

EMBEDDED SYSTEMS TRAINING BROCHURE

CONNECTING THE UNCONNECTED



ABOUT US

We are a fast emerging company imparting quality and affordable programs for colleges and individuals for digital economy skills training, internship and guidance focused on helping people develop the skills they need to thrive in the rapidly growing digital economy.

'The IoT Academy' has made a niche name for itself providing rigorous online training in Internet of Things (IOT), embedded systems, Big Data, Data analytics, Industrial IoT, Industry 4.0, Python, Artificial Intelligence, Digital marketing and Machine Learning. Based in Delhi NCR since 2017 we have helped 150+ professionals, 600+ students and 100+ faculties across the states get trained, acquire certifications, and upskill their employees.

MISSION

We aspire to provide learners an edge over the career they choose to stand out amongst today's competitive world through support in training and various academic and industrial collaborations.

VISION

At IoT Academy We believe that the future is about Unified and Converged technologies as reflected in our mission statement. Every aspect of life will eventually lead in bringing forth a unified world of immense possibilities.



OUR SERVICES

FOR EDUCATIONAL INSTITUTES



Lab Setup

We provide hardware and support in lab setup for IoT and LPWAN.

Workshop/Seminars

We conduct workshop and seminars on emerging technologies which are given by industry experts.

Center of Excellence

Under our 'Center of Excellence' offering we provide all the services apart from encouraging R&D and entrepreneurship efforts by guiding both faculty and students.

Faculty Training

We provide training to faculties of educational institutes under our 'Faculty Development Program' so that they become aware of how new technology is used in industry and they can impart the same knowledge to their students.

Student Training

We provide training to students on various topics including the emerging technologies which are targeted towards making them more relevant and employable as per the industry.

OUR SERVICES

FOR STUDENTS



Internships

We provide internships to students where they are able to work in a professional environment and learn a lot.

Projects

We help students design and implement projects whether a small one or a big one on any topic within the scope of all the subjects that we provide training for.

Placements

Our complete training programs comes with 100% placement guarantee as the courses are designed specifically keeping enhancing skills for jobs in mind.

Summer/Winter Training

Short duration trainings during summer and winter breaks are designed keeping school & college students in mind. Our aim is to give in-depth knowledge to students on a particular topic of their choice within the time frame.

Training

We provide training to students on various topics including the emerging technologies which are targeted towards making them more relevant and employable as per the industry.



EDUCATIONAL PARTNERS



E&ICT, IIT Kanpur



E&ICT, IIT Guwahati



E&ICT, IIT Roorkee



NIT Patna



ASTU University



J.S.S. Noida



IPEC



BVM Engineering College



BVP Pune



Jamia Hamdard



ITS Ghaziabad



VSSUT Odisha



JIIT Noida



JNTU Hyderabad



VIGNAN'S

CORPORATE PARTNERS



OUR PLACEMENTS

CONGRATULATIONS!

To our students who have worked so hard to be placed within the Top Companies.



Prakhar Maheshwari
Capgemini



Saumya Singh
Bosch



Anjuli Agarwal
TCS



Yogesh Mishra
UniConverge Technologies



Tanu Chinwan
Capgemini



Raghav Aggarwal
Aerogram



Vaishali Singh
eWandzDigital Services



Ayush
TCS

COURSE CURRICULUM

01

Embedded C

- Keywords and Data type
- Operators
- Flow control
- Loops & Functions
- Arrays & Pointers
- Structure and union
- Storage class

03

Peripheral Programming

- Timers
- Timer Input Capture Mode
- External Hardware Interrupts
- RTC
- ADC
- PWM
- EEPROM
- Analog Comparator
- Watchdog Timer

05

Devices And Sensor Interfacing

- GSM
- GPS
- RFID (EM18)
- Temperature/Humidity Sensor
- Gas Sensor
- Proximity Sensor
- IR Sensor
- Ultrasonic Sensor
- PIR Sensor
- TSOP
- OLED
- LDR
- Graphical LC

07

Basics Of Computer Architecture

- RISC vs. CISC Architecture
- RISC vs. ARM 32 bit

02

AVR

Introduction To Embedded System

Classification Of Microprocessor & Microcontroller
Brief Introduction To Computer Architecture
Hardware/IC Interfacing

- LED
- LCD
- Graphical LCD
- 7-segment
- Switch
- Matrix Keypad
- Relay and Buzzer
- DC Motor
- Servo Motor
- Bluetooth
- DHT11

04

Communication Protocols

- UART/USART (RS232)
- SPI
- I2C

06

ARM

Introduction To Processing Devices

- Introduction to Microcontrollers
- Introduction to Microprocessor
- Other programmable devices
- Difference between various processing devices

08

ARM Architecture

- Introduction to ARM Architecture
- Block Diagram
- Harvard and Von-Neumann Architecture
- Functional Diagram
- Registration And Memory Of ARM7TDMI



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Registration And Memory Of ARM7TDMI

- Various types of memory
- ARM Register Set
- 32 bit CPU registers
- CPSR and SPSR register
- ARM pipeline

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Timers

- Timer 0 and Timer 1 Feathers
- Pin Description
- Register Description
- Basics of Timer Handling

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Interrupt Controller

- Basics of interrupt
- Polling method
- Difference between polling and interrupt method

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FIQ

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ADC

- Theory of ADC
- Types
- Inbuilt ADC
- Interfacing external device to ADC

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Working With Flash Memory System And Programming

- Flash Memory System
- Flash Boot Loader and Feathers
- Workings
- Introduction to JTAG

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ARM Instruction Sets

- Introduction to 32 bit ARM Instruction set
- Introduction to 16 bit THUMB Instruction set
- Introduction to 8 bit Jazelle Instruction set
- Keypad interfacing
- LCD interfacing
- Motor interfacing

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Serial Port

- Basics of serial port (RS232)
- Types of connectors
- Interfacing pc with micro controller
- MAX 232 interface Hardware structure
- Serial port configuration (mode selection)
- UART0 and UART1 handling

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IRQ

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Pulse With Modulation

- PWM Generator
- Register Description
- RTC Interrupts

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Real Time Clock

- Feathers
- Register Description
- RTC Interrupts

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Real-Time Projects



OUR CERTIFICATION



THE IoT ACADEMY

IOT ACADEMY TRAINEES ARE WORKING AT



FLEXIBLE BATCHES AT THE IoT ACADEMY

ONLINE TRAINING

DURATION
6 Months

WEEKDAY BATCH
MON - THUS

WEEKEND BATCH
SAT & SUN

CLASSROOM TRAINING

DURATION
6 Months

WEEKDAY BATCH
MON - THUS

WEEKEND BATCH
SAT & SUN





THANK YOU!



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