

CCNAv7: Introduction to Networks (English - 7.02)

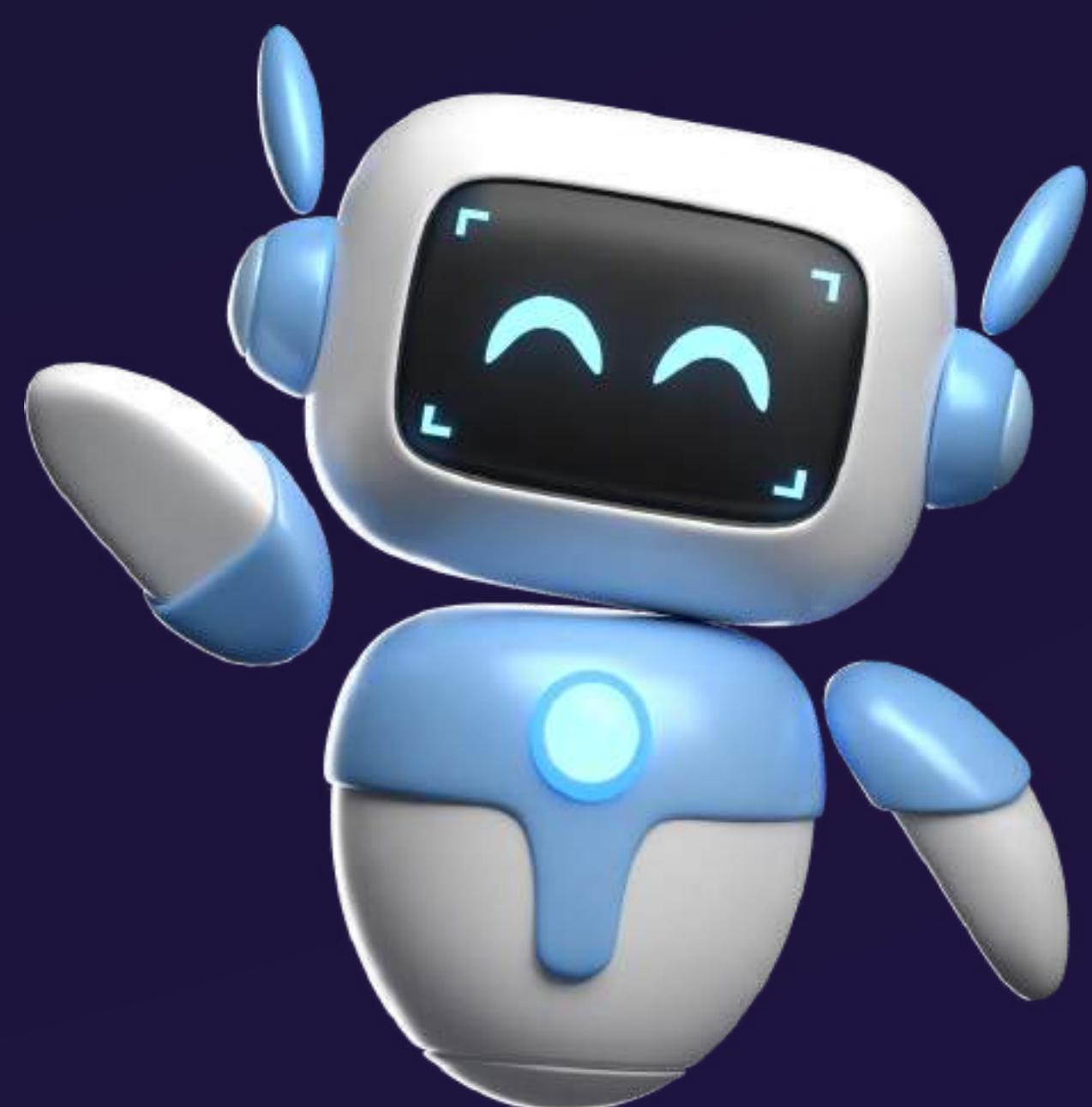
COURSE OBJECTIVE



Build simple LANs, perform basic configurations for routers and switches, and implement IPv4 and IPv6 addressing schemes.



Configure routers, switches, and end devices to provide access to local and remote network resources and to enable end-to-end connectivity between remote devices.



Develop critical thinking and problem-solving skills using real equipment and Cisco Packet Tracer.



Configure and troubleshoot connectivity a small network using security best practices.

SYLLABUS

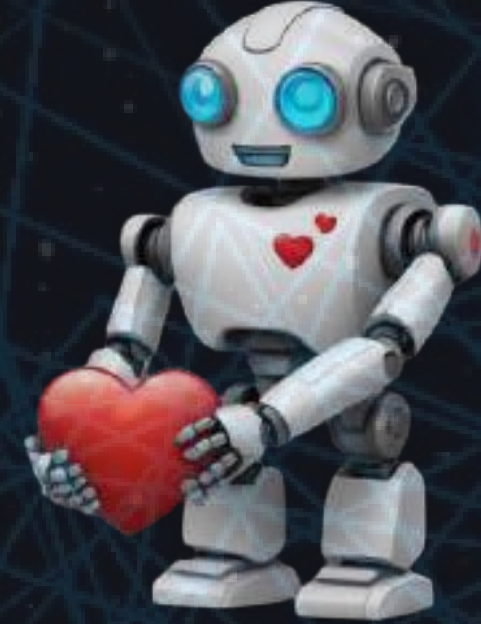
- **Networking Today**
- **Basic Switch Device Config**
- **Protocols and Models**
- **Physical Layer**
- **Number System**
- **Data Link layer**
- **Ethernet Switching**

- **Network Layer**
- **IPv4 Addressing**
- **IPv6 Addressing**
- **ICMP and Address Resolution**
- **Transport layer**
- **Application Layer**
- **Network Security Fundamentals**



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IOT

FUNDAMENTALS

CONNECTING THINGS

COURSE OBJECTIVE

- LEARN HOW THE CURRENT DIGITAL TRANSFORMATION IS CREATING UNPRECEDENTED ECONOMIC OPPORTUNITY.
- UNDERSTAND HOW THE IOT IS BRIDGING THE GAP BETWEEN OPERATIONAL AND INFORMATION TECHNOLOGY SYSTEMS.
- DEVELOP CRITICAL THINKING AND PROBLEM-SOLVING SKILLS USING BOTH REAL EQUIPMENT AND CISCO PACKET TRACER.
- SOFT SKILLS SUCH AS TEAMWORK AND ARTICULATING PROBLEMS AND SOLUTIONS IN A BUSINESS CONTEXT.

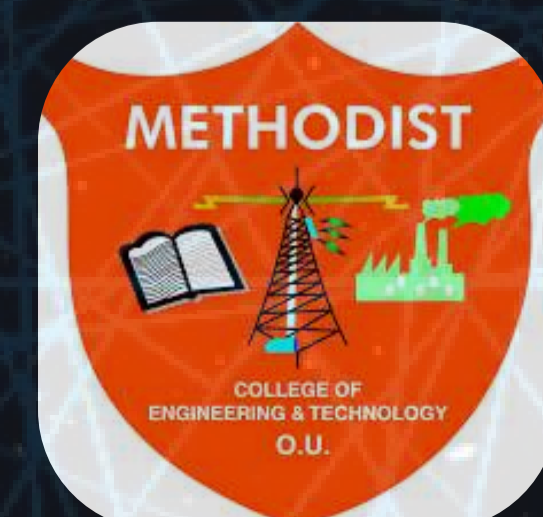


SYLLABUS

THINGS AND CONNECTIONS
SENSORS, ACTUATORS AND MICROCONTROLLERS
SOFTWARE IS EVERYWHERE
NETWORKS, FOG AND CLOUD COMPUTING
DIGITIZATION OF BUSINESS
CREATE AN IOT SOLUTION



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DEVNET ASSOCIATE

Course Objectives

- Software Dev & Design: Organize code, design patterns, version control.
- Understanding APIs: Construct, troubleshoot, authenticate, and utilize common API styles.
- Cisco Platforms: Explore development opportunities within Cisco networking environments.
- App Dev & Security: Consider edge computing, deployment models, and virtual machines.
- Infrastructure Automation: CI/CD pipelines, Ansible, Puppet, Chef, Cisco NSO.
- Network Fundamentals: MAC, IP, networking components, services, troubleshooting connectivity issues.

SYLLABUS

- Software Development and Design
- Understanding and Using APIs
- Cisco Platforms and Development
- Application Development and Security
- Infrastructure and Automation
- Network Fundamentals



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CISCO VIRTUAL INTERNSHIP PROGRAM (VIP) 2023



*UNLOCK YOUR POTENTIAL IN
CYBER SECURITY, CLOUD
SECURITY, AND NETWORKING*

*DEAR PARTNERS,
GREETINGS!*

WE ARE EXCITED TO ANNOUNCE THAT THE CISCO VIRTUAL INTERNSHIP PROGRAM (VIP) 2023 IS NOW OPEN FOR OUR STUDENTS. THIS YEAR, THE PROGRAM WILL FOCUS ON DEVELOPING KEY SKILLS IN CYBER SECURITY, CLOUD SECURITY, AND NETWORKING.

WHO CAN PARTICIPATE?

- *CISCO NETWORKING ACADEMY STUDENTS CURRENTLY ENROLLED IN 1ST, 2ND & 3RD YEAR TECHNICAL DEGREE PROGRAMS (E.G., B.TECH, BCA, BSC IT/CS, MCA, MSC IT/CS).*
- *TECHNICAL DIPLOMA STUDENTS STUDYING IN 1ST OR 2ND YEAR.*

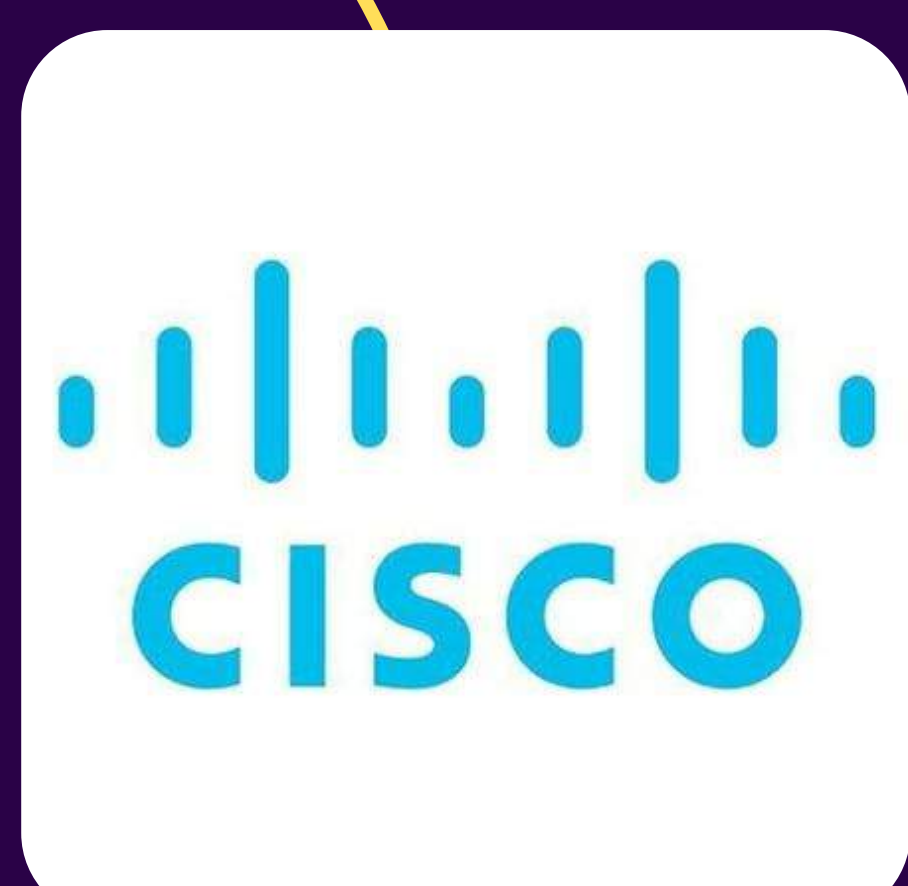
PROGRAM HIGHLIGHTS:

- *GAIN TECHNICAL KNOWLEDGE AND SKILLS THROUGH CISCO NETWORKING ACADEMY COURSES.*
- *LEARN TO USE PACKET TRACER, A POWERFUL NETWORK SIMULATION TOOL.*
- *PARTICIPATE IN INDUSTRY SESSIONS HOSTED BY CISCO EXPERTS COVERING GLOBAL SKILLSETS AND CAREER OPPORTUNITIES IN CYBERSECURITY AND NETWORKING.*
- *ACCREDITED NETWORKING ACADEMY INSTRUCTORS WILL TRAIN FACULTY MEMBERS TO ACT AS LOCAL MENTORS.*
- *WORK ON REAL-WORLD PROJECTS WITH THE GUIDANCE OF LOCAL MENTORS.*

SPREAD THE WORD:

- *PLEASE SHARE THIS OPPORTUNITY WITH ALL YOUR CISCO NETWORKING ACADEMY STUDENTS.*
- *WE LOOK FORWARD TO YOUR SUPPORT IN MAKING THIS VIRTUAL INTERNSHIP PROGRAM A GREAT SUCCESS.*

CLICK TO REGISTER



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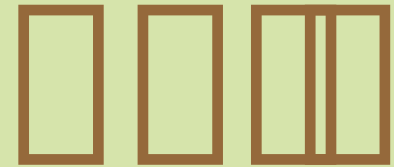
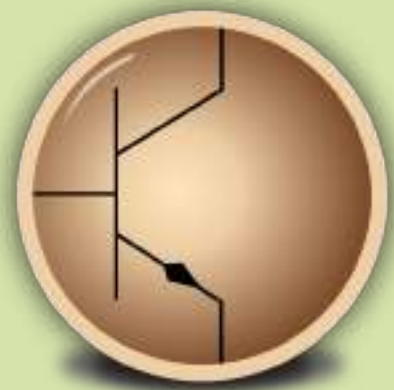
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What is Python?

Python is a general purpose, high level, remarkably powerful dynamic programming language used in a wide variety of application domains.

Why Python?

- Easy to read and learn
- Free and Open Source
- Useful for scientific computing
- Powerful interactive interpreter
- Extensive scientific libraries
- Well documented

Where can you use Python?

- Numeric and Symbolic computation
- 2D/3D Plotting
- User interfaces
- Parallel computing
- Machine Learning and Image Processing
- Game development
- Web development
- Much more...

Who uses Python?

- Google
- Yahoo
- Walt Disney
- NASA
- IBM
- YouTube
- nVIDIA
- Software - Blender, Motion Builder, Cinema 4D, etc.
- Games - Battle field 2 by EA sports, Crystal space 3D, etc.

Python is one of the most popular programming languages today, and therefore has been included in the CBSE curriculum. It easily performs tasks that proprietary tools like Matlab and Mathematica offer. Today leading companies are using Python extensively, hence there are better job opportunities. Learn Python, and grab the Opportunity!



django



SciPy



IP[y]: IPython
Interactive Computing



How can you learn Python

- **Spoken Tutorial** - The FOSSEE project has created a series of Spoken Tutorials on Python. These are available for learning, on the Spoken Tutorial website, free of cost. You can access these tutorials from this link

python.fossee.in/spoken-tutorials



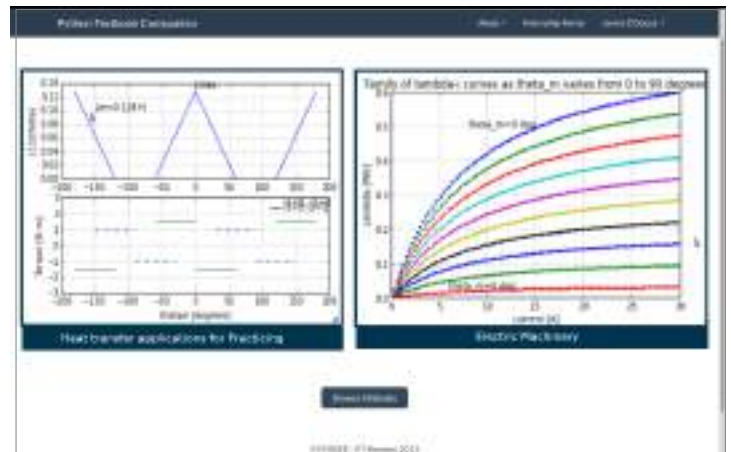
Spoken Tutorial website

- **Textbook Companion Internship** - Learn Python in a practical way by contributing to the Python Textbook Companion Internship. It aims to create Companions by coding solved examples from Standard textbooks, using Python. Participate and earn attractive honoarium and Certificate of Internship from FOSSEE, IIT Bombay! For more details, please visit:

python.fossee.in/textbook-companion-project

Completed Book : Approx 453 books

Under Progress : Approx 113 books



Python Textbook Companion website

- **SELF Workshops** - The Spoken Tutorial Team conducts workshops on Python. These are completely free of cost, and are conducted without the need of any domain expert. Learn Python and obtain a certificate from Spoken Tutorial Project, IIT Bombay, upon successful completion of the post-workshop evaluation test. Please visit:

python.fossee.in/spoken-tutorials

About us

Website:

<http://python.fossee.in>

Contact us

General help & Queries:

info@fossee.in

python@fossee.in

HEAD and HEAD~

HEAD - The latest revision is always HEAD

HEAD~ - The latest-1 revision is always HEAD~ or HEAD-1

HEAD~2 - The latest-2 revision is always HEAD~2

HEAD~3 - The latest-3 revision is always HEAD~3

HEAD and HEAD~

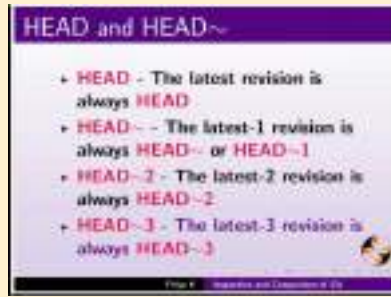
HEAD - The latest revision is always HEAD

HEAD~ - The latest-1 revision is always HEAD~ or HEAD-1

HEAD~2 - The latest-2 revision is always HEAD~2

```
<html>
<head>
  <title> History </title>
</head>
<body>
  <h1> History of India </h1>
  The Indus Valley Civilization which spread and
  flourished in the northwestern part of the
  Indian subcontinent.
</body>
</html>
```

```
spoken@spoken:~/mywebpages$ git commit -m "Added colors"
[master 71ed29e] Added colors
 2 files changed, 7 insertions(+), 2 deletions(-)
spoken@spoken:~/mywebpages$ git log --oneline
71ed29e Added colors
0609ee9 Added history.html
fba76e7 Initial commit
spoken@spoken:~/mywebpages$ git diff fba76e7
```



HEAD and HEAD~

HEAD - The latest revision is always HEAD

HEAD~ - The latest-1 revision is always HEAD~ or HEAD-1

HEAD~2 - The latest-2 revision is always HEAD~2

HEAD~3 - The latest-3 revision is always HEAD~3

HEAD~4 - The latest-4 revision is always HEAD~4

HEAD~5 - The latest-5 revision is always HEAD~5

HEAD~6 - The latest-6 revision is always HEAD~6

HEAD~7 - The latest-7 revision is always HEAD~7

HEAD~8 - The latest-8 revision is always HEAD~8

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HEAD~11 - The latest-11 revision is always HEAD~11

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HEAD~15 - The latest-15 revision is always HEAD~15

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HEAD~17 - The latest-17 revision is always HEAD~17

HEAD~18 - The latest-18 revision is always HEAD~18

HEAD and HEAD~

HEAD and HEAD~

HEAD - The latest revision is always HEAD

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HEAD~2 - The latest-2 revision is always HEAD~2

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HEAD~4 - The latest-4 revision is always HEAD~4

HEAD~5 - The latest-5 revision is always HEAD~5

HEAD~6 - The latest-6 revision is always HEAD~6

HEAD~7 - The latest-7 revision is always HEAD~7

HEAD and HEAD~

HEAD - The latest revision is always HEAD

HEAD~ - The latest-1 revision is always HEAD~ or HEAD-1

```
073f495 Added content in mypage.html
71ed29e Added colors
0609ee9 Added history.html
fba76e7 Initial commit
spoken@spoken:~/mywebpages$ git tag -a v1.0 0609ee9 -m "My Version 1.0"
spoken@spoken:~/mywebpages$ git tag v1.0
v1.0
v1.1
v1.2
spoken@spoken:~/mywebpages$ git log --oneline --decorate
073f495 (HEAD, tag: v1.2, master) Added content in mypage.html
71ed29e (tag: v1.1) Added colors
0609ee9 (tag: v1.0) Added history.html
fba76e7 Initial commit
spoken@spoken:~/mywebpages$
```


ABOUT EEE DEPARTMENT:

The Department of Electrical and Electronics Engineering was started in the year 2008 with an intake of 60, with an objective of imparting quality education in the Electrical and Electronics Engineering. EEE is the oldest of the engineering streams, and its applications are many. The number of career prospects for this group is huge, and it is the reason for many people to join this course. These students are offered with high salaried jobs, especially in the public sector. They are needed in power industry, electrical machine industries, etc. A number of private companies also offer lucrative job roles for these engineers.

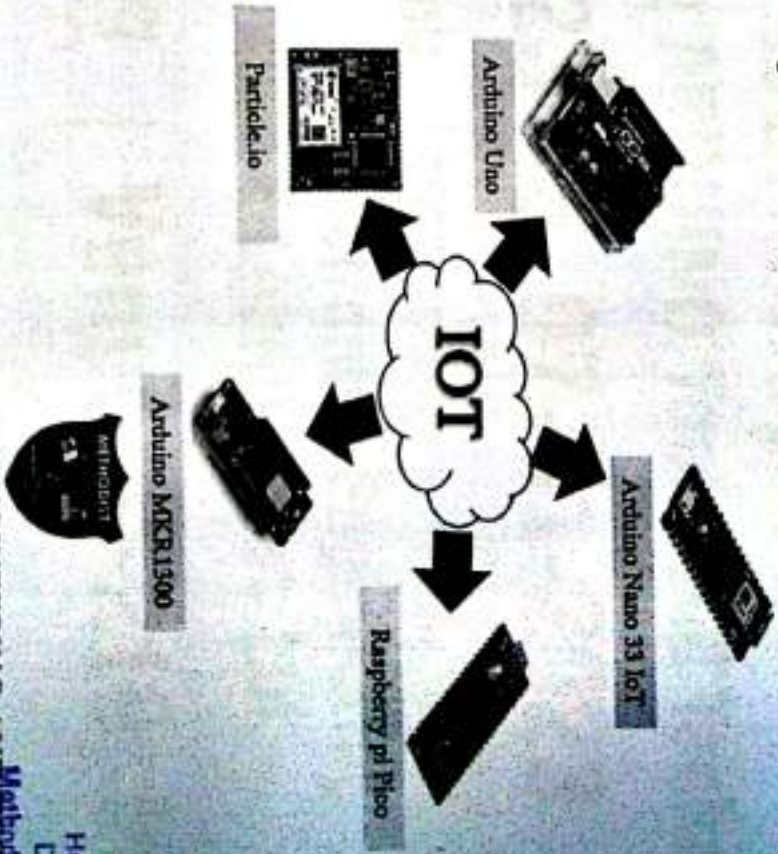
Due to this requirement, Methodist gives a special preference to EEE, and we had built a special base for this group. The laboratories, faculty, etc. for this group are of top notch, and we chalk out various industrial tours, seminars workshops, etc. for the benefit of our students. EEE is one of the core streams of engineering, and it is required in any case. Hence the demand for this group never decreases, and it is the steady stream ever.

REGISTER & JOIN
 THE WORKSHOP TO KNOW THE BASICS AND EASY WAYS TO LEARN IoT USING ARDUINO PRACTICAL SESSIONS

From 02-01-2023 TO 07-01-2023



ORGANISED BY
 Department of Electrical & Electronics Engineering



METHODIST COLLEGE OF ENGINEERING AND TECHNOLOGY
 (Affiliated to Osmania University)
 King Koli Road, Abids, Hyderabad, T.elangana-500001

Head of Dept
 Department of
 Electrical & Electronics Engineering
 Methodist College of Engineering and Technology
 Abids, Hyderabad