



## **KSR INSTITUTE FOR ENGINEERING AND TECHNOLOGY**

### **ARTIFICIAL INTELLIGENCE AND DATA SCIENCE CLUB**

#### **ABOUT THE CLUB**

- The AI & DS Club serves as a place of community for discussing, learning about, and working on topics related artificial intelligence and Data Science.
- The club is also a hub for project work in AI & DS; members can form teams to work on projects to meet the Industry Standards
- To provide guidance to students wishing to pursue a career in AI & DS

#### **OBJECTIVES**

- To equip the students with the ability and skills to analyze, design and develop computer systems and their applications with the aid of Artificial Intelligence techniques.
- To focus on developing and strengthening systems thinking, problem-solving, analysis, design, research, teamwork and readiness for lifelong learning in areas of Artificial Intelligence and Data Science.

#### **VISION**

- To develop the product which addresses social needs using current technological trends in Artificial Intelligence.

#### **MISSION**

- To create an environment for students interested in AI/ML to explore further and to spark an interest in someone who's new.
- To guide a student with project ideas in the right direction to meet the Industry Standards.
- To teach moral Values and ethics in developing the product.



## KSRIET INSTITUTE FOR ENGINEERING AND TECHNOLOGY

### ARTIFICIAL INTELLIGENCE AND DATA SCIENCE CLUB

ACADEMIC YEAR 2022-23

#### TARGET PLANNER

SEMESTER	NAME OF THE ACTIVITY	Remarks
<b>No of projects planned</b>	Batch 1: Handwritten Digit Recognition System Batch 2: Crude oil price prediction Batch 3: Early Detection of Forest Fires Batch 4: Machine Learning based Vehicle Performance Analyzer Batch 5: Facial Emotional Recognition and Detection Batch 6: Digital Naturalist: I enable Enabled tool for Biodiversity Researchers	Projects to be Display
<b>No of Products Targeted</b>	1.Handwritten Digit Recognition System 2. Digital Naturalist: I enable Enabled tool for Biodiversity Researchers 3.Machine Learning based Vehicle Performance Analyzer	End of Even Sem
<b>No of Publications Planned</b>	1.Crude oil price prediction 2. Early Detection of Forest Fires 3. Facial Emotional Recognition and Detection	End of ODD Sem
<b>Funding Requirements</b>	Resource person Remuneration – Rs 9000 Arduino Kit – Rs 2000/-	



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ACADEMIC YEAR 2022-23

### ACTIVITY PLANNER (ODD SEM)

S.NO	PROPOSED PERIOD	NAME OF THE ACTIVITY		TARGETED OUTCOME
		I Year	II YEAR	
1.	Week 1	<ul style="list-style-type: none"> <li>➤ Objectives of the Club</li> <li>➤ Motivating Students</li> <li>➤ Why AI &amp;DS is Important?</li> <li>➤ Basics of Python</li> <li>➤ List of Tools used – Tensor flow, Scikit-learn.</li> <li>➤ Demonstration of Tensor Flow, Scikit-learn software to students</li> </ul>	<ul style="list-style-type: none"> <li>➤ Objectives of the Club</li> <li>➤ Why AI &amp;DS is Important?</li> <li>➤ List of Tools used – Tensor flow, Scikit-learn, Weka, KNIME</li> <li>➤ Introduction to Artificial intelligence (Regression, Classification, Bias)</li> <li>➤ Demonstration of Tensor Flow software to students</li> </ul>	To get knowledge about the code Artificial Intelligence and Data Science Club club
2.	Week 2	<ul style="list-style-type: none"> <li>➤ Tensor Software Installation by Students (1.30Pm to 2 Pm)</li> <li>➤ Project Allocation to students by Industry Mentor and Coordinator</li> <li>• Students explanation using installed software and open source platform.</li> <li>• <b>Batch 1:</b> Handwritten Digit Recognition System</li> <li>• <b>Batch 2:</b> Crude oil price prediction</li> <li>• <b>Batch 3:</b> Early Detection of Forest Fires</li> </ul>	<ul style="list-style-type: none"> <li>➤ Tensor Software Installation by Students (1.30Pm to 2 Pm)</li> <li>➤ Project Allocation to students by Industry Mentor and Coordinator Problem Identification by students for their allocated Project.</li> <li>• <b>Batch 1:</b> Handwritten Digit Recognition System</li> <li>• <b>Batch 2:</b> Crude oil price prediction</li> <li>• <b>Batch 3:</b> Early Detection of Forest Fires</li> </ul>	To define the role of students in the club and to develop the coding skill



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		<ul style="list-style-type: none"> <li>• <b>Batch 4:</b> Machine Learning based Vehicle Performance Analyzer</li> <li>• <b>Batch 5:</b> Facial Emotional Recognition and Detection</li> <li>• <b>Batch 6:</b> Digital Naturalist: I enable Enabled tool for Biodiversity Researchers</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Batch 4:</b> Smart AI Chat bot</li> <li>• <b>Batch 5:</b> Facial Emotional Recognition and Detection</li> <li>• <b>Batch 6:</b> Online Plagiarism checker</li> </ul>	
3.	Week 3	<ul style="list-style-type: none"> <li>➤ Linear regression and classification with mathematical explanations and implementation</li> <li>➤ Each batch has to identify the problem statements for their projects and it will be presented by them in the open forum.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Naïve Bayes Classification and Bayesian networks algorithms are applied and explained in forum for solving classification problems.</li> </ul>	To learn about individual project papers and making new innovative ideas
4.	Week 4	<ul style="list-style-type: none"> <li>➤ Collecting different solutions among different batches for the single project <b>(Handwritten Digit Recognition System)</b> by executing their codes and it is verified by the Industry Mentor.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Collecting the Modules in their project by executing their codes and it is verified by the Industry Mentor.</li> <li>➤ Conducting 0<sup>th</sup> Review with department facilities</li> </ul>	To analysis and implement the project paper in review
5.	Week 5	<ul style="list-style-type: none"> <li>➤ Deployment of trained model into Tensor Flow.</li> <li>➤ Module verification by the Industry Mentor.</li> <li>➤ Content verification for Conference publication</li> </ul>	<ul style="list-style-type: none"> <li>➤ Deployment of trained model into Tensor Flow</li> <li>➤ Conducting 1<sup>st</sup> Review with department facilities Content verification for journal publication</li> </ul>	To publish conference / journal paper



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6.	Week 6	➤ <b>50% Demo and conference Publication</b> will be verified by the Coordinator for their allocated project.	➤ <b>60% Demo and conference/Journal Publication</b> will be verified by the Coordinator for their allocated project.	Complete the Publication
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## ARTIFICIAL INTELLIGENCE AND DATA SCIENCE CLUB

### ACADEMIC YEAR 2022-23 ACTIVITY PLANNER (EVEN SEM)

S.NO	PROPOSED PERIOD	NAME OF THE ACTIVITY		TARGETED OUTCOME
		I Year	II YEAR	
1.	Week 1	<ul style="list-style-type: none"> <li>➤ Recollecting the modules in their specific project</li> <li>➤ Module no 3 has been executed and verified by the resource person</li> </ul>	<ul style="list-style-type: none"> <li>➤ Recollecting the modules in their specific project</li> <li>➤ Module no 3 has been executed and verified by the resource person</li> </ul>	To Execute the project modules
2.	Week 2	<ul style="list-style-type: none"> <li>➤ Remaining module (4,5) has been completed and verified by the resource person</li> </ul>	<ul style="list-style-type: none"> <li>➤ Remaining module (4,5) has been completed and verified by the resource person</li> </ul>	Implementing the coding and Identifying the error in it.
3.	Week 3	<ul style="list-style-type: none"> <li>➤ Deployment of all Modules in tensor flow</li> <li>➤ Project Review with Industry mentor to fine tune the projects.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Deployment of all Modules in tensor flow and verified with the Industry Mentor</li> </ul>	Recovering the errors and fine tune the coding
4.	Week 4	<ul style="list-style-type: none"> <li>➤ 90% of the project and product will be completed.</li> </ul>	<ul style="list-style-type: none"> <li>➤ 90% of the project and product will be completed.</li> </ul>	Project Demo
5.	Week 5	<ul style="list-style-type: none"> <li>➤ Product conversion will be explained by the students to Industry mentor.</li> <li>➤ Based On the suggestions from Industry mentor, students will correct their respective projects</li> </ul>	<ul style="list-style-type: none"> <li>➤ Product conversion will be explained by the students to Industry mentor.</li> <li>➤ Based On the suggestions from Industry mentor, students will correct their respective projects</li> </ul>	Final review with industry mentor and department facilities
6.	Week 6	<ul style="list-style-type: none"> <li>➤ <b>100% product and conference/Journal Publication</b> will be verified by the Coordinator for their allocated project.</li> </ul>	<ul style="list-style-type: none"> <li>➤ <b>100% product and conference/Journal Publication</b> will be verified by the Coordinator for their allocated project</li> </ul>	To display the project



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### **Resource Person profile**

- 1. Name of the Resource Person: Dr. A.Athif Shah**
- 2. Company Name: ABE Groups Chennai**
- 3. Designation: Founder CEO, ABE Groups Chennai.**



### **Profile**

Started as Lecturer and now playing the role of Chairman, Technocrat, and most importantly the combination of teacher and industrialist. With the span of 18 years of journey, leading nearly 40+ research teams across the nation, designed nearly 50+ technology transfers and products and handled nearly 200CPU. As teacher, he has conducted nearly 350 Pan India workshops, trained nearly 5000 Engineers and awarded as the Best Project Guide by Renases ,Japan in 2008, as the Intel Innovator in the year of 2016, designed major Products such as IoT based Dementia Care Giving Systems, Single Board Computers, Hardware-Based Machine learning Algorithms for Health care Systems, Wearable Devices Being recipient of National Centre of Excellence in Teaching, New Delhi in 2016 , now as IoT/MAN to Machine Architect, involved in the research technologies which are beyond the Imagination.



## **KSRIET INSTITUTE FOR ENGINEERING AND TECHNOLOGY**

### **ARTIFICIAL INTELLIGENCE AND DATA SCIENCE CLUB**

#### **PRESIDENT**

1.SANCHAY L - BME

#### **VICE PRESIDENT**

2.VIGNESHWARAN - IT

#### **SECRETARY**

3.ARUNKUMAR - ECE

#### **JOINT SECRETARY**

4.DHARANISH - EEE

#### **TREASURER**

5.RAMGOPAL- CSE

#### **JOINT TREASURER**

6. ELAVARASAN – MECH

<b>S.No.</b>	<b>Name</b>	<b>Department</b>
1	Sanchay L	BME
2	Srinithi Sampooram M	BME
3	Kalaivani R	BME
4	Ramya S	BME
5	Shobika S	BME
6	Bhuvaneshwari	CSE A
7	Harshitha	CSE A
8	Rathika G	CSE B
9	Ruban P	CSE B
10	Rathish Kumar J	CSE B
11	Monisha S	CSE B





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### ARTIFICIAL INTELLIGENCE AND DATA SCIENCE CLUB

12	Hari Shankar K	CSE CS
13	Joel Pravin J	CSE CS
14	Madavan P	CSE CS
15	Parthasarathi Y	CSE CS
16	Sathishkumar P	CSE CS
17	Elavarasan P	Mechanical
18	Soundarajan M S	Mechanical
19	Shanmugam N	Mechanical
20	Vimal S	Mechanical
21	Suryaprakasham M	ECE
22	Shopiasree R	ECE
23	Harini S V	ECE
24	Divya S	ECE
25	Arunkumar P	ECE
26	Ajay Kumar C	EEE
27	Dharanish R	EEE
28	Jeevanantham K	EEE
29	Tharun P	EEE
30	Vignesh R	EEE
31	Balachandran R	IT
32	Vigneshwaran	IT
33	Sri Malini	IT
34	Kowsalya L	IT
35	Mirthika	IT