

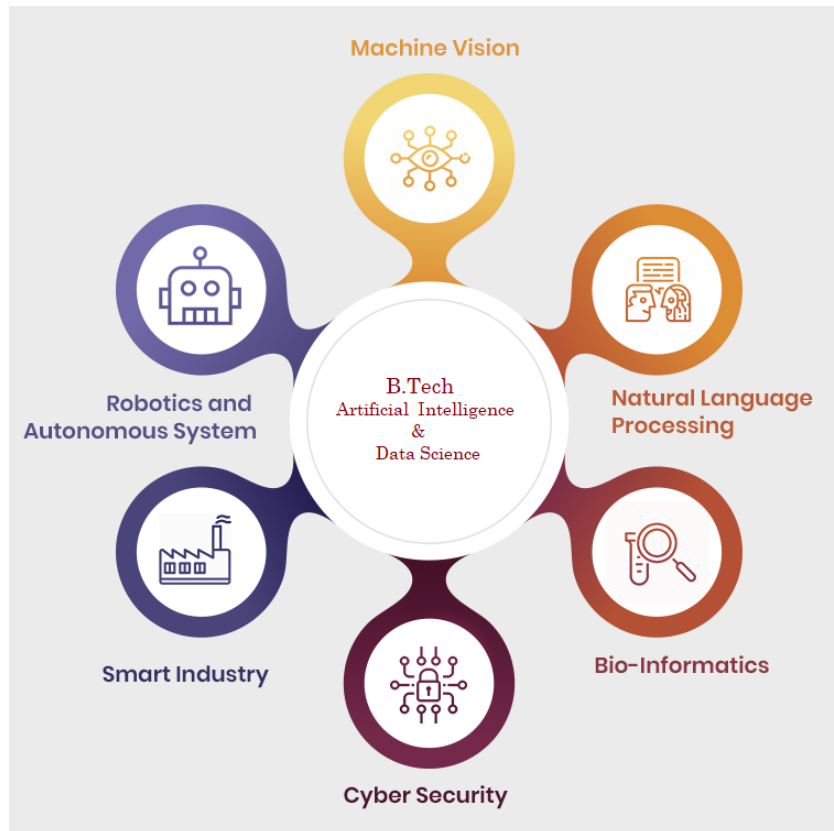


B.Tech - ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

GUDLAVALLERU ENGINEERING COLLEGE, GUDLAVALLERU

THEME OF THE COURSE

Artificial Intelligence and Data Science Course prepare students with the skills to perform intelligent data analysis which is a key component in numerous real-world applications. This course aims at providing not only the core technologies such as artificial intelligence, data mining and data modelling but also gives intensive inputs in areas of machine learning and big data analytics. The major focus of this programme is to equip students with statistical, mathematical reasoning, machine learning, knowledge discovery and visualization skills.



SAMPLE CORE SUBJECTS IN AI & DS COURSE

Math and Statistics:

- ◆ Linear Algebra
- ◆ Differential and Integral Calculus
- ◆ Matrices and Linear Transformations
- ◆ Probability Theory

Computer Science:

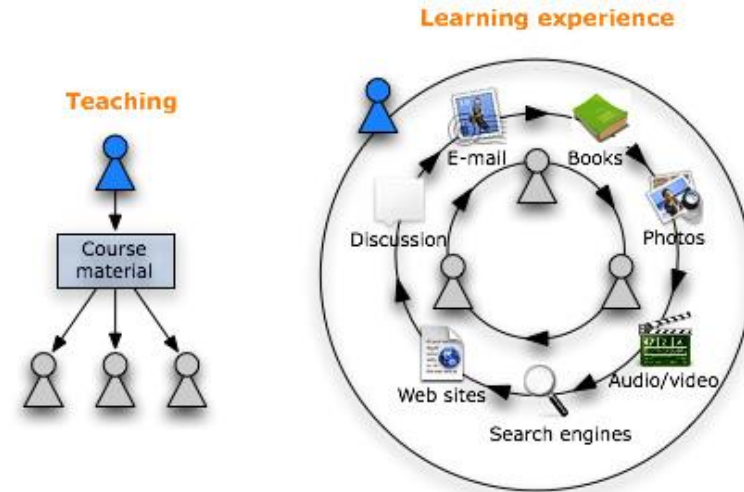
- ◆ Computer Systems and Programming
- ◆ Data Science Essentials
- ◆ Parallel and Sequential Data Structures and Algorithms
- ◆ Logic Programming and Computational Logic

Artificial Intelligence and Data Science:

- ◆ Machine Learning, Deep Learning, and Reinforcement Learning
- ◆ Information Theory, Inference, and Learning Algorithms
- ◆ Neural Networks for Machine Learning
- ◆ AI Representation and Problem-Solving
- ◆ Natural Language Processing
- ◆ Computer Vision and Image Analysis

COURSE HIGHLIGHTS

- Student Centric Learning Approach
- Industry attachments: Seminars/ Conferences/ workshops/ Industry Visits/ guest lectures
- Internships: Acquire ability to design Intelligent solutions in variety of domains and business applications.
- Gain Hands on experience with machine learning components, intelligent reasoning and various other AI tools and Technologies.



CAREER PATH YOU CAN CHOOSE AFTER THE COURSE

The field of Artificial Intelligence and Data Science has a tremendous career outlook with high pay, a growing number of intriguing sub-fields and the ability to work with life-changing technology daily. Specific jobs that use AI & Data Science are

- Business Analyst
- Data Analyst
- Intelligence Analyst
- Data Manager
- Information Security Analyst
- Risk Analyst
- Robotics

WHO WILL CAPTURE THE VALUE OF AI & DS



6	Healthcare	Finance & Insurance	Tech & Telco	Agriculture	Automotive	Legal & Compliance	Industrials,	Retail, media, other
Corporates	NHS, gsk	usbank, J.P.Morgan	Microsoft, Alibaba.com, Google, Facebook, Amazon, Baidu	MONSANTO, CONAGRA	Ford, GM	ALLEN & OVERY, WHITE & CASE	GENERAL ROBOTICS, GE, BOEING	Disney, Target
5	Healthcare & Life Sciences	Finance & Insurance	Agriculture	Automotive	Legal & Compliance	Industrials, Robotics & Logistics		
Industry solutions	zymergen, TEMPUS, BenevolentAI, BABYLON, DeepMind	robinhood, affirm, NUMERA1	prospera, BENSON-HILL, FarmersEdge	drive.ai, ZO OX, WAYMO	onfido, Luminance, casetext, ROSS	braincorp, deepvu, anki, Vekia, LOBLITY		
4	IBM, Oracle, SAP	Customer Management	HR & Talent	Marketing & Sales	RPA, Other	Intelligence & Analytics	Cybersecurity	Tools
Enterprise solutions	DigitalGenius, ACTIONIQ	glint, workey	sense, ahniti	blueprism, UiPath	Digital Reasoning, Dataminr	DARKTRACE, CYLANCE	PETUUM, tamr	
3	Microsoft, Google, IBM, Amazon, Facebook, Baidu	Conversational agents**	Speech	NLP & Semantics	Core Algorithms	Vision		
Models & algorithms	Dialogflow, SoundHound, LEXALYTICS	DeepMind, Microsoft, Numenta, clarifai						
2	Google Cloud Platform	amazon web services™	Microsoft Azure	Alibaba Cloud	IBM Cloud			
Platform & infrastructure								
1	nVIDIA, QUALCOMM	SAMSUNG, amazon, Google, IBM, Apple	Microsoft, intel, AMD	GRAPHCORE				
Chips								