ABOUT THE COLLEGE

APS Educational Trust which has a glorious history of 89 years of service in the field of education through a chain of schools, pre-university and degree colleges is managed by men of academic eminence and dedicated to welfare of society. APS today stands for quality education in Bengaluru. Having hinged on to such reputation, its teaching faculty leaves no stone unturned for achieving excellence. A.P.S. College of Engineering is a private co-educational engineering and management college in Bengaluru, India, affiliated to the VTU started in 1997 by A.P.S. Educational Trust. The institution is accredited by NAAC for a period of 5 years. With clearly stated goal of delivering top-notch engineering education and a fierce commitment APS College of Engineering foster an unrivalled excellence in providing technical education. Ever since its inception the institution has expanded into a wide collection of outstanding structures, modern, sophisticated laboratories, and internet centre, a cutting-edge library, and an outstanding sports facility in its own right spanning across 25 acres. The students are inspired to be ethically upright and technologically advanced which help them to build a better country through high-quality education and a sense of camaraderie.

ABOUT DEPT. OF COMPUTER SCIENCE & ENGG

The Department of Computer Science and Engineering was established in the year 1997 right from the inception of the institution with an objective of imparting quality technical education in IT field. The department offers B E in CSE with an intake of 120 students. The department houses state of the art laboratories, boosts of well trained, committed and experienced teaching faculty who emphasize the theoretical and practical applications of computation and computer systems to the needs of the society using advanced pedagogic methodologies.

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One week online ATAL Faculty Development Program

on

Quantum verse: Advancing Knowledge in Quantum Computing, XR, and the Metaverse

Organised by

Dept. of CSE

APS College of Engineering

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Accredited by NAAC)

**Anantha Gnana Gangotri Campus
Somanahalli, Kanakapura Road, Bengaluru-560116**

16th to 21st December 2024

ABOUT ATAL

The AICTE Training and Learning (ATAL) initiative is dedicated to strengthening technical education in India by fostering faculty development and advancing educational standards. It aims to create opportunities for access, equity, and high quality learning across institutions. Through this initiative, faculty members, technicians, and other professionals receive upskilling support, enabling them to stay current with evolving technologies. ATAL also places a strong emphasis on equipping the younger generation with essential technical skills for the future workforce. Ultimately, it is a comprehensive program focused on building a robust, inclusive, and forward-looking educational ecosystem in India.

The OBJECTIVES OF FDP

- To understand Theoretical concepts in Quantum Computing, algorithms used, and hands-on practice using Qiskit
- To understand how quantum computing differs from classical computing and explore its potential applications.
- To understand of AR, VR, and XR technologies.
- Through hands-on workshops, participants will learn how to develop basic AR/VR/XR applications.
- To gain insight into the Metaverse concept, its evolving nature, and the role it plays in social interactions, education, business, and entertainment.

THE OUT COMES OF THE FDP

- Obtain knowledge on trending topics like, Quantum Computing, AR, VR, XR and Metaverse
- Gain hands-on experience on QisKit and other tools to develop AR, VR applications
- Understand and analyze algorithms used in Quantum Computing.
- Analyze the impact of Metaverse in different fields of society.
- Understand the various applications of AR, VR and XR technologies in real world scenarios

WHO CAN REGISTER:

Faculty members from AICTE approved engineering institute /polytechnic college, researches, industry persons can register. Maximum 100 participants will be allowed to attend online FDP on first come first serve basis

REGISTRATION PROCEDURE

ATAL portal Confirmation of participants will be communicated through their registered email ID. Confirmation of participants will be communicated through their registered email ID.

"No Charge for Registration, Course and Certification"

IMPORTANT DATES

Registration: 19/11/2024
Confirmation: 27/11/2024
Workshop date: 16th to 21st Dec 2024

Address for Communication
The Co-ordinator

FDP on Quantum verse: Advancing Knowledge in Quantum Computing, XR, and the Metaverse

Dept. of Computer Science & Engineering
APS College of Engineering
Somanahalli, Kanakapura Road,
Bengaluru-560116

Email: mithunbn.apsce@gmail.com
Mobile:9739640366

Major Topics Covered

DAY-1

- Basics of Quantum mechanics and Introduction to Quantum Computing and importance Quantum Computing in today's world.
- Real world applications of Quantum Computing

DAY-2

- Quantum Internet and Hands-on sessions
- Detailed knowledge on working of Quantum Internet
- Qiskit tool introduction and Hands-on experiments
- Working on QisKit and understand algorithms of Quantum Computing

DAY-3

- Introduction to AR, VR and XR
- Exploring through technological advancements in AR and VR
- Technologies used in AR application development - Hands on session

DAY-4

- Dimensions of AR, VR and XR
- Exploring various applications of these technologies.
- Studying the impact of VR in User Interface Design
- XR applications in the field of education.

DAY-5

- Metaverse and its different aspects
- Understanding the overview of Metaverse and its basic requirements.
- Different dimensions of metaverse in various fields
- Usage of metaverse for heritage cultural building and conservation.

DAY-6

- Impact of Metaverse in different domains and research opportunities
- Understanding the ethical considerations in developing metaverse applications.

Resource Persons

Dr Shivananda C S,
Assoc. Prof, Dept of Physics,
Sir M Visvesvaraiah Institute
of Technology, Bengaluru,
Karnataka

Dr Bhargavi Goswami,
Academic and Researcher,
Queens University of
Technology, Brisbane,
Australia

Dr Anoop G L,
Asst Prof, Dept of CSE, School
of Engineering and Technology,
Christ University, Bengaluru,
Karnataka

Dr Bharatesh Chakravarthi S B,
Asst. Prof, CSE, School of Computing and
Augmented Intelligence, Ira A Fulton
Schools of Engg, Arizona State University,
USA

Mr S C Mallikarjuna
Agile Coach, Mitel Cloud
communications, Bengaluru,
Karnataka

Dr Ashwini Kodipalli,
Professor, Dept of AI and DS,
Global Academy of Technology,
Bengaluru, Karnataka

Dr. Zabiha Khan,
Assoc Prof, Dept of AIML,
Nitte Meenakshi Institute of
Technology, Bengaluru,
Karnataka

Mr Ajit Padmanabh,
CEO, Who VR,
Bengaluru, Karnataka

Dr Jyothi Mandala,
Assoc Prof, Dept of CSE, School
of Engineering and Technology,
Christ University, Bengaluru,
Karnataka

Mr Kiran Lakkapragada,
Co-Founder,
Kiksar Technologies,
Bengaluru, Karnataka

Dr Arjun U,
Assoc Prof and Head,
Dept of CSE, PES Institute of
Technology and Management,
Shivamogga, Karnataka

Dr Deepak N R,
Prof and Head,
Dept of ISE, Atria Institute
of Technology, Bengaluru,
Karnataka

Dr Manjunath T N,
Professor and Dean,
B M S Institute of Technology
and Management, Bengaluru,
Karnataka

Industrial Collaborations

a. Kiksar Technologies, Bengaluru

b. Who VR Tech, Bengaluru