INSTITUTION'S INNOVATION COUNCIL (Ministry of HRD Initiative)

KITS

KKR&KSR Institute of Technology and Sciences
Vinjanampadu, Guntur, Andhra Pradesh-522017

Approved by AICTE, New Delhi and Permanent Affiliation from JNTUK, Kakinada

Accredited with "A" Grade by NAAC & NBA Accreditation Status for 4 UG (CSE, ECE, EEE, ME) Programs

organized A Five-Day Faculty Development Program on "Applications of Machine Learning" from 9th To 13th October 2023.

About the Program:

The program "Applications of Machine Learning" explores the diverse ways machine learning enhances various fields. Participants delve into real-world case studies spanning healthcare, finance, marketing, and more. Through hands-on exercises, they gain practical insights into implementing ML algorithms for predictive analysis and decision-making. The workshop covers cutting-edge techniques like deep learning and reinforcement learning, equipping attendees with tools to tackle complex data problems. Ethical considerations in ML deployment are emphasized, fostering responsible AI development. Collaborative sessions encourage knowledge sharing and problem-solving among participants. Industry experts share insights on current trends and future directions in ML applications. By the workshop's end, attendees emerge with a comprehensive understanding of ML's transformative potential across industries. Practical demonstrations showcase ML models in action, from recommendation systems to image recognition. Networking opportunities allow participants to connect with peers and experts, fostering a supportive community of ML enthusiasts.

About the Chief Guest: Dr. Md. Moulana & Dr.BLN Phaneendra Kumar

Dr. Md. Moulana

Deputy Head and Professor Department of CSE, KL Deemed to be University, Vaddeswaram

Dr.BLN Phaneendra Kumar

Sr. Assistant Professor

Department of CSE, K L Deemed to be University, Vaddeswaram, Guntur.

Objectives of the program:

1. Introduce participants to the foundational concepts and algorithms of machine learning.
2. Explore diverse real-world applications of machine learning across industries such as healthcare, finance, and marketing.
3. Provide hands-on experience in implementing machine learning algorithms for predictive analysis and decision-making.
4. Foster an understanding of advanced techniques including deep learning and reinforcement learning.
5. Emphasize the importance of ethical considerations in deploying machine learning models.
6. Encourage collaboration and knowledge sharing among participants through interactive sessions and group activities.
7. Facilitate discussions with industry experts to gain insights into current trends and future directions in machine learning applications.
8. Demonstrate the practical implications of machine learning through live demonstrations and case studies.
9. Create networking opportunities for participants to connect with peers and experts in the field.
10. Equip attendees with the skills and knowledge to leverage machine learning effectively in their respective domains.

2.Venue of the Event: The event is organized on campus and conducted by KKR & KSR Institute of Technology and Sciences, Vinjanampadu, Guntur, Andhra Pradesh in association with SPARK

3. Date & Time of the Event: The Event is organized

4.No. of faculties participated: 50

6.Event photographs.

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DEPARTMENT OF CSE-DATA SCIENCE

Presents

A FIVE DAY FACULTY DEVELOPMENT PROGRAM ON

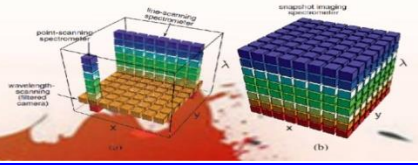
Applications of Machine Learning

Resource Person

Dr. B L N Phaneendra Kumar
Sr. Assistant Professor
Department of CSE,
K L Deemed to be University,
Vaddeswaram, Guntur

Day - 4

- INTRODUCTION TO OPTIMIZATION
- APPLICATIONS OF OPTIMIZATIONS - BAND SELECTION IN HYPER SPECTRAL REMOTE SENSING IMAGES



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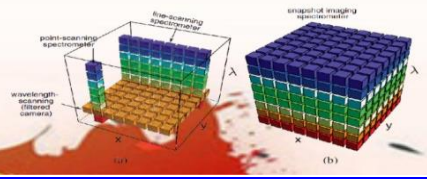
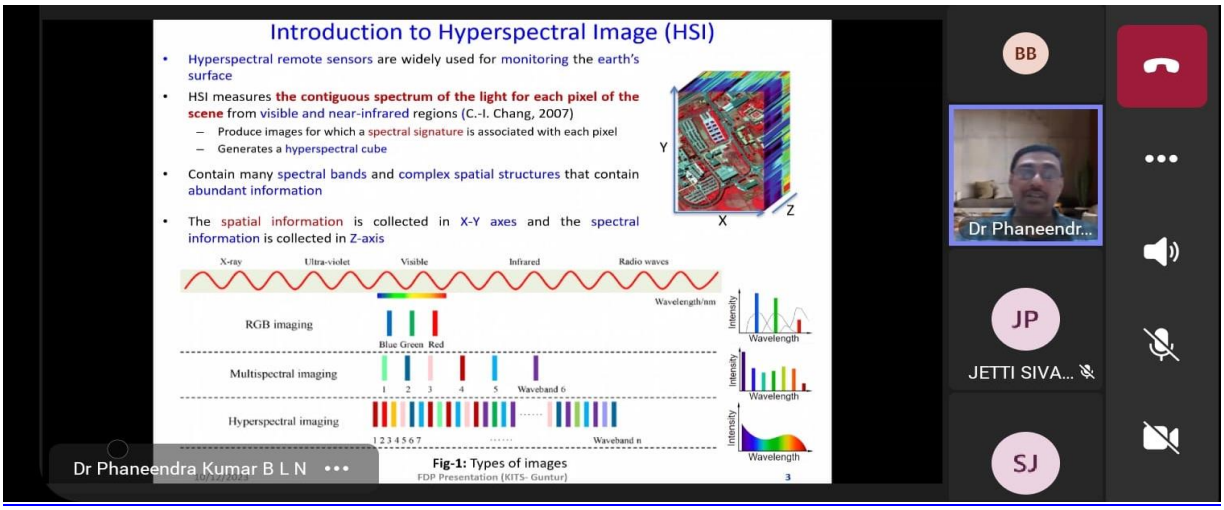
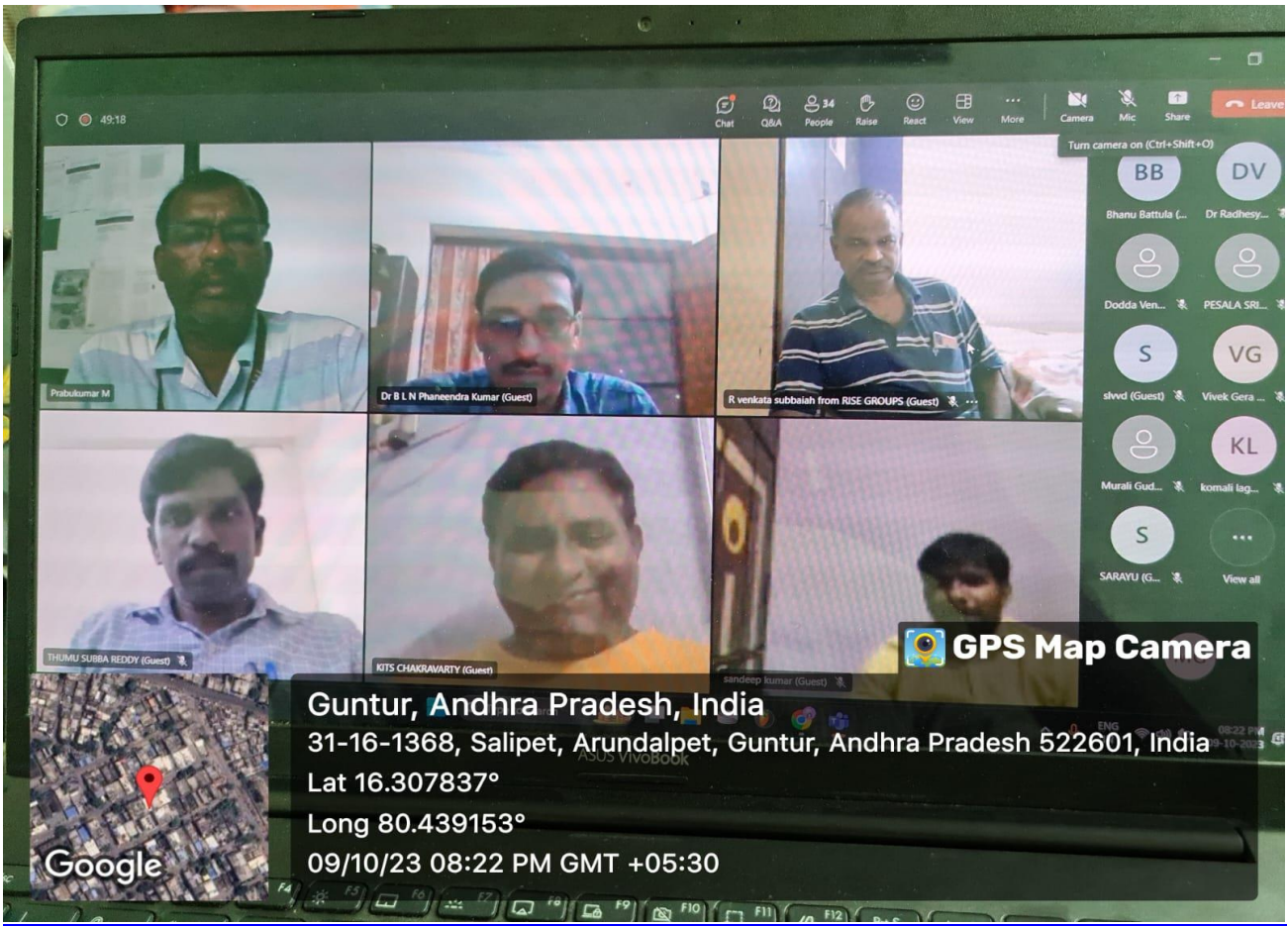
Vaddeswaram

Day - 5

- CASE STUDIES ON MACHINE / DEEP LEARNING ALGORITHMS FOR HSI PROCESSING
- HSI APPLICATIONS IN VARIOUS FIELDS

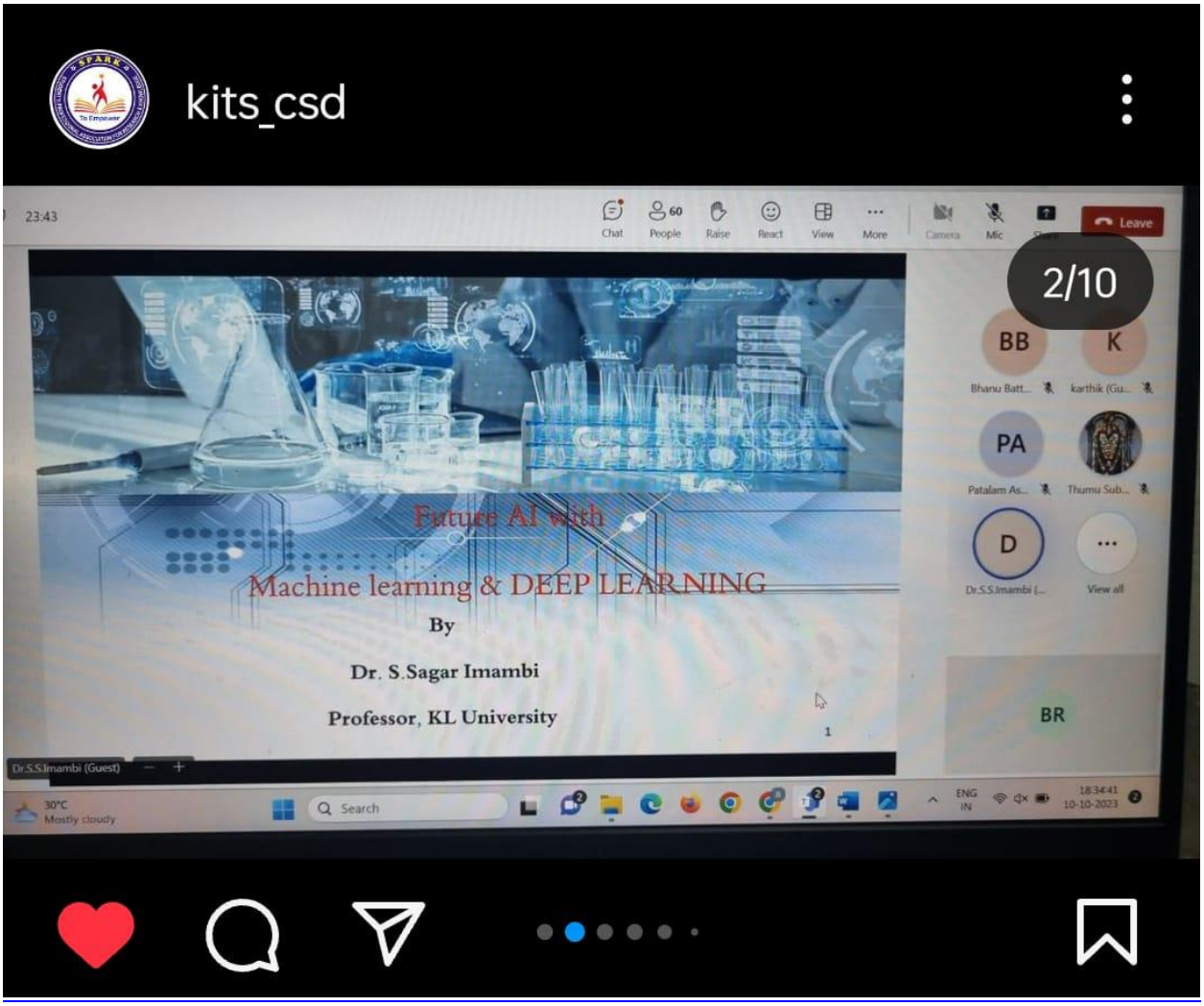



Introduction to Hyperspectral Image (HSI)
Hyperspectral remote sensors are widely used for monitoring the earth's surface
HSI measures the contiguous spectrum of the light for each pixel of the scene from visible and near-infrared regions (C.-I. Chang, 2007)
Produce images for which a spectral signature is associated with each pixel
Generates a hyperspectral cube
Contain many spectral bands and complex spatial structures that contain abundant information
The spatial information is collected in X-Y axes and the spectral information is collected in Z-axis
X-ray
Ultra-violet
Visible
Infrared
Radio waves
Wavelength/nm
RGB imaging
Blue Green Red
Multispectral imaging
Waveband 6
Hyperspectral imaging
Waveband n
Intensity
Wavelength
Fig-1: Types of images
FDP Presentation (KITS- Guntur)
Dr Phaneendra Kumar B L N
Dr Phaneendr...
JETTI SIVA...
BB
JP
SJ


49:18
Chat
Q&A
People
Raise
React
View
More
Camera
Mic
Share
Leave
Turn camera on (Ctrl+Shift+O)
Prabukumar M
Dr B L N Phaneendra Kumar (Guest)
R venkata subbaiah from RISE GROUPS (Guest)
THUMU SUBBA REDDY (Guest)
KITS CHAKRAVARTY (Guest)
sandeep kumar (Guest)
Bhanu Battula (...
Dr Radhesy...
Dodda Ven...
PESALA SRI...
slvvd (Guest)
Vivek Gera ...
Murali Gud...
komali lag...
SARAYU (G...
View all
GPS Map Camera
Guntur, Andhra Pradesh, India
31-16-1368, Salipet, Arundalpet, Guntur, Andhra Pradesh 522601, India
Lat 16.307837°
Long 80.439153°
09/10/23 08:22 PM GMT +05:30
Google

Promotion of the Event on the Social Media Website: (Link and Screenshot):

https://www.instagram.com/p/CyfIVAuJupe/?igsh=MWlqdTFpNGMybmRtZA==



2. **Expenditure Amount (If any):** Nil

3. **Remarks:** The event is organized smoothly with practical orientation.

4. **Experiences and Output of the Session Personal Projects:** During the session, participants will engage in hands-on activities and discussions to develop personal projects leveraging machine learning concepts. Here are some potential experiences and outputs:

1. **Project Ideation**: Participants brainstorm and refine project ideas based on their interests and the concepts covered in the workshop.
2. **Data Exploration**: They learn techniques for collecting and preprocessing data, ensuring it's suitable for machine learning tasks.
3. **Model Development**: Participants implement machine learning models using popular frameworks like TensorFlow or scikit-learn, guided by workshop instructors and resources provided.
4. **Experimentation and Iteration**: They experiment with different algorithms, hyperparameters, and feature engineering techniques to optimize model performance.
5. **Evaluation and Interpretation**: Participants assess their models' performance using appropriate evaluation metrics and interpret the results to derive insights.
6. **Documentation**: They document their project findings, methodologies, and results, creating a comprehensive report or presentation to share with peers and instructors.
7. **Feedback and Collaboration**: Participants receive feedback from peers and instructors, fostering collaboration and iteration to improve their projects.
8. **Presentation**: Finally, participants present their projects to the group, showcasing their learnings, challenges faced, and outcomes achieved.
9. **Networking and Collaboration Opportunities**: Through project discussions and presentations, participants may identify opportunities for collaboration or further exploration of shared interests.
10. **Skills Development**: Overall, the session provides participants with valuable hands-on experience, enhancing their skills in machine learning, project management, and communication.