:** What should be done?

Tools and Techniques of Business Analytics

Tools

1. Excel.
2. Power BI.
3. Tableau.
4. Python.
5. R.

Techniques

1. Data mining.
2. Forecasting.
3. Statistical analysis.
4. Visualization.

Decision Support System (DSS)

Meaning

1. Computer-based system supporting managerial decisions.

Role

1. Analyzes information.
2. Assists complex decision making.
3. Improves accuracy.

Components of DSS

1. **Data:** Stores business information.
2. **Models:** Analytical tools used for decision making.
3. **User Interface:** Allows interaction between user and system.

Data-Driven Decision Making

Meaning

1. Decisions based on data rather than intuition.

Importance

1. Accuracy.
2. Objectivity.
3. Better outcomes.

Data Collection, Processing and Analysis

Data Collection

1. Gathering information from sources.

Data Processing

1. Organizing and cleaning data.

Data Analysis

1. Extracting useful insights.

Goal

1. Support business decisions.

Implementing Data-Driven Decisions

Steps

1. Collect data.
2. Analyze information.
3. Identify insights.
4. Make decisions.
5. Monitor results.

Benefits

1. Reduced uncertainty.
2. Improved performance.

AI-Powered Business Intelligence

Business Intelligence (BI)

1. Technology used to analyze business information.

AI Integration

1. Automated analysis.
2. Predictive insights.
3. Real-time reporting.

AI Analytics Tools

1. Power BI AI.
2. Tableau AI.

3. Google Analytics.
4. ChatGPT-based analytics tools.

MODULE 3: PROMOTING AND IMPLEMENTING AI IN BUSINESS

Promoting AI Adoption

Meaning

1. Encouraging organizations to use AI technologies.

Strategies

1. Employee awareness programs.
2. Leadership support.
3. Training initiatives.
4. Pilot projects.

Overcoming Resistance

1. Education.
2. Communication.
3. Demonstrating benefits.

Alignment with Business Goals

1. AI should support organizational objectives.

AI Project Management

Meaning

1. Planning and managing AI implementation projects.

Project Planning

1. Define objectives.
2. Select tools.
3. Allocate resources.

Execution

1. Develop solution.
2. Test system.
3. Deploy AI application.

Resource Management

1. Budget.
2. Technology.
3. Skilled personnel.

Monitoring and Evaluation

1. Track performance.
2. Measure outcomes.
3. Improve system.

AI and Entrepreneurship

Opportunities

1. AI software solutions.

2. Automation services.
3. AI consulting.
4. AI-powered platforms.

AI-Driven Startups

1. Businesses built around AI technologies.

Examples

1. Chatbot companies.
2. Predictive analytics firms.
3. AI healthcare solutions.

Challenges and Risks in AI Entrepreneurship

Challenges

1. Funding requirements.
2. Technical complexity.
3. Market competition.

Risks

1. Rapid technological change.
2. Data privacy concerns.
3. Regulatory uncertainty.

Ethical and Social Implications of AI

Ethical Issues

1. Algorithmic bias.
2. Privacy violations.
3. Lack of accountability.

Social Impact

1. Job transformation.
2. Digital divide.
3. Increased automation.

Responsibility of Businesses

1. Ethical AI deployment.
2. Transparency.
3. Data protection.

Future Trends

1. Generative AI.
2. Autonomous systems.
3. Explainable AI.
4. AI regulation.

MODULE 4: COMMUNICATION STRATEGIES FOR AI INTEGRATION

AI Communication

Meaning

1. Interaction between humans and AI systems.

Importance

1. Better user experience.
2. Effective information exchange.
3. Improved adoption of AI tools.

Natural Language Processing (NLP)

Meaning

1. Technology enabling machines to understand and generate human language.

Applications

1. Chatbots.
2. Virtual assistants.
3. Language translation.
4. Sentiment analysis.

Importance

1. Makes AI communication natural and user-friendly.

AI Communication Tools

Chatbots

1. Software that simulates conversation with users.

Virtual Assistants

1. AI assistants performing tasks through voice or text.
2. Examples: Siri, Alexa, Google Assistant.

Other Tools

1. AI help desks.
2. Automated customer support systems.

Tailoring Messages for AI Interfaces

Purpose

1. Improve communication effectiveness.

Strategies

1. Use clear language.
2. Keep instructions specific.
3. Adapt content to platform.

Different Platforms

1. Chatbots.
2. Voice assistants.
3. Mobile apps.
4. Websites.

Effective Dialogues and Personalization

Effective Chatbot Dialogue

1. Clear.

2. Simple.
3. Goal-oriented.

Personalization Techniques

1. User preferences.
2. Past interactions.
3. Behaviour analysis.

Benefits

1. Better engagement.
2. Higher satisfaction.
3. Improved user experience.

Understanding User Intent and Context

User Intent

1. Purpose behind user interaction.
2. Examples: Asking information, Making purchase, Seeking support.

Context

1. Situation surrounding user request.

Importance

1. Improves response accuracy.
2. Enhances communication quality.

Feedback Mechanisms in AI Communication

Feedback Mechanism

1. System collecting user opinions and performance data.

Uses

1. Improve responses.
2. Identify errors.
3. Enhance user satisfaction.

Examples

1. Ratings.
2. Reviews.
3. Surveys.

User-Friendly AI Interfaces

Features

1. Simple design.
2. Easy navigation.
3. Quick responses.
4. Accessibility.

Benefits

1. Better usability.
2. Improved engagement.
3. Increased adoption of AI systems.

Goal

1. Seamless and effective interaction between users and AI systems.