

EE6808 DISPLAY TECHNOLOGIES

Acad Unit: 3.0
Prerequisite: Nil
Effective: Acad Year 2003-2004
Last update: 24 May 2002

OBJECTIVE

The objective of this course is to study the principle of various flat panel display technologies. This includes the latest technology of passive and active matrix liquid crystal display technologies, plasma display panels, organic light emitting devices, field emission displays and electroluminescent displays.

DESIRED OUTCOME

The students should be able to understand and appreciate various flat panel display technologies covered in the course. Understanding of the working principle of emerging large area display technologies such as plasma display panel and field emission display is anticipated.

OTHER RELEVANT INFORMATION

This is a multi-disciplinary course, knowledge in optics, materials science and electronic are required but not essential.

CONTENT

Electronic Information Displays. Passive Matrix Liquid Crystal Displays. Active Matrix Liquid Crystal Displays. Plasma Display Panels. Organic Light-Emitting Devices. Field Emission Displays. Electroluminescent Displays and Electrochromic Displays. Emerging Display Technologies.

ASSESSMENT SCHEME

Continuous Assessment	20%
Final Examination	80%

REFERENCES

1. Ernst Leuder, Liquid Crystal Displays - Addressing Schemes and Electro-Optic Effects, Wiley 2001.
2. Joseph Shinar, Organic Light-Emitting Devices: A Survey, Springer Publishing Company, Incorporated, 2002.
3. Yoshimasa A. Ono, "Electroluminescent Displays", Series on Information Display – Volume 1, Editor-in-chief: Hiap L. Ong, World Scientific 1995.