

Techno Hub Robotics





About Course



About Robotics

Robotics is a branch of engineering and science that includes electronics engineering, mechanical engineering and computer science and so on. This branch deals with the design, construction, use to control robots, sensory feedback and information processing. These are some technologies which will replace humans and human activities in coming years. These robots are designed to be used for any purpose but these are using in sensitive environments like bomb detection, deactivation of various bombs etc. Robots can take any form but many of them have given the human appearance. The robots which have taken the form of human appearance may likely to have the walk like humans, speech, cognition and most importantly all the things a human can do. Most of the robots of today are inspired by nature and are known as bio-inspired robots.

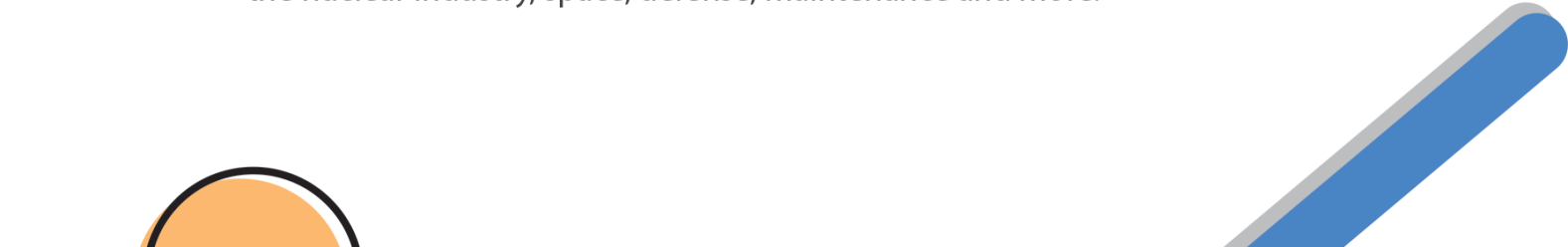
Robotics can take on a number of forms. A robot may resemble a human, or it may be in the form of a robotic application, such as robotic process automation (RPA), which simulates how humans engage with software to perform repetitive, rules-based tasks.

Today, industrial robots, as well as many other types of robots, are used to perform repetitive tasks. They may take the form of a robotic arm, robotic exoskeleton or traditional humanoid robots.

Industrial robots and robot arms are used by manufacturers and warehouses, such as those owned by Amazon, Devol, Best Buy and more.

Robotic systems are coveted in many industries because they can increase accuracy, reduce cost and increase safety for human beings.

In fact, safety is arguably one of robotics' greatest benefits, as many dangerous or unhealthy environments no longer require the human element. Examples include the nuclear industry, space, defense, maintenance and more.



COURSE CONTENT

Module 1: Introduction

- ✓ Introduction to Robotics.
- ✓ The Engineering Design Process.
- ✓ Best practices in engineering design.

Module 2: Introduction to Programming

- ✓ Fundamentals of computer languages and machine logic.
- ✓ The “Hello World!” program.
- ✓ Variables, arithmetic operations and logical operations.
- ✓ Conditional statements.
- ✓ Loops and Iterations.
- ✓ Functions and calls.
- ✓ Libraries.

Module 3: Introduction to Electric Circuits

- ✓ Electricity, voltage and current.
- ✓ Fundamentals of electric circuits.
- ✓ Ideal sources and resistors.
- ✓ Ohm’s law and Kirchhof’s law,
- ✓ Capacitors and RC circuits.

Module 4: Sensors, Actuators & Manipulators

- ✓ Micro controllers
- ✓ Sensors and actuators
- ✓ Manipulators
- ✓ Gears and other mechanical systems.

Module 5: Robot Mechanics

- ✓ Power and torque
- ✓ Acceleration and velocity.
- ✓ Design models for ground mobile robots.
- ✓ Design models for mechanic arms and lifting systems.
- ✓ Fundamentals of kinematics.

Module 6: Advanced Robotics

- ✓ Power and torque
- ✓ Acceleration and velocity.
- ✓ Design models for ground mobile robots.
- ✓ Design models for mechanic arms and lifting systems.
- ✓ Fundamentals of kinematics.

Module 7: 3D Printing and CAD for Robotics

- ✓ Introduction to AutoCAD
- ✓ Installation of AutoCAD
- ✓ Designing in AutoCAD
- ✓ Exporting 3D Design in AutoCAD
- ✓ Slicing 3D Design in AutoCAD
- ✓ Mathematics Behind 3D Printing and Slicing
- ✓ Different types in 3D Printing
- ✓ Selecting right material for 3D Printing
- ✓ 3D Printer Calibration before 3D Printing
- ✓ How to give finish to a design after printing

Module 7: Mechanical Works

- ✓ Cutting
- ✓ Grinding
- ✓ Weilding
- ✓ Gas Weilding
- ✓ Robotic Arm Weilding
- ✓ How to use a drill machine
- ✓ Selecting the correct bit for drill machine
- ✓ Working on Lazer Cutting Machine Machine



The written course content is only a highlight we provide much more than mentioned .

COURSE DETAILS

3 Months

Fees - 36,000 RS

- ✓ Kit will be provided but you can not take it home after completion of course.
- ✓ Live field internship
- ✓ Major project development
- ✓ Write & Publish Research Paper in International Journal
- ✓ Paper presentation in National/International conference.

6 Months

Fees - 46,000 RS (with Kit)

- ✓ You can take your kit home
- ✓ Live field internship
- ✓ Major project development
- ✓ Write & Publish Research Paper in International Journal
- ✓ Paper presentation in National/International conference.
- ✓ 1 month revision course anytime in 2 years

No extra charges will taken for the mentioned services apart from the course fees. We are here to help students, not to eat their money, we want to promote technology education .

COURSE DETAILS

Delivery of the Course :

- **Online Mode**

If the student is unable to reach our location , we will deliver the course in an online mode. The student will get his / her kit by courier and the rest of things will remain the same.

- **Offline Mode**

Techno Hub Laboratories will not deliver the course by displaying slides on a power point presentation. Techno Hub Laboratories has a state of the art Laboratory which is equipped with latest equipments, so the student will do the entire course hands on which will make a student unstoppable in the industry.

COURSE DETAILS

Scheme for students with financial issues:

There are some students who are unable to do courses like these due to financial issues, so for them we have a scheme that will help them to pursue these courses and make their career.

- **Course Loan**

We will offer a course loan with 0 interest which the student can repay after the completion of the course, this loan scheme is applicable for both 3 months as well as 6 months courses. No interest will be charged when the student comes to repay the loan. For more information please call or whatsapp on our helpline +91 9997030409.

- **Equal Monthly Installments**

Apart from the loan scheme we also have a system of equal monthly installments (EMI). In this the student with a very minimum down payment can pay an equal amount per month for a duration of 3 months or 6 months. No interest will be charged on the EMIs. This scheme is applicable for both the 3 months and 6 months course. For more information please call or whatsapp on our helpline +919997030409.

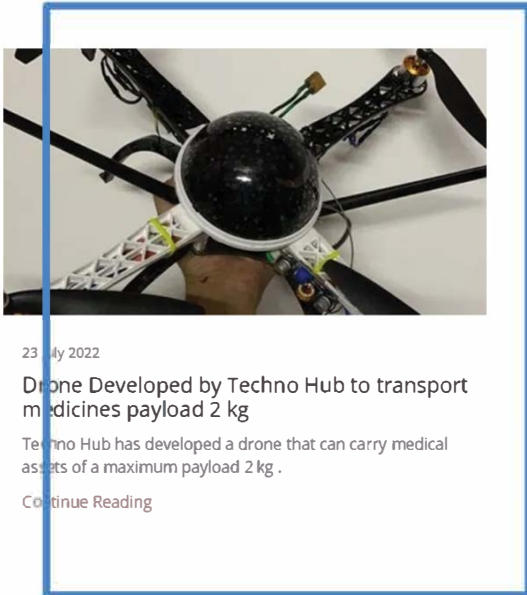
- **Course Group Mutual Funds**

In this scheme, if a students come in a group, like in a group of 3 students or 5 students or 10 students, then based on the size of the group there will be exclusive discount per student. This scheme is applicable for 3 months and 6 months course. For more information please call or whatsapp on our helpline +919997030409.

Note : We are always there to help students and build a better future.

Why learn from us?

Techno-hub laboratories is a recognized woman led start-up based in Uttarakhand. Education, Environment and Technology are our focus areas. We have a core team of young professionals who are committed to quality and excellence. We have been engaged in conducting a lot of online professional courses around our core areas of expertise. We have a large number of technology experts from Industry as well as academia associated with us to make these workshops really effective.



23 July 2022
Drone Developed by Techno Hub to transport medicines payload 2 kg
Techno Hub has developed a drone that can carry medical assets of a maximum payload 2 kg .
Continue Reading



13 July 2022
Techno Hub wins SDG - 9 Award by CM Pushka Singh Dhama Ji
Centre for Public Policy and Good Governance (CPPGG), Department of Planning, Govt. of Uttarakhand in collaboration with UNDP Organised Uttarakhand's First SDG Goalkeeper awards. The intend of this initiative is to recog...
Continue Reading

Our founder director Dr. Reema Pant brings about 30 years of experience in the field of teaching, learning and research. The core group and advisers of Techno-hub are distinguished academicians, industry experts, and nationally and internationally renowned people of repute.

Techno Hub Laboratories is recognized by Startup India , Startup Uttarakhand . Techno Hub Laboratories has won the SDG – 9 Goalkeeper by Government of Uttarakhand for Industry and Innovation excellence .



Interested to Joining Register Now !

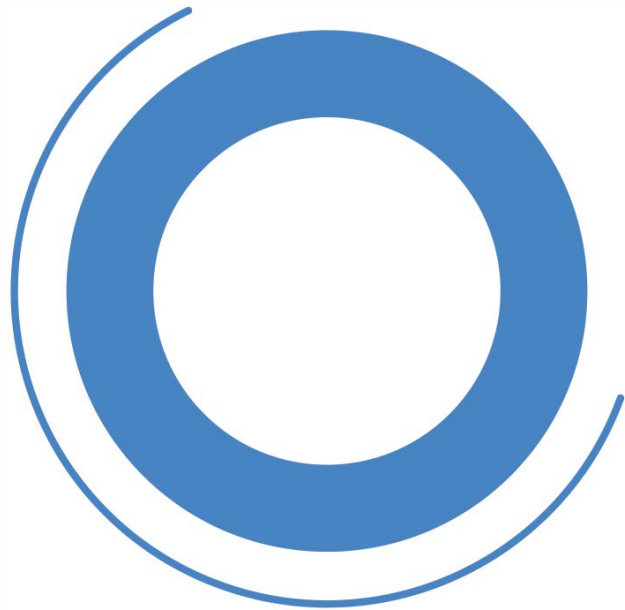
Features

- ✓ Professional Mentor
- ✓ High Quality Courses
- ✓ Teams and Training Room
- ✓ Modern Learn Methods

+91 9084687772




Techno Hub Training & Internships



**CONTACT
US!**

 C 27 THDC Colony , Near JP Badminton Academy ,
Dehradun – 248001 , Uttarakhand .

 +91 9084687772

 <http://techno-hub.org/>
info@techno-hub.org
siddharthmadhav@techno-hub.org .

   @technohublaboratories