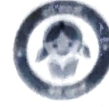प्रगत संगणन विकास केन्द्र
CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING

इलेक्ट्रॉनिकी एवं सूचना प्रौद्योगिकी मंत्रालय, भारत सरकार की एक वैज्ञानिक संस्था
A Scientific Society of the Ministry of Electronics and Information Technology Govt of India

सी डैक
CDAC

Anusandhan Bhawan
C-56/1 Institutional Area, Sector-62
Noida - 201 309 (U P) India
दूरभाष / Tel +91-120-2210800
www.cdac.in

Ms Manu / Ms Shweta
Bansal ...

09/05/2022

To

The Vice Chancellor
The KR Mangalam University
Gurugram

Subject: Collaboration between C-DAC and K R Mangalam University for Training & Research Activities

Dear Sir

Kind reference is invited to the discussion held, dated 7th April 2022 to explore the Academic and Research partnership through mutual cooperation in training and research.

In view of the above, following areas of cooperation/collaboration are identified.

1. Training the Faculty members at K R Mangalam University in emerging technologies
2. Conduct Bridge course to students studying in K R Mangalam University
3. Student exchange for research and study
4. Joint research activities
5. Exchange of academic materials and other information
6. Participation in seminars/webinars in emerging technologies
7. Resource persons for conference/research

It is requested to provide your go-ahead/consent to initiate the above-mentioned activities jointly for mutual growth and parallelly the MoU may be work out.

Yours Sincerely

Tushar Kanti Patnaik
Scientist 'E', Joint Director,
Centre for Development and Advanced Computing, Noida

Ref No.: KRMU/SOET/Notice/2021-22/   **Date: 13.06.2022**

SCHOOL OF ENGINEERING AND TECHNOLOGY

NOTICE

The School of Engineering and Technology at K.R. Mangalam University, in collaboration with CDAC Noida, is organizing a training program that focuses on Big Data Analytics. The course aims to train faculty members on the latest technologies in Big Data Analytics. The program will equip them with the knowledge and skills to apply Big Data Analytics in real-time applications and specialized research areas.

The training program is scheduled to run from July 11th to 22nd, 2022. The resource persons for the program will be Mr. Sunil Kumar, Ms. Akanksha, and Ms. Chandni. Faculty members from other schools are also welcome to attend and benefit from this program. The event will be held virtually and will be coordinated by Dr. Meenu, Dr. Shweta Bansal, and Dr. Swati.

Date: July 11th - 22nd , 2022

Venue: Virtual Mode

Event In-Charge:

Dr. Meenu

Dr. Shweta Bansal

Dr. Swati

Dr. Pankaj Agarwal

Dean SOET
DEAN
School of Engineering & Technology (SOET)
K.R. Mangalam University
Sohna road, Gurugram
Haryana 122103

Registrar
K.R Mangalam University
Sohna Road, Gurugram, (H.

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K.R. MANGALAM UNIVERSITY
THE COMPLETE WORLD OF EDUCATION

Report on

Training of Trainer Course Big Data Analytics by CDAC, Noida

Target Group: Faculties at KRMU

Resource Person: Mr. Sunil Kumar, Ms Akanksha and Ms Chandni

Coordinators: Dr. Meenu Vijarania Dr Shweta Bansal and Dr Swati

Date and Time: 11th July 2022 to 22nd July 10:00AM to 1:00 PM.

Venue: Virtual Mode (MS TEAMS)

Introduction

With the objective of introducing to expose the faculties in emerging technologies in the areas of Big Data Analytics. This course provides practical foundation level training that enables immediate and effective participation in big data and other analytics projects.

Objectives

- To promote and foster Big Data Science, Technology and Applications in the country and to develop core generic technologies, tools and algorithms for wider applications in IT and Government Organizations.

- To ensure participants are trained in the niche area of, big data analytics platforms Hadoop, Hadoop-Related Projects, Spark etc.), machine learning techniques and its use in analytics, NoSQL databases, and security and privacy issues in big data analytics.

- To impart the state of art knowledge of advances in research, different tools and real time applications of big data

- To strengthen specialized research areas of big data analytics.

Content of the Course:

1. Big Data Concepts, need for analyzing Big Data, Type of data, roles of Big Data Analytics in Business Intelligence and decision making. Introduction to Hadoop framework, History of Hadoop, Hadoop ecosystem

30/july2022

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1

2. Hadoop Distributed File System (HDFS), Hadoop commands, writing files onto HDFS, reading files from HDFS, Cloudera demonstration

3. MapReduce concept, Map Reduce (MR) programming technique, structure of Map-reduce program, Data types, data loading, Map and Reduce Tasks and executing MR

4. Introduction to Impala using HBase

5. Introduction on Apache Hive

6. Introduction to Apache Spark

7. Practical session on Spark, Introduction to Data analytics, Data science and Application. Introduction to Predictive analysis Introduction to Machine Learning

8. Working with NumPy, Pandas, Matplotlib

9. Classification Technique with Python Implementation,

10. Ensemble TechniquesClustering techniques with Python Implementation

11. Clustering techniques with Python Implementation
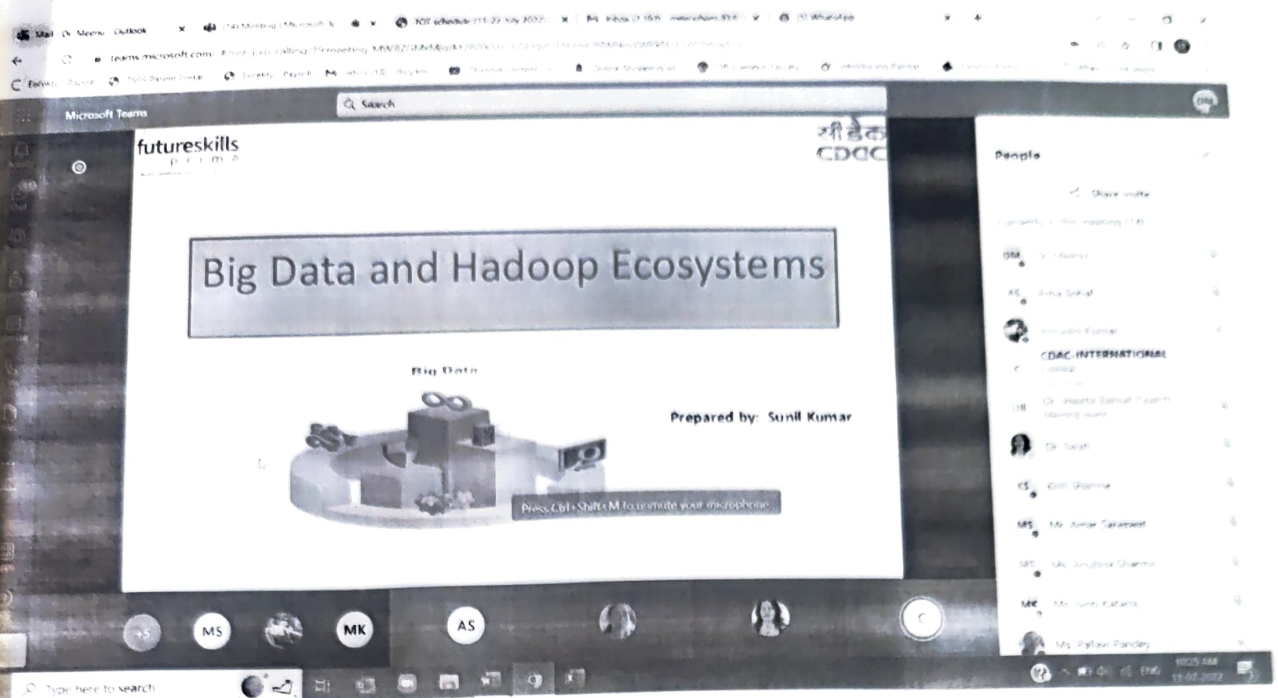
Attendees

1. Faculties of CSE, SOET

Activity Outcome

➢ Deploying the Data Analytics Lifecycle to address big data Analytics projects.
➢ Reframing a business challenge as an analytics challenge.
➢ Applying appropriate analytic techniques and tools to analyse big data, create statistical models, and identify insights that can lead to actionable results.
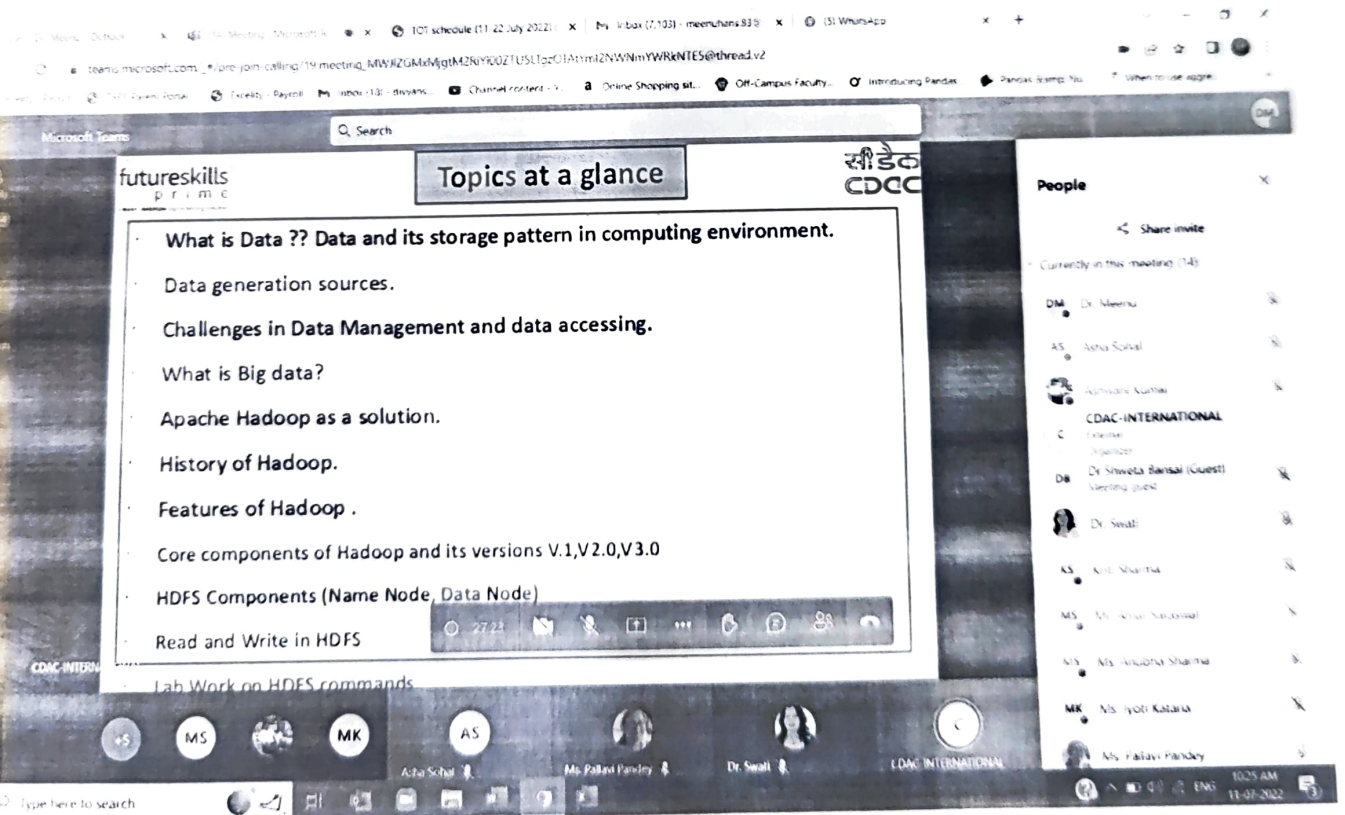
Screen shots of the Event

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K.R. Mangalam University
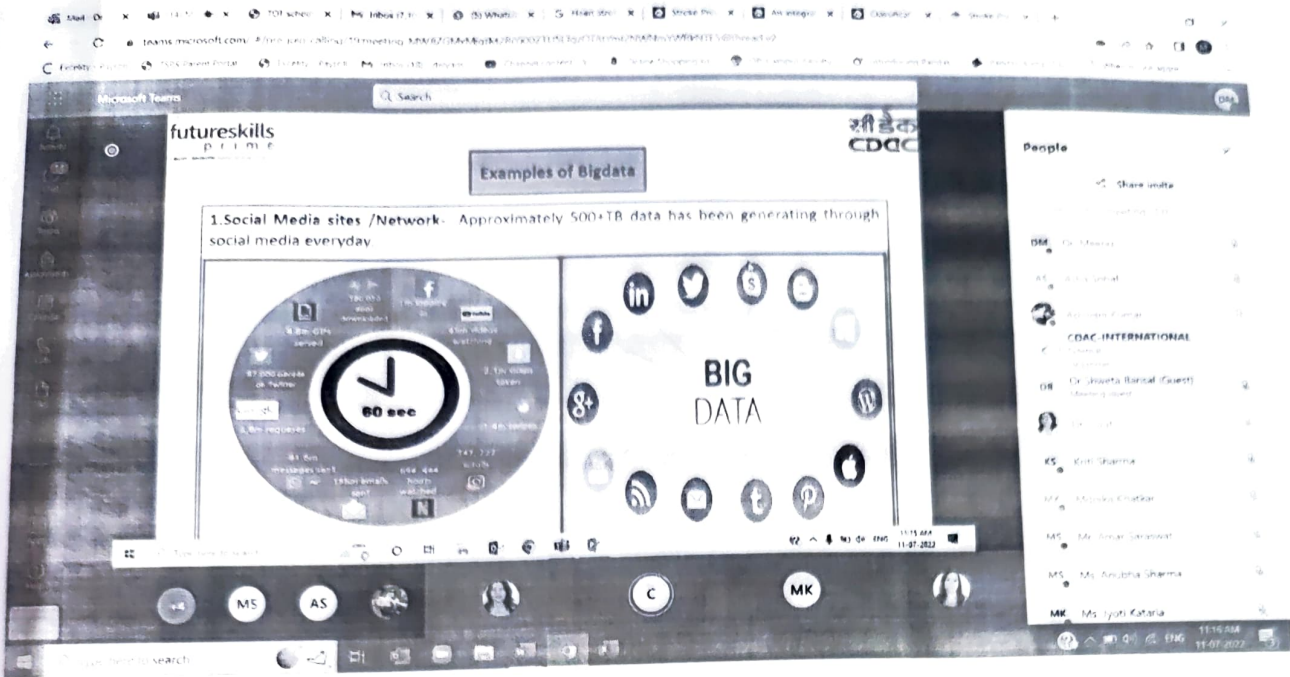Sohna Road, Gurugram, (Haryana)

2
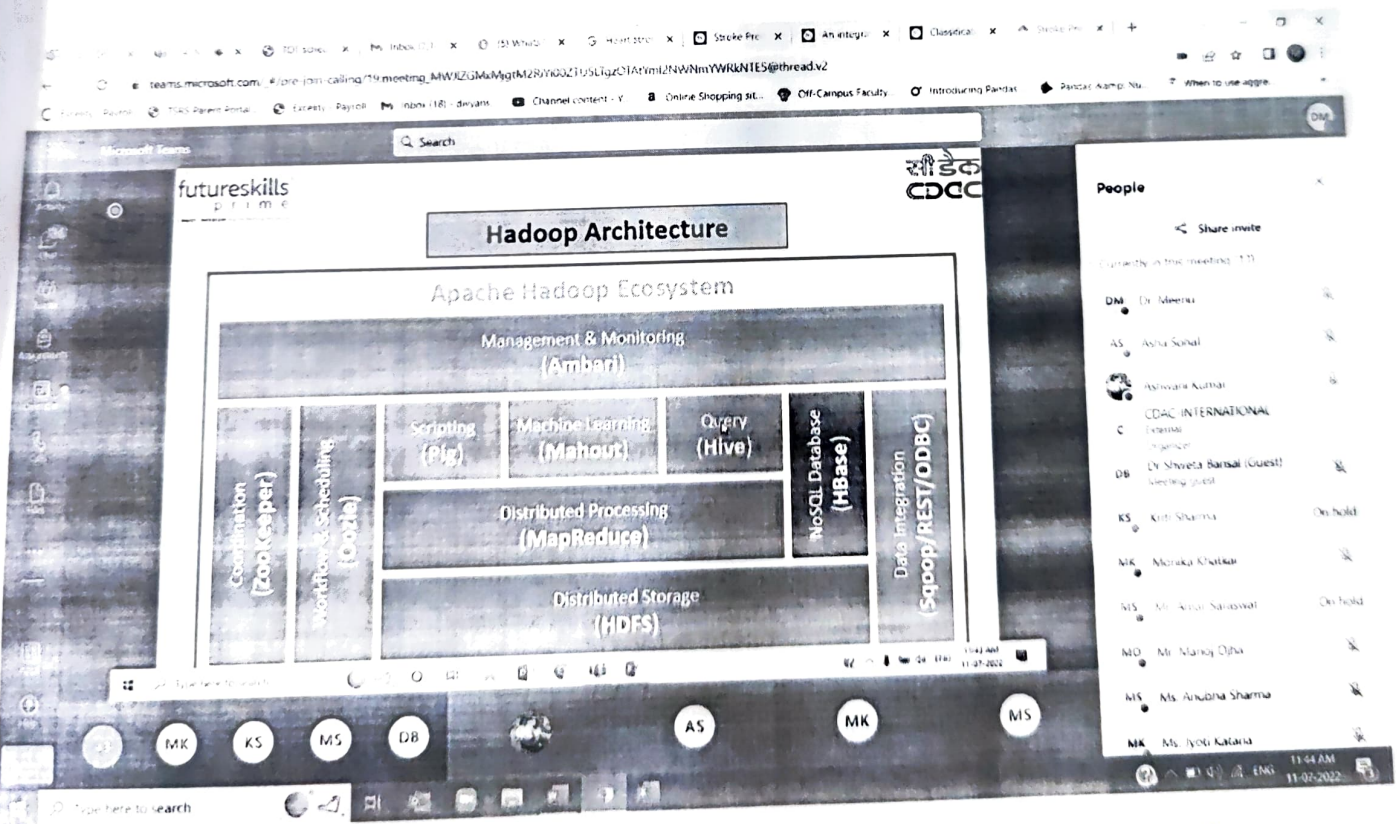
Day 1- Hadoop Introduction

Day 1- Topics Covered

Meenu
30/july2022

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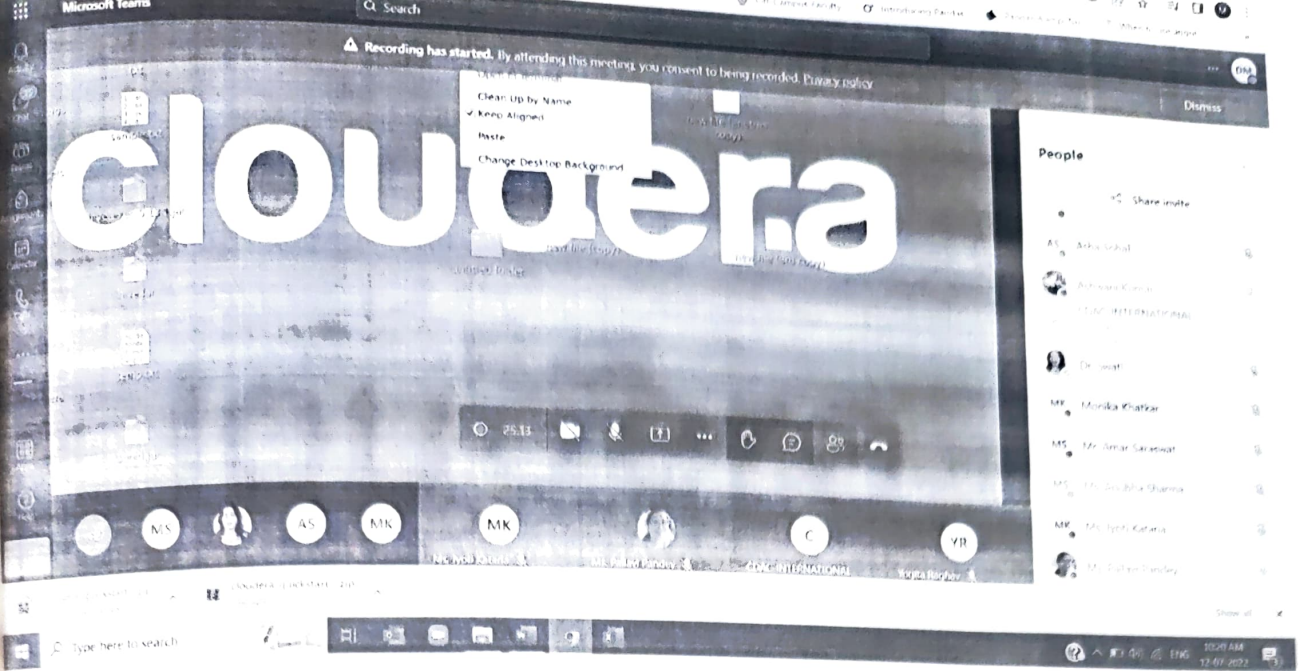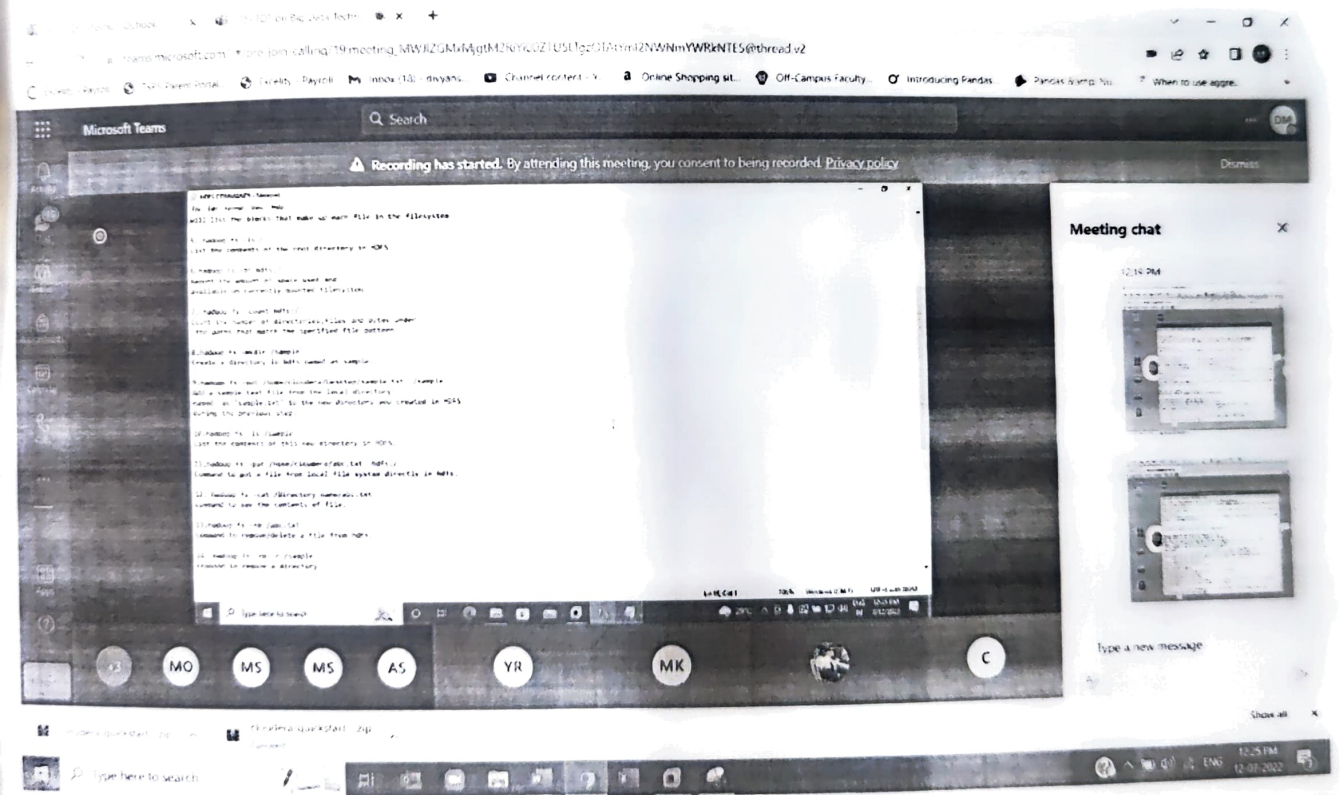**Day 2- Big data Applications**

Day 3- Hadoop Architecture

Meenu

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Day 4- Practical training using Cloudera
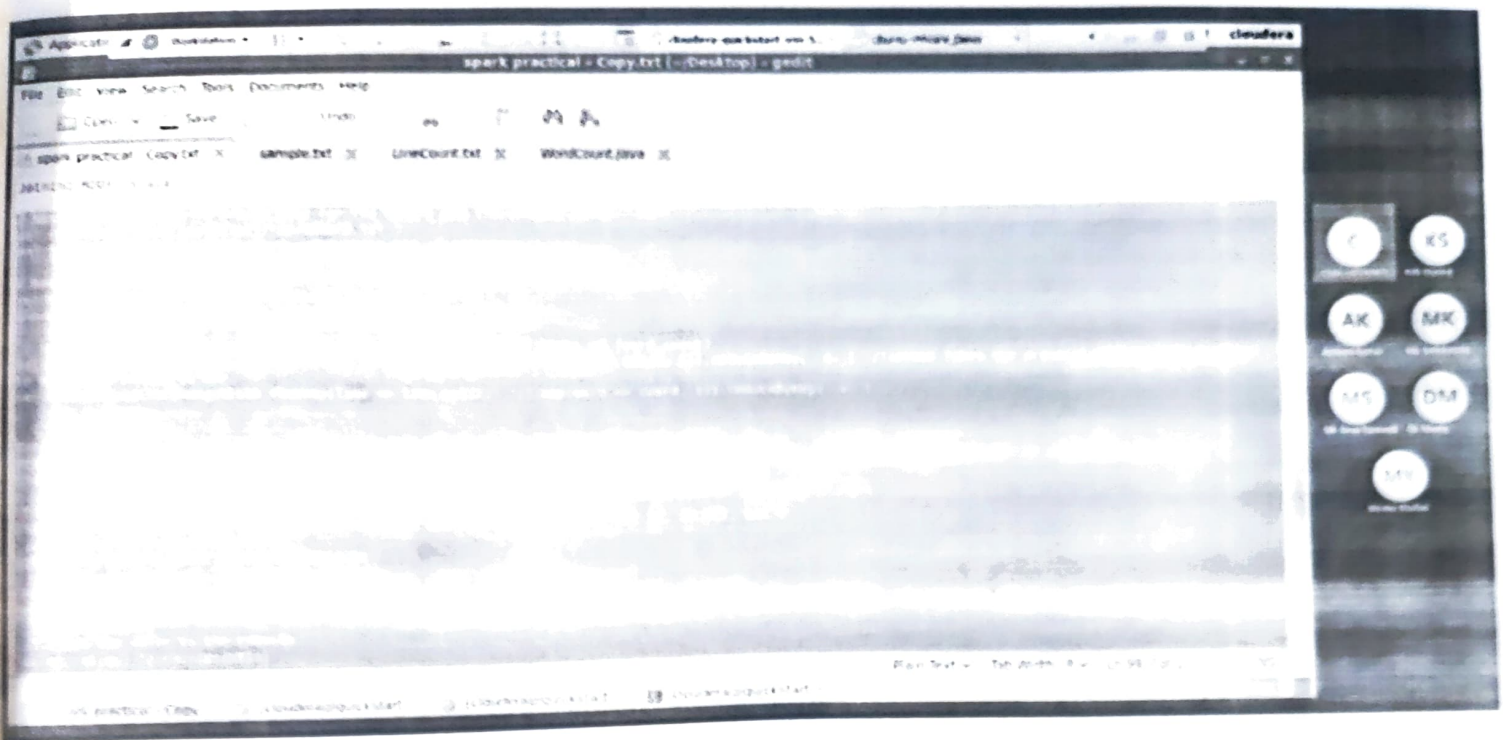

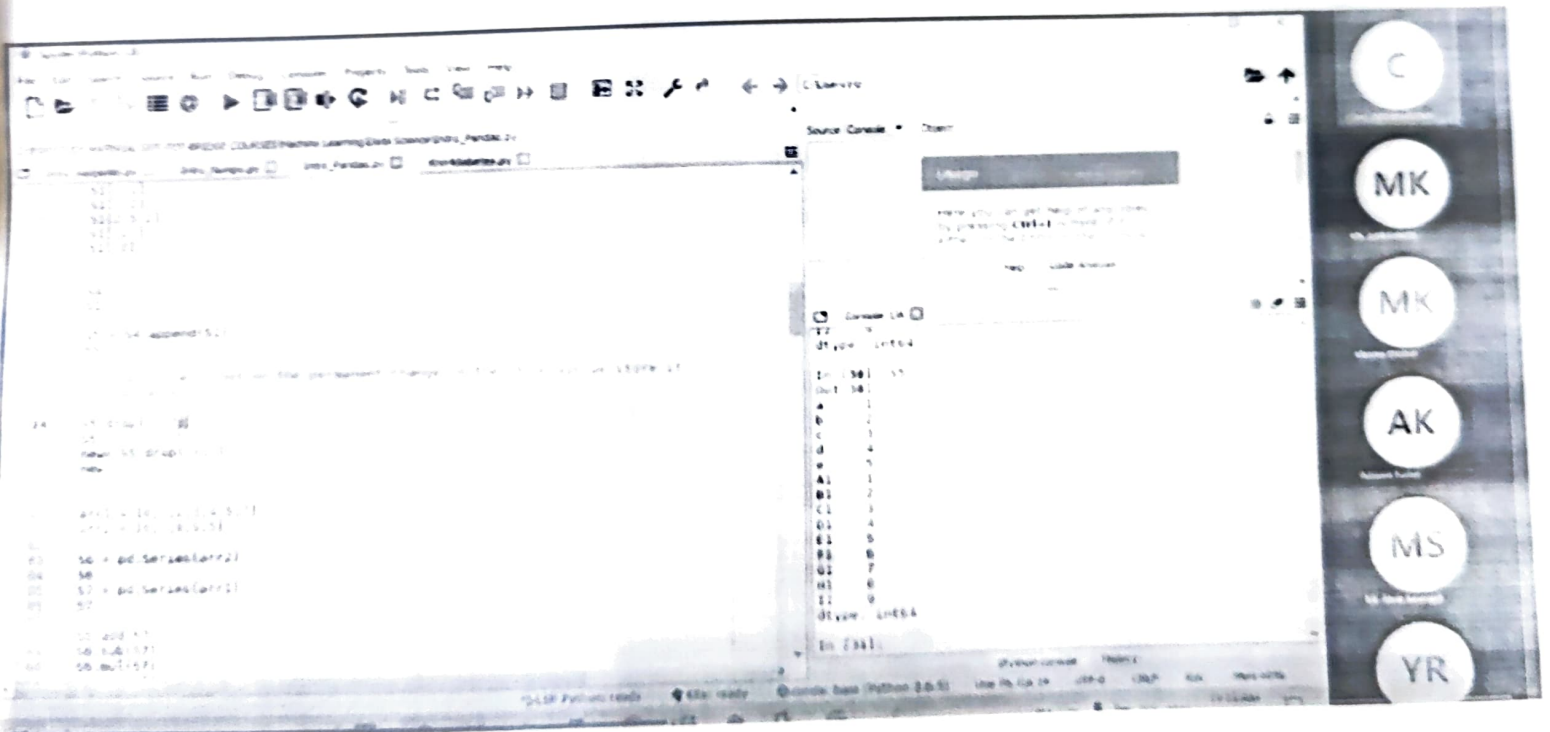**Day 5- Practice session**

Meenu

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Day 7- session on spark and impala softwares

Day 9- Practice session of Data science concepts using Python

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Day 10- Valedictory session

Conclusion

Valedictory session was held on the last day of FDP on 22nd July 2022. Honorable Vice Chancellor CS Dubey and CSE,SOET faculties from KRMU and Ms Mary Jacintha and other members from CDAC Noida were present. We discussed the future prospects under CDAC Noida and KRMU collaboration in terms of research and projects etc. One of the best parts about this program was that the faculties got the opportunity to learn from professionals who have worked in the same field for years. It provides the forum for members of the research and academic community, to interact on cutting-edge and ground breaking topics in Big Data Analytics.

Further Scope

In order to expand students' alternatives and awareness, this partnership and collaboration in creating such events that directly assist students in negotiating their future career route and assistance in option exploration can be organized in the future.

30/july2022

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futureskills
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A MeitY - NASSCOM Digital Skilling Initiative
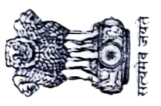
Ministry of Electronics and
Information Technology
Government of India

राष्ट्रीय इ.सू.प्रौ.सं
NIELIT

Certificate of Completion

It is certified that

Amar Saraswat

K R Mangalam University

has successfully completed the Training of Trainer Program on

under 'FutureSkills PRIME' programme

held from **July 11, 2022 to July 22, 2022**

Chief Investigator
CDAC.Noida

Lead Resource Centre: Big Data Technology

Registrar
K.R. Mangalam University
Sohna Road, Gurugram, (Haryana)

Executive Director
CDAC.Noida

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Attendees

1. Faculties of CSE, SOET

Activity Outcome

➢ Deploying the Data Analytics Lifecycle to address big data Analytics projects.
➢ Reframing a business challenge as an analytics challenge.
➢ Applying appropriate analytic techniques and tools to analyse big data, create statistical models, and identify insights that can lead to actionable results.

Screen shots of the Event

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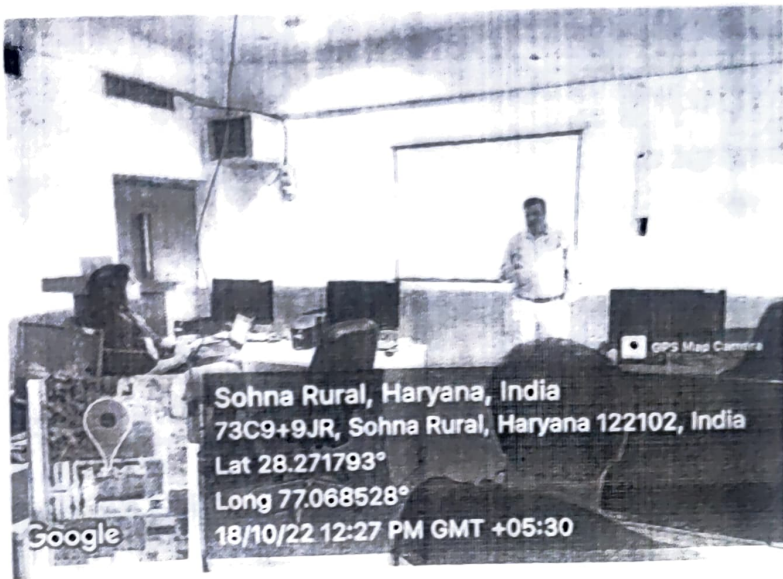
Photo 3- Handling students queries

Sohna Rural, Haryana, India
73C9+9JR, Sohna Rural, Haryana 122102, India
Lat 28.271774°
Long 77.068528°
10/22 12:10 PM GMT +05:30

Photo 4- Discussing research prospects in the field of AI and digital image processing

Report prepared by	Dr Meenu
Report verified by Event Coordinator	Dr Shweta Bansal
Report Seen by Dean / Club Coordinator Activity Coordinator/ IQAC Director / Registrar	Dr Pankaj Agarwal

DEAN
School of Engineering & Technology (SOET)
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Haryana 122103

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Ref No.: KRMU/SOET/Notice/2022-23/

Date: 10.10.22

SCHOOL OF ENGINEERING AND TECHNOLOGY

ACADEMIC SESSION 2022-2023

NOTICE

The School of Engineering & Technology, on behalf of K.R. Mangalam University is going to organize an Expert Talk on AI in Document Image Processing and NLP in Collaboration with CDAC. Noida. on 18th October 2022.

The MCA students of School of Engineering and Technology (SOET) will get enlighten about the latest advancements, applications, and future trends in these domains. It will provide a platform for knowledge exchange. fostering a deeper understanding of the intersection between Artificial Intelligence. Document Image Processing, and Natural Language Processing. while promoting collaboration between academia and industry.

Event will be coordinated by Dr. Meenu and Dr. Shweta Bansal.

Date: 18th October 2022

Time: 10:30 AM onwards

Venue: B Block Lab 6. K.R.. Mangalam University

Dean SOET

Dr. Pankaj Agarwal
DEAN
School of Engineering & Technology (SOET)
K.R. Mangalam University
Sohna road, Gurugram
Haryana 122103

Registrar
K.R. Mangalam University
Sohna Road, Gurugram, (Haryana)

Report on

Expert Talk on AI in Document Image Processing and NLP in Collaboration with CDAC, Noida

Date: Tuesday, 18th October 2022.

Venue: B Block Lab 6 , K.R. Mangalam University.

Event Type: Expert Talk

Mode of Activity: Offline

Target Group: UG/PG Students of CSE, SOET

Resource Person (if any): Mr. Tushar Kanti Patnaik, Joint Director, CDAC Noida

Coordinators: Dr. Meenu and Dr Shweta Bansal

Organized by: School of Engineering and Technology CSI Club

Number of Participants (Attach Attendance as Annexure): 42

With the objective of introducing to expose the students about Artificial Intelligence in Document Image Processing and NLP. This talk provides insights of how Image processing with artificial intelligence can power face recognition and authentication functionality for ensuring security in public places, detecting and recognizing objects and patterns in images and videos. The Objectives of the event was to impart knowledge about fundamental concepts and techniques of AI and natural language processing. Deep understanding of the various phases of an image processing project, from data collection to model deployment. The topics discussed in the talk are: AI introduction, applications, demand of AI, DIP introduction, Key Stages in Digital Image Processing, Document Image Analysis, NLP Introduction to OCR, Development of OCR, Research Issues in OCR. Expert talk on AI in Document Image Processing and NLP was successfully conducted in B Block Lab 6 at KRMU on 18th October 2022. Dr Shweta Bansal HOD CSE, Dr Meenu, Dr Swati CSE, SOET faculties from KRMU and UG PG students of CSE were present We discussed about AI, Digital image processing and OCR. The speaker Mr Tushar Patnaik discussed the future prospects and research problems taken by students in the mentioned areas. One of the best parts about this program was that the students and faculties got the opportunity to learn from professionals who have worked in the same field for years. In order to expand students' alternatives and awareness,

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K.R. MANGALAM UNIVERSITY
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Expert Talk on AI in Document Image Processing and NLP in Collaboration with CDAC, Noida

Date: 18.10.22

Attendance Sheet

Sr. No	Roll No.	Name	Course	Signature
1.	210156002	Sneha Kumari	MCA 3rd Sem	Sneha
2.	21015 0015	Charu Jain	MCA 3rd Sem	charau
3.	2101560009	Deepanshu Gupta	MCA 3rd sem	Deepanshu
4.	2101560003	Tanya Mittal	mca 3rd sem	Tanya
5.	2201560014	Sumit	MCA 1st Sem	Sumit
6.	2201560021	Shweta	MCA -1st	Shweta
7	22015600006	Nancy	MCA -I	Nancy
8.	2201560009	Sagar	MCA-1st	Sagar
9.	2101560011	Archi Jain	MCA -1st	A jain
10	2101560008	Shivam Sharma	MCA 1st	Shivam
11.	New student	Akash Mahato	MCA-1st	Akash
12.	2201560039	Nikil Kumar	MCA-1st	N
13.	2201560008	Eleena	MCA-1st	Eleena
14.	2201560023	Neha Soni	MCA-1st	Neha
15.	2201560001	Lokesh	MCA-1st	Lokesh
16.	2201560027	Aman Verma	MCA-1st	Aman

Event Coordinators

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K.R. MANGALAM UNIVERSITY
THE COMPLETE WORLD OF EDUCATION

Expert Talk on AI in Document Image Processing and NLP in Collaboration with CDAC, Noida

Date: 18.10.22

Attendance Sheet

Sr. No	Roll No.	Name	Course	Signature
17.	2101560022	Vinay Saini	MCA III	Saini
18.	2101560021	Vipul Kaushik	MCA III	Vipul
19	2201060004	Subodh kumar	BCA - I	
20.	2201560037	Jitender Vats	MCA - I	Jitender
21.	2201560038	SUKHDEV RAWAT	MCA - I	Sukhde
22.	2201560025	Reshma Kumari	MCA - III	Reshma
23.	210 1560023	Akshay Sharma	MCA III	Akshay Sharma
24	2101560026	Dhruv Shavena	MCA-III	Dhuthoma
25.	2101560024	AKASH KUMAR	MCA - III	Akash
26.	2101560017	Amar	MCA-III	Amar
27	2201060011	Kangan	BCA-I	Kanga
28.	2201060027	Aman Arun Mishra	BCA-I	Mishra
29.	2101560001	Swati Skula	MCA III	Swati
30.	2101560019	Apoorva Shan	MCA III	Apoorav
31.	2101560006	Nipun Srivastava	MCA - III	Nipun
32.	2201060024	Shivam Joshi	BCA-I	Shivam Joshi

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K.R. Mangalam University
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Event Coordinators

K.R. MANGALAM UNIVERSITY
THE COMPLETE WORLD OF EDUCATION

Expert Talk on AI in Document Image Processing and NLP in Collaboration with CDAC, Noida

Date: 18.10.22

Attendance Sheet

Sr. No	Roll No.	Name	Course	Signature
33.	2201060018	Abhinav Singh	BCA-Ist	Pallavi
34	2201060026	Pallavi Acharya	BCA Ist.	Pallavi
35.	2101560004	Deepali	MCA 3rd	Deepali
36.	2101560013	JERIN	MCA III	Jerin
37.	2101560018	Divndra Kumar	MCA 3rd	Divakra
38.	2201060020	MANAS MAINI	BCA(AI & DS)	Manas
39	2201060042	Tisha Batra	BCA (AI & DS)	
40.	2101560005	Sagar Agrwal	MCA (3rd)	Sagar
42.	2101560012	Rinchi Jain	MCA III	Rinchi

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K.R. Mangalam University
Sohna Road, Gurugram, (Haryana)