UTM
UNIVERSITI TEKNOLOGI MALAYSIA

Introduction to

SKEU 2012: ELECTRONICS

My Info

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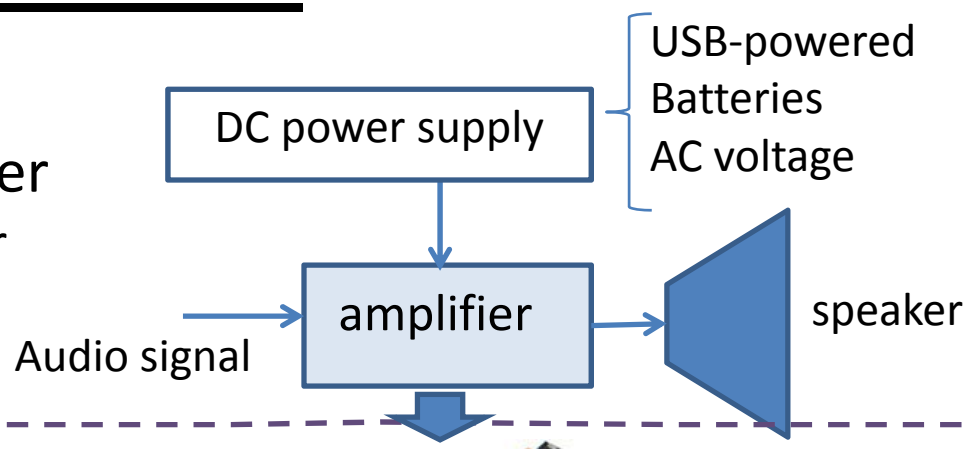
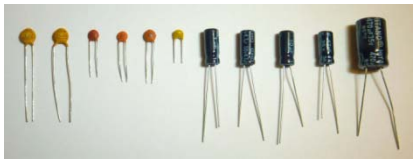
Electronics

Example: Building audio speaker

* To amplify audio from music player

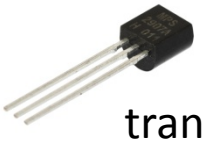


resistor

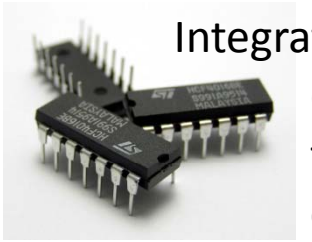


capacitor

diode

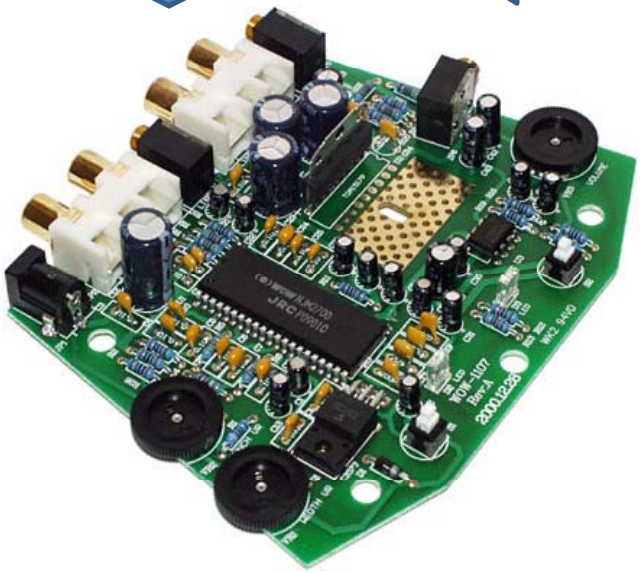


transistor

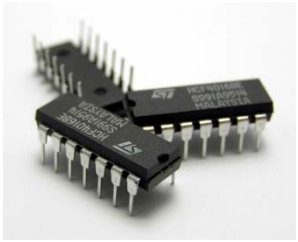


Integrated circuit (IC)/chip

Components are fabricated on a small chip



Amplifier consists of **electronics components** mounted on printed circuit board



Electronic component/devices are made from semiconductor materials. Mainly used semiconductor is silicon

Course synopsis

The course introduces students to semiconductor devices, amplifiers and basic concepts in analogue electronic. Course content includes the basic structure of electronic devices, their characteristics and circuit applications. The goal is to develop excellent understanding of the devices' operation for students to be applied in analogue and digital circuit design.

Expected learning outcome

CLO1 :Apply the basic law and theorems of electronic devices to describe their basic operation

CLO2 : Apply the basic law, theorems and methods of analysis to solve complex problem related to circuitry.

CLO3 : Work in a team and communicate effectively

Assessing learning outcome

Assessment	% Marks
Quizzes	10
Group project	10
Test 1	15
Test 2	15
Final exam	50
Total	**100**

Make sure the attendance is more than 80%

Recommended references

1. Thomas L. Floyd, Electronic Devices, 9th Edition, Prentice Hall, New Jersey, 2008.

2. Rubita Sudirman, Puspa Inayat Khalid, Siti Hawa Ruslan, Peranti Elektronik, Pearson Education, 2007

3. Puspa Inayat Khalid, Rubita Sudirman, Siti Hawa Ruslan, Modul Pengajaran Elektronik 1, Edisi ke-3, 2001

4. Neamen, Donald. A., Microelectronics - Circuit Analysis and Design, 3rd Ed., McGraw Hill, Int. Ed. 2007.

5. Robert. Paynter, Introductory Electronic Devices and Circuits, 7th Edition Prentice Hall, New Jersey, 2006.

6. Boylestad and Nashelsky, Electronic Devices and Circuit Theory, 9th Edition Prentice Hall, New Jersey, 2006.