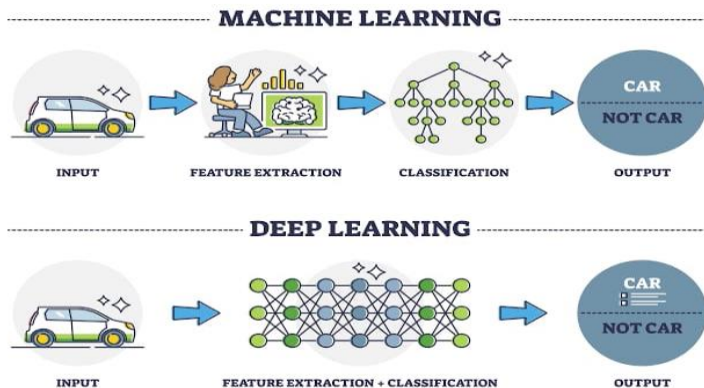**AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY**
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Tamaram, Makavarapalem, Narsipatnam (RD), Anakapalli-531113

Certificate Course
on

MACHINE LEARNING & DEEP LEARNING

From 29^{tht} JAN 2024 to 02 nd FEB 2024

ORGANIZED BY

DEPT. OF COMPUTER SCIENCE ENGINEERING
AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY,
TAMARAM (V), MAKAVARAPALEM (M), ANAKAPALLI-531113

AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY

AIET started in the year 1999 and offers various courses at Engineering and PG level. The college is providing with rooms, computer centre, laboratories and seminar hall with audio-visual equipments. Industry Institute interaction is conducted regularly to emphasize on the latest trends in the present market.

It is very near to Narsipatnam. Frequent bus facilities are available both from and to Visakhapatnam and Narsipatnam. Very safe and secure hostel facility is available for Girl students. These are the additional facilities besides excellent academic atmosphere in the college campus.

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

The Computer Science & Engineering department was established with B.Tech Program in 1999 with intake of 60 students and this was increased to 120 students in 2007 and increased to 180 students in 2012. The Post graduate Program M.Tech with C.S.E was started in 2005 with intake of 18 Students and this was increased to 24 students in 2012. The Computer Science & Engineering department was accredited by NBA in 2009 and 2014. Department mission is to be Instrumental in the field

of computer science & engineering by providing high quality education and continues improvement process of the program. The department has full fledged faculty with four professors with Ph. D and 40 staff members with experience in teaching and industry, which leads the skill students to get employment in the market. . The department encourages the faculty members and the students to participate paper presentations, seminars, workshops and National, International conferences and research activities. The department is well equipped laboratories and the computers have sophisticated development software tools. The department provides training to its students in advanced technologies like JAVA, WEB TECHNOLOGIES, .NET, PHP, Data Warehousing, Data Mining tools and Data storage systems as a supplement to the curriculum to enhance the employ ability of students. Our faculty members are the members of Computer Society of India, ISTE, and IEEE.

ABOUT COURSE

Machine learning is an area of artificial intelligence and computer science that comprises supervised and unsupervised learning and includes the development of software and algorithms that can make predictions based on data.. Deep learning courses cover a subset of machine learning that uses multi-layered neural networks to teach fundamental concepts and develop advanced machine learning models, valuable for data scientists and AI researchers.

TOPICS TO BE COVERED

Day 1: Introduction to Machine Learning

Day 2: Unsupervised Learning and Clustering Techniques

Day 3: Introduction to Deep Learning

Day 4: Feature Engineering, Model Evaluation, and Hyper parameter Tuning

Day 5: Advanced Topics and Project Presentations

Day 6: Testing & Debugging

For any further information Contact k.Asha Devi, CSE (AI&ML,DS)

S.Venkata Rao Assistant Professor, CSE(AI&ML,DS)

CHIEF PATRON
Smt.M.Ganeswari
President, Avanthi Educational Society

PATRON
Dr. C P V N J Mohan Rao
Principal,
Avanthi Institute Of Engineering And Technology

CHAIRMAN
Dr.N.V. Ashok Kumar
Head of the Department
Computer Science Engineering
(AI&ML,DS)

COORDINATORS
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Assistant Professof CSE(AI&ML,DS)
S.Venkata Rao
Assistant Professor, CSE(AI&ML,DS)

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DEPARTMENT OF COMPUTER SCIENCE ENGINEERING-AI&ML

Dt. 25-01-2024.

CIRCULAR

A Course on "MACHINE LEARNING & DEEP LEARNING" for all the IV&III Year students of Computer Science Engineering (AI & ML) Department is scheduled from 29th january 2024 to 02th February 2024. All the students should attend the course without fail. For any further information Contact k.Asha Devi, S.Venkata Rao Assistant Professor, CSE Department may be consulted.

Resource Person:

1. Dr. A.RAMA RAO
   Professor of Dept. of CSE,
   Lendi Institute of Engineering& Technolog,
   Jonnada - Vizianagaram.

2. Dr. M Ramesh
   Asst. Professor of Dept. of CSE,
   RVR&JC college of Engineering, Guntur.

Dr. N.V.Ashok Kumar
HOD
CSE-AI&ML,DS DEPARTMENT

Copy to: Principal, AIET

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DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

MACHINE LEARNING & DEEP LEARNING

during 29th JAN 2024 to 02nd FEB 2024

SYLLABUS

Day 1: Introduction to Machine Learning

Day 2: Unsupervised Learning and Clustering Techniques

Day 3: Introduction to Deep Learning

Day 4: Feature Engineering, Model Evaluation, and Hyperparameter Tuning

Day 5: Advanced Topics and Project Presentations

COORDINATOR

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DEPARTMENT OF COMPUTER SCIENCE ENGINEERING-AI &ML
MACHINE LEARNING & DEEP LEARNING

SCHEDULE
Duration: 29th JAN 2024 to 02th FEB 2024

DAY/DATE	Live Session - 1 09.00AM to 12.30 PM	Live Session - 2 1 PM to 4 PM
Monday **29/01/2024**	Registration & Welcome Session Introduction to Machine Learning • Definition and types (Supervised, Unsupervised, Reinforcement Learning) • Key concepts: Features, Labels, Training, and Testing	Machine Learning Workflow • Data collection, data preprocessing, feature selection, and model evaluation • Overview of ML algorithms: Linear Regression, K-Nearest Neighbors (KNN), Decision Trees •
Tuesday **30/01/2024**	Supervised Learning Algorithms • In-depth discussion of Classification Algorithms (Logistic Regression, SVM, KNN) • Model evaluation metrics: Accuracy, Precision, Recall, F1-score, AUC	Overfitting and Regularization • Concepts of bias-variance trade-off, L1 & L2 Regularization Hands-on Session: Building Classification Models (Logistic Regression and SVM)
Wednesday **31/01/2024**	Fundamentals of Deep Learning • What is Deep Learning? • Neural Networks: Structure, Activation Functions, Layers • Overview of Deep Learning frameworks (TensorFlow, Keras, PyTorch)	• Training Neural Networks • Gradient Descent, Backpropagation, Optimizers Hands-on Session: Building a Simple Neural Network in Keras • Q&A and Discussion

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Thursday **01/02/2024**	Convolutional Neural Networks (CNNs) • CNNs for image recognition, Layers: Convolutional, Pooling, Fully Connected • Transfer Learning	Recurrent Neural Networks (RNNs) and LSTMs • Use cases for sequence prediction (e.g., text generation, time series)
Friday **02/02/2024**	**Advanced Topics in Deep Learning** • Transfer Learning: Fine-tuning pre-trained models • **Generative Adversarial Networks (GANs) and Variational Autoencoders (VAEs) Introduction and Guidance** • Guidance on final project implementation (e.g., predictive model, classification task, image recognition) • Group work or individual tasks to build a deep learning model	**project Work & Mentoring** • Participants work on their projects with mentor assistance **Project Presentations, Q&A & Certificate Distribution** • Present final projects and receive feedback • Certificates awarded upon completion of the workshop

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DEPARTMENT OF COMPUTER SCIENCE ENGINEERING-AI &ML

MACHINE LEARNING & DEEP LEARNING

during 29th JAN 2024 to 02nd FEB 2024.

III & IV YEAR CSM STUDENTS ATTENDANCE

S.N	ROLL NO.	NAME OF THE STUDENT	29/01/24	30/01/24	31/01/24	01/02/24	02/02/24
1	21811A05H4	PYLA RAMESH	✓	✓	✓	✓	✓
2	21811A4201	ADIGARLA BHAGYALAKSHMI	✓	✗	✓	✓	✓
3	21811A4202	CHITIKELA DURGA PRASAD	✓	✓	✓	✓	✓
4	21811A4203	BARNIKALA PRASAD	✓	✓	✓	✓	✗
5	21811A4204	USHA SAI SRILATHA BITRA	✓	✓	✓	✓	✓
6	21811A4205	BOTHSA MANASA ROHINI	✓	✓	✓	✓	✓
7	21811A4206	CHILUKURI KOMALI DEVI	✗	✓	✓	✓	✓
8	21811A4207	DRAKSHARAPU VIJAY	✓	✓	✓	✓	✓
9	21811A4208	DASARI JAYA PRAKASH	✓	✓	✓	✓	✓
10	21811A4209	DOGGA LOKESH	✓	✓	✗	✓	✓
11	21811A4210	ELAKA VIVEK	✓	✓	✓	✓	✓

12	21811A4211	VENKATARAMANA KALLEPILLI	✓	✓	✓	✓	✓
13	21811A4212	NEELAVENI KARAKA	✓	✓	✓	✓	✓
14	21811A4213	KAREDLA PREM SAI	✓	✗	✓	✓	✓
15	21811A4214	KOMATI RAVI TEJA	✓	✓	✓	✓	✓
16	21811A4216	LEESA LAISETTI	✗	✓	✓	✓	✓
17	21811A4217	LALAM MEGHANA	✓	✓	✓	✗	✓
18	21811A4219	MYTHRI MENDA	✓	✓	✓	✓	✓
19	21811A4220	HARINI MUMMIDISETTY	✓	✓	✓	✓	✓
20	21811A4221	MURRU SAI	✓	✓	✓	✓	✓
21	21811A4223	DWARAPUREDDI NAVEEN	✓	✓	✓	✓	✓
22	21811A4224	PALAPARTHI PURNAGAYATRI	✓	✓	✓	✓	✗
23	21811A4225	PODULAPU SANKAR RAO	✓	✓	✓	✓	✓
24	21811A4226	POLAMARASETTY CHAKRA TEJA	✓	✓	✓	✓	✓
25	21811A4227	ROOPA GEDDAM	✓	✓	✓	✓	✓
26	21811A4228	PYLA RAMYA	✗	✓	✓	✓	✓
27	21811A4228	SUKANYA MARRI	✓	✓	✓	✓	✓
28	21811A4229	REDDY HYMA	✓	✓	✓	✓	✓
29	21811A4230	TRIVENI MAKIREDDI	✓	✗	✓	✓	✓
30	21811A4231	RUTTALA SRAVANI	✓	✓	✓	✓	✓

31	21811A4232	BHANU CHAITANYA SALAPU	✓	✓	✓	✓	✓
32	21811A4233	SIRIKI VAISHNAVI	✓	✗	✓	✓	✓
33	21811A4234	SETTI LIKITHA LIKITHA	✓	✓	✓	✓	✓
34	21811A4235	VANDRASI KUMAR	✓	✓	✓	✓	✓
35	21811A4236	SATYAVATHI SATYAVATHI	✓	✓	✓	✓	✓
36	21811A4237	VEGI SEKHAR	✗	✓	✓	✓	✓
37	21811A4238	VISINIGIRI GAYATHRI	✓	✓	✓	✓	✓
38	21811A4239	PULAN KUMAR YELAMANCHILLI	✓	✓	✓	✓	✓
39	21811A4240	YERRA AMRUTHA VARSHINI	✓	✓	✓	✓	✓
40	21811A4241	APPIKONDA KAVYA ANJALI DEVI	✓	✓	✓	✓	✓
41	21811A4242	BALIJEPALLI RAMADASU	✓	✓	✓	✓	✓
42	21811A4243	BANDARU VARA PRASAD	✓	✗	✓	✓	✓
43	21811A4244	KOTI DONTHALA	✓	✓	✓	✓	✓
44	21811A4245	KALA JAYANTH KUMAR	✓	✓	✓	✓	✓
45	21811A4246	KIRAN PADARAPAKA	✓	✓	✓	✓	✓
46	21811A4247	SAYAM SWAROOPA RANI	✓	✓	✓	✓	✓
47	21811A4248	SATIVADA ADI KOUSHIK	✓	✓	✓	✓	✗
48	22815A4201	ANPOJU REVATHI	✓	✓	✓	✓	✓

49	22815A4202	BANTU VAMSI	✓	✓	✓	✓	✓
50	22815A4203	SRIKANTH DODDI	✓	✓	✓	✓	✓
51	22815A4204	UMASHANKAR GUDIYA	✓	✓	✓	✓	✓
52	22815A4205	KILLADI VARUNKUMAR	✓	✓	✓	✓	✓
53	22815A4206	RAJESH KUMAR PYLA	✓	✓	✓	✗	✓
54	22815A4208	SENAPATHI TEJASWANI	✓	✓	✓	✓	✓
55	22815A4209	SHAIK RAZAK BASHEER	✓	✓	✓	✓	✓
56	22815A4210	TAMARANA JAGADISH	✗	✓	✓	✓	✓
57	20811A4201	ABHIGAIL BOBBILI	✓	✓	✓	✓	✓
58	20811A4202	CHEKKA HARSHA VARDHAN	✓	✓	✓	✓	✓
59	20811A4204	CHUNDI MADHAV REDDY	✓	✓	✓	✓	✓
60	20811A4205	GANISETTI PENTARAO	✓	✓	✓	✓	✓
61	20811A4206	GANJI MADHURI	✓	✓	✓	✓	✓
62	20811A4207	VAMSI KRISHNA GEDELA	✓	✗	✓	✓	✓
63	20811A4208	SURYASWIN GOLAJANA	✓	✓	✓	✓	✓
64	20811A4209	KOTHAPALLI GOUTHAM KUMAR	✓	✓	✓	✓	✓
65	20811A4210	GUMMUDU ASRITHA	✓	✓	✓	✓	✓
66	20811A4211	INDALA SRIVENKATAMANIPAVANKUMAR	✓	✓	✓	✓	✓

67	20811A4212	KALIMI DURGA PRASAD	✓	✓	✓	✓	✓
68	20811A4214	KARRI RAJ KUMAR	✓	✓	✓	✓	✓
69	20811A4215	BHUVANESWARI KILLADA	✓	✓	✓	✓	✓
70	20811A4216	KAVYA LENKA	✓	✓	✗	✓	✓
71	20811A4217	MADEM LAKSHMI ROHITHA	✓	✓	✓	✓	✓
72	20811A4218	NAGIREDDI YUVARAJ	✓	✓	✓	✓	✓
73	20811A4219	NAVARA JAHNAVI	✓	✗	✓	✓	✓
74	20811A4220	NAVEEN NELLIMARLA	✓	✓	✓	✓	✓
75	20811A4221	SAHITHI SUMA	✓	✓	✓	✗	✓
76	20811A4222	PYLA SUNIL	✓	✓	✓	✓	✓
77	20811A4223	RAJAMANDRI DURGASAIESWAR	✓	✓	✓	✓	✓
78	20811A4224	RONGALA CHANDRIKA	✗	✓	✓	✓	✓
79	20811A4225	RONGALA DIVYA	✓	✓	✓	✓	✓
80	20811A4226	RUTHALA KALYANI	✓	✓	✓	✓	✓
81	20811A4227	TEJA SAI SABBAVARAPU	✓	✓	✓	✓	✓
82	20811A4228	SHIVA SANGAMREDDI	✓	✓	✓	✓	✗
83	20811A4231	PREETHI SRI SAI TANAKALA	✓	✓	✓	✓	✓
84	20811A4232	SWATHI V	✓	✓	✓	✓	✓
85	20811A4234	VEDULA DEV DESHAK	✓	✓	✓	✓	✓

86	20811A4235	YAKA TEJA SIVA GANESH	✓	✓	✓	✓	✓
87	20811A4236	YERRAMSETTI SAI VIJAYA LEELA	✓	✓	✓	✓	✓
88	20811A4237	ARISETTY ADITYA	✓	✓	✓	✓	✓
89	21815A4201	ANIMIREDDY PURNA GANESH	✓	✓	✓	✓	✓
90	21815A4202	KRISHNAVAMSI BERA	✓	✓	✓	✓	✓
91	21815A4203	SRAVANI PADALA	✓	✓	✓	✓	✓
92	21815A4204	PINAMARAJU DSKVARMA	✓	✓	✓	✓	✓

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DEPARTMENT OF COMPUTER SCIENCE ENGINEERING-AI&ML

MACHINE LEARNING & DEEP LEARNING

From 29th JAN 2024 to 02nd FEB 2024

Kothapallem, Andhra Pradesh, India
Jpcw+vh, Kothapallem, Andhra Pradesh 531113, India
Lat 17.622261° Long 82.745633°
30/01/2024 12:29PM

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Certificate of Participation

This is to certify that

Mr./Ms._____of_____has

participated in the Certificate Course entitled on MACHINE LEARNING & DEEP LEARNING

during from 29th JAN 2024 to 02nd FEB 2024 was organised by the Department of COMPUTER

SCIENCE ENGINEERING-AI&ML at Avanthi Institute of Engineering and Technology.

Coordinator   **HOD**   **Principal**

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DEPARTMENT OF COMPUTER SCIENCE ENGINEERING-AI &ML

Dt. 20/01/2024

BRIEF REPORT

Department of Computer Science Engineering, Avanthi Institute of Engineering and Technology had organized a certificate course on " MACHINE LEARNING & DEEP LEARNING " during 29th JAN 2024 to 02nd FEB 2024.

The first speaker Dr. A.RAMA RAO Professor of Dept. of CSE,Lendi Institute of Engineering& Technolog, Jonnada - Vizianagaram. Machine learning is an area of artificial intelligence and computer science that comprises supervised and unsupervised learning and includes the development of software and algorithms that can make predictions based on data.

The second expert Dr. Dr. M Ramesh Asst. Professor of Dept. of RVR&JC college of Engineering, Guntur. Deep learning courses cover a subset of machine learning that uses multi-layered neural networks to teach fundamental concepts and develop advanced machine learning models, valuable for data scientists and AI researchers

The event concluded with a panel discussion and certificate distribution. Participants expressed appreciation for the depth of knowledge shared by the resource persons. Many students found the sessions insightful, particularly the discussions on the future of hybrid and electric mobility. Thanked the resource persons for their valuable contribution and encouraged students to explore career opportunities in the evolving field of Software technology.

Dr. N.V.Ashok Kumar
HOD
CSE(AI&ML,DS) DEPARTMENT
Avanthi Institute of Engg. & Technology
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