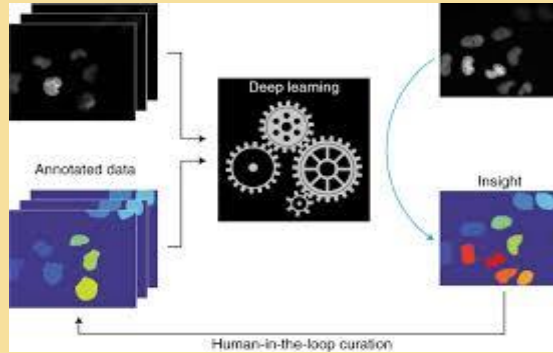# BASIC AICTE ATAL FDP

## on

## Data Science

### Specialization in

## Deep Learning for Visual Computing

**(Sponsored by: -AICTE Training and Learning (ATAL) Academy, New Delhi)**



**8th Jan,2024 to 13th ,2024 (Offline)**

### Organized by



## Department of CSE

## KIET GROUP OF INSTITUTIONS

**13th Km Stone, Ghaziabad – Meerut Highway (NH-58), Ghaziabad – 201206 UP, India**
**Phone: 01232-227879, 09899202168**



## Organizing Committee

### Patron
**Dr. Anil Ahlawat, Director-In-Charge, KIET**

### Co-Patron
**Dr. Manoj Goel, Joint Director, KIET**

### FDP Chair
**Dr. Vineet Sharma**
**Professor & Head – CSE, KIET**

### Coordinator
**Dr. Dilkeshwar Pandey**
**Professor, CSE, KIET**

### Co-Coordinator
**Dr. Sanjiv Sharma**
**Associate Professor, CSE, KIET**

### Resource Persons
**Eminent Scientists, Academicians and Experts from Industries**

### Registration:
**No Registration fee for this FDP**

### Contact:
**Dr. Dilkeshwar pandey**
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**9811410032**
**Dr. Sanjiv Sharma**
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**9634001591**

## About FDP

In recent years, we have witnessed a rapid development on applications of deep learning which has a significant impact in areas of health care, education, research, and lifestyle. Deep Learning is about designing programs that can learn without being explicitly programmed. It has been used to solve problems like handwritten character recognition, object and product recognition, image retrieval, image captioning, generating synthetic images to self-driving cars.
The main objective of this FDP is to explore more use of Deep Learning for Visual Computing for better understanding in the area of Image & Video analysis for real word application. This can be broadly used in medical image processing which can help our medical expert to predict a particular problem of patient precisely. Visual Computing is shifting from statistical methods to Deep Learning neural network methods for better understanding and predictions. Deep Learning plays a vital role in Visual computing area which includes Data Preparation, Image Segmentation, Object Recognition, Human activity recognition etc.
This faculty development program (FDP) is devoted to improving understanding of fundamental theory, recent developments and research outcomes addressing the related mathematical and practical aspects of Deep Learning for Visual Computing. Four research papers from IEEE Transaction and SCI will be discussed and implemented.

## About the Institute

KIET Group of Institutions is recognized as one of the best engineering colleges in Delhi-NCR. Founded by the members of Krishna Charitable Society in 1998 with a modest number of 180 students, KIET Group of Institutions has now become a pioneer in the technical education domain with a strength of 7500+ students and having a rich alumni base of 19000 + students spread in all the nooks and corners of the world.

The institute has gained a distinct image as an outstanding educational colossal among the technical institutions of Uttar Pradesh, due to its inclination towards innovative and skill-based education. Its consistent belief in 'Achieving High' is aptly reflected in its academics, extracurricular activities and placements. The success of its belief is clearly brought out in the plethora of Education Excellence Awards bagged by the institute. The institute has been accredited by NAAC with Grade 'A+' and its programmes (CSE, ECE, EEE, IT, ME, CE, MCA, MBA and Pharmacy) are NBA accredited.

## About the Department

The Department of Computer Science & Engineering is accredited by NBA 4 times and it is accredited up to Jun 2025. The Department executes 4 years B.Tech. with intake of 240 students, 2 years M. Tech Course with intake of 18 students and PhD Research Center of AKTU, Lucknow. It is only one of the departments among all colleges of AKTU which has supercomputing facility for Artificial Intelligence and Machine Learning Labs and having Supercomputer "PARAM-SHAVAK". The Department is also running two technical student's clubs, DSDL and GDSC. The department is committed to providing our students with the knowledge, skills, and mindset required to navigate the constantly evolving world of technology. We strongly believe in the effectiveness of hands-on learning, which is why our department provides cutting-edge labs and facilities where students can apply theoretical concepts to practical scenarios. We encourage active involvement in research projects, internships, and industry collaborations to acquire valuable experience and stay ahead in this dynamic field.

## FDP Content

- Intro. to Visual Computing & ANN
- Convolution Neural Network (CNN)
- Very Deep CNN (GoogleNet, ResNet)
- Autoencoders
- Generative Models with Adversarial Learning
- Recurrent Neural Network & LSTM
- Discussion and Implementation of four IEEE Transaction and SCI papers

## Target Audience

- Assistant Professors/Associate Professor/ Ph.D. scholar's/PG students (Max Limit-50 participants)

## Prerequisite

Participants must have a basic knowledge of Image Processing, Machine Learning and Python.

## Important Dates

**Date of FDP:** 8th Jan to 13th Jan 2024

**Start Date of Registration:** 8th Oct 2023

**Last Date of Registration:** 31st Dec 2023

# Faculty Development Program

## Data Science

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## ONLINE LINK FOR REGISTRATION

https://www.aicte-india.org/atal

**Department of Computer Science and Engineering**
**ATAL FDP AICTE SPONSERED**

# Deep Learning for Visual Computing

**Dates: 8 JAN 2024 – 13 JAN 2024**

| | |
|---|---|
| **Inaugural Program Schedule** | |
| **Date: 08 JAN 2024, Venue: (PGDM FDP Hall)** | |

| Time | Program Details |
|---|---|
| 09:15 AM – 10:00 AM | Registration of Participants & Arrival of Guests (PGDM FDP hall) |
| 10:00 AM – 10:02 AM | Welcome of Chief Guest and Dignitaries |
| 10:02 AM – 10:05 AM | Lamp Lightening & Maa Sarasvati Vandana |
| 10:05 AM – 10:07 AM | Video about KIET Group of Institutions, Delhi-NCR, Ghaziabad, India |
| 10:07 AM – 10:10 AM | Welcome Address & FDP Theme By **Dr. Vineet Kumar Sharma** HoD (CSE) |
| 10:10 AM – 10:25 AM | FDP Address By **Dr. Shailesh Tiwari**, Additional Director, KIET Group of Institutions, Delhi-NCR, Ghaziabad,India |
| | FDP Address By **Dr. Manoj Goel**, Joint Director, KIET Group of Institutions, Delhi-NCR, Ghaziabad, India |
| | FDP Address By **Dr Anil Kumar Ahlawat**, Director In-charge, KIET Group of Institutions, Delhi-NCR, Ghaziabad,India |
| 10:25 AM – 10:35 AM | FDP Address by **Hon'ble Chief Guest** **Prof. Manish Gaur**, Pro Vice Chancellor, AKTU, Lucknow |
| 10:35 AM – 10:38 AM | Vote of Thanks By **Dr. Dilkeshwar Pandey, Professor(CSE)** |
| 10:38AM – 10:39 AM | National Anthem |
| 10:40 AM – 11:00 AM | High Tea |