

KONGU ENGINEERING COLLEGE, PERUNDURAI, ERODE -638060

DEPARTMENT OF INFORMATION TECHNOLOGY

FDP ON FOUNDATION OF MACHINE LEARNING

REPORT

A National Level 7days virtual FDP on Foundation of Machine Learning(Online Mode) was conducted from 21.10.2021 to 28.10.2021. In this workshop, 25 participants have attended from various colleges in Tamil Nadu and the sessions were handled by Dr. R.Thangarajan, Professor& Head, Department of Information Technology, Kongu Engineering College, Perundurai. The sessions were very interactive and it benefited the faculty to gain an insight and good knowledge about Machine Learning and Artificial Intelligence(AI), its applications in today's world and ideas about the area of research where researchers are keen to develop new algorithms of Machine/Deep Learning. The participations gained knowledge and it will be very useful for their carrier Development and for their research.


Faculty Coordinator

S. Vinod Kumar


HOD/IT

Course Contents

- ✓ Vectors
- ✓ Matrix Theory
- ✓ Advanced Matrix Theory - Spectral Decomposition, Singular Value Decomposition(SVM) and Low Rank Approximation
- ✓ Principal Component Analysis (PCA), Linear Discriminant Analysis (LDA)
- ✓ Least Square Approximation, linear and multiple Regression, Logistic Regression
- ✓ Convex sets and functions, Optimization
- ✓ Probability, distributions and Support Vector Machines (SVM)

Who Can Apply?: Students, Faculty members, Research Scholars from academic Institutions and Industry Persons.

Registration Fee Details: Rs. 300/- (Including 18% GST)

A/C Name : S.VINOTHKUMAR
A/C No. : 1247155000095838
Branch Name : KEC Nagar
IFSC code : KVBL0001247
MICR code : 638053006
Bank Name : Karur Vysya Bank

(or)

Google Pay: 9003683789

Name: Vinoth Kumar



Registration Link:

<https://forms.gle/Q7tRini26qJfcGU29>

Scheduled Dates

Last date for application reception 10.10.21

Intimation of selection 13.10.21

Session Timings: 2 pm to 4 pm

About The College

Kongu Engineering College was established in the year 1984. Approved by AICTE, New Delhi, accredited by NAAC for 5 years with the grade of "A" and an autonomous Institution affiliated to Anna University, Chennai. The Institution has completed 37 years of dedicated and excellent service in the field of technical education. It offers 14 UG, 19 PG and 16 Research programmes in Engineering, Applied Sciences and Management imparting high quality value-added education in India. The college has got NBA accreditation for UG programmes, Best Engineering College award, Best Principal award twice. The institution is ranked high among the Engineering Institutions in India by various surveys conducted by reputed magazines / journals / organization. In the NIRF (National Institution Ranking Framework) survey conducted by **MHRD, the Institution has bagged 164th rank** among all Engineering institutions in India including premier institution like IITs, NITs, etc., The institution has established a Technology Business Incubator (TBI) supported by Department of Science and Technology, Government of India in its campus. TBI@KEC has won the National Award, for the Best TBI in India, presented by President of India.

About the Course

Machine Learning (ML) is a branch of Artificial Intelligence (AI) which is becoming increasingly popular nowadays. Machine Learning finds applications in all the areas of engineering and sciences. Machine Learning tools are based on rich mathematical theories. Therefore, in this area of research where the researchers are keen to develop new algorithms of machine/deep learning, it is necessary to have in depth knowledge of all such mathematical concepts. In this course, basic mathematical concepts related to the machine/deep learning will be dealt with. In particular, topics on matrix algebra, calculus, optimization and probability theory will be discussed. Some hands-on applications of these topics will also be delivered.



Transform Yourself

National Level 7 Days Virtual FDP on Foundations of Machine Learning (Online Mode)

21.10.2021 - 28.10.2021

Convener

Dr. R.Thangarajan
Professor & Head/IT

Coordinators

Dr.R.Shanthakumari
Associate Professor, IT
Mr.S.VinothKumar
Assistant Professor(SRG), IT
Mr.K.S.Giriprasath
Assistant Professor, IT

Organized by

Department of IT
Kongu Engineering College
(Autonomous)

Perundurai, Erode - 638060 (T.N)

Tel : 04294 -226570, 226559

Fax : 04294 - 220087

Mobile : 9003683789,7373875040

E-mail : fdpfml2021@gmail.com

Website : www.kongu.ac.in



Course Contents

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**National Level 7 Days Virtual FDP on
Foundations of Machine Learning
(Online Mode)**

21.10.2021 - 28.10.2021

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Dr. R.Thangarajan
Professor & Head/IT

Coordinators

Dr.R.Shanthakumari
Associate Professor, IT
Mr.S.VinothKumar
Assistant Professor(SRG), IT
Mr.K.S.Giriprasath
Assistant Professor, IT

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Mobile : 9003683789, 7373875040
E-mail : fdpfml2021@gmail.com
Website : www.kongu.ac.in



Screen Shots :

Kongu Engineering College Mail | Meet - FDP - Foundations of Machine Learning | meet.google.com/gbr-ykxu-uok?authuser=0

THANGARAJAN R. et al. is presenting

Matrix Algebra

- Matrix Equality
- The addition or subtraction of two matrices, A and B of the same size yields a matrix C of the same size
 - Commutative Law (Addition and Subtraction)
 - Associative Law
 - Matrix Multiplication

2:54 PM | FDP - Foundations of Machine Learning

People: THANGARAJAN R., Andrews A., Bharathi Arthan..., Davi Sri, Vino Sathish, Hemalatha S., 12 others, You

23°C Clear 14:54 21-10-2021

FDP - Foundations of Machine Learning | FDP - Foundations of Machine Learning | Kongu Engineering College - Co... | Meet - gbr-ykxu-uok

meet.google.com/gbr-ykxu-uok?authuser=0

THANGARAJAN R. et al. is presenting

Eigen Values and Eigen Vectors

$A = \begin{bmatrix} 2 & 1 \\ 1 & 2 \end{bmatrix}$

$(A - \lambda I)$

People: efuru, THANGARAJAN R., Purbita Chatterj..., Vino Sathish, Vetrivel, Hemalatha S., 10 others, You

2:26 PM | gbr-ykxu-uok

31°C Partly sunny 14:26 22-10-2021

f.p. pr.

 Estd - 1984	KONGU ENGINEERING COLLEGE (Autonomous) PERUNDURAI – 638060 INTERNAL QUALITY ASSURANCE CELL Department of Information Technology Participants Details	 CERT No. 99-100-20728 ISO 9001:2015
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Title of the Course: Foundations of Machine Learning

Date: From 21.10.2021 to 28.10.2021

Sl. No	Name of the participants	Designation	Department	College Name
1	ANAND R	Assistant professor	Information Technology	Nandha Engineering College, Erode
2	DHIVYA .P	Assistant professor	Information Technology	Nandha Engineering College, Erode
3	ARUNKUMAR T	Assistant professor	Information Technology	Nandha Engineering College, Erode
4	ABINAYA N	Assistant Professor	Information Technology	Nandha Engineering College, Erode
5	BHARATHI A	Assistant Professor	Information Technology	Nandha Engineering College, Erode
6	JOTHIMANI K	Assistant Professor	Information Technology	Nandha Engineering College, Erode
7	LATHIKA B A	Assistant Professor	Computer Science and Engineering	KGiSL Institute of Technology, Coimbatore
8	ANDREWS A	Assistant Professor	Mechanical Engineering	National Engineering College, Kovilpatti
9	POONGOTHAI K	Assistant Professor	Computer Science and Engineering	KGiSL Institute of Technology, Coimbatore
10	HEMALATHA S	Associate Professor	Computer Science and Engineering	VIT, Vellore

2	PURBITA CHATTERJEE	Assistant Professor	Computer Science and Engineering	JIS College of Engineering, Kolkata
3	Dr. VIVEK D	Assistant professor	Computing Technologies	SRM Institute of Science and Technology, Chennai
4	KARTHEESWARI K R	Senior Research Fellow	Computer Science and Engineering	Hindustan University, Chennai
5	VINOTHINI T	Assistant Professor	Computer Science and Engineering	Sree Sowdambika College of Engineering, Aruppukottai
6	VETRI VEL	Assistant Professor	Computer Science and Engineering	Sree Sowdambika College of Engineering, Aruppukottai
7	MENAKA K	Assistant Professor	Computer Science and Engineering	Sree Sowdambika College of Engineering, Aruppukottai
8	MALATHI P	Assistant Professor	Computer Science and Engineering	Sree Sowdambika College of Engineering, Aruppukottai
9	NARMADA B	Assistant Professor	Computer Science and Engineering	Dhirajlal Gandhi College of Technology, Salem
0	MENAKA K	Assistant professor	Computer Science and Engineering	Sree Sowdambika College of Engineering, Aruppukottai
1	GEETHALAKSHMI K	Assistant Professor	BCA	PSGR Krishnammal College for Women, Coimbatore
2	VISHNUPRIYA S	Assistant Professor	Computer Science and Engineering	Roever Engineering College, Perambalur
3	Dr. JAYANTHI P	Associate professor	Computer Science and Engineering	Kongu Engineering College, Perundurai
4	VASUKI C	Associate professor	Information Technology	Nandha Engineering College, Erode
5	Dr.VAJAYANTHIMALA J	Assistant Professor(SRG)	Computer Science and Engineering	Dhirajlal Gandhi College of Technology, Salem

R. Sanyal
Coordinator

HOD/IT 17.11.2021



KONGU ENGINEERING COLLEGE
(Autonomous)
PERUNDURAI – 638060
INTERNAL QUALITY ASSURANCE CELL
Department of Information Technology
Attendance Sheet



CERT No. 99-100-20788
ISO 9001:2015

Title of the Course: Foundations of Machine Learning

Date: From 21.10.2021 to 28.10.2021

Sl.No.	Name of the participants	Dates						
		21/10	22/10	23/10	25/10	26/10	27/10	28/10
1	ANAND R	/	/	/	/	/	a	/
2	DHIVYA .P	/	/	/	/	/	/	/
3	ARUNKUMAR T	/	/	/	a	/	/	/
4	ABINAYA N	/	/	/	/	/	/	/
5	BHARATHI A	/	/	/	/	/	/	/
6	JOTHIMANI K	/	/	/	/	/	/	/
7	LATHIKA B A	/	/	/	/	/	/	/
8	ANDREWS A	/	/	/	/	/	/	/
9	POONGOTHAI K	/	/	/	/	/	/	/
10	HEMALATHA S	/	/	/	/	/	/	/
11	DEVISRI B	/	/	/	/	/	/	/
12	PURBITA CHATTERJEE	/	/	/	/	/	/	/
13	Dr. VIVEK D	/	/	/	/	/	/	/
14	KARTHEESWARI K R	/	/	/	/	/	/	/
15	VINOTHINI T	/	/	/	/	a	/	/

16	VETRI VEL	/	/	/	/	/	/	/
17	MENAKA K	/	/	/	/	/	/	/
18	MALATHI P	/	/	/	/	/	/	/
19	NARMADA B	/	/	/	a	/	/	/
20	MENAKA K	/	/	/	/	/	/	/
21	GEETHALAKSHMI K	/	/	/	/	/	/	/
22	VISHNUPRIYA S	/	/	/	/	/	/	/
23	Dr. JAYANTHI P	/	/	/	/	/	/	/
24	VASUKI C	/	/	/	/	/	/	/
25	Dr.VAIJAYANTHIMALA J	/	?	/	/	/	/	/

R. San
Co-ordinator

P.B. ✓
HOD/IT 17.11.2021

DEPARTMENT OF INFORMATION TECHNOLOGY

National Level 7 Days Virtual FDP on Foundations of Machine Learning

DETAILS OF PROPOSED SESSIONS

Date / Time	Day 1 (21.10.2021)	Day 2 (22.10.2021)	Day 3 (23.10.2021)	Day 4 (25.10.2021)	Day 5 (26.10.2021)	Day 6 (27.10.2021)	Day 7 (28.10.2021)
2.00 PM - 4.00PM	Inaugural function & Vectors	Matrix Theory	Advanced Matrix Theory – Spectral Decomposition, Singular Value Decomposition(SVM) and Low Rank Approximation	Principal Component Analysis (PCA), Linear Discriminant Analysis (LDA)	Least Square Approximation, linear and multiple Regression, Logistic Regression	Convex sets and functions, Optimization	Probability, distributions and Support Vector Machines (SVM)
Dr.R.Thangarajan Prof & Head Dept of Information Technology							

