



Indira Gandhi Delhi Technical University for Women Organises



A TWO WEEK AICTE TRAINING AND LEARNING (ATAL) FDP ON

AI AND DATA ANALYTICS FOR HEALTHCARE (20 FEBRUARY 2023-3 MARCH 2023)

Indira Gandhi Delhi Technical University for Women

IGDTUW university, 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 relate fields.

Topics to be covered

- Introduction to data analytics
- AI in healthcare- Challenges
- Predictive Analytics in Healthcare
- Data Science using R
- Revisiting Python
- Anomaly Detection
- Medical Image Denoising
- Quality Assessment of Medical Data
- Importance of data in AI algorithms
- Data for AI- more or less?
- Deep Learning for Classification and Segmentation
- Mental and Emotional Intelligence



CHIEF PATRON

Dr. (Mrs.) Amita Dev Vice Chancellor, IGDTUW

PATRON

Prof. Ashwini Kumar, Pro Vice Chancellor, IGDTUW

Prof. R.K. Singh, Registrar, IGDTUW

COORDINATOR

Prof. Nidhi Goel, Professor, ECE Department

CO- COORDINATOR

Prof. Jasdeep Dhanoa, Professor, ECE Department

Organized by

Department of Electronics & Communication
Engineering



Eminent Speakers

- Dr. (Mrs.) Amita Dev, IGDTUW
- Prof. Balasubramanian Raman, IIT Roorkee
- Dr. Gaurav Bhatnagar, IIT Jodhpur
- Dr. Deep Gupta, VNIT Nagpur
- Prof. Dinesh Vishwakarma, DTU
- Dr. Shelly Sachdev, NIT Delhi
- Prof. Nidhi Goel, IGDTUW
- Dr. Anusuya Ghosh, Anthem Blue Cross,
- Ms. Madhushruti Roy, Novartis
- Ms. Namrata Gill, Dr. Reddy Laboratories
- Ms. Sowmya Moni, Incture Technologies
- Dr. Ekta Mehul Shah, Orena Solutions

About AICTE Training and Learning:

AICTE is committed for development of quality technical education in the country by initiating various schemes launched by Govt. of India, Ministry of Human Resource Development e.g. SWAYAM, MOOCs, Start-up Initiatives, Prime Minister Kaushal Vikas Yojana (PMKVY), Sansad Adarsh Gram Yojana (SAGY), Swachh Bharat/Unnat Bharat Abhiyan, Yoga Activities etc. There is a urgent need to train the skills of students to make them more employable to acquire global competencies..

Overview of the Course:

Health Analytics and Artificial Intelligence has changed the face of modern healthcare sector by introducing automation, higher diagnostic precision, and comfortable e-friendly, user-interface devices for an improved quality life. Its applications are endless in today's era. This FDP will focus on a wide range of experimental, theoretical and mathematical studies and examples derived from real-life, healthcare sector and AI related applications. Descriptions of data analytics/ machine learning/deep learning/transfer learning/meta learning for biomedical signals, images, audio and video analysis, artificial intelligence in healthcare and biomedical data processing tools. Various discussion and analysis will be done for the use of artificial intelligence in clinical research to meet the organizational and research demands of biomedical data analysis, security and computing requirements. The FDP will provide a platform to learn, engage and collaborate among budding students, researchers, academicians and industry partners for working in the field of Health Analytics and Artificial Intelligence. The FDP will provide tools and expertise for health related data optimization, selection, extraction and pattern recognition techniques in various academic disciplines including machine learning, deep learning, biomedical signal, image and audio processing, data mining, and computer vision.

Objectives of the Course:

- To imbibe the skills and competencies required for analysis of medical data in the form of text, numbers, signals and images
- To make participants understand the advanced concepts in the field of artificial intelligence, data analytics
- To empower the participants to use the technological advancements in medical domain
- To maintain and enhance faculty effectiveness by inculcating versatility and knowledge of using latest techniques
- To develop commitment and ethical approach towards work, and instill a sense of responsibility towards the institution.
- To help them develop sustainable behaviors to overcome stress and be mentally & emotionally healthy.

Benefits of Course:

- An in-depth knowledge of data handling
- Knowledge of powerful predictive analytical tools
- Knowledge of data science techniques that make data better
- Using better data to develop efficient lightweight neural networks for anomaly classification, detection
- Practical knowledge of various analytical tools to detect chronic diseases at an early stage

Tentative Schedule

Week 1: Online (7:00 p.m.–9:00 p.m.)

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
7:00–7:50 Prof. Balasubramanian Raman	7:00–7:50 Dr. Gaurav Bhatnagar	7:00–7:50 Dr. Deep Gupta	7:00–7:50 Prof. Dinesh Vishwakarma	7:00–7:50 Dr. Shelly Sachdev	7:00–7:50 Prof. Nidhi Goel
8:00–8:50 Prof. Balasubramanian Raman	8:00–8:50 Dr. Gaurav Bhatnagar	8:00–8:50 Dr. Deep Gupta	8:00–8:50 Prof. Dinesh Vishwakarma	8:00–8:50 Dr. Shelly Sachdev	8:00–8:50 Prof. Nidhi Goel
9:00–9:30 Session 1 Interactions	9:00–9:30 Session 2 Interactions	9:00–9:30 Session 3 Interactions	9:00–9:30 Session 4 Interactions	9:00–9:30 Session 5 Interactions	9:00–9:30 Week 1 MCQ

Week 2: Offline (9:30 a.m.–4:30 p.m.)

Day 1	Day 2	Day 3	Day 4	Day 5
9:00–9:30 Inauguration	9:30–12:00 Dr. Anusuya Gosh	9:30–12:00 Ms. Namrata Gill	9:30–12:00 Ms. Sowmya Moni	9:30–12:00 Prof. Nidhi Goel
9:30–12:00 Session 7	12:00–1:00 Article 1 Discussion	12:00–1:00 Article 2 Discussion	12:00–1:00 MCQ	12:00–1:00 Visit Report (Team)
12:00–1:00 Lunch	1:00–2:00 Lunch	1:00–2:00 Lunch	1:00–2:00 Lunch	1:00–2:00 Lunch
1:00–2:00 Travel for visit	2:00–4:00 Ms. Madhushruti Roy	2:00–4:00 Dr. Ekta Mehul Shah	2:00–4:00 Dr. Deep Gupta	2:00–3:00 Reflection Journal
2:00–4:00 Visit	4:00–5:15 Teaching Practice	4:00–5:15 Teaching Practice	4:00–5:15 Teaching Practice	3:00–4:00 Feedback
4:00–5:00 Travel Back				4:00–5:00 Valedictory

Registrations charges: Free

Last date for registration: 10 February 2023

Total Seats: 30-50

Target Group:

Assistant Professors, Associate Professors, Ph.D. Scholars, Post Graduate students

(Registrations will be accepted on First come First serve basis)

Pedagogy:

Collaborative, Experiential and Outcome Based Teaching and Learning based live Sessions, Case Studies, Presentation, Videos, Research Journals/ artical review discussions, debates, labs, etc.

Link for the registration:

Participants are requested to register compulsorily in the following link.

<https://atalacademy.aicte-india.org/signup>

For any queries/info, e-mail to:-atalfdp.datascience@gmail.com