Preamble

We envision the FDP as a series of interactive lectures and practical sessions led by field experts. Participants will engage in discussions and hands-on activities to apply text mining techniques to real-world biomedical and healthcare datasets. This FDP addresses the growing demand for professionals skilled in extracting insights from complex biomedical data. We are proud to feature highly reputed national and international speakers, providing valuable knowledge and networking opportunities. This FDP serves as a common platform for professionals in biomedical and computer science domains to collaborate and drive innovative healthcare solutions.

Module -1

Biomedical Domain Knowledge

- Biomedical Data Types
- Biomedical Ontologies

Module-2

Biomedical Text Mining

- Knowledge Extraction from Biomedical/Clinical Text.
- Biomedical Text Mining and Drug Discovery.
- AI for Biological Classification.

Module -3

AI for Personalized Healthcare

- AI for Biology and Personalized Healthcare.
- Applications of Medical Imaging.
- NLP for Healthcare.

Patrons

Prof. Santishree Dhulipudi Pandit

(Vice Chancellor)

Prof. Brajesh Kumar Pandey

(Rector-I)

Prof. Dipendra Nath Das

(Rector 2)

Organizing Chair

Prof. Zahid Raza

(Dean SC&SS)

FDP Coordinator

Dr. Aditi Sharan

FDP Co-coordinator

Dr. Ayesha Chaudhary

Contact Us

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(Host Institute)

Jawaharlal Nehru University

School of Computer and Systems Sciences

is organizing

AICTE Training and Learning (ATAL) Academy Approved FACULTY DEVELOPMENT PROGRAM (FDP)

on

Intelligent Data Analytics for Healthcare Domain

Date :-
9th September, 2024
to
14th September, 2024

Course Details

Target Participants :- Faculty Members, Postgraduate students, Research scholars and Industry Professionals

Duration:- 6 days

Mode:- Offline Mode

Venue:- Jawaharlal Nehru University

Registration Link-
https://atalacademy.aicte-india.org/signup

How to Register-https://shorturl.at/GwCjE

Registration Fee / Accommodation

No registration fee for participation. Outstation participants from AICTE approved institutions will be given TA as per ATAL FDP norms. Accommodation will be provided on demand basis in JNU or nearby.

Resource Persons

Prof. T. P. Singh (Keynote Speaker)
SERB Distinguished Fellow, AIIMS Delhi

Prof. D.K. Lobiyal
School of Computer and Systems Sciences, JNU

Dr. Dinesh Gupta,
Scientist, ICGEB, New Delhi

Dr. Gourab Das
Scientific Officer(D) Tata Memorial Centre ACTREC

Ms. Guljit Chaudhari
Founder, Collectis Health Solutions

Prof. Indira Ghosh
Former Dean at School of Computational & Integrative Sciences, JNU

Dr. Meraj Khan
The Hospital of Sick Children , University of Toronto

Prof. Naidu Subbarao
School of Computational and Integrative Sciences, JNU

Dr. Narendra Chirmule
Co-founder, SymphonyTech Biologics

Prof. Punit Kaur
Head of Department (Biophysics), AIIMS

Prof. Pushpak Bhattacharyya
Department of CSE, IIT Bombay

Prof. S. Indu
Dept. of Electronic and Communication Engineering, Delhi Technological University, Delhi

Key take-aways for participants

- Familiarity with popular Biomedical Domain resources that can be utilized for Intelligent processing of Biomedical data.
- Exploring various text mining techniques specifically tailored for biomedical and healthcare texts.
- Learning how to integrate text mining with biomedical knowledge resources for comprehensive biomedical and healthcare research.
- Acquiring skills in applying AI, DL and NLP techniques for meaningful information processing and its practical applications in Healthcare Domain like clinical decision support, , drug discovery etc.
- Participating in practical lab sessions to apply text mining techniques and tools on biomedical and healthcare data.
- Industrial visit to nearby Institute of National Importance/ IoE/prominent multidisciplinary university/CSIR or DST labs/Training Institute / Incubation centers / MSME centers/ Studios etc.

Schedule of BASIC FDP

Days/Time Slot	Day 1 (9 Sept)	Day 2 (10 Sept)	Day 3 (11 Sept)	Day 4 (12 Sept)	Day 5 (13 Sept)	Day 6 (14 Sept)
9:30 am – 10:00 am	Lamp Lighting / Inauguration + Theme (**Venue:** SLS, Auditorium)	Prof. Indira Ghosh Topic: "Analysis of Biomedical Data to build models on Disease Target Associations" Dr. Gourab Das Topic: "Biomedical Data Types , Sources and Retrieval" + Labwork (**Venue:** SC&SS)	Dr. Meraj Khan Topic: "Empowering Patients : AI Molecular Biology and Personalized Healthcare Solutions" (**Venue:** Lecture Hall 1, UGC-MMTTC)	Prof. S. Indu Topic: "Medical Imaging" (**Venue:** Lecture Hall 1, UGC-MMTTC)	Prof. Naidu Subbarao Topic: "Molecular Modeling and Drug Designing" + Labwork (**Venue:** Lecture Hall 1, UGC-MMTTC)	Prof. DK Lobiyal Topic: "Research Methodology for NLP" (**Venue:** Lecture Hall 1, UGC-MMTTC)
10:15 am – 11:00 am	TP Singh (Keynote Speaker) (**Venue:** SLS, Auditorium)					Evaluation (**Venue:** Lecture Hall 1, UGC-MMTTC)
11:15am-1:00pm	Dr. Aditi Sharan Overview of FDP, Interaction with participants, Group formation (**Venue:** SLS, Auditorium)		Dr. Dinesh Topic: "AI for Biomedical Data Classification" (**Venue:** Lecture Hall 1, UGC-MMTTC)	Dr. Punit Kaur Topic: "Biomedical Text Mining and Drug Discovery" (**Venue:** Lecture Hall 1, UGC-MMTTC)		

<table>
<tr><td>2:00 pm – 3:30 pm</td><td rowspan="2"><u>Dr. Aditi Sharan</u>

Topic: “Knowledge Extraction from Biomedical Data (with focus on textual data)”

(Venue: Lecture Hall 1, UGC-MMTTC)</td><td>Labwork

(Venue: SC&SS)</td><td rowspan="3">Industrial Visit (ICGEB)</td><td rowspan="3"><u>Ms. Guljit Chaudhari</u>
Topic1: “Clinical Text Mining”
and
<u>Dr. Narendra Chirmule</u>
Topic 2: “Transformation of the drug development life-cycle with Machine Learning: a biologists viewpoint”
(Venue: Lecture Hall 1, UGC-MMTTC)</td><td rowspan="3"><u>Prof. Pushpak Bhattacharyya</u>

Topic: “NLP for Health Care”
(Venue: Lecture Hall 1, UGC-MMTTC)</td><td>Evaluation
(2:00pm-3:00pm)
(Venue: Lecture Hall 1, UGC-MMTTC)</td></tr>
<tr><td>3:30-4:30</td><td>Article Discussion
(Venue: Lecture Hall 1, UGC-MMTTC)</td><td>Valedictory Session
(3:00pm-4:30pm)

(Venue: Lecture Hall 1, UGC-MMTTC)</td></tr>
<tr><td>4:30 pm – 5:30 pm</td><td>Lab Work
(Venue: Lecture Hall 1, UGC-MMTTC)</td><td></td><td></td></tr>
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