



Indira Gandhi Delhi Technical University for Women

Centre of Excellence – AI

(Supported by Department of Science and Technology (DST), GOI)

&

ANVESHAN FOUNDATION, IGDTUW & AI CLUB, IGDTUW

Six Weeks Internship Program

On

Python & Machine Learning

(5th June, 2023 to 17th July, 2023)

Patron

Dr (Mrs.) Amita Dev

Hon'ble Vice Chancellor, IGDTUW

Coordinator

Prof. Arun Sharma

Head – Dept. of Computer Science and Engineering

Introduction:

Indira Gandhi Delhi Technical University for Women (IGDTUW) has been upgraded from Indira Gandhi Institute of Technology in May 2013 vide Delhi State Legislature Act 9, 2012, as a non-affiliating teaching and research University at Delhi to facilitate and promote studies, research, technology, innovation, incubation and extension work in emerging areas of professional education among women, with focus on engineering, technology, applied sciences, management and its allied areas with the objective to achieve excellence in these and related fields

Centre of Excellence (CoE) in Artificial Intelligence (AI) at IGDTUW, established by the support of Department of Science and Technology (DST), GOI caters to the requirements of Under-graduate, Post-graduate and Doctorate programs in the domains of AI, Machine Learning and Deep Learning and various applications including Robotics, Drones, NLP and others. The centre serves as the perfect platform with necessary hardware and software infrastructure to serve as a playground to the creative minds that solve real data driven problems at hand.

The AI Club is a technical society with the goal of spreading awareness and knowledge on topics like machine learning, deep learning and robotics. We organize hackathons, international conferences, trainings, mentorships etc. in collaboration with reputed multinational companies like Deloitte, Incubate IND, Amazon, Urban Company, Coding Blocks among many others.

Objectives of Internship:

This internship aims to provide a concise introduction to the fundamental concepts in machine learning including mathematical foundations, programming tools and packages and popular machine learning and deep learning algorithms. The participants will gain knowledge in Machine Learning principles through a lot of practical applications covering industrial case walk-through and real-time applications.

Eligibility: First Year Students of B.Tech Programme

Course Fee: INR 1100/- for IGDTUW students and INR 1600/- for others

Batch size: 50 (first come first serve basis)

Resource Persons: Industry Professionals, Academicians and Researchers

Certificate: At the end of the Internship, participants will get an Internship Certificate

Funding Support

At the end of the Internship, a Demo Day will be organized for demonstrating all the projects developed. The team (of max. 3 participants) with the best Project will be awarded with a full fee refund. Next two teams will be awarded with a 50% fee refund.

Innovative Projects may also get a chance for seed funding and mentorship for further development and commercialization/patent of their project from Anveshan Foundation.

The projects with research flavour will be guided by the Faculty Mentors for writing a Research paper. University will support the Registration Fee (upto Rs. 5000/-) for presenting the Paper in the Conference. If a paper is accepted for SCOPUS Journal, students will also get a Cash reward.

Internship Scheme: Internship has two components as mentioned below:-

Components	Dates
Sessions (Theory and Lab)	5 th June – 17 th July, 2023

Important Dates

Last date to apply	:	31 st May, 2023
Internship Dates	:	5 th June, 2023 - 17 th July, 2023
Duration of online sessions	:	5 th June – 17 th July, 2023

Registration Link: <https://forms.gle/KjQ5nedZnmZyvgQp8>

Bank's details for fee payment

Particulars	Details
Name & Address of the Beneficiary	IGDTUW Anveshan Foundation
Account Number of the Beneficiary	09001000021199
Name & Address of the Bank Branch	Punjab & Sind Bank, GGSIP University, Kashmere Gate, Delhi - 110006
Fee (Amount to be transferred)	Rs. 1100/- for IGDTUW students and Rs. 1600/- for outside IGDTUW students
IFSC Code	PSIB0001098

For any further inquiry, please contact: Dr. Ritu Rani (Research Associate, COE - AI)

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Major Contents of online session

Topics Covered

- Introduction to GitHub and VS Code
 - Intro to Jupyter notebook/ collab
 - Basics of Python
- EDA(Exploratory data analysis) - Numpy, Pandas, Matplotlib, Visualization
 - Introduction to AI (Theoretical Introduction)

- Hands On: EDA project
 - Mini project
- 3.
- Diving deeper into AI : Applications of AI and ML
 - Basic ML Concepts: Intro to python models basics
 - ML Algorithms:
 - Linear Regression
 - Logistic Regression
 - Naive Bayes
 - Knn
 - SVM Algorithm
 - Random Forest Algorithm
 - K-Means clustering
 - Boosting algorithms
 - Hands On: Regression Problem
 - Hands On: Classification Problem
 - Introduction to Deep Learning
- 4.
- Deployment of a Python Model
 - Industrial Perspective on applications of AI & ML - Sessions by industry professionals (healthcare/agriculture/data sciences)
- 5.
- Problem Statement Assignment
 - Neural Network
 - Implementation of python models on Cloud
 - Computer Vision & its applications & Projects
 - Feature Engineering
- 5.
- Major Project Submission
- Major Project Evaluation
- Prize distribution