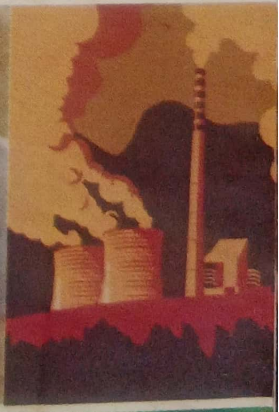




# ENVIRONMENTAL EDUCATION



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**Dr. C. S. PATIL**

**PRABHU M. BIRADAR**

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# ARTIFICIAL INTELLIGENCE

SKILL ENHANCEMENT COURSE



As per NEP Syllabus - FOR B.A./B.Com./B.Sc/B.C.A./B.B.A.Third / Fourth Semester

Mr. Sharanabasappa Raikoti  
Mr. Shashikiran M. Hanchinal



**S. S. Bhavikatti Prakashana**  
Main Road - Kalaburagi - 585 101



## SYLLABUS BASED ON NEP 2020

B.A., B.Com., B.Sc., BCA., BBA., and all other Degree Programmes of III<sup>rd</sup>, 1.1  
 IV<sup>th</sup> Semester offered by Gulbarga University Kalaburagi, Raichur University, 1.1.1  
 Raichur, Karnataka State Akkamahadevi Women's University Vijayapura, Raichur, 1.1.2  
 Channamma University Belgavi and other universities of Karnataka state. 1.1.3

## ARTIFICIAL INTELLIGENCE

Course Code CASEC-1	Course Title : Artificial Intelligence	1.1.4
Course Credits: 02	Hours/Week: 01 Hr. Theory & 02 Hrs Practical	1.1.5 1.1.6
Total Contact Hours: 13T+26P	Formative Assessment Marks: 20	1.1.7 1.1.8
Exam Marks: 30	Exam Duration: 02	1.1.9

### Skill Enhancement Course-2

**UNIT-I: Overview of AI:** Definition of Artificial Intelligence, Philosophy of AI, 1.1.10  
 Goals of AI, Elements of AI system, Programming a computer without and with 1.1.11  
 AI, AI Techniques, History of AI. 1.1.12

**Intelligent Systems:** Definition and understanding of Intelligence, Types of 1.1.13  
 Intelligence, Human Intelligence v/s Machine Intelligence. 1.1.14  
 1.1.15  
 1.1.16  
 1.1.17

**UNIT-II: AI Applications:** Virtual assistance, Travel and Navigation, Education, 1.1.18  
 and Healthcare, Optical character recognition, E-commerce and mobile payment 1.2  
 systems, Image based search and photo editing. 1.2.1

**AI Examples in daily life:** Installation of AI apps and instructions to use AI apps 1.2.2

**UNIT-III: Robotics:** Introduction to Robotics, Difference in Robot System and 1.2.3  
 Other AI Program, Components of a Robot. 1.2.4  
 1.2.5  
 1.2.6  
 1.2.7  
 1.3

## CONTENTS

### UNIT-I: Overview of Artificial Intelligence

- 1.1 Introduction to Artificial Intelligence
  - 1.1.1 Meaning and Definition of AI
  - 1.1.2 Types of Artificial Intelligence (AI)
  - 1.1.3 What Contributes to AI?
  - 1.1.4 Philosophy of AI
  - 1.1.5 History of Artificial Intelligence
  - 1.1.6 Need of Artificial Intelligence in Business
  - 1.1.7 Characteristics / Features of Artificial Intelligence
  - 1.1.8 Goals of Artificial Intelligence
  - 1.1.9 Key Challenges of AI
  - 1.1.10 Elements of AI System
  - 1.1.11 Programming a Computer Without and With AI
  - 1.1.12 Differences between Programming without AI and Programming with AI
  - 1.1.13 Uses of AI in different Areas
  - 1.1.14 Domains of Artificial Intelligence
  - 1.1.15 Advantages of AI
  - 1.1.16 Disadvantages of AI
  - 1.1.17 What is AI Technique?
  - 1.1.18 AI Techniques
- 1.2 Intelligent Systems
  - 1.2.1 Understanding of Intelligence
  - 1.2.2 Types of Intelligence
  - 1.2.3 Definition of Intelligence system
  - 1.2.4 Challenges in intelligent systems
  - 1.2.5 Applications of intelligent systems
  - 1.2.6 Difference between Human Intelligence and Machine Intelligence
  - 1.2.7 Tabular form of Human Intelligence V/S Machine Intelligence.
- 1.3 Exercise



## **UNIT-II: AI Applications**

### **2.1 Applications of Artificial Intelligence**

- 2.1.1 Virtual assistance**
- 2.1.2 Travel industry**
- 2.1.3 Navigation**
- 2.1.4 Education**
- 2.1.5 Healthcare**
- 2.1.6 Optical Character Recognition**
- 2.1.7 E-Commerce**
- 2.1.8 Mobile Payment Systems**
- 2.1.9 Image based Search**
- 2.1.10 Photo editing**
- 2.2 AI Examples in daily life**
- 2.3 AI Apps**
  - 2.3.1 Installation of AI Apps**
  - 2.3.2 Instructions to use AI Apps**
  - 2.3.3 AI Technologies for Mobile Apps**
- 2.4 Exercise**

## **UNIT-III: Robotics**

### **3.1 Robotics**

- 3.1.1 Introduction**
- 3.1.2 Meaning and Definition of Robotics**
- 3.1.3 Reasons to use Robotics**
- 3.1.4 Components of Robots**
- 3.1.5 Robot Locomotion**
- 3.1.6 Types of Robots**
- 3.1.7 Advantages and Disadvantages of Robotics**
- 3.1.8 Application areas of Robotics**
- 3.1.9 Challenges of Robotics**
- 3.1.10 Robot System and Other AI Program**
- 3.1.11 Applications of Robots in our daily life**
- 3.2 Exercise**

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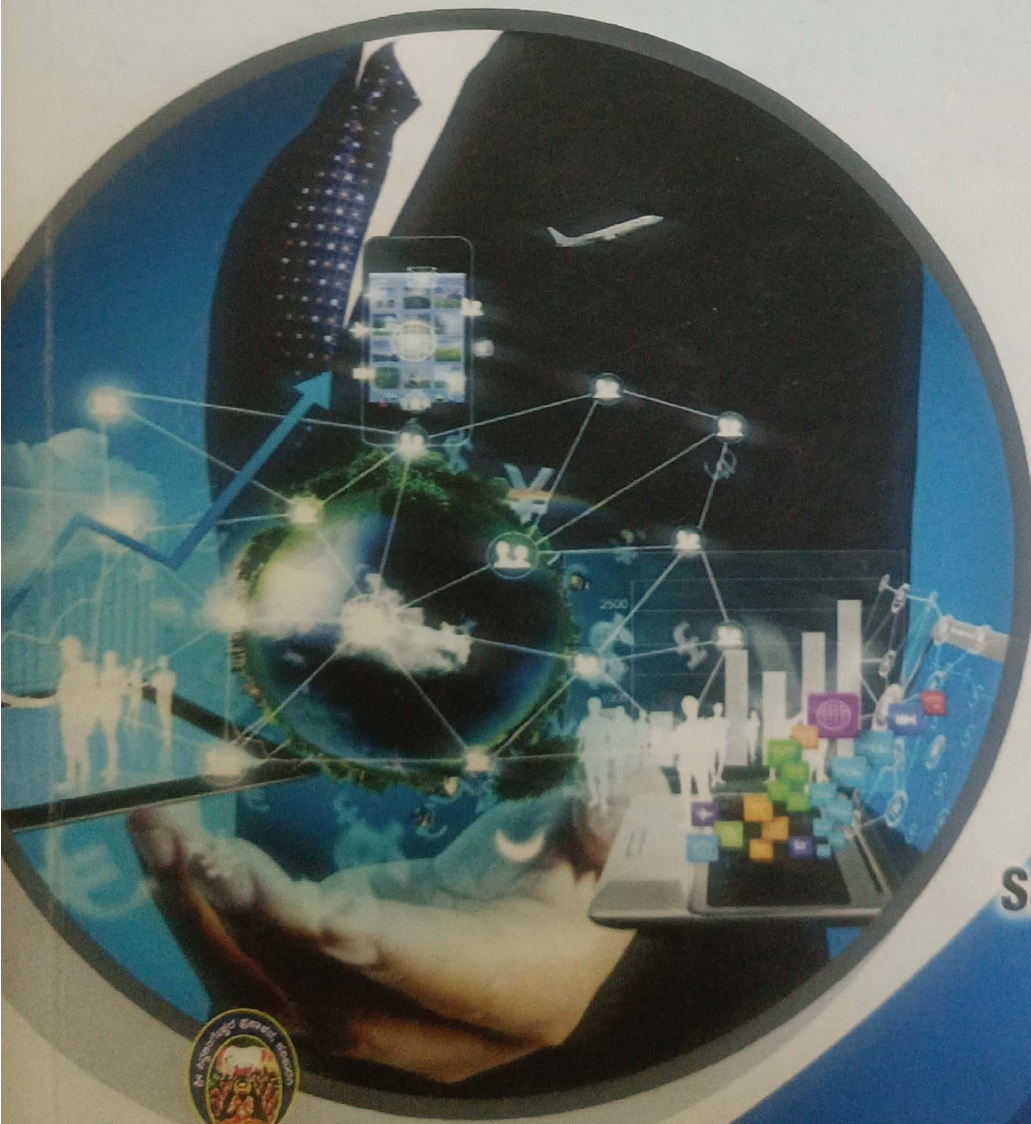


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- iii. Internet of Things (IoT) and Industrial Internet of Things (IIoT)
- iv. Cloud computing and its service models
- v. Cyber Security and Types of cyber attack

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- ii. Big Data Analytics
- iii. Internet of Things
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- iii. Collaboration and Teamwork Skills
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