AICTE Training and Learning (ATAL) Academy

Online

Faculty Development Program

on

Applications of AI for a Better Tomorrow

9th - 14th December, 2024

Organized
by

School of Computer Science and Engineering

Vellore Institute of Technology, Vellore, Tamil Nadu, India

Objective of FDP:

- **Expose participants to cutting-edge AI applications**: Provide insights into how AI technologies are shaping various industries, such as healthcare, e-commerce, automotive, and weather forecasting.
- **Enhance understanding of AI in specific domains:** Focus on AI's role in areas like health informatics, modularity in autonomous vehicles, AI sensors, privacy preservation, industrial AI, health sector, and robotics.
- **Develop a comprehensive view of future AI prospects:** Address emerging trends such as federated learning, generative AI, and privacy concerns.
- **Promote interdisciplinary AI integration:** Demonstrate the relevance and impact of AI in diverse sectors, including commerce, technology, and public services.
- **Encourage research collaboration:** Provide a platform for participants to engage with domain experts, fostering academic and industrial collaborations worldwide.
- **Promote the ethical application of AI:** Discuss the challenges of privacy, security, and responsible AI use, ensuring a focus on societal benefits.
- **Bridge the gap between theory and practical application:** Equip participants with both theoretical knowledge and practical insights through expert sessions.

Outcome of FDP:

- **Enhanced AI literacy:** Participants will develop a deeper understanding of AI applications in diverse fields, leading to improved teaching methodologies and research insights.
- **Practical knowledge of AI tools and techniques:** Participants will gain familiarity with advanced AI techniques such as federated learning, generative AI, and predictive analytics.
- **Fostering future collaborations:** The program will inspire potential research collaborations and partnerships between academia and industry experts worldwide.
- **Broader understanding of AI's societal impact:** Participants will be equipped to apply AI solutions in ways that improve efficiency, sustainability, and societal well-being.

Target Audience:

Faculty Members / Industry Professionals / PhD Research Scholars / Post Graduate Scholars

Selection Criteria:

1. The number of participants is limited to 100.
2. Selection of the participants will be based on a First come first serve basis.

Eligibility for getting a certificate:

1. Registration of participants on the ATAL FDP portal
2. 80% attendance for sessions is mandatory.
3. Minimum 70% marks in the test

Details of Registration:

There is no charge for Registration, Course and Certification

Registration has to be done only through ATAL portal: https://atalacademy.aicte-india.org/login

Mode of FDP: Online (MS Teams)

For more info, kindly visit:

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

Coordinator:
Dr. Ganesh Shamrao Khekare
School of Computer Science and Engineering, VIT Vellore
Contact: +91 9960460161
ganesh.khekare@vit.ac.in
Exp- 14+ Years

Co-coordinator:
Dr. Indrasen Singh
School of Electronics Engineering, VIT Vellore
Contact: +91 9451802606
indrasen.singh@vit.ac.in
Exp- 17+ Years

About AICTE Training and Learning (ATAL)Academy:

The Government of India in association with AICTE launched the ATAL Academy in 2018. The vision of ATAL Academy is to empower faculty to achieve goals of Higher Education such as access, equity, and quality.

About VIT

Vellore Institute of Technology was established under Section 3 of the UGC Act, 1956 and was founded in 1984 as a self-financing institution called the Vellore Engineering College. The Union Ministry of Human Resources Development conferred University status on Vellore Engineering College in 2001. VIT has been ranked by MHRD NIRF Ranking, Govt. of India 2024 as 10th best in university, 13th best in research, 11th best in engineering also in QS World University Ranking - within 791 - 800 worldwide and QS Asia Ranking: 150th Rank. The institute is best known for its qualitative exuberance in technical education.

About School/Department

The mission of the school is to strive persistently to achieve excellence in computing disciplines. It is being pursued through its spectrum of academic programs in computing of contemporary standards. The main aim is to produce computing graduates with potential, to design and develop systems involving the integration of software and hardware devices, employ innovative approaches in programming and problem-solving and solving problems, create Large Scale Software Systems and build data/computing infrastructure for an organization.

Course Content:

➢ Role of AI in Next Generation Communication
➢ AI in Healthcare and Health Informatics
➢ Federated Learning and Privacy Preservation in AI
➢ AI for Autonomous Systems and Robotics
➢ The AI revolution in Manufacturing
➢ Generative AI and Its Applications
➢ AI in Autonomous Vehicles and Smart Mobility
➢ Weather Forecasting Using AI
➢ AI and Industrial Automation
➢ Future Prospects of AI: Trends and Challenges

Detail of Resource Persons

Mr. Ravi G Bhatia
Designation & Organization: President and Director, JATO Dynamics, India
Years of Exp: 37+ Years

Dr. Ghanshyam Singh
Designation & Organization: Professor and Director, Centre of SIC, UJ, South Africa
Experience: 24+ Years

Dr. Saurabh Vaidya
Designation & Organization: Asst. Consultant, Tata Consultancy Services
Years of Exp: 16+ Years

Dr. Om J Lakhani
Designation & Organization: Consultant Endocrinologist at Zydus Hospital, India
Years of Exp: 25+ Years

Dr. Shashi Kant Gupta
Designation & Organization: Post-Doctoral Fellow, Eudoxia Research University, New Castle, USA
Years of Exp: 14+Years

Dr. Gagan Raj Gupta
Designation & Organization: Associate Professor, IIT Bhilai, India
Years of Exp: 20+ Years

Dr. Sanjay K Prasad
Designation & Organization: Distinguished Engineer Global Industry, IBM, Bengaluru, India
Years of Exp: 30+ Years

Mr. Shahrukh Sheikh
Designation & Organization: Team Lead Manager, Innovix Pro, India
Years of Exp: 11+ Years

Mr. Krishna Kumar
Sharma Designation & Organization: Solutions Architect, Tech Mahindra, Ahmedabad, India
Years of Exp: 18+ Years

ATAL Online 6 Day Faculty Development Program 2024-25 Schedule

FDP Thrust Area: Advanced Computing (AI)
FDP Title: Applications of AI for a Better Tomorrow
Start Date: 09-12-2024   **End Date:** 14-12-2024
Note: *No Charge* for Registration, Course, Certification, and registration needs to be done through the ATAL FDP Portal.

Day 1 (09/12/2024)	Day 2 (10/12/2024)	Day 3 (11/12/2024)	Day 4 (12/12/2024)	Day 5 (13/12/2024)	Day 6 (14/12/2024)
6:00PM to 6:30PM **Inaugural Session**	6:00PM to 7:30PM **Session 3** Topic: AI Applications in Autonomous and Connected Driving Name of the Expert: Mr. Ravi G Bhatia Designation & Organization: President and Director, JATO Dynamics, India Years of Exp: **37 Years**	6:00PM to 7:30PM **Session 5** Topic: AI-Powered Medical Education Name of the Expert: Dr. Om J Lakhani Designation & Organization: Consultant **Endocrinologist** at Zydus Hospital, India Years of Exp: **25+ Years**	6:00PM to 7:30PM **Session 7** Topic: AI & Federated Learning Name of the Expert: Dr. Gagan Raj Gupta Designation & Organization: Associate Professor, **IIT Bhilai** Years of Exp: 20+ Years	6:00PM to 7:30PM **Session 9** Topic: Industrial Artificial Intelligence Name of the Expert: Dr. Sanjay K Prasad Designation & Organization: Distinguished Engineer Global Industry, **IBM**, Bengaluru, India Years of Exp: **30+ Years**	2:00PM to 3:30PM **Session 11** Topic: AI in **Robotics** Name of the Expert: Mr. Shahrukh Sheikh Designation & Organization: Team Lead Manager, Innovix Pro, India Years of Exp: 11+ Years
6:30PM to 8:00PM **Session 1** Topic: AI in Automotive Technology Name of the Expert: Mr. Ravi G Bhatia Designation & Organization: **President and Director**, JATO Dynamics India Years of Exp: **37 Years**	7:30PM to 9:00PM **Session 4** Topic: Future Prospective of AI Name of the Expert: Mr. Saurabh Vaidya Designation & Organization: Asst. Consultant, **Tata** Consultancy Services Years of Exp: 16+ Years	7:30PM to 9:00PM **Session 6** Topic: Weather Forecasting Using AI Name of the Expert: Dr. Shashi Kant Gupta Designation & Organization: Post-Doctoral Fellow, Eudoxia Research University, New Castle, **USA** Years of Exp: 14+Years	7:30PM to 9:00PM **Session 8** Topic: Recent Trends in AI & Federated Learning Name of the Expert: Dr. Gagan Raj Gupta Designation & Organization: Associate Professor, **IIT Bhilai** Years of Exp: 20+ Years	7:30PM to 9:00PM **Session 10** Topic: **Autonomous Navigation** Using AI Name of the Expert: Mr. Shahrukh Sheikh Designation & Organization: Team Lead Manager, Innovix Pro, India Years of Exp: 11+ Years	3:30PM to 5:00PM **Session 12** Topic: AI Applications in Obesity Management Name of the Expert: Dr. Om J Lakhani Designation & Organization: Consultant **Endocrinologist** at **Zydus Hospital,** India Years of Exp: **25+ Years**
8:00PM to 9:30PM **Session 2** Topic: Role of AI in Next Generation Communication Name of the Expert: Dr. Ghanshyam Singh Designation & Organization: Professor and Director, Center of SICS, University of Johannesburg, **South Africa** Years of Exp: **24+ Years**					5:00PM to 6:30PM **Session 13** Topic: The AI revolution in Manufacturing Name of the Expert: Mr. Krishna Kumar Sharma Designation & Organization: Solutions Architect, **Tech Mahindra,** Ahmedabad, India Years of Exp: 18+ Years
					6:30PM to 7:30PM **Online test & feedback**
					7:30PM to 8:00PM **Valedictory Session**