



VIMAL JYOTHI ENGINEERING COLLEGE

JYOTHI NAGAR, CHEMPERI – 670632, KANNUR, KERALA

Affiliated to APJ Abdul Kalam Technological University, Approved by AICTE
ISO 9001 : 2015 Certified | Accredited by Institution of Engineers (India), NBA, NAAC
Ph: 0490 2212240, 2213399 Email: office@vjec.ac.in Website: www.vjec.ac.in

NAAC Cycle 2

Criterion: 1.2.1

Table of Content

Sl. No	Contents
1	Event Proposal
2	Curriculum
3	Brochure
4	Attendance
5	Sample Certificate





Event proposal - ADS Division

Event type and name	A hands-on workshop on "Deep Learning - A real-world approach"
Tentative date	22nd February 2023 - 26th February 2023
Participants/ audience	S6 ADS Students
Objectives	To prepare students to use modern tools and techniques in Deep Learning
Resource requirements	Projector, Speaker, Device with internet connectivity
Expected outcomes	Students will be able to provide solutions to real world problems based on Deep Learning.
Connected PEOs/POs/COs	PO1,PO2,PO3,PO4,PO5,PO12.
Resource persons	Speakers 1. Dr. Premjith B, Assistant Professor, Center for Computational Engineering and Networking, Amrita Vishwa Vidyapeetham, Coimbatore 2. Mr. Sajith Variyar V.V, Assistant Professor, Center for Computational Engineering and Networking, Amrita Vishwa Vidyapeetham, Coimbatore
Responsible persons	Co-ordinators Ms. Ancy K Sunny , AP CSE Ms. Thripathi P Balakrishnan, AP CSE Convenor Dr. Manoj V Thomas, Professor & Programme Coordinator (ADS)

Emotional food & Demonstration of officers.
[Signature]
24/01/23

[Signature]
24/01/23

Curriculum

Module I

Introduction to Deep Learning - Introduction to Deep Learning - Difference between Machine Learning and Deep Learning

Module II

Deep Neural Network (DNN) - Perceptron - Activation function - Parameters of a neural network - Loss functions - Optimizers- Image classification using DNN (Including hands-on session)

Module III

Deep learning for Computer Vision - Convolutional Neural Network - Convolutional Neural Network (CNN) - Components of a CNN - Transfer learning with CNN- CNN applications for biomedical image data (Including hands-on session)

Module IV

Deep Learning for Natural Language Processing - Sequential data - How to process sequential data? - Recurrent Neural Network (RNN)- Long Short - Term Memory (LSTM) Networks- Text classification using RNN and LSTM (Including hands-on session) - Encoder - Decoder Architecture for Machine Translation

Lesson Plan

Day	Plan
22/02/2023	<p>1. Introduction to Deep Learning</p> <ul style="list-style-type: none"> - Introduction to Deep Learning - Difference between Machine Learning and Deep Learning <p>2. Deep Neural Network (DNN)</p> <ul style="list-style-type: none"> - Perceptron - Activation function - Parameters of a neural network - Loss functions - Optimizers - Image classification using DNN (Including hands-on session)

Lesson Plan	
Day	Plan
23/02/2023	Deep learning for Computer Vision - Convolutional Neural Network - Convolutional Neural Network (CNN) - Components of a CNN - Transfer learning with CNN - CNN applications for biomedical image data (Including hands-on session)
24/02/2023	Deep Learning for Natural Language Processing - Sequential data - How to process sequential data? - Recurrent Neural Network (RNN) - Long Short - Term Memory (LSTM) Networks - Text classification using RNN and LSTM (Including hands-on session) - Encoder - Decoder Architecture for Machine Translation
25/02/2023	Project based on NLP and image processing
26/02/2023	Presentation and Feedback

Assessment mechanism	
25/02/2023	Project based on NLP and image processing
26/02/2023	Presentation and Feedback
Budget details	
Remuneration for resource person	8500*3 = 25,500 ✓
Tea Snacks	40*20*3= 2400 ✗
Lunch	2 *200*3 = 1200 ✓
Stationery	1000 ✗
Total expense	30,100/-

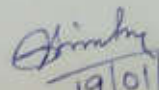
Proposal prepared by

Ms. Ancy K Sunny , AP CSE
 Ms.Thripathi P Balakrishnan, AP CSE

19/01/2023


Recommended by

Dr. Manoj V Thomas,
 Professor & Programme Coordinator (ADS)

19/01/2023




Deep Learning - A real-world approach

Course Description

This course aims to present the core fundamentals behind the field of Deep Learning. It introduces major deep learning algorithms, the problem settings, and their applications to solve real world problems. This course covers basics and hands on approach to neural networks, understanding how CNN and RNN works with common examples.

Course Objective

- Introduces the fundamental concepts of Deep Learning and its applications by Providing an overview of Deep Learning techniques like Artificial Neural Networks, Convolutional Neural Networks, and Recurrent Neural Networks.
- Provides Hands-on experience with popular Deep Learning frameworks.
- Understanding the challenges and limitations of Deep Learning and how to overcome them.
- Developing problem-solving skills and the ability to design and implement Deep Learning solutions to real-world problems.

Course Outcomes (CO)

At the end of the course students will be able

1. To differentiate between various machine learning and deep learning algorithms.
2. To apply DNN for image classification.
3. To apply CNN in Biomedical field.
4. To build RNN and LSTM models for different NLP applications.
5. To develop a solution for a real-world problem that demonstrates a thorough understanding of deep learning principles and concepts, achieved through effective teamwork.



CO-PO/PSO Mapping

COs	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PSO	PSO
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
CO1	3	3	3	3	1								3	3
CO2	3	3	3	3	2								3	3
CO3	3	3	3	3	2								3	3
CO4	3	3	3	3	2								3	3
CO5	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Syllabus

Unit	Details	Hours
1	Introduction to Deep Learning - Introduction to Deep Learning - Difference between Machine Learning and Deep Learning	4
2	Deep Neural Network (DNN) - Perceptron - Activation function - Parameters of a neural network - Loss functions - Optimizers- Image classification using DNN (Including hands-on session)	6
3	Deep learning for Computer Vision - Convolutional Neural Network - Convolutional Neural Network (CNN) - Components of a CNN - Transfer learning with CNN- CNN applications for biomedical image data (Including hands-on session)	7
4	Deep Learning for Natural Language Processing - Sequential data - How to process sequential data? - Recurrent Neural Network (RNN)- Long Short - Term Memory (LSTM) Networks- Text classification using RNN and LSTM (Including hands-on session) - Encoder - Decoder Architecture for Machine Translation	7
Course Project and Evaluation		6



VIMAL JYOTHI
ENGINEERING COLLEGE
JYOTHI NAGAR, CHEMPERI - 670632, KANNUR, KERALA
ACCREDITED BY IEL, NBA & NAAC • ISO 9001:2015 CERTIFIED
AFFILIATED TO KTU • APPROVED BY AICTE



Text Books:

1. Ian J. Goodfellow, Yoshua Bengio, Aaron Courville, "Deep Learning", MIT Press, 2017.
2. Francois Chollet, "Deep Learning with Python", Manning Publications, 2018

References:

1. Phil Kim, "Matlab Deep Learning: With Machine Learning, Neural Networks and Artificial Intelligence", Apress, 2017.
2. Ragav Venkatesan, Baoxin Li, "Convolutional Neural Networks in Visual Computing", CRC Press, 2018.
3. Navin Kumar Manaswi, "Deep Learning with Applications Using Python", Apress, 2018.
4. Joshua F. Wiley, "R Deep Learning Essentials", Packt Publications, 2016.



VIMAL JYOTHI
ENGINEERING COLLEGE
CHEMPERI - KANNUR - KERALA
WWW.VJEC.ac.in



Department of CSE

Artificial Intelligence and Data Science

A HANDS - ON WORKSHOP ON

"DEEP LEARNING A REAL - WORLD APPROACH"

for 6th Semester Artificial Intelligence & Data Science Students

29.03.2023 - 02.04.2023

VENUE : EMBEDDED SYSTEM LAB

Staff coordinators

Ms. Ancy K Sunny , AP CSE
Ms.Thiripthi P Balakrishnan, AP CSE

Convenor

Dr. Manoj V Thomas,
Professor & Programme Coordinator (ADS)

Resource Persons:

Dr. Premjith B
AP, CEN, Amrita Vishwa Vidyapeetham, Coimbatore
Mr. Sajith Vairiyar V.V
AP, CEN, Amrita Vishwa Vidyapeetham, Coimbatore

Vimal Jyothi Engineering College Chemperi - 670632

Artificial Intelligence and Data Science

Ad-on Course - "Deep learning - A real world approach"

Roll no	Register no	Name	29/03/2023 FN	29/03/2023 AN
1	VML20AD001	AARSHA ANIL	<i>[Signature]</i>	<i>[Signature]</i>
2	VML20AD002	ALANA ANCE JOHN	<i>[Signature]</i>	<i>[Signature]</i>
3	VML20AD003	ALAN THOMAS	<i>[Signature]</i>	<i>[Signature]</i>
4	VML20AD004	AMRITHA PRADEEP	<i>[Signature]</i>	<i>[Signature]</i>
5	VML20AD005	ANN RIYA JAISON	<i>[Signature]</i>	<i>[Signature]</i>
6	VML20AD006	AUSTINE S MANUEL	<i>[Signature]</i>	<i>[Signature]</i>
7	VML20AD007	CAMAY JILLS	Absent	Absent
8	VML20AD008	CHANDHANA RAJEEVAN	<i>[Signature]</i>	<i>[Signature]</i>
9	VML20AD009	CHRISTEENA J ROSE	<i>[Signature]</i>	<i>[Signature]</i>
10	VML20AD010	DENI THOMAS	<i>[Signature]</i>	<i>[Signature]</i>
11	VML20AD011	DEVA NAIR	<i>[Signature]</i>	<i>[Signature]</i>
12	VML20AD012	HAMNA RAFEEQ	<i>[Signature]</i>	<i>[Signature]</i>
13	VML20AD013	JASHLIN S SIMON	<i>[Signature]</i>	<i>[Signature]</i>
14	VML20AD014	KIRAN PRASAD PP	<i>[Signature]</i>	<i>[Signature]</i>
15	VML20AD015	MARWA ABDUL RAZAK	<i>[Signature]</i>	<i>[Signature]</i>
16	VML20AD016	MAZIN MURSHID	<i>[Signature]</i>	<i>[Signature]</i>
17	VML20AD017	MOHAMMED ZAIN RAFEEQUE	<i>[Signature]</i>	<i>[Signature]</i>
18	VML20AD018	NANDHAJ VIJAYAN	<i>[Signature]</i>	<i>[Signature]</i>
19	VML20AD019	NAVANEETHA P NAMBIAR	<i>[Signature]</i>	<i>[Signature]</i>
20	VML20AD020	RIDHA GAFOOR	Absent	Absent
21	VML20AD021	ROSE BENNY	<i>[Signature]</i>	<i>[Signature]</i>
22	VML20AD022	SHARON RAJISH JOSEPH	<i>[Signature]</i>	<i>[Signature]</i>
23	VML20AD023	SHYAMITH MANNAMBETH	<i>[Signature]</i>	<i>[Signature]</i>
24	VML20AD024	SNEHAL VINOD T	<i>[Signature]</i>	<i>[Signature]</i>
25	VML20AD025	SOURAV C	<i>[Signature]</i>	<i>[Signature]</i>
26	VML20AD026	STEPHIN LIJI	<i>[Signature]</i>	<i>[Signature]</i>
27	VML20AD027	THAHA MUHAMMED YASEEN	<i>[Signature]</i>	<i>[Signature]</i>
28	VML20AD028	THALHAH ANAS	<i>[Signature]</i>	<i>[Signature]</i>
29	VML20AD029	VAIBHAV RAJESH	<i>[Signature]</i>	<i>[Signature]</i>
30	VML20AD030	VAISHAKH P	<i>[Signature]</i>	<i>[Signature]</i>
31	VML20AD031	VISHNUPRIYA N	<i>[Signature]</i>	<i>[Signature]</i>
32	LVML20AD032	HARSHA M	<i>[Signature]</i>	<i>[Signature]</i>

Vimal Jyothi Engineering College Chemperi - 670632

Artificial Intelligence and Data Science

Ad-on Course - "Deeplearning - A real world approach"

Roll no	Register no	Name	30/03/2023	30/03/2023
1	VML20AD001	AARSHA ANIL	FN	AN
2	VML20AD002	ALANA ANCE JOHN		
3	VML20AD003	ALAN THOMAS		
4	VML20AD004	AMRITHA PRADEEP		
5	VML20AD005	ANN RIYA JAISON		
6	VML20AD006	AUSTINE S MANUEL		
7	VML20AD007	CAMAY JILLS		
8	VML20AD008	CHANDHANA RAJEEVAN		
9	VML20AD009	CHRISTEENA J ROSE		
10	VML20AD010	DENI THOMAS		
11	VML20AD011	DEVA NAIR		
12	VML20AD012	HAMNA RAFEEQ		
13	VML20AD013	JASHLIN S SIMON		
14	VML20AD014	KIRAN PRASAD PP		
15	VML20AD015	MARWA ABDUL RAZAK		
16	VML20AD016	MAZIN MURSHID		
17	VML20AD017	MOHAMMED ZAIN RAFEEQUE		
18	VML20AD018	NANDHAJ VIJAYAN		
19	VML20AD019	NAVANEETHA P NAMBIAR		
20	VML20AD020	RIDHA GAFOOR		
21	VML20AD021	ROSE BENNY		
22	VML20AD022	SHARON RAJISH JOSEPH		
23	VML20AD023	SHYAMITH MANNAMBETH		
24	VML20AD024	SNEHAL VINOD T		
25	VML20AD025	SOURAV C		
26	VML20AD026	STEPHIN LIJI		
27	VML20AD027	THAHA MUHAMMED YASEEN		
28	VML20AD028	THALHAH ANAS		
29	VML20AD029	VAIBHAV RAJESH		
30	VML20AD030	VAISHAKH P		
31	VML20AD031	VISHNUPRIYA N		
32	LVML20AD032	HARSHA M		

Vimal Jyothi Engineering College Chemperi - 670632

Artificial Intelligence and Data Science

Ad-on Course - "Deep learning - A real world approach"

Roll no	Register no	Name	02/04/2023 FN	02/04/2023 AN
1	VML20AD001	AARSHA ANIL	<i>[Signature]</i>	<i>[Signature]</i>
2	VML20AD002	ALANA ANCE JOHN	<i>[Signature]</i>	<i>[Signature]</i>
3	VML20AD003	ALAN THOMAS	<i>[Signature]</i>	<i>[Signature]</i>
4	VML20AD004	AMRITHA PRADEEP	<i>[Signature]</i>	<i>[Signature]</i>
5	VML20AD005	ANN RIYA JAISON	<i>[Signature]</i>	<i>[Signature]</i>
6	VML20AD006	AUSTINE S MANUEL	<i>[Signature]</i>	<i>[Signature]</i>
7	VML20AD007	CAMAY JILLS	<i>[Signature]</i>	<i>[Signature]</i>
8	VML20AD008	CHANDHANA RAJEEVAN	<i>[Signature]</i>	<i>[Signature]</i>
9	VML20AD009	CHRISTEENA J ROSE	<i>[Signature]</i>	<i>[Signature]</i>
10	VML20AD010	DENI THOMAS	<i>[Signature]</i>	<i>[Signature]</i>
11	VML20AD011	DEVA NAIR	<i>[Signature]</i>	<i>[Signature]</i>
12	VML20AD012	HAMNA RAFEEQ	<i>[Signature]</i>	<i>[Signature]</i>
13	VML20AD013	JASHLIN S SIMON	<i>[Signature]</i>	<i>[Signature]</i>
14	VML20AD014	KIRAN PRASAD PP	<i>[Signature]</i>	<i>[Signature]</i>
15	VML20AD015	MARWA ABDUL RAZAK	<i>[Signature]</i>	<i>[Signature]</i>
16	VML20AD016	MAZIN MURSHID	<i>[Signature]</i>	<i>[Signature]</i>
17	VML20AD017	MOHAMMED ZAIN RAFEEQUE	<i>[Signature]</i>	<i>[Signature]</i>
18	VML20AD018	NANDHAJ VIJAYAN	<i>[Signature]</i>	<i>[Signature]</i>
19	VML20AD019	NAVANEETHA P NAMBIAR	<i>[Signature]</i>	<i>[Signature]</i>
20	VML20AD020	RIDHA GAFOOR	<i>[Signature]</i>	<i>[Signature]</i>
21	VML20AD021	ROSE BENNY	<i>[Signature]</i>	<i>[Signature]</i>
22	VML20AD022	SHARON RAJISH JOSEPH	<i>[Signature]</i>	<i>[Signature]</i>
23	VML20AD023	SHYAMITH MANNAMBETH	<i>[Signature]</i>	<i>[Signature]</i>
24	VML20AD024	SNEHAL VINOD T	<i>[Signature]</i>	<i>[Signature]</i>
25	VML20AD025	SOURAV C	<i>[Signature]</i>	<i>[Signature]</i>
26	VML20AD026	STEPHIN LIJI	<i>[Signature]</i>	<i>[Signature]</i>
27	VML20AD027	THAHA MUHAMMED YASEEN	<i>[Signature]</i>	<i>[Signature]</i>
28	VML20AD028	THALHAH ANAS	<i>[Signature]</i>	<i>[Signature]</i>
29	VML20AD029	VAIBHAV RAJESH	<i>[Signature]</i>	<i>[Signature]</i>
30	VML20AD030	VAISHAKH P	<i>[Signature]</i>	<i>[Signature]</i>
31	VML20AD031	VISHNUPRIYA N	<i>[Signature]</i>	<i>[Signature]</i>
32	LVML20AD032	HARSHA M	<i>[Signature]</i>	<i>[Signature]</i>



VIMAL JYOTHI ENGINEERING COLLEGE

JYOTHI NAGAR, CHEMPERI - 670632, KANNUR D.T., KERALA

An ISO 9001:2008 Certified Institution

REQUEST FOR ACCOMODATION

- Name: Dr. Premjith B, Mr. Sajith Variyar V V
- Designation: Assistant Professors, Assistant Professor.
- Company/College: Amritha Vishwa Vidyapeetham.
- Address: ^{CEN} Amritha Vishwa Vidyapeetham,
Coimbatore - 641112 Mobile: 9495181122, 9497189957
Dr. Premjith - 494419110364
Mr. Sajith Variyar - 410150867231
- Voters ID Aadhar Driving Licence, etc ID No. Mr. Sajith Variyar - 410150867231
- Purpose of visit: Ad-on course for SEAPS - Resource persons.
- Duration: From: 29/03/2023 To: 31/03/2023
- If food; Vegetarian Non-Vegetarian
- Category Paid stay
 Guest of the college
 Others

Recommendation Staff with Name & Sign.

Thirupthi P. Balakrishnan

[Signature]
24/03/2023

Sign. of Guest

OFFICE USE

Allotment: Hostel:

Room:

Amount: 4000/- Paid A/c Pay Free

HOD	Principal/Director	Administrator/Bursar
		<u>[Signature]</u> <u>24/03/23</u>

From,

Ancy K Sunny, Thripathi P Balakrishnan,
Coordinators (add-on course, S6 ADS)
Assistant Professor, ADS
VJEC

To,

Bursar ,
VJEC

Sub: Request for the issuing an amount of Rs.4000/- for food and accommodation of resource persons for add-on course for S6 ADS students.

Sir,

For the conduct of add-on course for S6 ADS , the two resource persons are in need of food and accommodation for 3 days (29/03/2023 - 31/03/2023). So we request you to issue the amount of Rs.4000/- for the same.

Thanking You,

Ancy K Sunny

Thripathi P Balakrishnan

Sastry

AB

31/03/23

AB
31/03/23

AB
31/3/23

Chemperi

31/03/2023

Amir
31/03/2023
(Dr. Manoj V. Thomas)

From,

Ancy K Sunny, Thripathi P Balakrishnan,
Coordinators (add-on course, S6 ADS)
Assistant Professor, ADS
VJEC

To,

Bursar ,
VJEC

Sub: Request for the issuing an amount of Rs.4000/- for food and accommodation
of resource persons for add-on course for S6 ADS students.

Sir,

For the conduct of add-on course for S6 ADS , the two resource persons are in
need of food and accommodation for 3 days (29/03/2023 - 31/03/2023). So we
request you to issue the amount of Rs.4000/- for the same.

Thanking You,

Ancy K Sunny

Thripathi P Balakrishnan

Santosh. Pal
31/03/23

Ancy
31/03/23
Thripathi
31/03/23

Chemperi

31/03/2023

Thripathi
31/03/2023
(Dr Manoj V Thomas)

From,

Ancy K Sunny, Thripathi P Balakrishnan,
Coordinators (add-on course, S6 ADS)
Assistant Professor, ADS
VJEC

To,

Bursar ,
VJEC

Sub: Request for issuing remuneration for resource persons for ad-on course
conducted for S6 ADS students.

Sir,

This is to inform you that Dr.Premjith B and Mr.Sajith Varrier, Assistant Professors, Center for Computational Engineering and Networking(CEN), Amrita Vishwa Vidyapeetham, Coimbatore had handled an add-on course for S6 ADS students in "Deep Learning - A real-world Approach". So we request you to issue the amount of Rs.25,500/- as remuneration for the resource persons.

Remuneration for one day = Rs.8500/-

No.of days = 3

Total remuneration = 8500 X 3= Rs.25,500/-

Account details of resource person is as follows:

Branch name : Amrita Institute of Technology, Ettimadai

Account holder's name : Premjith B

Acc.no : 025300100207173

IFSC code : DLXB0000253

PAN no : CESPP9103H

Chemperi

31/03/2023

Thanking You,

Ancy K Sunny

Thripathi P Balakrishnan

Thripathi P Balakrishnan
31/03/2023
(Dr. Manjiv Thumar)

Released
21/03/2023
Perinod ilc.

VIMAL JYOTHI
ENGINEERING COLLEGE
JYOTI NAGAR, CHEMPERI(PO), KANNUR



NBA
NATIONAL BOARD
OF ACCREDITATION

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

CERTIFICATE OF PARTICIPATION

This is to certify that *Aarsha Anil* of Sixth Semester B.Tech Artificial Intelligence and Data Science, had participated in an add-on course on "Deep Learning - A Real World Approach" from 29th March 2023 to 02nd April 2023.

Dr. Manoj V Thomas
Convenor

Dr. Benny Joseph
Principal