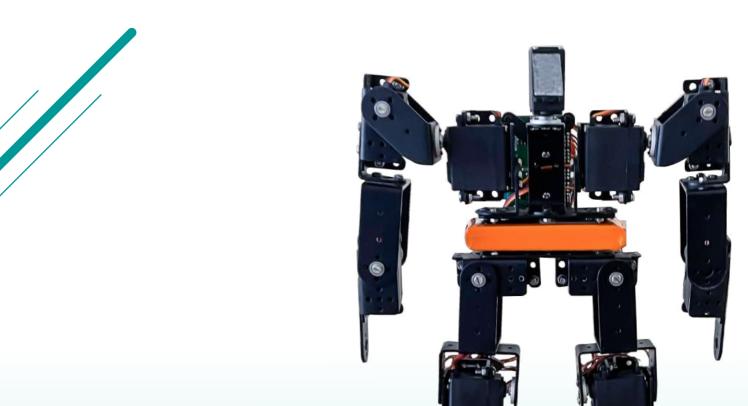


## INTERNSHIP

Programs

## **Innovation In Every Step**

With perfect tech experience



#### Us

Sinro Robotics, trying to be a world class service provider in the field of robotics and automation. We also provide technological assistance for the future generations with the aim of developing creative ideas

## INTERNSHIP PROGRAMS









EMBEDDED SYSTEM
Page 04



ARDUINO RASPERRY PI & IOT Page 12-14



DIGITAL MARKETING
Page 08



CLOUD COMPUTING
Page 09

# Importance of INTERNSHIP PROGRAMS



#### **ARTIFICIAL INTELLIGENCE**

#### **60% INCREASED DEMAND**

for Artificial Intelligence and Machine Learning as per the most recent report by KellyOCG India

#### **REVENUE OF 230 MILLION USD**

for AI Industry in India compared to previous years revenue. Companies like Product based and Service based will adopt AI for Chatbot, Recommendation engines, Recruitment, and Training services.

**75%** 

of enterprise applications will use AI

#### **USD OF 266.92 BILLION BY 2027**

#### **PYTHON DJANGO**

## HUGE DEMAND FOR PYTHON DEVELOPERS

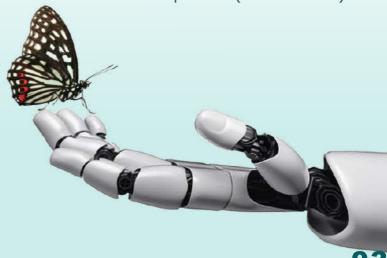
8.2 million developers use Python in the world.

Python developers are growing in numbers every day.

#### **ROBOTICS**

## USD OF 74 BILLION BY 2026

In robotics market is expected to reach and grow at a CAGR of 20.4% over the forecast period (2021-2026).



#### **EMBEDDED SYSTEM**

#### MARKET GROWTH AT CAGR OF OVER 6%

is poised to grow between 2020 and 2026 in Embedded Systems exceeding from USD 100 billion in 2019

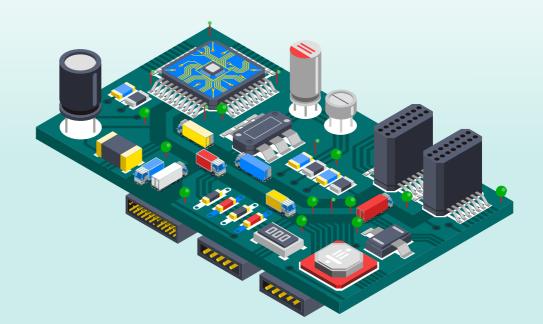
The rising trend of automation in the manufacturing sector to minimize energy, material, and labor waste is likely to accelerate the market demand.

#### **ARDUINO RASPERRY PI & IOT**

#### THE DEMAND FOR IOT TALENT ROCKETED BY 304%

between 2014 and 2017 according to the Talent Supply Index (TSI) report by Belong.

Presently, this trend shows no signs of slowing down. One such challenging and promising IOT job role is that of an IOT Developer.





#### WHY SINRO ROBOTICS

HR Rounds

Aptitude test

Technical rounds

Hardware Knowledge

Our internship programs offer comprehensive professional development with immense technicalknowledge and workplace experience. We Offers software and hardware training for Freshers and Experienced Professionals.

Interview based group discussion

Project with hardware implementation

#### **CURRICULUM**

## ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

#### **FOUNDATIONS**

- Introduction to Python
- Python Basics
- Python Flow control
- python sequences
- Functions and Modules
- Python Modules
- File Handling

#### **MACHINE LEARNING**

- ML introduction
- Platform Installation
- Algorithm Implementations
- Data's Classification
- Supervised Learning Methods
- Unsupervised Learning Methods
- Clustering methods
- Project

#### ARTIFICIAL INTELLIGENCE

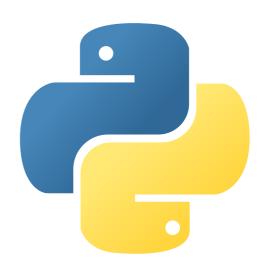
- AI Introduction
- Software installation
- Image processing methods
- Morphological transformations
- Feature Detection Methods

- Face detection
- Speech Recognition
- Ai Chabot with website
- Project

#### **PYTHON WITH DJANGO**

Django is a Python-based full stack web development framework that allows the developers to build interactive websites using Python. And also it supports rapid development and advocates pragmatic and clean code.

- Introduction to Python
- Python Basics
- Python Flow control
- python sequences
- Functions and Modules
- Python Modules
- File Handling
- Database Programming MySQL
- Introduction to Web programming
- Introduction to Django Framework
- Project





#### DIGITAL MARKETING

Digital marketing opens door to Self- employment, freelancing, YouTube creator club & blogging. Top MNC'S & new age start-ups in India looking for experts in digital marketing. Small Businesses also in the queue. Our Course includes

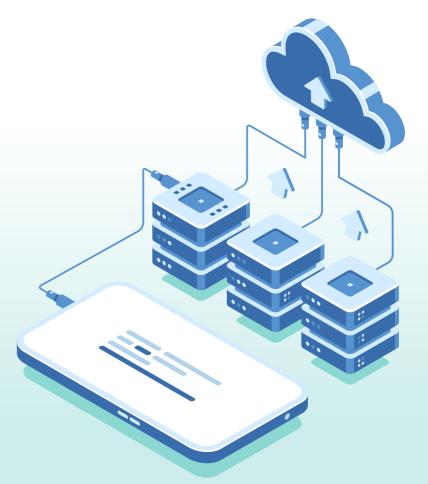
- Digital Marketing Introduction
- Digital Marketing Vs. Traditional Marketing
- Website Planning Process
- Search Engine Optimization
- Social Media Marketing
- Google Analytics
- Email Marketing
- Content Marketing
- Blogging & Freelancing to Make Money
- App Store Optimization



#### **CLOUD COMPUTING**

Cloud Computing is becoming more popular day by day. Continuous business expansion and development demand large computational power and massive data storage systems.

- Introduction to Cloud Computing
- Cloud Computing Platforms
- Parallel Programming in the Cloud
- Distributed Storage Systems
- Virtualization
- Cloud Security
- Multicore Operating Systems



#### ROBOTICS

Our internship program in Robotics focuses on the analysis, design and control of robots, autonomous vehicles, 3D printing and design, drone technology and other complex technical systems.

- Introduction to Python
- Python programming
- OpenCV
- Operating systems
- Operating systems
  - lo Windows
  - o Android
  - o Ios
  - o Ubuntu/Linux
- Opensource software/service
- Github /git lab
- Laws of robotics
  - o Asimov's Three laws
  - o Block diagram
  - o Different types of robots

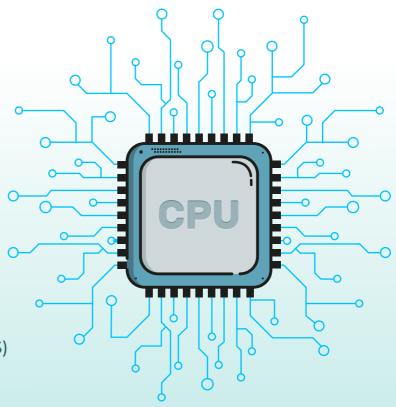
- How robot works
- Node communication in robots
- Importance of feedback in robotics
- How to achieve a task in robotics
- Localization, path planning
- Roseco system
- Workspace and hierarchy of folders
- Terminal commands in ros
- Ros publisher-subscriber
- Ros message
- Launching files in Ros
- Rqt graph
- introduction to ros.org /ros.wiki
- Functionalities gazebo/rviz
- ROS (robot operating system)
- 3D printing and Design
- Drone technology
- Project



#### **EMBEDDED SYSTEMS**

Embedded courses offered at Sinro Robotics enables the students to have good understanding on embedded systems concepts and its applications. After completion of embedded course, students will design, implement, integrate, and develop software & hardware applications used for advanced embedded systems.

- Ectrical and electronics
- Micro processors
- Micro controllers
- Embedded c
- Basics of Embedded system
- ARM7, ARM9, ARM11, CORTEX
- Introduction to LPC2129
- GPIO, PIN configuration
- Vector interrupt controller
- Timer
- ADCs
- UART
- CAN
- SPI protocol
- I2c protocol
- Real time operating systems(RTOS)
- Project



#### **ARDUINO**

**Arduino** is an opensource platform used for building electronics projects. Arduino consists of both a physical programmable circuit board or microcontroller and a

software, IDE (Integrated Development Environment) that runs on the computer. It is used to write and upload computer code to the physical board. Arduino is an opensource platform used for building electronics projects.

- Introduction to embedded system
- Microcontroller and Microprocessor
- Introduction to Arduino
- Pin configuration and architecture
- Introduction to Embedded C with Arduino Platform
- Arduino Programming basics
- Arduino i/o Functions
- Arduino Interfacing with Displays
- Arduino Interfacing with Sensors
- Arduino Secondary Integrations
- Arduino Communications
- GSM/GPRS Arduino Interfacing
- Arduino Projects

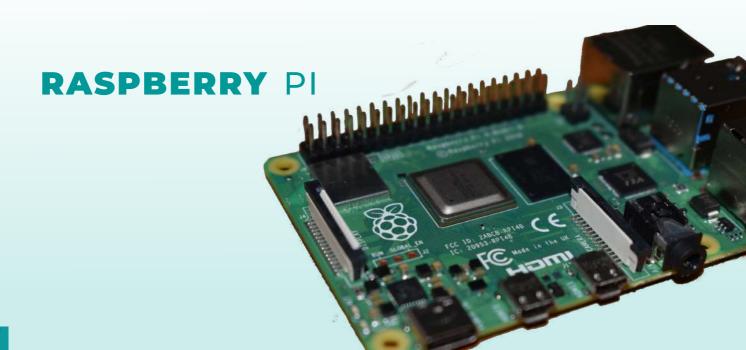




#### **RASPBERRY PI**

The **Raspberry** Pi is a low cost, credit-card sized computer that plugs into a computer monitor or TV, and uses a standard keyboard and mouse. It is a capable little device that enables people of all ages to explore computing, and to learn how to program in languages like Scratch and Python.

- Introduction to Raspberry Pi
- Booting Up RPi- Operating System and Linux Commands
- RPi using Python and Sensing Data using Python
- Sensors Interfacing with RPi
- Communicating using RPi- GSM/GPS interfacing RPi with C
- Projects using Raspberry Pi
- IoT Applications based on RPi
- Home automation using RPi and IOT
- IOT Projects



#### IOT

**Internet of Things** domain. Embedded systems will play an important role in Internet of Things (IoT) due to their unique features like real time computing, low power consumption, low maintenance and high availability which are key factors of IoT.

- IOT fundamentals ,Architecture, protocols
- IOT components and IOT Communication Technologies
- IOT Applications based on RPi
- Home automation using RPi and IOT
- IOT Projects



## We are also Covering

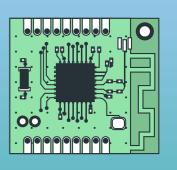
### STEM Education

Coding
Robotics
Space Education
Magic Maths
Spoken English



#### Project Support

PCB
Design &
Print



#### **Software** Solutions



**3D**Printing





## START YOUR PROFESSIONAL CAREER WITH SINRO ROBOTICS

#### **CONTACT US**

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