



ABOUT THE INSTITUTION

Vimal Jyothi Engineering College (VJEC) is an educational project of the Archdiocese of Thalassery established in the year 2002 and is managed by Meshar Diocesan Educational Trust. The college is approved by AICTE and affiliated to APJ Abdul Kalam Technological University (KTU). VJEC is a self-financing catholic minority institution aiming at generating a fervor for Engineering and Technology in students. Here we inspire, nurture and foster them to realize their career potential in the field of Engineering and Technology. B.Tech. Programmes in Computer Science and Engineering, Electrical and Electronics Engineering, Mechanical Engineering and Civil Engineering are accredited by the National Board of Accreditation (NBA). The institution is also accredited by NAAC and certified by ISO 9001:2015.

INFORMATION FOR PARTICIPANTS

• ELIGIBILITY

The FDP is open to faculty members of the AICTE approved institutions, research scholars, PG Scholars, participants from Government and Industry.

• REGISTRATION DETAILS

All the participants are requested to register online by filling the following form

https://docs.google.com/forms/d/e/1FAIpQLSe4AfYCOLzJ0vdGLLz7e_RAEIjyTwLocMDPOfU51jNskikyHQ/viewform?usp=sf_link

on or before 27th February, 2021.

Registration for all the participants is mandatory.

- ONLINE SESSION DETAILS WILL BE COMMUNICATED TO THE REGISTERED PARTICIPANTS THROUGH EMAIL.
- REGISTRATION IS FREE.
- E-CERTIFICATE WILL BE ISSUED TO THOSE PARTICIPANTS WHO ATTEND ALL THE SESSIONS.



CSI Sponsored

One week

Online Faculty Development Programme

on

MACHINE LEARNING WITH ITS MATHEMATICAL FOUNDATIONS

2nd March 2021 - 6th March 2021

Organized by

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



VIMAL JYOTHI ENGINEERING COLLEGE

Chemperi, Kannur, Kerala - 670 632

www.vjec.ac.in



ABOUT THE DEPARTMENT

The Department of Computer Science & Engineering was established in 2002 and is accredited by NBA up to 30.06.2023. The Department offers M.Tech & B.Tech programmes in Computer Science & Engineering and B.Tech programme in Artificial Intelligence and Data Science. The Department of CSE is deeply committed to provide high - quality undergraduate and postgraduate education. The course has a comprehensive curriculum aimed to provide knowledge, in both theoretical and practical aspects of Computer Science, with an emphasis on practical learning.

ABOUT THE COURSE:

With the advent of new technologies Machine Learning has become a trending area to be learned, and it is built upon Mathematics. This FDP covers fundamental mathematical concepts required for learning this emerging area. Topics from Linear Algebra, Probability and Statistical Distributions, Lattices and Boolean algebra are discussed. Apart from these, Fundamental Machine Learning applications such as Bayesian Decision theory and Support Vector Machines are included.

COURSE OUTCOMES:

After the completion of this FDP participants will be able to

CO 1: Understand the fundamental concepts of Vector Space , Basis dimension, Linear transformation, Eigen Values & Eigen Vectors, Diagonalization, Singular Value Decomposition to solve computational problems.

CO 2: Utilize the concepts, rules and results of Probability and Statistical Distributions to find solutions for Machine learning problems.

CO 3: Understand the principles of Lattices and Boolean algebra.

CO 4: Understand the important concepts of Machine Learning.

CO 5: To illustrate and apply Bayesian classifier and Support Vector Machines for typical machine learning applications.

SYLLABUS:

Vector Space, Basis dimension, Linear transformation, Eigen Values & Eigen Vectors, Diagonalization, Singular Value Decomposition, Basics of probability - Sample space, Sum rule, Product Rule, Bayes' Theorem, Mathematical Expectation, Binomial Distribution, Poisson Distribution, Gaussian Distribution, Lattices and Boolean algebra, Introduction to Machine Learning, Bayesian Classifier, Support Vector Machines.

ORGANIZING COMMITTEE

CHIEF PATRON

Rev. Fr James Chellamkottu

(Manager)

PATRON

Dr. Benny Joseph

(Principal)

CONVENER

Dr. Jeethu V. Devasia

(Associate Professor, HoD - CSE)

COORDINATORS

Ms. Akhila Mathew

(Assistant Professor, CSE)

Mobile Number: **9961788571**

Mr. Ansil Nazar

(Assistant Professor, CSE)

Mobile Number: **8848012849**

Email : fdpcse@vjec.ac.in