KLEF Deemed to be University

DEPARTMENT OF ECE

REPORT ON SIL EVENT CONDUCTED BY TEACH A MACHINE CLUB

DEEPLEARNING FOR COMPUTER VISION: Series 1

Date-28/09/23 **Venue- R204**

(DEEMED TO BE UNIVERSITY)

FACULTY IN-CHARGES

Dr.E.KIRAN KUMAR

Dr.P.V.V.KISHORE

STUDENT CO-ORDINATORS

P.Abbas Ali – 2100040087

A.Leela Ramakrishna-2100040001

M.Subhang – 2100040024

KL | KLH ECE

TEACH A MACHINE

PULSE

DEEPLEARNING FOR COMPUTER VISION APPLICATIONS - SERIES 1

BY

TEACH A MACHINE CLUB

JOIN THE GROUP

- https://t.me/+kLJs3S6h2FNlMjFl

DATE: 28th SEP
TIME: 5:20PM
VENUE : R204

FACULTY IN-CHARGES
DR. E. KIRAN KUMAR
DR. P.V.V. KISHORE

STUDENT CO-ORDINATORS
P.ABBAS ALI (7674861974)
G.SUBHANG (7780156322)
T.PRASHANTH (7702245679)

Objective of the Deep Learning for Computer Vision Workshop:

The objective of the Deep Learning for Computer Vision Workshop is to provide participants with a comprehensive understanding of deep learning techniques and their applications specifically in the field of computer vision. The workshop aims to achieve the following goals:

1. Fundamental Concepts: Introduce participants to the fundamental concepts of deep learning, including neural networks, convolutional neural networks (CNNs), and deep learning frameworks such as TensorFlow and PyTorch.
2. Computer Vision Basics: Cover essential concepts in computer vision, such as image processing, object detection, image classification, segmentation, and feature extraction.
3. Deep Learning Techniques: Explore advanced deep learning techniques tailored for computer vision tasks, including transfer learning, data augmentation, regularization methods, and hyperparameter tuning.
4. Practical Implementation: Provide hands-on experience with implementing deep learning models for computer vision applications. Participants will work on real-world datasets, perform model training, evaluation, and optimization.
5. Model Interpretability: Discuss methods for interpreting and understanding deep learning models' decisions in computer vision tasks, such as visualization techniques and model explainability tools.
6. Advanced Topics: Cover advanced topics in deep learning for computer vision, such as generative adversarial networks (GANs), object tracking, semantic segmentation, and image synthesis.
7. Applications and Case Studies: Explore diverse applications of deep learning in computer vision, including autonomous vehicles, medical image analysis, surveillance systems, facial recognition, and more. Present case studies showcasing successful implementations and innovations in the field.
8. Collaborative Learning: Foster a collaborative learning environment where participants can exchange ideas, share insights, and collaborate on projects. Encourage discussions on best practices, challenges, and future directions in deep learning for computer vision.

Description of the Deep Learning for Computer Vision Workshop:

The Deep Learning for Computer Vision Workshop is a comprehensive program designed to immerse participants in the cutting-edge techniques and applications of deep learning in the field of computer vision. The workshop spans multiple sessions, each focusing on different aspects of deep learning and its relevance to computer vision tasks.

The workshop begins with an overview of deep learning fundamentals, including neural networks, CNNs, and deep learning frameworks such as TensorFlow and PyTorch. Participants are introduced to the architecture of neural networks and the principles behind training and optimizing these models for image-related tasks.

Throughout the workshop, participants delve into key concepts in computer vision, such as image processing techniques, object detection algorithms, image classification methods, image segmentation, and feature extraction. Practical sessions allow participants to apply these concepts using real-world datasets, gaining hands-on experience in model development, training, and evaluation.

The workshop also covers advanced topics in deep learning for computer vision, such as transfer learning, data augmentation, regularization techniques, and hyperparameter tuning. Participants learn how to enhance model performance, mitigate overfitting, and improve generalization on diverse image datasets.

One of the workshop's highlights is the exploration of model interpretability in deep learning for computer vision. Participants learn visualization techniques and model explainability tools to interpret and understand deep learning models' decisions, gaining insights into model behavior and performance.

Throughout the workshop, case studies and examples from industry applications are presented to showcase the practical relevance and impact of deep learning in computer vision. Participants gain exposure to a wide range of applications, including autonomous vehicles, medical image analysis, surveillance systems, facial recognition, and more.

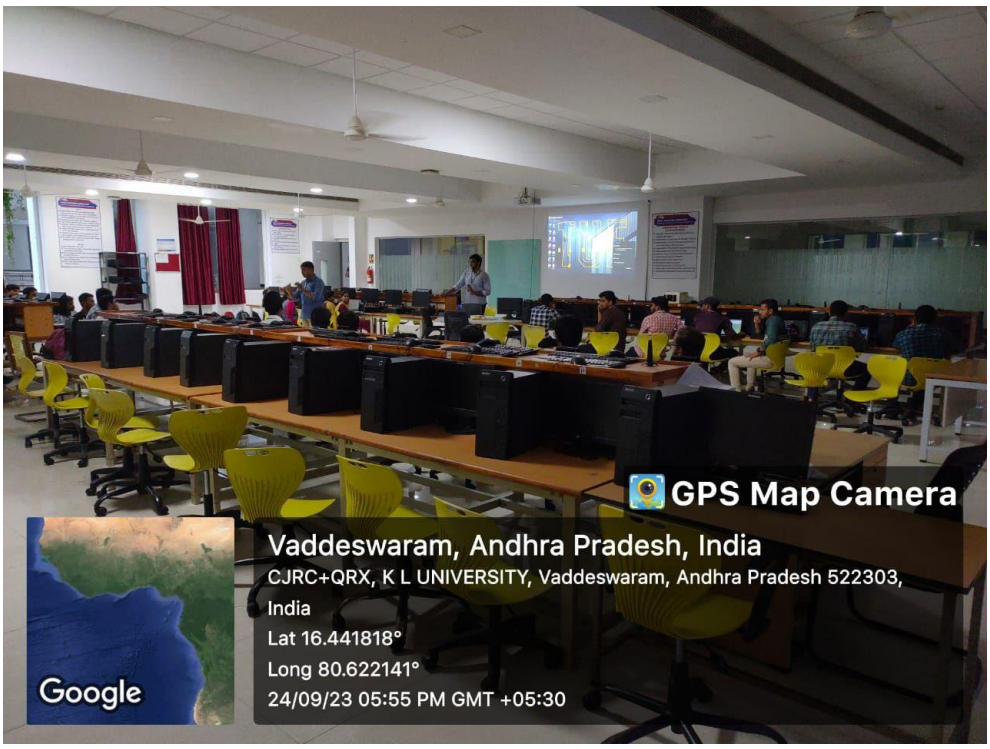
The workshop fosters a collaborative learning environment, encouraging participants to engage in discussions, share experiences, and collaborate on projects. By the end of the workshop, participants emerge with a strong foundation in deep learning for computer vision, practical skills in model development and interpretation, and a deeper understanding of the transformative potential of deep learning in advancing computer vision technologies.

Outcome of the Deep Learning for Computer Vision Workshop:

1. Deep Understanding of Deep Learning Principles: Participants gain a comprehensive understanding of deep learning principles, including neural networks, convolutional neural networks (CNNs), and deep learning frameworks like TensorFlow and PyTorch, specifically applied to computer vision tasks.
2. Practical Skills in Model Development: Participants acquire hands-on experience in developing deep learning models for computer vision applications. They learn how to preprocess image data, design neural network architectures, train models, and evaluate their performance using real-world datasets.
3. Advanced Techniques Application: Participants learn and apply advanced techniques such as transfer learning, data augmentation, regularization, and hyperparameter tuning to enhance model performance, reduce overfitting, and improve generalization on diverse image datasets.
4. Model Interpretability and Visualization: The workshop equips participants with skills in interpreting and visualizing deep learning models' decisions, enhancing their ability to understand model behavior, identify key features, and assess model performance effectively.
5. Application to Real-World Scenarios: Through case studies and examples from industry applications, participants gain insights into how deep learning can be applied to solve real-world challenges in areas such as autonomous vehicles, medical image analysis, surveillance systems, facial recognition, and more.
6. Collaborative Learning Environment: The workshop fosters collaboration and knowledge sharing among participants, encouraging discussions on best practices, challenges, and innovative approaches in deep learning for computer vision.
7. Enhanced Career Opportunities: Participants acquire valuable skills and knowledge that can significantly enhance their career prospects in fields related to computer vision, artificial intelligence, machine learning, and data science.

Overall, the outcome of the Deep Learning for Computer Vision Workshop empowers participants with the expertise and confidence to leverage deep learning techniques effectively in solving complex computer vision problems and driving innovation in diverse industries.

GEO Tagged Photos



No of students attended the Event – 50

Participated Students

28.09.2023

S.No	ID No	Full Name of the Student	Signature
1	2200030276	PERUMALLA BHASWANTH	P Bhaswanth
2	2200030287	PIDIKITI JAHNAVI	P. Jahnavi
3	2200030310	CHALLA SAMUEL SIDDHARTHA REDDY	Ch Siddhartha reddy
4	2200030359	CHANDANAM THEJONADH	Vivek reddy
5	2200030490	THADIGATLA VIVEK REDDY	Tejo nadh
6	2200030570	NAGARAJ VIGNESH KUMAR	Vishnu Kumar
7	2200030733	CHITIRALA NIKITHA	Ch Nikitha
8	2200030758	KUMMARI ARUNKUMAR	Arun Kumar
9	2200030970	PADALA KARTHIKA	Padala Karthika
10	2200031106	BOLISETTY VISHNU SAMHITHA	Vishnu Samhitha
11	2200031176	GANTA ROHINI REDDY	G. Rohini Reddy
12	2200031333	MARISETTI LAKSHMI VENKATA PHANINDRA KUMAR	Phanindhra
13	2200031610	LEENA NARMADA GUMMA	L Narmada
14	2200031662	BANDLA LAVANYA	B. Lavanya
15	2200031687	MUNDURU SRI SHRIYA	Sri Shriya
16	2200031717	MALLAMPATI VISHNU PRIYA	Vishnu priya
17	2200031814	LANKA RUCHITHA	L Ruchitha
18	2200031818	KALLAM MOHITHA REDDY	Mohitha Reddy
19	2100040024	M.H.G SUBHANG	Subhas Ali
20	2100040087	P.ABBAS ALI	M. Sukhey
21	2100040369	T.PRASHANTH KUMAR	Prashanth
22	2200040014	P.GAYATHRI	P. Gayathri
23	2200040015	S.VYSHNAVI	S. Vyshnavi
24	2200040022	GOPINADH.V	Gopinath. V
25	2200040026	YUVA	Yuva
26	2200040046	BALAJI	Balaji
27	2200040214	B.VIVEK	B Vivek
28	2200040227	LALITHA SINDHURI.V	Sindhuri
29	2200040285	PUJITHA.M	M. Pujitha
30	2200040293	M.VYSHNAVI	M.Vyshnavi
31	2200049022	CH.THANUSHA	Ch Thanusha
32	2200049077	YASHWANTH	Yashwanth
33	2200049093	D.BHANU TEJASRI	D. Bhanu
34	2200049105	S.DEEPTHI	Sreepathi
35	2200049109	SANDEEP	Sandeep
36	2200049110	M.VISHAL VASHAN	M. Vishal
37	2200049112	CHAKRI	Chakri
38	2200032952	KATAKAM HARSHITH GUPTA	Gupta
39	2200033092	ANANYA SINHA	Ananya Sinha
40	2200033099	BANDARU GANESH ATCHYUTH	Ganesh
41	2200033204	BOJJA HEMANVITH	B Hemanth
42	2200033231	MANCHURI PURUSHOTHAM	Purshotham
43	2200033238	GOGIKARU SAI DHANUSH	G. Dhanush

44	2200033283	R PAVANI	R. Pavani
45	2200039011	GUDAPATI DEVARSHI	Gupta Devarshi
46	2200040052	VEGESNA BHAGAVAN MANIKANTA VARMA	Varma
47	2200040053	VEGESNA INDRA VENKATA DURGA VARMA	durga varma
48	2200040089	MANE NAGA SREE SAI CHARAN	Sai Charan
49	2200040326	TENTU SAI CHARAN	Tentu Sai Charan
50	2200040331	KUSUMANCHI VENKATA SAI AKHIL	K. Sai Akhil

In-charge.

Dr. M. SUMAN
Professor & Head
Department of ECE
KLEF
Green Fields, Vaddeswaram
Guntur Dist., A.P. PIN: 522 502