LAKIREDDY BALIREDDY COLLEGE OF ENGINEERING

* MYLAVARAM *

TRUTH ALWAYS TRIUMPHS

HARD WORK PAYS

Estd: 1998

Department of AI&DS

NEWS LETTER

Issue 3

JUL-SEP 2022

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

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DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

About the Department: B. Tech in Artificial Intelligence and Data Science is a blend of Artificial Intelligence and Data Science in the domain of Computer Science and Engineering. This program enables the students to build intelligent machines / bots, software, or applications with a combination of state of the art artificial intelligence/ machine learning, analytics, and visualization tools / technologies.

Artificial Intelligence is a well-established exciting specialization of computer science concerned with methods to make computers or machines more intelligent. It leads to learning from experience, deriving implicit knowledge and predict the future course of actions that people can follow.

Many successful applications based on machine learning exist already, including systems that analyze past sales data to predict customer behavior (financial management), recognize faces or spoken speech, optimize robot behavior so that a task can be completed using minimum resources, and extract knowledge from data.

This programme discusses AI methods based in different fields, including neural networks, Machine Learning, Deep Learning, Data Analytics and Data Visualization, in order to present a unified treatment of Societal problems and solutions.

Salient Features of the Department:

1) **Emphasis** on hands-on training using Real-world examples and projects that help students apply the skills they learned as part of laboratory sessions.
2) **Humanities** and Social sciences are an integral part of the curriculum, particularly covering ethical aspects of AI.
3) **Interacting** with experienced industry practitioners to offer context.
4) **Building research** skills through Project based learning along with undergraduate thesis.
5) Strong and Eminent **certified faculty** support both from industry and Academia through various forums such as Hackathons/ workshops
6) State of the Equipment and **Laboratories**
7) Building an **echo system** to adopt open source tools/ technologies.

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To be renowned department that imparts research and learning skills to students in the domain of artificial intelligence and data science.

1) To Impart Strong foundation of statistics for understanding data science
2) To establish state of the art computational facilities and tools to develop innovative and intelligent solutions.
3) To collaborate with renowned institutions for multidisciplinary research and development
4) To inculcate the graduates with lifelong learning skills in developing intelligent technology based solutions to societal problems.

Program Outcomes (POs):

PO1 - Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2 - Problem Analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3 - Design / Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4 - Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5 - Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6 - The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7 - Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

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PO8 - Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 - Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10 - Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11 - Project Management and Finance: Demonstrate knowledge and understanding of the ring and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12 - Life-long Learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Educational Objectives (PEOs):

- ✓ **PEO1:** To develop intelligent systems with a cutting-edge combination of machine learning, analytics, and visualization technologies.
- ✓ **PEO2:** To adapt the new technologies and develop the solutions to real world problems with ethical practices thereby contributing to the society.
- ✓ **PEO3:** To continue education for fulfilling their long-term goals and achieve satisfaction as successful professionals in industry, academia, and research.

Program Specific Outcomes (PSOs):

- ✓ **PSO1:** To apply the fundamental engineering knowledge, computational principles, and methods for extracting knowledge from data to identify, formulate and solve real time problems.
- ✓ **PSO2:** To develop multidisciplinary projects with advanced technologies and tools to address social and environmental issues.
- ✓ **PSO3:** To provide a concrete foundation and enrich their abilities for Employment and Higher studies in Artificial Intelligence and Data science with ethical values.

HoD MESSAGE

Dr.O.Ram Devi
Professor & HoD of AI&DS

B. Tech in Artificial Intelligence and Data Science is a blend of Artificial Intelligence and Data Science in the domain of Computer Science and Engineering. This program enables the students to build intelligent machines / bots, software, or applications with a combination of state of the art artificial intelligence/ machine learning, analytics and visualization tools / technologies. In AI&DS the students will be able to Understand foundational topics in Computer Science, Artificial Intelligence, Machine Learning and Data Science. Understand the impact of AI based solutions in an economic, societal, and environment context. Model and analyze a variety of problems using appropriate mathematical/computational concepts of Data Science. Design and implement intelligent algorithms for solving societal problems by using concepts of AI. Apply and develop AI algorithms to transform large amount of data into intelligent decisions and/or behavior.

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DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

FACULTY LIST

S.No	Name	Designation	Qualifications
1	Dr.O.Rama Devi	Professor & Head of the Department	M.Tech.,PhD.,
2	Mrs.T.Rajarajeswari	Sr.Asst.Professor	M.Tech.,(PhD).,
3	Mr.K.Sudhakar	Sr.Asst.Professor	M.Tech., MS(Australia)., (PhD).,
4	Mr.S.Siva Rama Krishna	Sr.Asst.Professor	M.Tech.,(PhD).,
5	Mr. P. Gandhi Prakash	Sr.Asst.Professor	M.Tech.,
6	Mr.K.Venkatesh	Sr.Asst.Professor	M.Tech.,(PhD).,
7	Mr. B. Rajendra Prasad	Sr.Asst.Professor	M.Tech.,(PhD).,
8	Mr.V.Chandra Kumar	Assistant Professor	M.Tech.,(PhD).,
9	Mr. P. Sunil Kumar	Assistant Professor	M.Tech.
10	Mrs. K. Vinaya Sree Bai	Assistant Professor	M.Tech.
11	Mrs. V. Sowjanya	Assistant Professor	M.Tech.,(PhD).,

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

EVENTS ORGANIZED BY THE DEPARTMENT

✓   One Day Guest Lecture on "Machine Learning and its Applications" - 24-09-2022

Dr E Srinivasa Reddy, Dean Academics Acharya Nagarjuna University, Guntur resource person for the Guest Lecture on "Machine Learning and its Applications" on 24th September 2022

✓   Two Day Workshop on Network Simulation Tools and Techniques from 02/09/2022 to 03/09/2022

Honoring the guest Dr E Suresgh garu on two Day Workshop on Network Simulation Tools and Techniques 2–3 September-2022.
Dr.O.Rama Devi,Prof & HoD of AI&DS, Dr D.Veeraiah, Prof & HoD of CSE, Dr M.Srinivasa Rao, Dean Academics

✓ **Guest Lecture on Fundamental of Data Science and Machine Learning - 20/08/2022**

Dr.O.Rama Devi Prof&HoD of AI&DS speech on the Guest Lecture. Dr.Snehal B Shinde the Resource Person.

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

EVENTS ATTENDED BY FACULTY

S No	Name of the Faculty	Name of the Workshop/Event/FDP	Name of The Organization/ Institute & Place	Date
1	DR.O.RAMA DEVI	FDP ON "NEURAL COMPUTING FOR ML TECHNIQUES"	MEITY,NIT WARANGAL	8-08-2022 to 16-08-2022
2	V.CHANDRA KUMAR	"EXPERT TALK ON IPR"	IQAC-LBRCE	08-08-2022
3	V.SOWJANYA	ENERGY HARVESTING AND STORAGE MATERIALS & DEVICES	LBRCE	12-09-2022 to 16-09-2022
4	V.SOWJANYA	FDP ON "AI &ROBOTIC PROCESS AUTOMATION"	KLU	12-09-2022 to 17-09-2022
5	K.SUDHAKAR	FUNDAMENTALS OF DIGITAL MARKETING	FUTURE SKILLS PRIME	14-09-2022 to 23-11-2-22
6	B.RAJENDRA PRASAD	"EXPERT TALK ON IPR"	IQAC-LBRCE	08-08-2022
7	B.RAJENDRA PRASAD	WORK SHOP ON"DESIGNING AND MODELING OF IOT,AI & ML SYSTEMS.	AICTE	01-08-2022 to 05-08-2022
8	B.RAJENDRA PRASAD	FDP ON"LATEST TRENDS IN AI,ML AND IOT"	MVSEC	22-08-2022 to 27-08-2022
9	P.GANDHI PRAKASH	"EXPERT TALK ON IPR"	IQAC-LBRCE	08-08-2022
10	P.GANDHI PRAKASH	WEBINAR ON"AZADI KA AMRIT MAHOTSAV"	IERP	15-08-2022
11	K.VENKATESH	"EXPERT TALK ON IPR"	IQAC-LBRCE	08-08-2022
12	K.VENKATESH	FDP ON "AI &ROBOTIC PROCESS AUTOMATION"	KLU	12-09-2022 to 17-09-2022
13	K.VENKATESH	FDP ON "NEURAL COMPUTING FOR ML TECHNIQUES"	MEITY,NIT WARANGAL	8-08-2022 to 16-08-2022
14	K.VINAYA SREE BAI	ONLINE COURSE 'INTRODUCTION TO AI'	GREAT LEARNING ACADEMY	August-2022
15	K.VINAYA SREE BAI	FDP ON "AI &ROBOTIC PROCESS AUTOMATION"	KLU	12-09-2022 to 17-09-2022
16	P.SUNIL KUMAR	FDP ON "AI &ROBOTIC PROCESS AUTOMATION"	KLU	12-09-2022 to 17-09-2022
17	P.SUNIL KUMAR	"EXPERT TALK ON IPR"	IQAC-LBRCE	08-08-2022
18	T.SRIRAJARAJESWARI	FDP ON "AI &ROBOTIC PROCESS AUTOMATION"	KLU	12-09-2022 to 17-09-2022

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

FACULTY ACHIEVEMENTS

S No	Name of the Faculty	Name Of the Workshop/Event/FDP	Name of The Organization/ Institute & Place	Date
1	V.CHANDRA KUMAR	THE JOY OF COMPUTING USING PYTHON	NPTEL	JULY-OCT 2022
2	Dr.O.RAMA DEVI	BEST RESEARCHER AWARD	ARC	31-07-2022
3	Dr.O.RAMA DEVI	UTTAMA ADYAPIKA AWARD	BEEA	2021-22
4	Dr.O.RAMA DEVI	BEST WOMEN RESEARCHER AWARD	IJIEMR-ELSEVIER SSRN RESEARCH AWARDS	10-09-2022
5	P.GANDHI PRAKASH	BEST TEACHER AWARD	LBRCE	2021-22

STUDENTS ACHIEVEMENTS

S.No	Roll Number	Name Of The Student	Name Of The Event	Name of The Organization/ Institute	Award/ Reward	Date
1	20761A5449, 20761A5459, 20761A5428, 20761A5441	P.SAI KRISHNA TEAM	NATIONAL LEVEL"DATA SCIENCE HACKATHON"	APSSDC	I-PRIZE	28 SEP 2022
2	20761A5403 20761A5402 20761A5435	A.PURNIMA A UMA MAHESWARI M RADHIKA	ANNUAL TRAINING CAMP	SRIVISWA SANTHI ENGLISH MEDIUM HIGH SCHOOL	NCC-B CERTFITICATE	26 SEP 2022 to 03 OCT 2022

DEPARTMENT CLUBS

SPIRT OF AI:

Objectives of the Club:

- ✓ To create a platform to encourage the hidden talents of the students.
- ✓ To improve the technical and non-technical skills of the students.
- ✓ To Share the knowledge among the members they acquired by reading books.

Membership and Procedure for Enrollment:

- ✓ All the students of the department are members of the Departmental Association.
- ✓ Membership is valid throughout their graduation for 4 years.
- ✓ Membership fee will be decided by the managing committee.

Termination of Membership: Faculty Managing Committee has reserved right to terminate membership of any student member.

Managing Committee - Powers and Duties of Managing Committee:

- ✓ Student's committee comprises of President, Vice President Ministers and Event Managers.
- ✓ Head of the department will be the Honorary President
- ✓ Faculty Advisers has privilege to appoint President, Vice president, Ministers and Event Managers.
- ✓ Honorary President / Faculty Advisers has reserved right to Schedule or Cancel any event to be organized in the department under the Association banner.

Meeting of the Managing Committee:

- ✓ Meetings will be conducted at regular intervals.
- ✓ Faculty Advisers will schedule the meeting to plan/design the events, review the events conducted and to grant funds for future events etc.
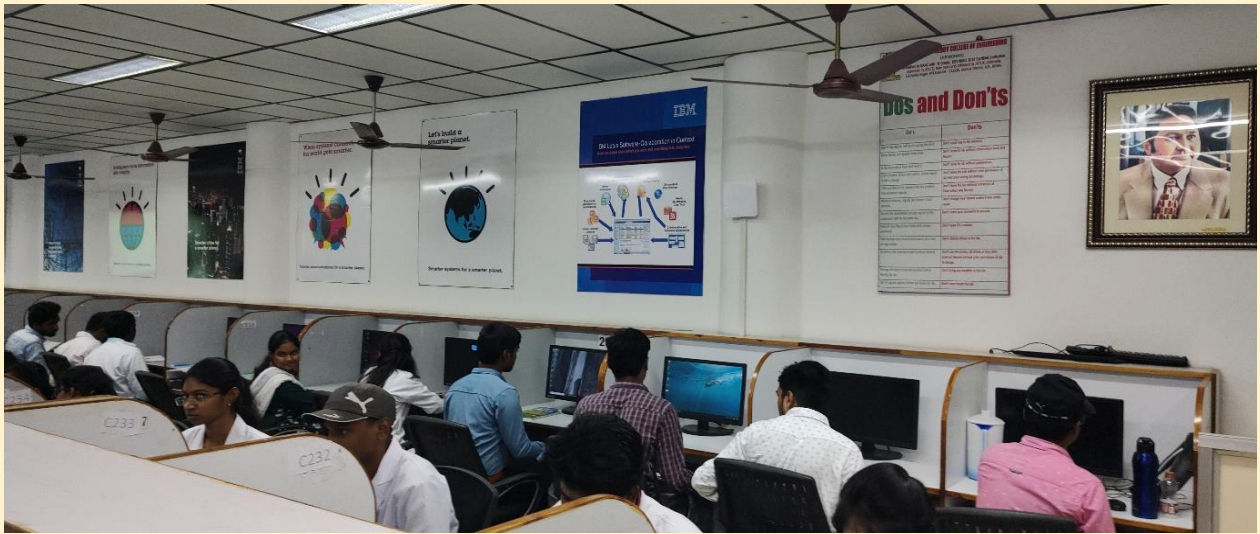
Programming Labs:
Systems with i5 and above capacity
Intel Processors
Speed 3GHz
More than 1TB
8GB RAM

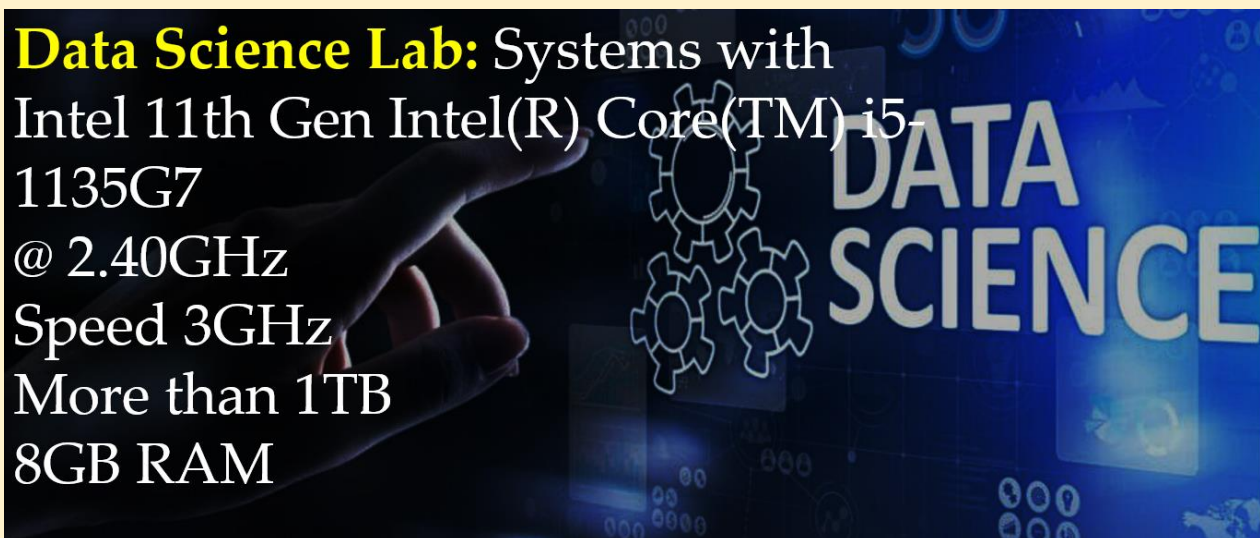## Data Science Lab: Systems with Intel 11th Gen Intel(R) Core(TM) i5-1135G7
@ 2.40GHz
Speed 3GHz
More than 1TB
8GB RAM

3 Year NCC Students Ms A Purnima[20761A5403], Ms A Uma Maheswari[20761A5402], Ms M Radhika[20761A5435] for achieving the NCC-B Certificate during the "Annual Training Camp" at

Sri Viswasanthi E. M. High School, Vuyyuru during 26th Sep 2022 & 03 Oct 2022
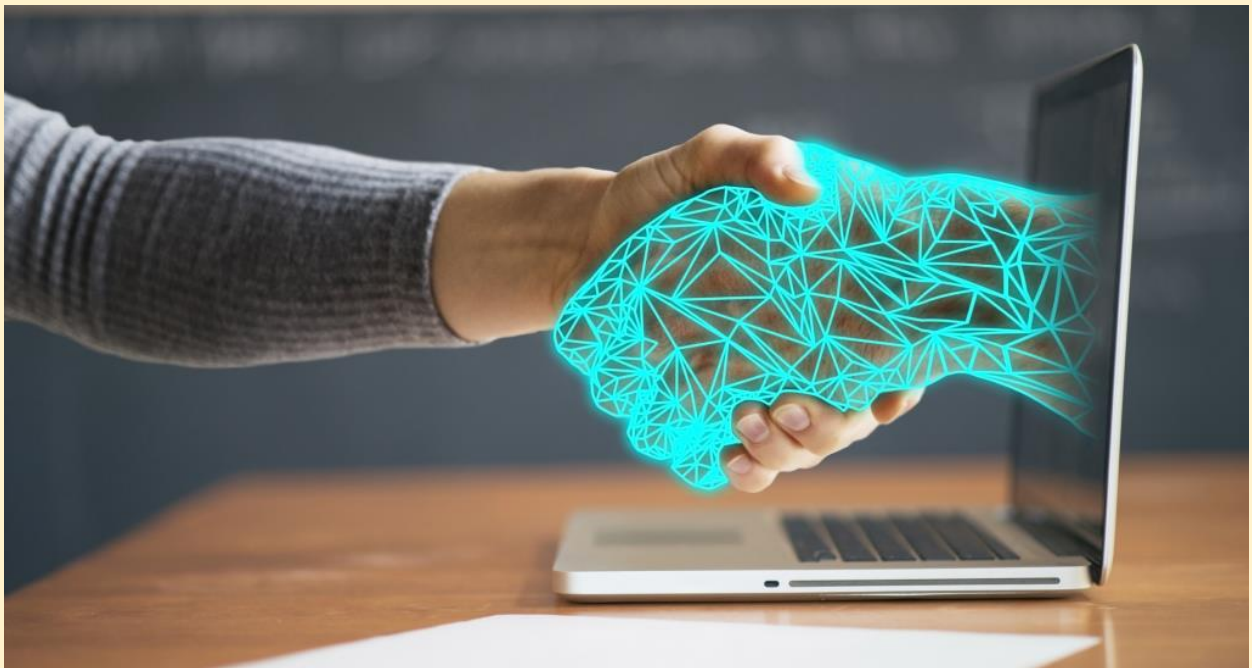
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