

EXPLORE >>>>

**ELECTRONICS &
COMMUNICATION
ENGINEERING ++
DEGREE AT**



CITY CENTRE CAMPUS, BENGALURU, INDIA

SPECIALIZE INTO THE FUTURE

The new decade has brought with it new developments and a host of opportunities. From home appliances to digital services, agriculture to healthcare, the world runs on the internet with Automation, Artificial Intelligence & Connected Devices, built around:

INTERNET OF THINGS (IoT)

- Sensors & Microcontrollers
- Edge IoT Devices
- Cloud Computing with IoT
- Programming for IoT
- Ubiquitous Networking - 5G & Beyond

ARTIFICIAL INTELLIGENCE ENABLED ECE

- Cloud Computing & Artificial Intelligence
- Machine Learning with Tensorflow
- Programming Certification
- AI Based Solutions for Community
- Open Source Foundation (OSF)

EMBEDDED/SMART DEVICES

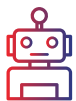
- Embedded Systems
- Design, Programming Verification
- Tool Familiarisation & Usage
- System Verilog, FPGA & Devices

The Electronics & Communication Engineering course at Atria Institute of Technology enables students to explore these fields and lead the change.

LEARN THE SKILLS OF TOMORROW, TODAY

In this fast-paced, ever-changing environment, AIT has designed the ECE programs to enable you to stay ahead of the curve. The curriculum of the ECE++ course at AIT focuses on areas that will be at the forefront of technology in this decade.

With a focus on your future, the programs develop your competence in:



ROBOTICS



INTERNET OF THINGS



AUGMENTED REALITY



VIRTUAL REALITY



ARTIFICIAL INTELLIGENCE



BLOCKCHAIN



COMMUNICATION NETWORKS



DRONES

FROM AIT TO THE WORLD

Companies and governments worldwide, are launching new applications with technology like IoT and AI every day (e.g. Aarogya Setu for COVID-19 Pandemic Management). AIT's ECE++ gives you the opportunity to learn and build projects in a host of technologies and industry sectors shown below. Your success depends on your passion and interest.

A sample of applications using AI, IoT, Embedded Systems, Blockchain, etc. in various sectors:



HOME

Smart Temperature Control
Optimized Energy Use



MEDICAL

Optimized Patient Care
Wearable Fitness Devices
Quality Data Reporting



AUTOMOTIVE

Vehicle Auto-Diagnosis
Optimized Traffic Flow
Smart Parking



AGRICULTURE

Offspring Care
Crop Management
Soil Analysis



MILITARY

Situational Awareness
Threat Analysis



INDUSTRIAL

Machine-to-Machine Communication
Quality Control



ENVIRONMENTAL

Forest Fire Detection
Species Tracking
Weather Prediction



RETAIL

Personalized Marketing
Dynamic Supply Chain
Theft Protection

THIS IS HOW YOU GAIN SKILLS

Holistic development is at the core of Atria Institute of Technology. While academics and subject knowledge are important, practical capability, teamwork and experiential learning through industry exposure play vital roles in the change from student to a "ready professional".

We create an environment which not only caters to your foundational learning, but also pushes you to strive for greater excellence.

As a student of Atria Institute of Technology,
we want you to ...

LEARN BY DOING

State of the art labs to hone and sharpen your skills with -

- ◆ IoT Labs
- ◆ Biomedical Signal & Image Processing Lab
- ◆ Embedded Device Labs

COMPETE WITH THE BEST

Our experienced faculty will mentor you to challenge yourself at the highest level and aspire to become finalists/win national competitions like -

- ◆ Smart India Hackathon
- ◆ IICDC Contest
- ◆ L&T Techgium
- ◆ IESA Makeathon

INTERACT & GAIN INSIGHTS FROM INDUSTRY LEADERS

Obtain exposure from interactions with industry professionals on and off-campus; stay up to date with latest developments through -

- ◆ IoT Forum
- ◆ LoRaWAN Academy
- ◆ AWS Educate
- ◆ IEEE Student Programs
- ◆ Google Cloud Program
- ◆ ARM University Program

A WORD FROM THE HOD



"The focus of the department is to provide a better campus-based educational experience to the students for developing their learning interest and critical thinking to increase competencies in them."

DR. ARUN BALODI

PhD. Indian Institute of Technology, Roorkee,
M. Tech. in Digital Signal Processing
(Gold Medalist).

Atria Institute of Technology,
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For admissions:

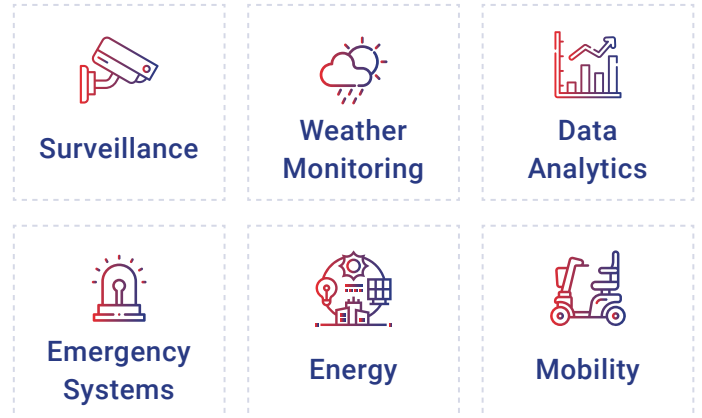
Contact no: +91 70 9032 9032
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WHY IoT

Internet of Things (IoT) is now an integral part of all industries and services; its contribution is growing rapidly every year. The market for IoT has expanded to nearly \$1.9 trillion*, with the manufacturing sector commanding the lion's share (15%). Other major sectors in the IoT market include healthcare, energy, insurance, banking & securities.

With a wide range of opportunities to choose from, IoT provides the perfect platform to launch yourself into a career path of your choice.

IoT is used extensively in:



* Source - Gartner

CAREER OPTIONS

Specializing in IoT opens up a lot of avenues for you. There are various roles that you will be qualified to apply for and pursue:

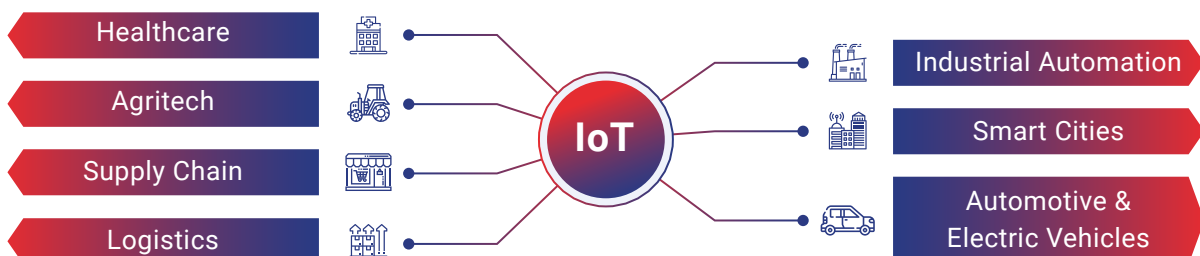
- ◆ IoT Architect
- ◆ IoT Developer
- ◆ IoT Associate Developer
- ◆ Embedded Systems Engineer (IoT)

INDUSTRY LEADERS IN IoT TECHNOLOGIES

- ◆ **Devices** (*Intel, ARM, Texas Instruments, NVIDIA*)
- ◆ **Software Products** (*Microsoft, Mathworks*)
- ◆ **Cloud & e-Services** (*Amazon, Accenture*)
- ◆ **Engineering & Services** (*Siemens, Philips, Robert Bosch, L&T Tech, Tech -Mahindra*)

KEY SECTORS

IoT has revolutionized effectiveness, ease of use, innovation in products and services, and efficiency across sectors.



ECE++ WITH SPECIALIZATION IN IoT

We have drawn up a road-map for your 4 years @ AIT for you to learn, practice and master various skills, in order to progress in the world of IoT. With the competencies so acquired, you can take the test of the relevant program and get a certificate of recognition:

Year	Competency	Certification
1	Sensors & Microcontrollers	Efficient Embedded Systems Design and Programming by ARM University Program
2	Developing Edge IoT Devices	Internet of Things - ARM University Program
3	Building Cloud Applications with IoT	IoT Specialization - AWS Educate
4	Networking & Communication	LoRaWAN Academy

IoT LABS, ACADEMIES & PROGRAMS

ARM University Program

For the benefit of students worldwide, ARM University Program provides academically rigorous Education Kits that use state-of-the-art technologies from the ARM ecosystem in fields relevant to ECE++.

Github Education

GitHub helps students, teachers and colleges access the tools and events they need to shape the future of software development. It provides students exposure to resources worth \$250,000 & a world of opportunities.

LoRaWAN Academy

Appropriate for beginner to intermediate-level developers, the LoRaWAN Academy™ is an all-encompassing, self-paced training program for those who want to learn about the LoRaWAN open specification from the creators of LoRa®.

WORD FROM HEAD OF ATRIA IoT LABS



"The Atria IoT Labs is designed to help you learn technology in a fun manner and develop your ideas into prototypes that will solve real world problems, helping you build a career and pursue your dream job."

PROF. SUFIAN K. ASLAM
FOUNDING HEAD & ASSOCIATE PROFESSOR OF
PRACTICE - ATRIA IoT LABS

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MS in Electrical Engineering,
Illinois Institute of Technology, Chicago.

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AI FINDS APPLICATIONS IN

Artificial Intelligence (AI) is now all pervasive and is driving the next wave of technology led solutions and applications in industry, services and daily lifestyle.



Digital
Manufacturing



Disaster
Management



Enhanced Lifestyle
Experience



Farm Productivity
& Supply Chain



Learning
for Life



Medical
Diagnostics



Personalized
Services



Urban Living
& Smart Cities

AI SPECIALIZATION FEATURES

The AI specialization course at Atria Institute of Technology has application development with:

Intel AI

AWS Educate

AWS Academy

CAREER OPPORTUNITIES

Specializing in AI opens up a lot of avenues for you. There are various roles that you will be qualified to fulfil like:

- ◆ Machine Learning Engineer
- ◆ Data Scientist
- ◆ AI Architect
- ◆ Business Analyst
- ◆ Business Intelligence Developer
- ◆ Big Data Engineer/Architect

INDUSTRY LEADERS IN AI TECHNOLOGIES

Google

amazon



TESLA



L&T Technology Services

IBM



TATA
TATA CONSULTANCY SERVICES

SIEMENS



KEY SECTORS TRANSFORMED BY AI

While diverse fields have incorporated AI to increase efficiency and innovate services, some sectors have completely transformed the way they work by using AI:



ECE++ WITH SPECIALIZATION IN AI

The year-wise roadmap of competencies and certifications received during the course of specializing in Artificial Intelligence is as follows:

Year	Competency	Certification
1	Coding Competency	Certificates from HackerRank on Python Programming
2	Cloud Computing & Artificial Intelligence	AWS Educate Career Path in Machine Learning
3	Machine Learning with Tensorflow	AWS Machine Learning
4	Developing Use Cases - Capstone Projects Open Source Foundation - IoT	Linux Open Source IoT (Ecosystem)

WORD FROM PROF. AMBAR BAJPAI



“Artificial intelligence (AI) encompasses a multidisciplinary research field whose goal is to make machines intelligent. AI provides some of the most substantial and disruptive innovations of this century. Self-driving cars, robotic assistants, automated disease diagnosis and fully automated experience are all products of an emerging AI revolution that will reshape how we live and work in the future.”

DR. AMBAR BAJPAI

Chulalongkorn University, Thailand.
(Established 1917, QS World Ranking: 208 Worldwide, 45th in Asia)
M. Eng. BITS Pilani, India.

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