15197/8

Proposal Tracking No. KEC / ITR / 21-22 / 08 / 0004

Dept.Ref.No.: IT / 20 21 - 2022 / 001

Date: 26.08.2021

1.	Department:	Information Technology			
2.	a). Name of the Programme	Machine Learning and Deep Learning with Pyth			
	b). Norms under which it is proposed	Faculty Training			
3.	Dates:	From: 06.09.21	TO: 05.10.21	No. of Days	30 days
4.	Programme for:	Faculty ✓	Students	Others (Specify) ✓	
5.	Level:	State / National / International	Association	Institution / Dept. / Cell / General	
6.	Highlights of the Programme:	Faculty development Programme for faculty identified for the new programmes (AI & ML, AI & DS) around 10 members			

1. Proposed Invitees:

S. No.	Purpose	Chief Guest	Speakers / Jury	Trust Member Invitees
1	Speakers & Trainers	Smart Bridge and		—
2		IBM		

2. Agenda: Programme Agenda / Schedule Enclosed : Yes / No

3. Expenditure:

S.No.	Purpose	Proposed	Revised	Actual	Remarks
1	Training fee	Rs 1,25,000			
2	for 10 faculty				
3	@ Rs.12,500/-				
4	Per head				
5					
6					
	Total	Rs.1,25,000			

4. Source

				Proposed	Actual
Budget Allotment		Sponsors -			
Balance Amt. Available		KEC - ✓			
Expenses Proposed		Registration -			
Balance					

C. Kanim 26/8/21

Faculty i/c(with Name) - **.H.O.D** **CCO** **PRINCIPAL** **CORRESPONDENT**

26.8.2021

(Dr.C.S.KANIMOZHI SELVI)

KONGU ENGINEERING COLLEGE
(Autonomous)
DEPARTMENT OF INFORMATION TECHNOLOGY
PERUNDURAI, ERODE-638060, TAMIL NADU

Estd : 1984

Transform Yourself

Faculty Training Programme
on
Machine Learning and Deep Learning with Python

Participants

First Name	Last Name	Designation	Department	Mobile	Email
Kanimozhi Selvi	C S	Program Coordinator AI Professor	IT	9842168224	kanimozhi@kongu.ac.in
Kogilavani	S V	Associate Professor	CSE	9486153223	kogilavani@kongu.ac.in
Devi Priya	R	Associate Professor	IT	7540087374	rdevipriya@kongu.ac.in
Rajadevi	R	Assistant Professor (SLG)	IT	9865608899	rajdevi@kongu.ac.in
Logeswaran	K	Assistant Professor (Sr.G)	IT	9698513850	klogeswaran@kongu.ac.in
Kalaivani	K S	Assistant Professor	CSE	9443208794	kalaivani@kongu.ac.in
Dharani	M K	Assistant Professor	CSE	9865531188	dharani.cse@kongu.ac.in
Adthithyaa	N	Assistant Professor	IT	7845243520	adhithyaa@kongu.ac.in
Jayasurya	A S	Assistant Professor	CSE	9629444228	jayasurya.cse@kongu.ac.in
Santhiya	S	Assistant Professor	CSE	8610107642	santhiyas@kongu.ac.in

22/4/21

KONGU ENGINEERING COLLEGE
(Autonomous)
DEPARTMENT OF INFORMATION TECHNOLOGY
PERUNDURAI, ERODE-638060, TAMIL NADU

Estd : 1984

Transform Yourself

Faculty Training Programme
on
Machine Learning and Deep Learning with Python

Attendance Sheet

First Name	Last Name	Designation	Department	13/09/21	14/9/21	15/9/21	16/9/21	17/9/21	20/9/21	21/9/21	22/9/21	27/9/21
Kanimozhi Selvi	C S	Program Coordinator AI Professor	IT	Cn	Cn	Cn	Cn	Cn	Cn	Cn	Cn	Cn
Kogilavani	S V	Associate Professor	CSE									
Devi Priya	R	Associate Professor	IT				A					
Rajadevi	R	Assistant Professor (SLG)	IT									
Logeswaran	K	Assistant Professor (Sr.G)	IT									
Kalaivani	K S	Assistant Professor	CSE		A	A						
Dharani	M K	Assistant Professor	CSE									
Adhithyaa	N	Assistant Professor	IT									
Jayasurya	A S	Assistant Professor	CSE		A							
Santhiya	S	Assistant Professor	CSE									

C. kanim

HOD/IT

KONGU ENGINEERING COLLEGE
(Autonomous)
DEPARTMENT OF INFORMATION TECHNOLOGY
PERUNDURAI, ERODE-638060, TAMIL NADU

Estd : 1984

Transform Yourself

Faculty Training Programme
on
Machine Learning and Deep Learning with Python

Attendance Sheet

First Name	Last Name	Designation	Department	28/9/21	30/9/21	4/10/21	5/10/21	6/10/21	7/10/21	22/10/21	25/10/21	26/10/21
Kanimozhi Selvi	C S	Program Coordinator AI Professor	IT									
Kogilavani	S V	Associate Professor	CSE									
Devi Priya	R	Associate Professor	IT									
Rajadevi	R	Assistant Professor (SLG)	IT									
Logeswaran	K	Assistant Professor (Sr.G)	IT									
Kalaivani	K S	Assistant Professor	CSE									
Dharani	M K	Assistant Professor	CSE									
Adhithyaa	N	Assistant Professor	IT									
Jayasurya	A S	Assistant Professor	CSE									
Santhiya	S	Assistant Professor	CSE									

HOD IT

KONGU ENGINEERING COLLEC.
(Autonomous)
DEPARTMENT OF INFORMATION TECHNOLOGY
PERUNDURAI, ERODE-638060, TAMIL NADU

Estd : 1984

Transform Yourself

Faculty Training Programme
on
Machine Learning and Deep Learning with Python

Attendance Sheet

First Name	Last Name	Designation	Department	27/10/21	28/10/21	29/10/21	1/11/21	2/11/21				
Kanimozhi Selvi	C S	Program Coordinator AI Professor	IT	✓	✓	✓	✓	✓				
Kogilavani	S V	Associate Professor	CSE	✓	✓	✓	✓	✓				
Devi Priya	R	Associate Professor	IT	✓	✓	✓	✓	✓				
Rajadevi	R	Assistant Professor (SLG)	IT	✓	✓	✓	✓	✓				
Logeswaran	K	Assistant Professor (Sr.G)	IT	✓	✓	✓	✓	✓				
Kalaivani	K S	Assistant Professor	CSE	✓	✓	✓	✓	✓				
Dharani	M K	Assistant Professor	CSE	✓	✓	✓	✓	✓				
Adthithyaa	N	Assistant Professor	IT	✓	✓	✓	✓	✓				
Jayasurya	A S	Assistant Professor	CSE	✓	✓	✓	✓	✓				
Santhiya	S	Assistant Professor	CSE	✓	✓	✓	✓	✓				

S.Kanim

HOD/IT 22/11/21

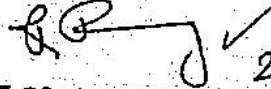# FDP on Machine Learning and Deep learning with python

This faculty development programme (FDP) is devoted to fundamental theory, recent developments and research outcomes addressing the related theoretical and practical aspects of Machine learning algorithms and Deep learning algorithms with python. Machine Learning describes algorithms for writing computer programs that automatically improve their performance with experience. This workshop covered the basic algorithm that helped to build and apply prediction functions with an emphasis on practical applications.

This FDP gave technically competent in the basics and the fundamental concepts of Machine Learning such as:

o Understanding components of a Machine learning algorithm.
o Applying Machine learning tools to build and evaluate predictors.
o How Machine learning uses computer algorithms to search for patterns in data.
o How Deep learning methods are implemented using python.

The software industry now-a-days moving towards machine intelligence. Machine Learning has become necessary in every sector as a way of making machines intelligent. In a simpler way, Machine Learning is set of algorithms that parse data, learn from them, and then apply what they've learned to make intelligent decisions. The thing about traditional Machine Learning algorithms is that as complex as they may seem, they're still machine like. They need lot of domain expertise, human intervention only capable of what they're designed for; nothing more, nothing less. For AI designers and the rest of the world, that's where deep learning holds a bit more promise.

Practically, Deep Learning is a subset of Machine Learning that achieves great power and flexibility by learning to represent the world as nested hierarchy of concepts, with each concept defined in relation to simpler concepts, and more abstract representations computed in terms of less abstract ones. Elaborately, a deep learning technique learn categories incrementally through it's hidden layer architecture, defining low-level categories like letters first then little higher level categories like words and then higher level categories like sentences. In the example of image recognition it means identifying light/dark areas before categorizing lines and then shapes to allow face recognition. Each neuron or node in the network represents one aspect of the whole and together they provide a full representation of the image. Each node or hidden layer is given a weight that represents the strength of its relationship with the output and as the model develops the weights are adjusted. In this FDP implementation of machine learning and deep learning using python has been taken. This provide more knowledge on practical implementation of deep learning and machine learning algorithms.

2.11.2021

DEPT. OF INFORMATION TECHNOLOGY
KONGU ENGINEERING COLLEGE,
THOPPUPALAYAM (PO)
PERUNDURAI (TK), ERODE - 638 060

KONGU ENGINEERING COLLEGE, THOPPUPALAYAM, PERUNDURAI, ERODE – 638 060

ACCOUNT SETTLEMENT FORM

(Function / Events Conducted @ KEC)

Association	Value Added Course	IIPC	Others : FDP.

DATE : 22 / NOV / 2021

Department	: IT
Name of the Function / Event	: FDP on Machine Learning & Deep Learning with Python.
Function In-charge	: Dr. C. S. Kanimozhiselvi
Date of Function / Event	: 13/9/21 to 02/11/21
Date of proposal	: 26/08/2021
Amount sanctioned	: ₹. 1,25,000/-

Amount Collected from Participants (if any)	Amount (A) ₹. —	Service Tax (B) ₹.	Total (A + B) ₹.
	Receipt No. & Date	—	

Advance amount Received & Date	: ₹. —	Date: —
Total expenses	: ₹. 1,25,000/-	

Balance amount Remitted	:₹. —	Receipt No. —	Receipt Date —

Amount Claimed (if any)	: ₹. 1,25,000/-	
Amount to KEC / IIPC	:₹. —	Percentage (%) —

CS. Kanim (Dr CS. KANIMOZHI SELVI) HOD 22.11.21

FACULTY INCHARGE (WITH NAME)
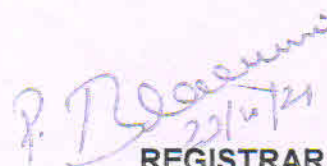
CCO

FOR OFFICE USE – PAYMENT DETAILS

Office Ref. No. : PR- 151/09.21

Advance

Name of the programme	Amount Rs. P	Voucher No. & Date	Remarks

ACCOUNTANT   **Supdt.**   **REGISTRAR**   **CORRESPONDENT**

Advance

Name of the programme	Amount Rs. P	Voucher No. & Date	Remarks

ACCOUNTANT   **Supdt.**   **REGISTRAR**   **CORRESPONDENT**

One time payment

Name of the programme	Amount Rs. P	Voucher No. & Date	Remarks
Faalty Training Programme	1,25,000/-		

ACCOUNTANT   **Supdt.**   **REGISTRAR**   **CORRESPONDENT**

Non Formal Course Details

Name of the Course	
Course Duration	From............................ To............................ Total No. of Days .... Hours ....
Course Fee	Rs.
Total Course Fee Collected	Rs.
Course Expenses	Rs.
Balance amount to KEC / Others	Rs.

ACCOUNTANT   **Supdt.**   **REGISTRAR**   **CORRESPONDENT**

KONGU ENGINEERING COLLEGE, PERUNDURAI – 638 060

DEPARTMENT OF INFORMATION TECHNOLOGY

SUBMITTED TO THE PRINCIPAL FOR APPROVAL

Ref No: KEC/ITR/2021-22/012   DATE: 06.01.2022

A Centre of Excellence in Data Science was approved by our management at our institution. In this regard, Server (hardware) and software framework installation are completed by TEG Global Infrastructures Private Limited, Coimbatore (Business partner of Nvidia). Now, it is planned to conduct two days training programme by the people from TEG Global for 32 faculty members of KEC on 10.01.2022 and 11.01.2022 at our college campus. This may kindly be permitted.

Department wise Faculty Split-up Details:

Department	Faculty Strength
CSE	12
IT	8
MSc	3
BSc	6
MCA	3
Total	**32**

Encl: Training details

Proceed

6.1.22

P. ⟨signature⟩ 6-1.2022
Faculty Coordinator

(Dr.P.Suresh)

HoD/IT 6.1.2022

6/1/22

UP TO ₹. 20,000/-	KONGU ENGINEERING COLLEGE, PERUNDURAI, ERODE-638 060 PROGRAMME APPROVAL FORM	AD – 12 - PP REV.1 01.01.2021

Proposal Tracking No.	KEC/ITR/2021-2022/01/0045	
Dept.Ref.No.: IT/2021-2022/035		Date: 6.01.2022

1.	Department:	IT
2.	a). Name of the Programme	Training Programme for Centre of Excellence in Data Science
	b). Norms under which it is proposed	

3.	Dates:	From : 10.01.2022	TO: 11.01.2022	No. of Days	2

4.	Programme for:	Faculty ✓	Students	Others (Specify)

5.	Level:	State / National / International	Association	Institution ✓ / Dept. / Cell / General

6.	Highlights of the Programme:	To provide hands-on training to the faculty on deep learning techniques.

1. Proposed Invitees:

S. No.	Purpose	Chief Guest	Speakers / Jury	Trust Member Invitees
1	Training	Mr. Natraj & Mr. Purushothaman		
2		TEG Global Infrastructure Pvt. Ltd, Coimbatore.		

2. Agenda: Programme Agenda / Schedule Enclosed : Yes ✓ / No

3. Expenditure:

S.No.	Purpose	Proposed	Revised	Actual	Remarks
1	Refreshment	3200			40 X RS.20 = RS.800/ Sessio
2					4 Sessions X 800 = RS.3:
3					
4					
5					
6					
	Total	3200			

4. Source

				Proposed	Actual
Budget Allotment		Sponsors -			
Balance Amt. Available		KEC -			
Expenses Proposed	Rs. 3200	Registration -			
Balance					

₹. 6.1.2022
Faculty i/c(with Name)
[P. Suresh]

H.O.D 6.1.2022

CCO

PRINCIPAL

Kongu Engineering College, Erode- 638060
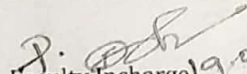**Department of Information Technology**
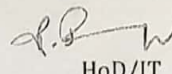**Centre of Excellence in Data Science**
Training Programme
Date: 10.01.2022 and 11.01.2022

List of Participants

S.No	Name of the Faculty	Department
1	Shanthi N	CSE
2	Rajalaxmi R R	CSE
3	Mohana Saranya S	CSE
4	Sagana C	CSE
5	Sangeetha M	CSE
6	Nivetha S K	CSE
7	Latha R S	CSE
8	Malliga S	CSE
9	Geetha M	CSE
10	Nirmala Devi K	CSE
11	Krishnamoorthy N	CSE
12	Suganthe R C	CSE
13	Kousalya K	CSE
14	Thangarajan R	IT
15	Ponselvakumar A P	IT
16	Abirami T	IT
17	Nalini C	IT
18	Thangamani M	IT
19	Kamalam G K	IT
20	Suresh P	IT
21	Ramalingam M	IT
22	Thamilselvan R	MCA
23	Rahunathan L	MCA
24	Nanthini K	MCA
25	Jamunadevi C	MSc
26	Malathi Eswaran	MSc
27	Yuvarani P	MSc
28	Natesan P	BSc
29	Vishnu Priya V	BSc
30	Sujitha S	BSc
31	Kavitha M N	BSc
32	Renukadevi N T	BSc

Faculty Incharge 19.01.2022   HoD/IT 19.1.2022
(Dr.P.Suresh)

<center>**<u>Training on Deep Learning</u>**</center>

Day 1: Topic: Fundamentals of Deep Learning

Session 1:

Neural Networks and its Types

Choice of Neural Networks based on its Applications

Session 2:

Neural Networks, Parameters and Hyperparameter Tuning

Convolutional Neural Networks

Session 3:

Recurrent Neural Networks

Demo – Google Colab

Non coding platforms to develop DL models

Introduction to Python APIs

Day 2: Topic: NVIDIA Certification on Fundamentals of Deep Learning (will be Virtual lab hosted by NVIDIA DLI Server)
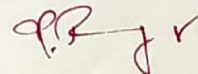
Session 1:

Mechanics of Deep Learning

Session 2:

Pre Trained Model and Recurrent Neural Networks

Session 3:

Project: Object Classification

Kongu Engineering College, Erode- 638060
Department of Information Technology
Centre of Excellence in Data Science
Training Programme
Date: 10.01.2022 and 11.01.2022

Attendance

S.No	Name of the Faculty	Department	10.01.2022 FN	10.01.2022 AN	11.01.2022 FN	11.01.2022 AN
1	Shanthi N	CSE				
2	Rajalaxmi R R	CSE				
3	Mohana Saranya S	CSE				
4	Sagana C	CSE				
5	Sangeetha M	CSE				
6	Nivetha S K	CSE				
7	Latha R S	CSE				
8	Malliga S	CSE				
9	Geetha M	CSE				
10	Nirmala Devi K	CSE				
11	Krishnamoorthy N	CSE				
12	Suganthe R C	CSE				
13	Kousalya K	CSE				
14	Thangarajan R	IT				
15	Ponselvakumar A P	IT				
16	Abirami T	IT				
17	Nalini C	IT				
18	Thangamani M	IT				
19	Kamalam G K	IT				
20	Suresh P	IT				
21	Ramalingam M	IT				
22	Thamilselvan R	MCA				
23	Rahunathan L	MCA				
24	Nanthini K	MCA				
25	~~Maragatham T~~ Jamunadevi. C	MSc				
26	Malathi Eswaran	MSc				
27	Yuvarani P	MSc				
28	Natesan P	BSc				
29	Vishnu Priya V	BSc				
30	Sujitha S	BSc				
31	Kavitha M N	BSc				
32	Renukadevi N T	BSc				

P. ___ 11.01.2022

Faculty Incharge

___ 11.01.2022

HOD /IT

FEED BACK FORM - STTP

1.0 Name of the Participant (Optional): R. THANGARAJAN

2.0 Course title : COE-DS Training

3.0 Dates of the program : 10.01.2022

4.0 Please rate the following parameters as per points given below.

10 - Excellent   8 - Good   6 - Average   4 - Below average   2 - Poor

Parameter	10	8	6	4	2
a) The overall rating of the course	(10)	8	6	4	2
b) Course delivery	(10)	8	6	4	2
c) Communication	(10)	8	6	4	2
d) Course material	(10)	8	6	4	2
e) Arrangements	(10)	8	6	4	2
f) Ability to clear doubts	(10)	8	6	4	2
g) Practical sessions	(10)	8	6	4	2
h) Hospitality	(10)	8	6	4	2
i) Examination (if conducted)	10	8	6	4	2

Please also give your suggestion for improvement

Signature of the Participant

FEED BACK FORM - STTP

1.0 Name of the Participant (Optional): *Dr. C. Nalini*

2.0 Course title   *Center of Excellence in Data Science – training*

3.0 Dates of the program   *10/1/2022   to 11/1/2022*

4.0 Please rate the following parameters as per points given below.

10 - Excellent   8 - Good   6 - Average   4 - Below average   2 - Poor

	10	8	6	4	2
a) The overall rating of the course	10 ✓	8	6	4	2
b) Course delivery	10 ✓	8	6	4	2
c) Communication	10 ✓	8	6	4	2
d) Course material	10 ✓	8	6	4	2
e) Arrangements	10 ✓	8	6	4	2
f) Ability to clear doubts	10 ✓	8	6	4	2
g) Practical sessions	10	8 ✓	6	4	2
h) Hospitality	10	8 ✓	6	4	2
i) Examination (if conducted)	10	8 ✓	6	4	2

Please also give your suggestion for improvement

C. A....
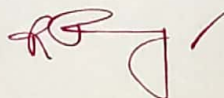Signature of the Participant

Centre of Excellence in Data Science

(Getting Started with Deep Learning)

Data Science is an interdisciplinary field that involves the extraction of insights and knowledge from data through the use of scientific methods, processes, algorithms, and systems. It combines statistics, machine learning, computer science, and domain knowledge to analyze and interpret complex data sets. Data science aims to gain insights and knowledge from data that can be used to make better decisions, develop new products or services, and solve complex problems. Data scientists use a variety of tools and techniques, such as statistical modeling, data mining, data visualization, and machine learning algorithms, to analyze and interpret data. Data science is used in a wide range of industries, including healthcare, finance, marketing, and sports. Some common applications of data science include customer segmentation, fraud detection, predictive maintenance, and recommendation systems. Data science is a rapidly evolving field, and data scientists are in high demand due to the increasing availability of data and the need for organizations to make data-driven decisions.

Deep learning is a subfield of machine learning that involves training artificial neural networks with multiple layers to recognize patterns in data. These neural networks are inspired by the structure and function of the human brain, and are designed to learn and make predictions from large datasets with high-dimensional inputs. In deep learning, the layers of a neural network are connected through weights, which are adjusted during training to minimize the error between the network's predicted outputs and the actual outputs. The more layers a neural network has, the deeper it is said to be. Deep neural networks can learn complex representations of data, and are used in a wide range of applications, including computer vision, speech recognition, natural language processing, and autonomous driving.

Deep neural networks consist of multiple layers of interconnected nodes, each building upon the previous layer to refine and optimize the prediction or categorization. This progression of computations through the network is called forward propagation. The input and output layers of a deep neural network are called visible layers. The input layer is where the deep learning model ingests the data for processing, and the output layer is where the final prediction or classification is made. Deep learning algorithms are incredibly complex, and there are different types of neural networks to address specific problems or datasets, they are Convolutional neural networks (CNNs), Recurrent neural networks (RNNs).

11/1/2022

DEPT. OF INFORMATION TECHNOLOGY
KONGU ENGINEERING COLLEGE,
THOPPUPALAYAM (PO)
PERUNDURAI (TK), ERODE - 638 060

**KONGU ENGINEERING COLLEGE, THOPPUPALAYAM,
PERUNDURAI, ERODE – 638 060**

A C C O U N T   S E T T L E M E N T   F O R M

(Function / Events Conducted @ KEC)

Association	Value Added Course	IIPC	Others : Centre of Excellence Training programme

DATE : 19.01.2022

Department	:	IT		
Name of the Function / Event	:	Training Programme for Centre of Excellence in Data Science		
Function In-charge	:	Dr. P. Suresh		
Date of Function / Event	:	10.01.2022 and 11.01.2022		
Date of proposal	:	06.01.2022		
Amount sanctioned	: ₹. 3200/–			

Amount Collected from Participants (if any)	Amount (A) ₹. —	Service Tax (B) ₹. —	Total (A + B) ₹. —
	Receipt No. & Date	—	

Advance amount Received & Date	: ₹. —	Date: —

Total expenses	: ₹. 2720/–		

Balance amount Remitted	:₹. —	Receipt No. —	Receipt Date —

Amount Claimed (if any)	: ₹. 2720/–

Amount to KEC / IIPC	:₹. —	Percentage (%) —

P. ~~~ 19.01.2022
(Dr.P. Suresh)
**FACULTY INCHARGE
(WITH NAME)**

HOD 19.1.2022

CCO

For Office use only

SUPERINTENDENT   **A.R.**   **REGISTRAR**