

Faculty Development Program <u>Deep Learning and its Applications</u>

Department of Computer Science & Engineering Govt. Engg. College Palakkad, Sreekrishnapuram (January 15th - 19th, 2024)

• Name of the Participant	:
• Gender	: Male 🗌 Female 🗌
• Date of Birth.	:
• Address for communication	ı:
• Contact No & email-id	: b
• Designation	:
• No. of Years of experience.	:
Official Address	:
• Accommodation Needed.	: Yes. \square No \square
• Diet	: Veg Non Veg
• Signature with date	:
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Signature of the applicant:

<u>Sponsorship</u>

This is to certify that Dr./Mr./Ms...... is a faculty member of our institution and is hereby sponsored for the Faculty Development Program on Deep Learning and its Applications at Govt. Engineering College, Palakkad, Sreekrishnapuram. The applicant would be permitted to attend the course, if selected.

Signature of Head of Institution

Office Seal

Important Dates



- Last date of Online Registration: 08-01-2024
- Intimation of Selection by e-mail: 11-01-2024

Who can Apply

Faculty members from Engineering Colleges and Polytechnics affiliated to APJ Abdul Kalam Technological University are eligible to attend the programme. The programme is interdisciplinary.

How to Apply

Application (Online Registration) for admission to the course should be submitted online through the link:

https://forms.gle/HwzKRYdpVZ3ZAiHs9



No Registration Fee

The candidates are also required to submit the hardcopy of the duly filled Registration Form at the time of course registration on 15th January 2024.

Co-ordinators

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Faculty Development Program

on

Deep Learning & Its Applications

15th to 19th Jan. 2024

Sponsored by



Directorate of Technical Education Kerala

Organized by

Dept. of Computer Science & Engg. GEC Palakkad, Sreekrishnapuram



Government Engineering College Palakkad, Sreekrishnapuram



Under Section 2(f) of UGC Act 1956

(Approved by AICTE & Affiliated to AP3 Abdul Kalam Technological University)

About the Institute

Government Engineering College Palakkad, Sreekrishnapuram is a premier educational institute established in 1999. It is situated in Palakkad district of Kerala. The college is fully owned by Govt.of Kerala and is under the Directorate of Technical Education, Kerala. GEC Sreekrishnapuram is approved by the AICTE and is affiliated to APJ Abdul kalam Technological University (from 2015 onwards)

The college offers six full-time B.Tech programmes, three M.Tech programmes. Also offers PhD under KTU since 2016 onwards in various departments.





Department of Computer Science and Engineering has been in existence since the inception of the College in 1999 offering B.Tech in CSE and has grown into a full-fledged department offering both PhD and M.Tech programs with specialisation in Computational Linguistics. The department is equipped with state-of-the-art laboratories and is fully prepared to facilitate teaching, research and consultancy activities. This programme is accredited by the NBA.

Area of Research

- Natural Language Processing
- Machine Learning and Deep Learning
- Information Security
- Cryptography
- Blockchain etc.

About the Course

The systems capable of learning from data are referred to as neural networks. They possess the capability to enhance their performance autonomously, without explicit instructions. Consequently, deep learning is widely recognized as a significant contributor in the realm of artificial intelligence (A). Deep learning is a class of machine learning that involves the operations of massive artificial neural networks called deep neural networks. Deep Learning allows the analysis of unstructured data and the automated identification of features. Deep learning and artificial intelligence (A) are dynamic and rapidly advancing domains, continually giving rise to novel technologies.

Course objective

The objective of the FDP is to discuss various Deep Learning algorithms and their applications. It helps the participants to understand the concepts of deep learning techniques and their applications in various domains. This course also focused on the implementation of Deep learning techniques in various research areas.

Outcome

The proposed FDP would provide an understanding of the concepts of Deep learning with a focus on the latest trends. The participants will be given a thorough understanding of the Deep Learning techniques. It enables the participants to apply Deep Learning techniques in real-world scenarios and solve complex problems efficiently.

Resource Persons:

Experts from Industries and Professors from NIT, 11Ts,111Ts and other Engineering Colleges.

Topics Covered:

Deep Learning and its Applications

- Introduction to Artificial Intelligence, Machine Learning and Deep Learning.
- Optimization, Gradient Descent and its variants.
- Perceptron, Multilayer Perceptron, Back-propagation algorithm
- Practical implementations of Neural Networks
- Introduction to Deep learning methods and applications.
- CNN, RNN, LSTM Architecture.
- Generative Adversarial Networks
- Hands-on implementation
- Basics of TensorFlow/Keras/PyTorch,
- Reinforcement Learning, and Data-driven Methods
- Hands-on implementation of Image data processing and analysis
- Computer Vision Applications: Image Classification
- Object Recognition and detection using TensorFlow/ PyTorch,
- Hands-on implementation
- Natural Language Processing (NLP) Applications:
- Machine Translation using TensorFlow/PyTorch
- Current Research and latest topics like Transformer,
 Attention mechanisms, etc
- Hands-on implementation