CENTRE OF EXCELLENCE
AIML /DATA SCIENCE

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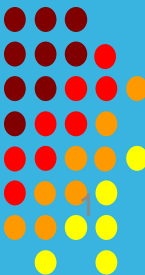
A brief profile on.........

The Center of Excellence for AIML/Data Science is dedicated to advancing the frontiers of artificial intelligence and data science through cutting-edge research, innovative applications, and transformative solutions. Our mission is to harness the power of machine learning and data analytics to address complex challenges across diverse domains, driving positive impact and empowering organizations to thrive in the era of intelligent technology.
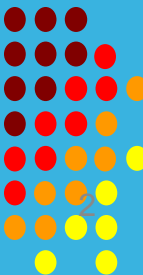
VISION-MISSION OF INSTITUTE

Vision of Institute

To be an outstanding institution in the country imparting technical education, providing need-based, value-based, and career-based programs, and producing self-reliant, self-sufficient technocrats capable of meeting new challenges.

Mission of Institute

The mission of the institute is to educate young aspirants in various technical fields to fulfill the global requirement of human resources by providing sustainable quality education, training, and an invigorating environment besides molding them into skilled competent, and socially responsible citizens who will lead the building of a powerful nation.
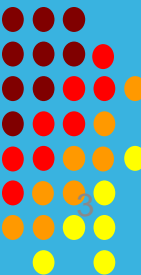
INDEX
1.About the COE(AIML/DATA SCIENCE)
2. Objectives
3. Advisory board members/active member details
4. Coordinator details
5. MOU details
6. List of equipment/software details
7. List of experiments/contents delivered to students
8. ROADMAP

9. Outcome:-
        i) List of Microsoft Azure-certified students
        ii) List of placed students

10. Media coverage
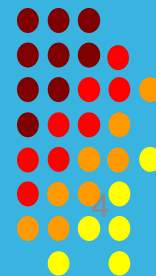
OBJECTIVES

- **Research Excellence:** Conduct cutting-edge research in machine learning algorithms, methodologies, and applications to advance the state-of-the-art in artificial intelligence.

- **Innovation and Development:** Drive innovation through the development of novel machine learning models, techniques, and tools to address real-world challenges and create transformative solutions.

- **Collaboration and Partnership:** Foster collaboration with academia, industry, and government organizations to leverage collective expertise and resources in solving complex problems and accelerating the adoption of machine learning technologies.

- **Education and Outreach:** Provide education, training, and outreach programs to empower individuals and organizations with the knowledge and skills needed to harness the power of machine learning for positive societal impact.
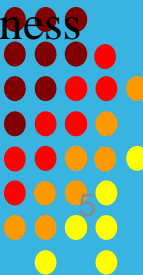
Research Excellence and Innovation

Cutting-edge Research

- Our center conducts pioneering research in machine learning algorithms, methodologies, and applications, pushing the boundaries of knowledge and driving innovation in artificial intelligence.

State-of-the-Art Infrastructure

- We provide access to cutting-edge computing infrastructure, including high-performance computing clusters, GPU accelerators, and cloud platforms, empowering empowering researchers to tackle complex machine-learning challenges.

Innovative Solutions

- We drive innovation through the development of novel machine-learning models, techniques, and tools to address real-world challenges and create transformative solutions across industries

COLLABORATION AND PARTNERSHIPS

Academia

§We foster collaboration with leading academic institutions, leveraging collective expertise and resources to advance the field of machine learning and drive the adoption of AI technologies.

Industry

§We partner with industry leaders to tackle real-world challenges, co-developing innovative solutions and accelerating the deployment of machine learning technologies for business impact.

Government

§We collaborate with government agencies and policymakers to address societal challenges, informing policy decisions and promoting the responsible development and deployment of AI systems.
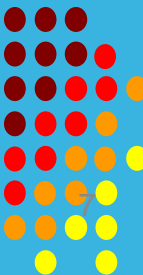
Advisory Board

S. No.	Faculty Name	Designation	Department
1.	Dr. Mukesh Rawat	Head & Professor	CSE
2.	Dr. Swati Sharma	Head & Professor	IT
3	Dr. Pradeep Pant	Professor	CSE
4	Dr. Rambeer Singh	Head & Professor	AI and AIML
5	Mr. Rohit Agrawal	Head & Asst. Professor	DATA SCIENCE
6	Dr. Satendra Singh	Associate Professor	CSE
7	Mr. Jagbir Singh	Asst. Professor	CSE
8	Mr. Shailendra Singh	Asst. Professor	CSE
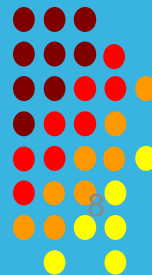
CENTER OF EXCELLENCE TEAM

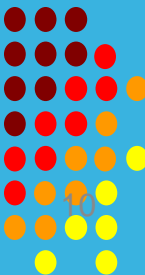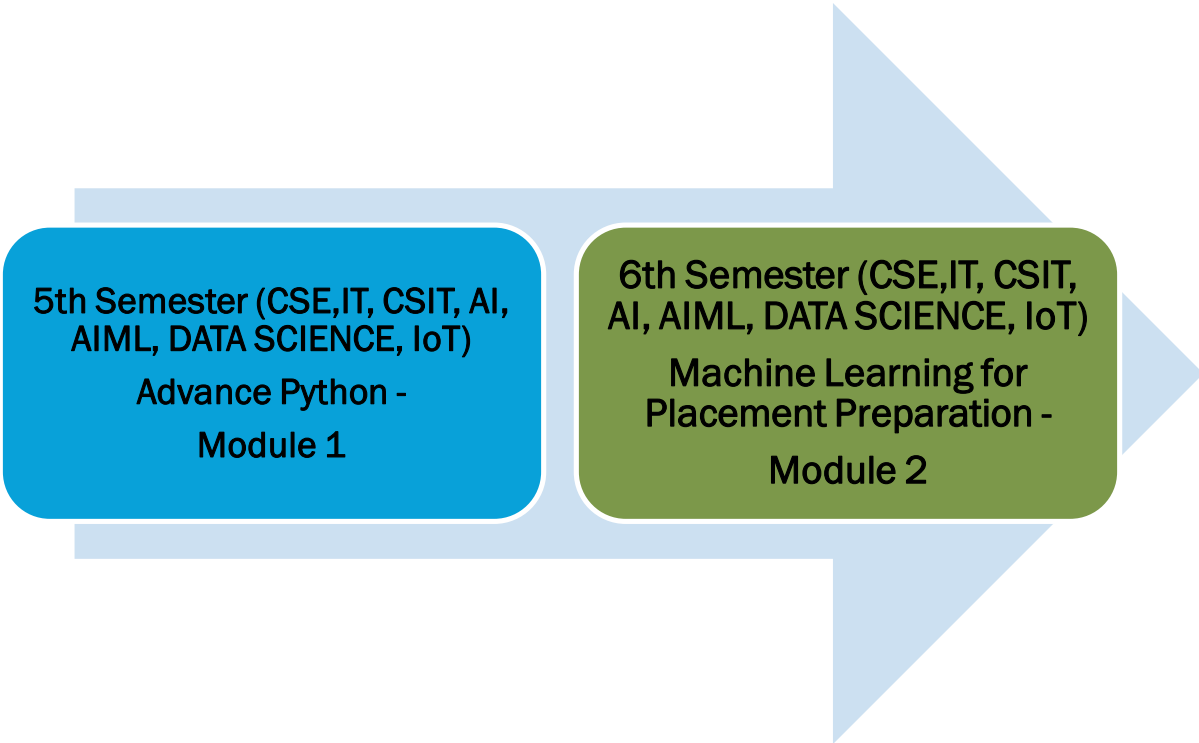| S. No.	Faculty Name	Role	Contact No.
1.	Mr. Vijay Kumar Sharma	Trainer & SPOC	9450767356
2.	Mr. Vivek Kumar	Trainer	9045616213
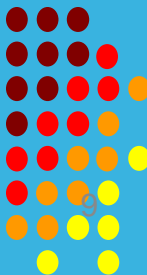
Roadmap Session2021 - 22

5th Semester (CSE,IT, CSIT, AI, AIML, DATA SCIENCE, IoT)

Advance Python - Module 1

6th Semester (CSE,IT, CSIT, AI, AIML, DATA SCIENCE, IoT)

Machine Learning for Placement Preparation - Module 2

Roadmap
Session2022 - 23

5th Semester (CSE,IT, CSIT, AI, AIML, DATA SCIENCE, IoT)

Advance Python -

Module 1

6th Semester (CSE,IT, CSIT, AI, AIML, DATA SCIENCE, IoT)

Machine Learning for Placement Preparation -

Module 2

Roadmap Session2023 - 24

5th Semester (CSE,IT, CSIT, AI, AIML, DATA SCIENCE, IoT)

Advance Python - Module 1

6th Semester (CSE,IT, CSIT, AI, AIML, DATA SCIENCE, IoT)

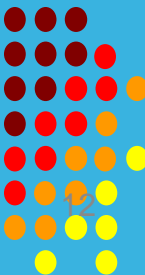Machine Learning for Placement Preparation - Module 2
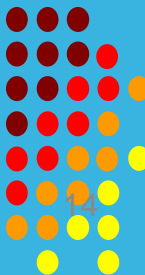
Participation Records
Session: 2021 - 22

Branch	Semester	No. of Students
CSE	V	120
CSE	VI	120
IT	V	15
IT	VI	15
CSIT	V	20
CSIT	VI	20

Participation Records
Session: 2022 - 23

Branch	Semester	No. of Students
CSE	V	120
CSE	VI	120
IT	V	15
IT	VI	15
CSIT	V	20
CSIT	VI	20

Participation Records
Session: 2023 - 24

Branch	Semester	No. of Students
CSE	V	80
CSE	VI	80
IT	IV	20
IT	V	20
CSE(AI)	V	14
CSE(AI)	VI	14
CSE(AIML)	V	25
CSE(AIML)	VI	25
CSE(DS)	V	10
CSE(DS)	VI	10
CSE(IoT)	V	10
CSE(IoT)	VI	10
CSIT	V	20
CSIT	VI	20
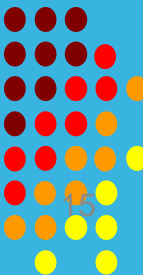
MOU

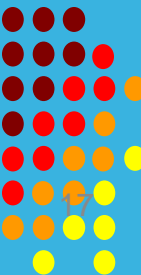Memorandum of understanding (MOU with INNOGICAL INNOVATION Pvt. Ltd.)
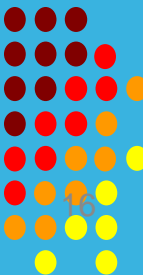
LIST OF EQUIPMENT'S/SOFTWARE DETAILs:

- Windows 10 (prof/ent)
- 4GB RAM
- Chrome (latest version)
- Admin rights
- Should be able to take RDP of VM on public IP address and port 3389
- Open internet connection
- VS Code.

LIST OF EXPERIMENTS/CONTENTS TO STUDENTS:-

Lecture Numbers	Delivered Contents
1	Numpy
2	Pandas
3	Mathplotlib
4	Introduction to Machine Learning
5	Supervised Learning
6	Regression Algorithm
7	Simple Linear Regression
8	Multiple Linear Regression
9	Polynomial Regression
10	Support Vector Regression
11	Decision Tree Regression
12	Random Forest Regression
13	Classification Algorithm
14	Logistic Regression
15	Kernal SVM Classification
16	KNN Classification
17	Naïve Bayes Classification
18	SVC
19	Decision Tree Classification
20	Random Forest Classification

21	**Unsupervised Learning**
22	Clustering
23	K-means Clustering
24	Hierarchical Clustering
25	Mean-Shift Clustering
26	DBSCAN
27	Association Rule
28	Apriori
29	FP-Growth
30	Eclat
31	Efficient Tree
32	Dimensionality Reduction
33	Principal Component Analysis (PCA)
34	Linear Discriminant Analysis (LDA)
35	Non-negative Matrix Factorization (NMF)
36	Locally Linear Embedding (LLE)
37	Ensemble Learning
38	Bagging
39	Boosting
40	Stacking
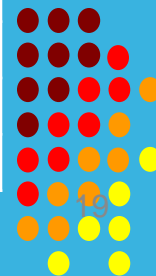
IMPACT ANALYSIS:2021-22

Branch	Total placed
CSE	120
IT	15

IMPACT ANALYSIS:2022-23

Branch	Total placed
CSE	80
IT	15
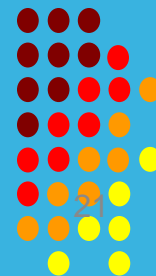
IMPACT ANALYSIS:2023-24

Branch	Total placed
CSE	160
IT	20
CS&IT	20

OUTCOME:

- Trained and Certified Student

→A list of total 415 students have AIML/ DATASCIENCE.

THANK   YOU