

Addis Ababa Science and Technology University

College of Electrical and Mechanical Engineering



Electrical and Computer Engineering Department

Orientation on Programs of Electrical and Computer Engineering Department

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Overview of ECED Programs

- ❑ Electrical and Computer Engineering Department is concerned on producing **professional Engineers** with high level of competency on national and international level.
- ❑ Electrical engineers deal with electrical and electronic devices and systems which use electrical energy.

Overview of ECED Programs

- ❑ Almost all types of modern working environments utilize electrical engineers.
- ❑ The results of electrical engineering can be seen in our homes and offices (through home & office appliances), transportation(cars, trains, planes...), computers, machines, security systems... etc.

Overview of ECED Programs

Home appliances include:

- ☐ air conditioner
- ☐ telephone
- ☐ washing machine
- ☐ coffee grinder
- ☐ Copier / scanner
- ☐ Fax machine
- ☐ TV
- ☐ Heater
- ☐ Lamp
- ☐ Radio
- ☐ Refrigerator
- ☐ video camera



Overview of ECED Programs

□ Electrical and computer Engineering Department has five specializations/focus areas:

1. Electrical Power Engineering
2. Electronic Communication Engineering
3. Industrial Control Engineering
4. Electronics Engineering
5. Computer Engineering

1. Electrical Power Engineering

- ✓ It deals with generation, transmission and distribution of electricity.



1. Electrical Power Engineering



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1. Electrical Power Engineering



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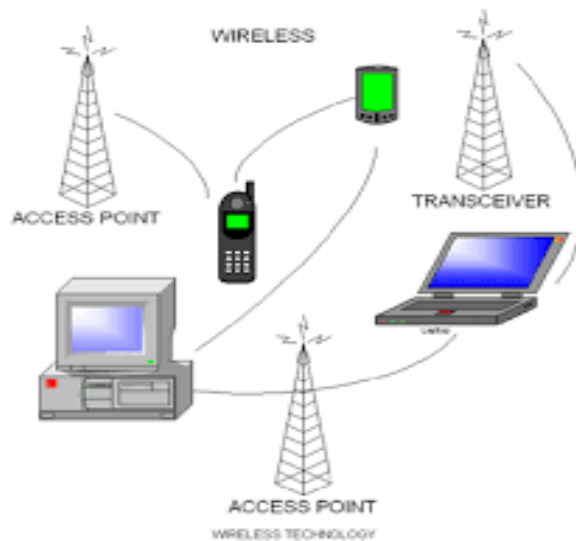
✓ Job opportunities can be found in:

- Ethiopian Electric Power and Electric Utility
- All types of manufacturing industries, IPs.
- Ethiopian Railways
- Ethio telecom
- Ethiopian Airlines
- Related infrastructure projects
- Teaching and Research... etc.

2. Electronic Communication Engineering

- Deals with communication of information through different types of channel.

Wireless Communications:



2. Electronic Communication Engineering ...

The internet:



2. Electronic Communication Engineering ...

E-commerce:



2. Electronic Communication Engineering ...

➤ Job Opportunities:

- Telecom Operators (ethiotelecom, MTN, Vodafone,...etc)
- Telecom Vendors (Huawei, ZTE, Ericson... etc)
- INSA
- IT companies
- Telecom devices manufacturing industries (Tecno, Tana,... etc)
- Media organizations (TV, FM broadcasters...etc.)
- Ethiopian Airlines
- Related infrastructure projects
- Teaching and Research... etc.

3. Industrial Control Engineering

- ❖ Mainly deals with manufacturing process automation, control and instrumentation.

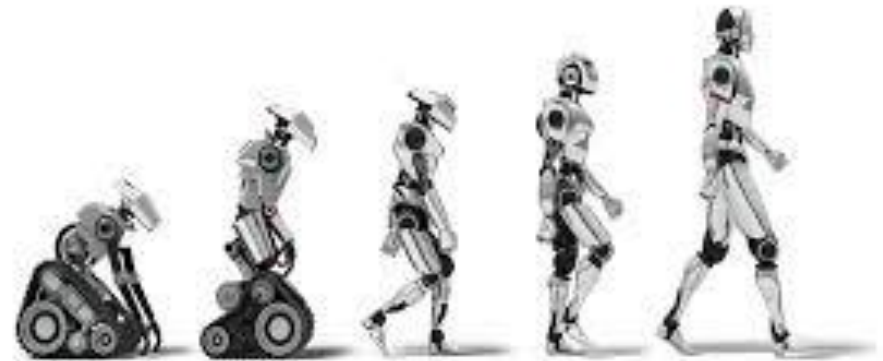
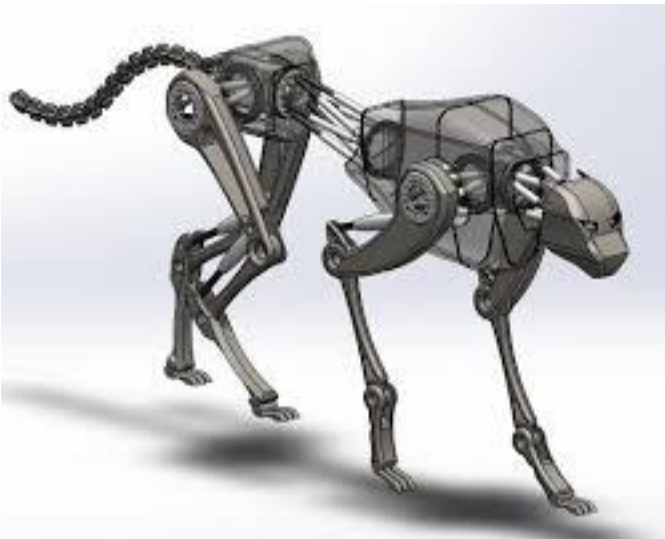
Automation:



3. Industrial Control Engineering

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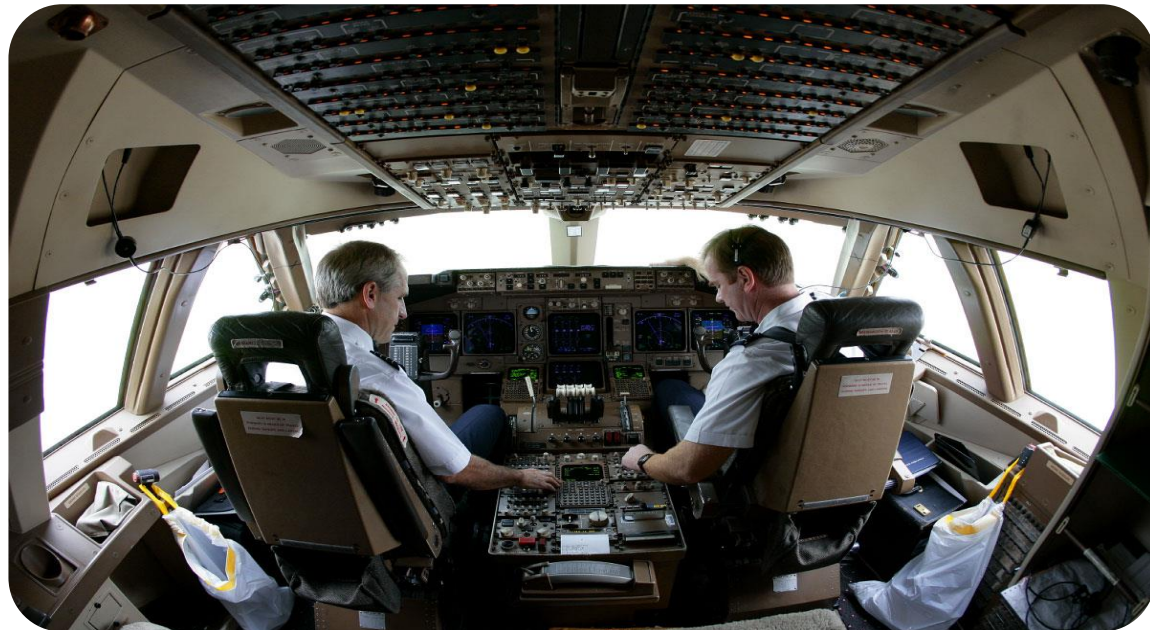
Robotics:



3. Industrial Control Engineering

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Control, Instrumentation:



3. Industrial Control Engineering

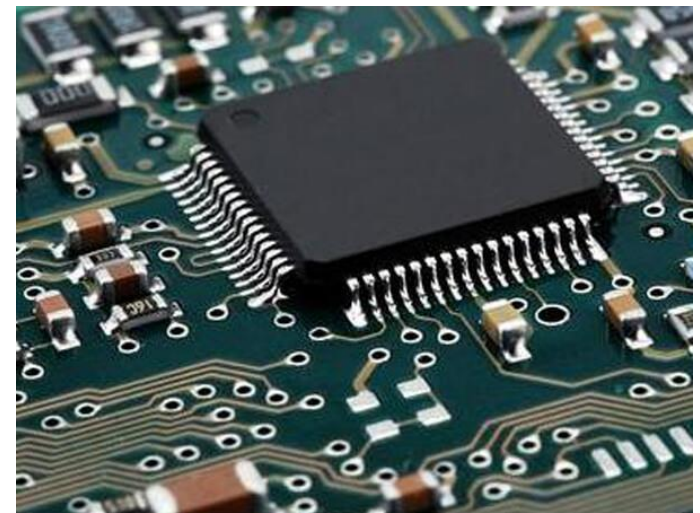
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❖ Job Opportunities:

- All types of manufacturing industries
- Ethiopian Railways
- Ethiopian Airlines
- Ethiopian Electric Power
- Related Infrastructure Projects
- METEC
- INSA
- Teaching and Research... etc.

4. Electronics Engineering

- Deals with electronic circuits, devices and systems.
- Electronic circuits are the basic building blocks of any modern technological system.



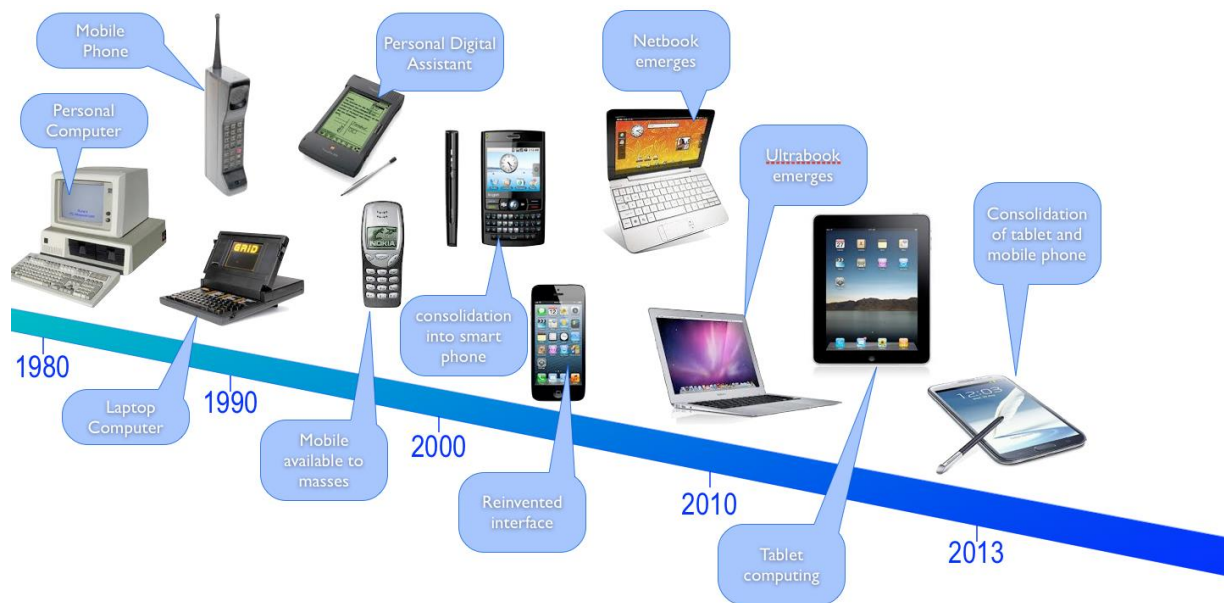
4. Electronics Engineering ...

○ Job Opportunities:

- Advanced manufacturing industries.
- Electronic equipment manufacturing industries (Tecno, Tana, Synics... etc.)
- Ethio telecom
- Ethiopian Airlines
- INSA
- Related infrastructure projects
- Teaching and Research... etc.

5. Computer Engineering

❑ Deals with different types of computing devices and systems.



5. Computer Engineering ...

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Smart Devices

5. Computer Engineering ...

□ Job Opportunities:

- IT Companies
- Telecom operators and Vendors
- Ethiopian air lines
- Software developing companies
- Government offices
- INSA
- Related infrastructure projects
- Teaching and Research... etc.

Stream Selection Process

- ☐ Take time to prioritize your choice of streams.
- ☐ Fill the stream selection form (VPAA/DPT/OF/023)
 - ❖ You have to fill four streams in descending order of your choice.
- ☐ Submit the form to the department two days before registration day.
- ☐ The department will consider parameters like: section size, available recourses ... etc while processing stream placement.
- ☐ Your choice may not be considered in case of incomplete forms and late submissions.

Questions?

Thank you!