



CONTINUING EDUCATION CELL

NATIONAL INSTITUTE OF TECHNOLOGY RAIPUR
G.E. Road, Raipur – 492010 (C.G.) Ph- (0771)2253934

Notice

Continuing Education Cell, NIT Raipur is going to offer a certificate course on “Robotics”. The details are mentioned below:

Course Name	Tentative schedule	Details
“Bootcamp on Coding and Robotics” (Offline mode)	20 th – 23 th June 2024 (10:00 am to 01:00 pm each day)	Annexure-A

Interested candidates/organizations can apply in the prescribed application form(Annexure-B) along with the details of course fee. The course Fee is given as follows:

Course Fee	Students of NIT Raipur	₹2,000 + 18% GST
	Outside Students (other than NIT Raipur)	₹2,000 + 18% GST
	Faculty/ Industry Personnel	₹4000 + 18% GST

The payment can be done either in the form of a Demand Draft (DD) in favour of “Director, NIT, Raipur” payable at Raipur or **through online mode**(*account details in the last page of this document*). For online payment, the scanned copy of the application form along with the proof of payment should be sent to cec_assistant@nitrr.ac.in by the due date (**18th June 2024**). For payment made through DD, the hard copy of the application along with the DD should be sent to the **Chairman, Continuing Education CELL, NIT Raipur, Raipur, Pin: 492010** by the due date (**3rd June 2024**). After payment, the participant is required to fill the following google form: <https://forms.gle/xm1ZryhMDTADPjcd6>

For any clarification, please contact the course coordinators, **Dr. Pradeep Singh** (Email: psingh.cs@nitrr.ac.in/Mobile: 9407627366) and **Dr. Deepak Singh** (Email: dsingh.cs@nitrr.ac.in/Mobile: 9827916708) Department of Computer Sc & Engineering, NIT Raipur, For course details kindly refer to Annexure- A. Conduction of the course is subjected to enrolment of minimum number of students.

Dr. Subhojit Ghosh
Chairman,
CEC NIT, Raipur



Annexure-A (Course Content)

Proposed Workshop Content: The workshop will be divided into the following sessions:

Day 1: Introduction to Arduino and Robotics

- Overview of robotics and its applications.
- Introduction to Arduino microcontrollers and their features.
- Explanation of basic electronic components (e.g., motors, sensors, LEDs).

Day 2: Introduction to Programming with Arduino

- Overview of Arduino programming language (based on C/C++).
- Explanation of variables, loops, conditional statements, and functions.
- Break and Continue: Using break and continue to control loop execution.
- Functions and Modular Programming
- Function Basics: Declaring and defining functions, scope, and lifetime of variables.
- Parameter Passing: Call by value, call by reference.
- Hands-on coding exercises using the Arduino IDE.

Day 3: Building Obstacle Avoidance Robot, Blue tooth Controlled Robot, Line Following Robot, etc.

- Step-by-step assembly of the robot chassis, motors, sensors, and Arduino board.
- Wiring and connecting electronic components.
- Writing code to interface Arduino with the different interface modules.
- Participants work on selected projects under the guidance of instructors.
- Demonstration of sample projects and an idea of how to develop Arduino projects.

Day 4: Building Blue tooth Controlled Robot, Line Following Robot, etc.

- Explanation of project components and functionality
- Step-by-step instructions are provided for each project.
- Troubleshooting common issues and debugging techniques
- Project Showcase and Discussion
- Discussion on challenges faced and lessons learned.
- Q&A session with instructors to address any remaining doubts.

Materials (Batch wise Kits will be provided for experiment only)

- Arduino Uno boards
- Sensors



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APPLICATION FORM

Name of the Course Applied:

Name:

Father's/Husband's Name:

Date of Birth: Sex: Male ☐ Female ☐

Occupation:

Qualification:

Address:

.....

..... *E-mail ID:

Phone (with STD code): Residence: Mobile:

Aadhar Number :

Paste a
Passport Size Color
Photograph Here

Fee Details:

Amount: DD No.: Date:

Name of Bank:

(Please write your name and course applied for in the back of the Demand Draft also.)

Date:

Signature of the Applicant

Note:

1. Time/Batch will be allotted as per the convenience of the applicant in general, however candidate may be asked to change the batch as per the requirement of the course.
2. The Fee Deposited for any course is non-refundable & non-transferable.
3. Information regarding the classes will be sent to through mail after registration.
4. If applicant is in Government service, they need to apply through proper channel.

For Office Use Only

Course and Time allotted:

Fee Details:

Place & Date:

Signature of CEC-Chairman



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ACCOUNT DETAILS FOR ONLINE PAYMENT

Bank Name:	State Bank of India
Account Number	38027633250
Account Holder Name	Director NIT Raipur
Branch Name and Address	NIT Branch, G. E. Road Raipur, Chhattisgarh 492010, India
IFSC Code	SBIN0002852
MICR Code	492002004
Swift Code	SBININBB646
PAN Card Number	AAAJN0643G
GSTIN Number	22AAAJN0643G1ZN