

Three Days' Online Workshop on

GAN Art - Introduction to Generative Adversarial Networks

Duration: 20th - 22nd May, 2021

Organized by
**Department of Computer Science
and Engineering, NIT Calicut**
&
AI Club, NIT Calicut



**National Institute of Technology
Calicut**
**NIT Campus P.O., Kozhikode –
673601**

Coordinators

Dr. Jayaraj P B
Dr. Pournami P N

Course Objective

Deep learning approaches are adopted widely in various fields, from healthcare to autonomous driving to everyday personal assistants like Alexa and Google Home. One topic that shook the AI community was Generative Adversarial Networks (GANs), which is capable of generating new unseen images of cats, humans, and many other everyday objects. This is an emerging area of Deep Learning which finds applications in art, developing dental implants, synthesizing CT from MR images, and many more.

For our three-day programme, we intend to go into the depths of GANs through which we explore how a statistical model can learn the characteristics of a distribution. Through workshops and technical talks, we intend to provide insights into the working of GANs and draw attention to some elements in human intelligence. Through hands-on coding sessions, we plan to teach how to develop a GAN to generate unseen images. It will be useful to the students and research scholars to solve their research problems using GAN.

About NIT Calicut



National Institute of Technology Calicut was founded as Regional Engineering College, Calicut in 1961. Set in a picturesque at the foothills of the Western Ghats, it is located about 22 kilometres north-east of Calicut city. It is a prestigious institute with a reputation for excellence at both undergraduate, postgraduate and research levels, fostering the spirit of national integration among the students and a close interaction with industry.

Course Duration

12 sessions in 3 days programme

Course Outcomes

On completion of this course, participants are expected to be capable of understanding the basics of GAN and various commonly used GANs.

Resource Persons

Dr. Mahesh R Panicker, IIT Palakkad

Dr. Jeny Rajan, NIT Surathkal

Dr. Jayaraj P B, NIT Calicut

Dr. Pournami P N, NIT Calicut

Dr. Niyas P, MVR Hospital, Calicut

Mr. Ivan Biji, Microsoft Bangalore

Mr. Abdul Fathaah, Secretary, AI Club

Mr. Akash Raut, Convenor, AI Club

Mr. SaiManoj Akondi, AI Club Executive

Mr. Gokul Prasad, AI Club Executive

Mr. Joel M Cherian, AI Club Executive

NVIDIA

Who should attend?

- The participants in the course will be faculty, Ph.D Scholars and PG Students from AICTE approved technical institutions.
- On completion of the programme, participants will be awarded an E-Certificate.
- Minimum 80% attendance at the end of the workshop is compulsory for certification.

How to Apply?

The participant has to register/submit through the online google form [link](#).

Any of your queries can be send to

ganart@nitc.ac.in

Venue: Online (Cisco WebEx), Content

Delivery and Exam through Moodle Based Learning Management system.

Day 1

1. Introduction to Deep Neural Networks
2. Introduction to Convolutional Networks
- 3 Medical Image Synthesis
4. Deep learning with Python.

Day 2

1. Generative models
2. Introduction to GANs
3. Types of GANs.
4. Implementation of GAN. (Hands on)

Day 3

1. Training GANs on GPU
2. Image to Image Translation
3. Applications and case studies of GANs

*To facilitate hands-on sessions, Cloud service offered by **Paperspace** will be utilised. (<https://www.paperspace.com/>)*

Registration Fees

Faculty from Academic Institutions :

Rs 2500/- + 18% GST

Research Scholars/PG Students: **Rs 1500/- + 18% GST**

Industry/ Research organizations: **Rs 3000/- + 18% GST**

The registration fee includes instructional materials. The course registration fee can be paid using National Electronic Fund Transfer (NEFT).

Account Name	Director, NIT Calicut
Account No.	37618269594
Bank	State Bank of India
Branch	CREC, Chathamangalam, Kozhikode
Branch Code	002207
IFSC	SBIN0002207
MICR Code	673002012

Important dates

Last date for receiving the online registration form: **15 May 2021**

Intimation to participants: **16 May 2021**

Course dates: **20, 21, 22 May 2021**

Maximum 75 participants are allowed for this course. Selection will be based on eligibility, and on First Come First Served basis.

This Workshop is Conducted as part of the Diamond Jubilee Year Celebrations of NIT Calicut

For more information, contact:

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