



Jansons Institute of Technology

Karumathampatti, Coimbatore – 641 659
Approved by AICTE and Affiliated to Anna University
An ISO 9001:2015 certified institution

Department of Computer Science and Engineering
Industry Readiness Course – Syllabus

Emerging Trends in Ontology and Data Science using Deep Learning 2020 - 2021 ODD Semester

Course Objectives:

- To understand the basic theory underlying deep learning.
- To understand a range of Data science using deep learning along with their strengths and weaknesses.
- To understand Ontological Modeling can help the cognitive AI or deep learning model
- To be able to formulate Data science using deep learning problems corresponding to different applications

Course Outcomes:

- To analyze STTP provided inputs to the participants on various research domains which will enhance their ability to work in interdisciplinary areas.
- Appreciate the importance of visualization in the data analytics solution
- Apply structured thinking to unstructured problems
- To gain their research ability and also enhance their confidence to contribute in Seminars / Conferences / Workshops, as Resource Persons.

Syllabus:

Module 1 Introduction to Data Mining & Data Mining using Weka and Orange & 'Ontology and Automation' 10

Data mining applications - Data Mining Tasks - Demonstration of sample dataset - Process of Data Classification - Classification algorithms - Demonstration of Weka and Orange tool - AI task classification - AI Subdomains - Ontology tools - Demonstration on Ontology and automation.

Module 2 Bigdata Analytic & Machine Learning for Industrial Consultancy & Data Science – The Emerging Trend 10

Data transmission problem - Interference problem - Duty Cycle Problem - Demonstration on Bigdata Tools - AI Tools and Technologies - Statistics w.r.t AI - Predictions and Machine Learning for data - IoT integration in AI - AI Tool demonstration - Era of Machine Learning - Various applications of Machine learning - Convolution Layers - Demonstration of CNN - Google trend - AI vs Machine Learning vs Data Science - Data Science trends - Demonstration of Numpy, Python -

Various Use cases of Bigdata-Industry oriented applications of Bigdata-Challenges of Bigdata domain-Demonstration of Google Colab tool-Tools for NLP-Advantages of NLP-Building NLP pipeline-Demonstration of NLP Tool-Types of Machine Learning-Notations used in reinforcement learning-Max pooling-Demonstration on Deep learning tools-Deep Learning - R Packages-Research Challenges in Deep Learning-Demonstration on Deep Learning tool-Use of Colab for game application-Use-cases related to Deep Learning

Course Designed By



Dr E S Shamila
Professor / CSE

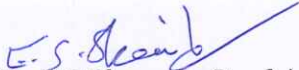
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