



Sponsored by AICTE Training and Learning (ATAL)
Academy
Faculty Development Program
On
“IoT based Predictive Analytics
using Artificial Intelligence”

Registration Details

- Do online registration by AICTE portal only on <https://atalacademy.aicte-india.org/signup>
- Experts are from IITs, IIIT, esteemed institutes and industries.
- Participants will be selected on a first-come first-served basis and as per AICTE ATAL FDP guidelines.
- Number of participants is limited to 50
- No Registration Fees
- Attendance for Online and Offline sessions is mandatory.
- Exam will be conducted at the end both sessions for certification.

Chief Patrons

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FDP Coordinator

Prof. (Dr.) Premanand P. Ghadekar

Professor & Head, IT Dept., VIT, Pune

FDP Co-Coordinator

Prof. Pankaj Kunekar

pankaj.kunekar@vit.edu

8237626369

Objectives of The FDP

To give the participants a good insight into Predictive Analytics and its potentially enormous real-world applications .

To explore research areas of Predictive Analytics, Healthcare, Business, Marketing etc.

Target Audience

Faculty members of the AICTE approved Institutions, Research Scholars, PG Scholars, Participants from industry and staff of host institutions may attend the FDP.

Bansilal Ramnath Agarwal Charitable Trust's
Vishwakarma Institute of Technology, Pune
(An Autonomous Institute affiliated to Savitribai Phule Pune University)



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(ATAL) Academy

Faculty Development Program
On

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13th to 18th February 2023 (Online) &
20th to 24th February 2023 (Offline)

Organized by

Department of Information Technology



In Association with
**AICTE Training and Learning
(ATAL) Academy**

About the Institute and the Department



Vishwakarma Institute of Technology, Pune, a highly commendable private institute, occupies a place of pride amongst the premier technical institutes of the western region of India. Established in 1983, financed and run by Bansilal Ramnath Agrawal Charitable Trust, it is affiliated to Savitribai Phule Pune University. The institute runs 9 Under Graduate, 3 Post Graduate & 3 Ph.D. programs which are affiliated to the University of Pune. The institution has been awarded ISO 21001-2018 certification by BSI, India & granted autonomous status since academic year 2008-2009. The Institute is NBA accredited and NAAC accredited (A++ Grade).

The **Department of Information Technology** has started in year 2001 and runs UG program that caters to the ever increasing needs of technical brilliance in all allied areas of information technology such as Data Structure, Machine Learning, Image Processing and Data Analytics. The motto of our department is to provide quality technical education to students, which will lead them sustain peaks in the field of technology.

About the FDP

Predictive analytics is a branch of advanced analytics that makes predictions about future outcomes using historical data combined with statistical modeling, data mining techniques and machine learning. Companies employ predictive analytics to find patterns in this data to identify risks and opportunities.

Pairing predictive analytics models with AI are crucial in improving forecast accuracy post-pandemic.

Predictive maintenance refers to the use of data-driven, proactive maintenance methods that are designed to analyze the condition of equipment and help predict when maintenance should be performed.

Organizing Committee

Dr. P. S. Dhabe	Dr. P. A. Bailke
Dr. S.P. Dongre	Dr. A. M. Kulkarni
Dr. K.B. Wayadande	Mrs. D. R. Deshpande
Mrs. D.J. Joshi	Mrs. A. R. Sawant
Mrs. R.S. Jadhav	Mrs. A.M. Mankawade
Mrs. S. M. Kambare	Ms. Z. K. Mundargi

FDP Contents

- Predictive analysis using ML algorithms for IoT applications
- Data Collection using IoT Sensors for Analytics
- IOT and Data Analytics for Industry 4.0
- Optimization of IoT based Cardiac monitoring - IoT for Biomedical Research
- Deep Learning Algorithms for Internet of Medical Things
- Introduction to Machine and Deep Learning - Applications to IoT
- Exploratory Data Analysis for Data Science with Hands On
- Predictive Maintenance
- Operationalizing Machine Learning (MLOps)
- NEP Implementation
- Research Methodology
- Stress and Relief Management
- Research Articles Discussion
- Industrial Visit

Venue

Hybrid Mode
Zoom
and Conference Hall,
VIT, Pune
Website: www.vit.edu

ATAL FDP ONLINE SESSIONS (13/02/2023 TO 18/02/2023) TIME: 7:00 PM TO 9.30 PM

Date & Day	Lecture Session-I (7:00pm-7:50 pm)		Lecture Session-II (8:00pm-8:50 pm)		Interactive session/ Question Answers (9:00pm-9:30 pm)
Day 1 13/02/2023	Inauguration and Session 1 (I) Predictive Maintenance Prof. (Dr.) P.S.V. Natraj IIT, Bombay		Session 1 (II) Predictive Maintenance Prof. (Dr.) P.S.V. Natraj IIT, Bombay		Question Answer Session
Day 2 14/02/2023	Session 2 (I) IIoT and Data Analytics for Industry 4.0 Prof. (Dr.) Ajay Deshmukh Director, Centre for Industrial Mathematics, Bhaskaracharya Pratishthana, Pune		Session 2 (II) IIoT and Data Analytics for Industry 4.0 Prof. (Dr.) Ajay Deshmukh Director, Centre for Industrial Mathematics, Bhaskaracharya Pratishthana, Pune		Question Answer Session
Day 3 15/02/2023	Session 3 (I) Deep Learning Algorithms for Internet of Medical Things Dr. Neelanjan Dey, Techno International New Town, Kolkata	B R E A K	Session 3 (II) Deep Learning Algorithms for Internet of Medical Things Dr. Neelanjan Dey, Techno International New Town, Kolkata	B R E A K	Question Answer Session
Day 4 16/02/2023	Session 4 (I) Introduction to Machine and Deep Learning - Applications to IoT Prof. (Dr.) M.K. Bhuyan, IIT, Guwahati		Session 4 (II) Introduction to Machine and Deep Learning - Applications to IoT Prof. (Dr.) M.K. Bhuyan, IIT, Guwahati		Question Answer Session
Day 5 17/02/2023	Session 5 (I) Optimization of IoT based Cardiac monitoring - IoT for Biomedical Research Dr. Surajit Debnath, Head ,Dept. of Lab Technology, Tripura		Session 5 (II) Optimization of IoT based Cardiac monitoring - IoT for Biomedical Research Dr. Surajit Debnath, Head ,Dept of Lab Technology, Tripura		Question Answer Session
Day 6 18/02/2023	Session 6 (I) Predictive analysis using ML algorithms for IoT applications Dr. Pooja Jain, IIT Nagpur		Session 6 (II) Predictive analysis using ML algorithms for IoT applications Dr. Pooja Jain, IIT Nagpur		MCQ1

FDP Schedule

ATAL FDP OFFLINE SESSIONS (20/02/2023 TO 24/02/2023) TIME:10:00 AM TO 5:45 PM

Inauguration : Day 1 (Date: 20/02/2023 Time: 10 am-10:30 am)

Day 1 20/02/2023	Session 7 10:30am to 1:00pm Exploratory Data Analysis for Data Science with Hands On Prof. (Dr.) Parikshit N. Mahalle, Professor and Dean (R & D), VIIT, Pune	Lunch 1:00pm to 2:00pm	Industrial Visit to Veritas Technologies, Pune 2:00pm to 5:30pm		
Day 2 21/02/2023	Session 8 10:00am to 12:30pm Data Collection using IoT Sensors For Analytics Mr. Sandesh Mahamure, Sr. Software Engineer, iMocha, Pune	12:30pm – 1:30pm Article 1 Discussion	Lunch 1:30pm to 2:30pm	Session 9 2:30pm to 4:30pm Research Methodology Prof. (Dr.) P.P. Ghadekar, Professor and Head, IT Dept., VIT, Pune	Teaching Practice 4:30pm to 5:45pm
Day 3 22/02/2023	Session 10 10:00am to 12:30pm Predictive Analytics Prof. (Dr.) Sudeep Thepade, Professor, PCCOE, Pune	12:30pm – 1:30pm Article 1 Discussion	Lunch 1:30pm to 2:30pm	Session 11 2:30pm to 4:30pm NEP Implementation Prof. (Dr.) Anil Sahu, Professor and Dean (PhD) G.H. Rasoni College of Engineering and Management, Pune	Teaching Practice 4:30pm to 5:45pm
Day 4 23/02/2023	Session 12 10:00am to 12:30pm Predictive Maintenance: From Development to IoT Deployment with MATLAB Mr. Koustubh Shirke, Sr. Application Engineer, The MathWorks, Pune	12:30pm – 1:30pm Visit Report (Team)	Lunch 1:30pm to 2:30pm	Session 13 2:30pm to 4:30pm Stress and Relief Management Mr. Kumar Deshpande	Teaching Practice 4:30pm to 5:45pm
Day 5 24/02/2023	Session 14 10:00am to 12:30pm Operationalizing Machine Learning (MLOps) Dr. Bhushan Garware, AI Consultant, Google Cloud India, Pune	12:30pm – 1:30pm MCQs	Lunch 1:30pm to 2:30pm	2:30pm – 3:30pm Reflection Journal	Feedback and Valedictory Function 3:30pm to 5:30pm