**DAILY ASSESSMENT FORMAT**

|  |  |  |  |
| --- | --- | --- | --- |
| **Date:** | **22-05-2020** | **Name:** | **Akshata Ningappa Madiwalar** |
| **Course:** | **TCS** | **USN:** | **4AL17EC046** |
| **Topic:** | **Understand Artificial**  **Intelligence-Part-1, Part-2,**  **Assessment** | **Semester & Section:** | **6th sem & 'A' sec** |
| **Github Repository:** | **Akshata-Course** |  |  |

|  |
| --- |
| **FORENOON SESSION DETAILS**  Report –  Understanding Artificial IntelligenceGoals of Artificial Intelligence:  ● Introduce you to the Yield of AI ● To Explain the Challenges in Building on Intelligent System ● To Explain the 1. Key Paradigms 2. Core Techniques  3. Algorithms ● After this Course you will be able to 1. Formulate Problems as State Space Search,Problems and Efficiently Solve Them 2. Write Game Playing Programs 3. Use Machine Learning to Find Patterns to Data 4. Building Expert SystemsIntroduction :● Definition of AI● Example Systems● Approaches to AI● Brief HistoryWhat is AI ?● It is Concerned with the Design of Intelligence in an Artificial Device.● Term Coined by Mc.Carthy in 1956● Artificial Intelligence is Concerned with the Design of Intelligence in an Artificial Device  What is Intelligence ?● Behave as Intelligently as Humans● Behave in the Best Possible Manner● Thinking● Acting  The Turing Test: ResultsIt is Interrogator Cannot Reliably Distinguish the Human from the Computer, Then the Computerdoes Possess Intelligence  Typical AI Problems :● Intelligent Entities need to be able to do both “Mundane “and” Expert” Tasks. ❏ Planning Route,Activity ❏ Recognizing People,Objects ❏ Communicating ❏ Navigating Around Obstacles on the Street● Expert Tasks : ❏ Medical Diagnosis ❏ Mathematical Problem Solving  Intelligence Behaviour● Perception● Reasoning● learning● Understanding Language● Solving ProblemsApplications:● Computer Vision● Image Recognition● Robotics● Language Processing● Speech Processing  Internet Agents :● Monitor user Tasks● Seeks Needed Information● Learn Which Information is Most Useful  AI Topics● Core Areas● Perception● Uncertainty● General Algorithms● Applications● Decision Theory Reasoning with Symbolic Data  Limits of AI Today● Today Successful AI System  ❏ Operate in well-Defined Domains ❏ Employ Narrow,Specialized Knowledge● Commonsense Knowledge ❏ Needed in Complex,Opens Ended Worlds ❏ Understand Unconstrained Natural Language  What can AI Systems do ?● Computer Vision :Face Recognition● Robotics : Autonomous Automobile● Natural Language Processing :Simple Machine Translation● Expert Systems : Medical Diagnosis in a Narrow Domain● Spoken Language : 1000 Words Continuous Speech● Planning and Scheduling : Hubble Telescope Experiments● Learning● Gaming : Grand Master Level in Chess(World Champion),Checkers,etc..  What AI Cannot do ?  **● Understand Natural Language Robustly● Read and Understand article in a Newspaper● Surf the Web● Learn a Natural Language** |
|  |
|  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Date:** | **22-05-2020** | **Name:** | **Akshata Ningappa Madiwalar** | |
| **Course:** | **Python** | **USN:** | **4AL17EC046** | |
| **Topic:** | **Create Web Maps with Python and**  **Folium** | **Semester & Section:** | **6th sem & 'A' section** | |
| **AFTERNOON SESSION DETAILS** | | | |
| Numpy What is Numpy? Numpy is the fundamental package for scientific computing in Python.  It is a Python library that provides a multidimensional array object, various derived objects (such as masked arrays and matrices), and an assortment of routines for fast operations on arrays, including mathematical, logical, shape manipulation, sorting, selecting, I/O, discrete  Fourier transforms, basic linear algebra, basic statistical operations, random simulation and much more. At the core of the Numpy package, is the ndarray object. This encapsulates n-dimensional arrays of homogeneous data types, with many operations being performed in compiled code for performance. An image containing n x n pixels can be represented in list format which contains pixel values. But for images having higher number of pixels, list will consume more memory to store pixel values, so numpy is the efficient way to access and store pixel values of the image. Converting images into numpy array using opencv library. cv2.imread () and cv2.imwrite () functions are used to read and write image.png file respectively. The value ‘0’ is passed when read operation is performed on the image to give gray scalepixel values of the image. The value ‘1’ is passed when read operation is performed on the image to give Blue, Green, Red (BGR) pixel values of the image respectively. Indexing and Slicing of numpy arrays. Accessing numpy arrays by rows, columns and also by each element of the array. Stacking (concatenate) and splitting of numpy arrays both horizontally and vertically | | | |
|  | | | |