

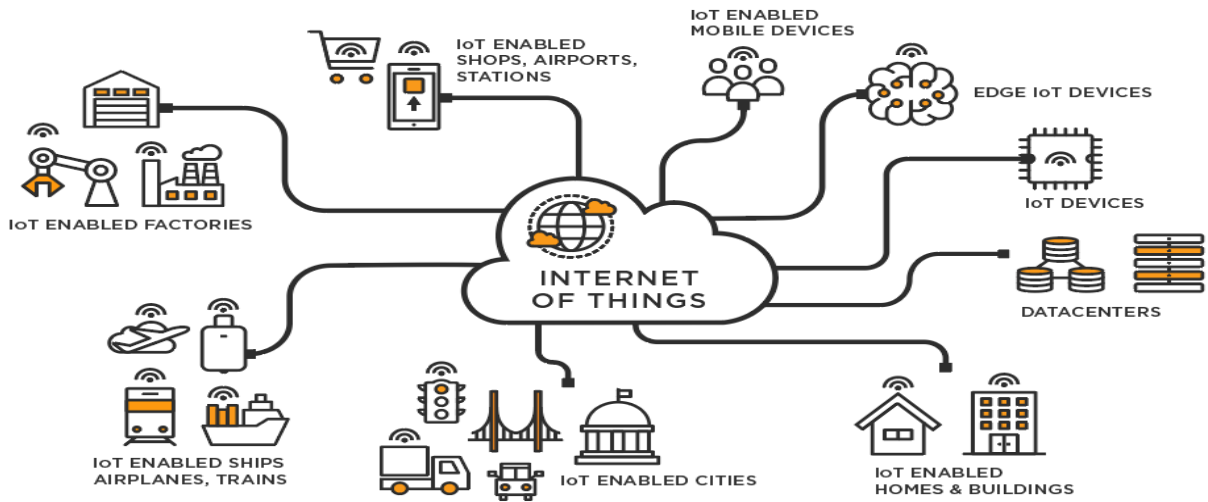


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**NIELIT**

National Institute of Electronics & Information Technology  
(An autonomous Scientific Society of Meity, Govt. of India)



# National Institute of Electronics & Information Technology (NIELIT), Aurangabad Conducting Six Week Internship Program on IoT, AI & ML, PCB and Android App Development



## PROGRAM DATE

20<sup>th</sup> June to 29<sup>th</sup> July 2022

27<sup>th</sup> June to 5<sup>th</sup> Aug 2022

4<sup>th</sup> July to 12<sup>th</sup> Aug 2022

11<sup>th</sup> July to 19<sup>th</sup> Aug 2022

**Conducted by :**  
National Institute of Electronics &  
Information Technology (NIELIT),  
Aurangabad

**Program Coordinator**  
Scientist B Prashant Pal  
(M.Tech IIT Kharagpur)  
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## ABOUT SUMMER INTERNSHIP PROGRAM

NIELIT Aurangabad is offering paid, summer internships for students pursuing a Diploma in one of the following disciplines: Computer Science, Electrical, Electronics Engineering and allied streams. We have designed this internship program according to industry need.

During this Internship Program the focus will be to train the interns in the field of Internet of Things (IoT), Artificial Intelligence & Machine Learning (AI & ML), Printed Circuit Board (PCB) Manufacturing, and Android App Development as there is huge demand in corresponding fields.

Beside receiving the training, the interns will have the opportunity to do hands on practice on several platform.

## ABOUT INNOVATION CENTER

The National Institute of Electronics and Information Technology (NIELIT) is the capacity building arm of the Ministry of Electronics and Information Technology (MeitY). Established in 1987, National Institute of Electronics and Information Technology, commonly known as NIELIT Aurangabad, offers a comprehensive range of programs in the domain of Electronics and IT. The campus is located adjoining to the Dr B.A.M. University, covering more than 18 acre.

The courses feature specializations in Information Technology, Electronics Design & Technology, Manufacturing Technology, Electronics Product Design & Development and Applied Research & Consultancy in the field of IECT sector.

## AIM

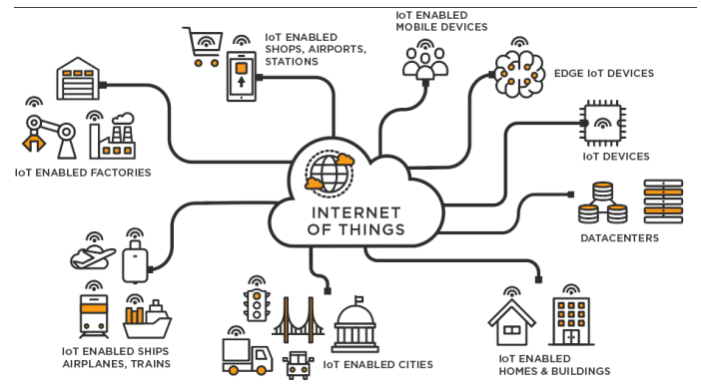
Train students using virtual platform according to current scenario. Train student according to real time industrial approach.  
Improve the technical Knowledge of students for better carrier development.  
Train students for projects design and real time problem solving

## Top Skills You Will Learn

Fundamental of Internet of Things (IoT), Microprocessors and Microcontrollers, Sensors & Actuators required for various IoT applications, Wireless Technologies, Edge Computing and Protocols



# Build the future with Internet of Things (IoT)



The Internet of things (IoT) describes physical objects (or groups of such objects) with sensors, processing ability, software, and other technologies that connect and exchange data with other devices and systems over the Internet or other communications networks. The field has evolved due to the convergence of multiple technologies, including ubiquitous computing, commodity sensors, increasingly powerful embedded systems, and machine learning.

## Top Skills You Will Learn

Machine Learning , Machine Learning in Action, Libraries and Tools (Numpy, Pandas & MatPlotLib) Importing a Data Set, Jupyter Shortcuts, A Real Machine Learning Problem, Preparing the Data, Learning and Predicting, Calculating the Accuracy, Persisting Models , Visualizing a Decision Tree



# Build the future with AI, Machine Learning

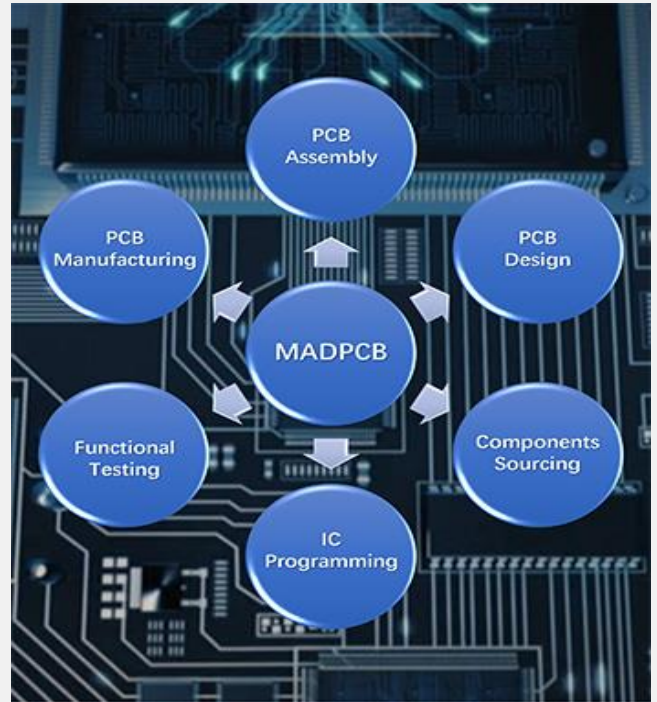
## Machine Learning for Industrial



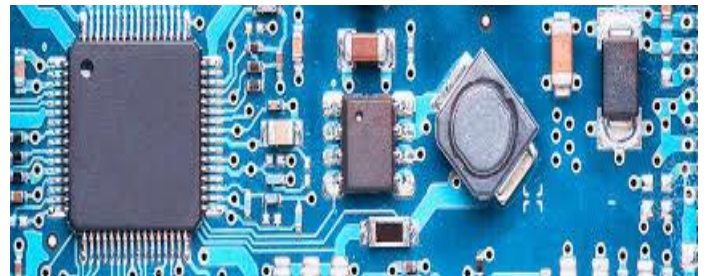
Thanks to availability of the Large amount of data, the machine learning is becoming a game changer in almost every sector. Even in some cases the results by ML algorithms are even better than human perception. Be it Amazon, Netflix, google, the Machine learning is every where and is going to stay there for a long time. There is a huge demand of skilled ML/AI Engineers and if you are skilled one then abundance number of opportunities are waiting for you.

## Top Skills You Will Learn

Various IC Packages classifications, IPC standards & fundamentals of electronic component's, Customized Component symbol footprint & 3D Package creation, PCB layout editor, PCB layout design for Single sided boards in layout editor.OM, Netlist generation and ERC (Electrical rule check), Artwork Generation using photo-plotter & Project Work



# Build the future with PCB Manufacturing



Printed Circuit Boards (PCBs) form the backbone of all major electronics. These miraculous inventions pop up in nearly all computational electronics, including simpler devices like digital clocks, calculators etc. For the uninitiated, a PCB routes electrical signals through electronics, which satisfies the device's electrical and mechanical circuit requirements. In short, PCBs tell the electricity where to go, bringing your electronics to life.



## Top Skills You Will Learn

Introduction to Android and Installation, Creating applications and activities , Creating user interface, Files saving sates and Database



# Build the future with Android App Development



Android software development is the process by which applications are created for devices running the Android operating system. Some programming languages and tools allow cross-platform app support (i.e. for both Android and iOS). Third party tools, development environments, and language support have also continued to evolve and expand since the initial SDK was released in 2008. The official Android app distribution mechanism to end users is Google Play; it also allows staged gradual app release, as well as distribution of pre-release app versions to testers.

## Top Skills You Will Learn

OSI Model, TCP/IP stack, Routing, Switching, VLAN , VLAN Routing



# Build the future with Networking



Networking is the exchange of information and ideas among people with a common profession or special interest, usually in an informal social setting. Networking often begins with a single point of common ground. Professionals use networking to expand their circles of acquaintances, find out about job opportunities in their fields, and increase their awareness of news and trends in their fields or the greater world. Learning about computer network organization and implementation, obtaining a theoretical understanding of data communication and computer networks, and gaining practical experience in installation, monitoring, and troubleshooting is the key objective of this training.

## KEY INFORMATION

### PROGRAM DATE

20<sup>th</sup> Juneto 29<sup>th</sup> July 2022; 27<sup>th</sup> June to 5<sup>th</sup> Aug 2022; 4<sup>th</sup> July to 12<sup>th</sup> Aug 2022; 11<sup>th</sup> July to 19<sup>th</sup> Aug 2022

### ELIGIBILITY

Diploma Students of Computer Science/ Information Technology, Electrical Engineering, Electronics Engineering and allied fields

### TIMING

10.00 am to 4.30pm

### REGISTRATION FEES

2000/- INR

### FOR PAYMENT

**Bank Name- Bank of Maharashtra,  
IFSC Code- MAHB0000152,  
Account No.-20060526862  
Brach- University Branch**

### REGISTRATION LINK

[https://docs.google.com/forms/d/e/1FAIpQLSfAWnGqJ7DVct8mkXmqjCRflqwG6uxAWPm98Wxe88tFi4by\\_A/viewform](https://docs.google.com/forms/d/e/1FAIpQLSfAWnGqJ7DVct8mkXmqjCRflqwG6uxAWPm98Wxe88tFi4by_A/viewform)

### FOR CONTACT

#### **Program Coordinator**

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