

ABOUT FDP

The world's civilization is rapidly evolving toward massive deployment of automated machines in general and smart robots in particular. With the advance of various technologies such as sensing, planning, perception, control, machine intelligence and cloud computing, future robots will be more skillful in handling all kinds of tasks in industry and society. Hence, it is important to keep track the fast growth of theories and technologies which advance robotics along with the fundamentals. The aim of this FDP is to make the participants aware of fundamentals of robotics as well as recent advancements.

Topics to be covered:

Introduction to Robots and Robotics, Robot Kinematics, Robot Control, Trajectory Planning, Robot Dynamics, Analysis of Wheeled Robot, Analysis of Biped Robot, Sensors, Robot Vision, Human Robot Interaction, Building of Autonomous Robots, Mobile Robot Navigation, Use of AI and ML in Robotics, Simulation Tools for Robotics, Advances in Robotics.

Speakers:

- Prof. Gora Chand Nandi, IIIT Allahabad
- Prof. Pradip Kr. Das, IIT Guwahati
- Prof. Shivashankar B. Nair, IIT Guwahati
- Dr. Atul Thakur, IIT Patna
- Dr. Rahul Kala, IIIT Allahabad
- Dr. Sneha Gajbhiye, IIT Palakkad
- Dr. Vijay Kumar Dalla, NIT Jamshedpur
- Dr. Vijay Bhaskar Semwal, MANIT Bhopal
- Dr. Sanjeev Sharma, IIIT Pune



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Vice-Chancellor (In-Charge), BHU Varanasi

Patron

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Director, Institute of Science, BHU Varanasi

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Five-Days Online Faculty Development Programme (FDP)

on
“Robotics”
(August 2nd to 6th, 2021)

Sponsored by:



AICTE Training and Learning (ATAL) Academy

Organized by:



Department of Computer Science

Institute of Science

Banaras Hindu University, Varanasi – 221005

Uttar Pradesh, India

ABOUT HOST INSTITUTE

Banaras Hindu University is an internationally reputed temple of learning, situated in the holy city of Varanasi. This Creative and innovative university was founded by the great nationalist leader, Pandit Madan Mohan Malviya, in 1916 with cooperation of great personalities like Dr. Annie Besant, who viewed it as the University of India. Banaras Hindu University was created under the Parliamentary legislation - B.H.U. Act 1915. The area of the main campus of this premiere Central University is 1300 acres, having well maintained roads, extensive greenery, a temple, an air strip and buildings which are an architectural delight. Another campus of the university at Barkachha, in Mirzapur district, covering an area of 2700 acres is coming up. The university comprises 3 Institutes, 14 Faculties 140 Departments, 4 Inter disciplinary Centers a constituent college for women's and 3 Constituents Schools, spanning a vast range of subjects pertaining to all branches of humanities, social science, technology, medicine, science, fine arts and performing arts. It has 6 centres of Advanced Studies, 10 Departments under Special Assistance Programme and a large number of specialized Research Centers. Four Degree Colleges of the city are affiliated to the University. Bharat Kala Bhavan, the reputed museum of the university, is a treasure trove of rare collections. The 927 bed hospital of the University is equipped with all the modern amenities. The university provides a wide range of facilities for sport and hobbies, has large playgrounds, a big auditorium, a flying club and many auxiliary services and units like Printing Press, Publication Cell, Fruit Preservation Center, Subsidized Canteens, Employment and Information Bureau, Security etc. The University family consists of about 15000 students belonging to all streams of life, castes and religions and races, about 1700 teachers, and nearly 8000 non-teaching staff A large number of students from foreign countries like the U.S.A, the countries of Europe, Asia, Middle East, Africa etc., come to study here. The university has taken a leadership role in promoting new ideas, the spirit of integration of the world, and cultivation of intellect and culture. Banaras Hindu University is small virtually the universe in microcosm.

ABOUT DEPARTMENT

The department of Computer Science was established in the year 1987 with the main objective of providing trained manpower in the area of Computer and Systems Sciences and to promote state of the art research in Computer Sciences, Applications and related areas. In the beginning the department offered an undergraduate course B.Sc. (Hons.) in Computer Science. Teaching at postgraduate level was started with M. Sc. (Computer Science) program in the year 1990. The MCA program started in 1994. In addition to teaching programs, the department also offers research program leading to Ph. D degree in Computer Science. The department has a relaxed and informal atmosphere - which we cherish. The Faculty is enthusiastic and easily approachable. Learning is not confined to class rooms.

Address for Correspondence

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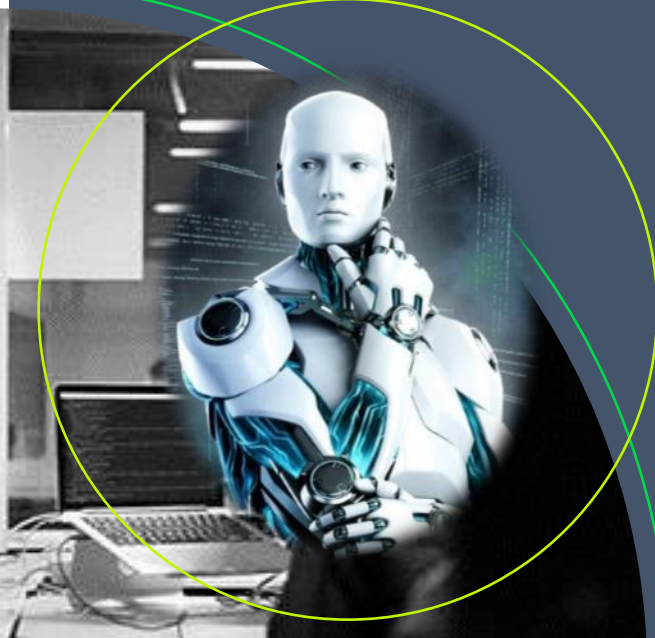
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ABOUT ATAL PROGRAMME

AICTE Training And Learning (ATAL) Programme is an initiative by AICTE which aims at empowering faculty to achieve goals of Higher Education such as access, equity and quality. This programme is designed to fulfill the need to train the young generation in skill sector and having faculty & technicians to be trained in their respective disciplines. It was felt that training with latest tools and technologies is vital to keeping an institute competitive and more productive. Training is required for increasing the knowledge and skills of students to make them more employable to acquire global competencies. It also transforms them to harmonize with society and most importantly to make them a good citizen of the country.

GENERAL GUIDELINES

Targeted Participants: The faculty members of the AICTE approved institutions, research scholars, PG students, school teachers, participants from government and industry.

Registration Fee: The FDP is **completely free**.

Registration Process: Please sign up through: <https://atalacademy.aicte-india.org/login>

1) Click on the Workshop option. 2) Select State “Uttar Pradesh”, Month “August” and Thrust area “Thrust Areas” in Filter Workshops page. 3) Click on the add “+” button of the workshop “Application No: **1614845177**”.

Last Date of Registration: 20 July 2021. Finally approved participants will be informed by email on 23 July 2021.

No. of Seats: Maximum 200 participants.

No. of Sessions: 3 sessions per day (2 hours each) for 5 days.

Mode of FDP: Online through video conferencing.

Test and Certificate: A test shall be conducted online at the end of the program. The certificates shall be issued to the participants with minimum 80% attendance and minimum 60% marks in the test.
