



Summer 2010 Internship Opportunity In

ANTENNA THEORY

(Theory – Simulation & Design – Fabrication & Testing)

Brief Introduction:

This is an intensive program targeting undergraduate students in their senior year of Electrical Communication Engineering organized by the GUC IEEE® student branch. However, the program is opened to anyone meeting the requirements and fulfilling the Prerequisites.

Prerequisites & Requirements:

- This offered program is offered from the **GUC only** to the **GUC (German University in Cairo) students**.
- A full knowledge of Electrostatic Fields, Magneto-static Fields, Time Varying Fields, and Electromagnetic wave propagation is an **Essential** prerequisite for Applying to the program.

Overview of the Program:

The discipline of antenna theory is an extremely important subject in the Telecommunication/Communication field. This program is a **3 Phase** program. The **first phase** -a Theoretical Portion- that offers a strong content of such discipline starting from introducing the concept of Antennas, radiation mechanism and Fundamental parameters of Antennas up to explaining different Antenna Models and different interactions between different Antenna types. The first phase will be covered mainly from the textbook “Antenna Theory: Analysis and Design” by Constantine A. Balanis assisted by “Antennas” by John D. Kraus. The **second phase** is the simulation and design phase in which different essential and important modern simulation tools are explained. The **third phase** is the Fabrication and testing phase in which real production and fabrication of antennas will take place on an LPKF® machine at the GUC.

- **Program Duration: 28/6/2010 up to 31/7/2010**
- **Working Hours: 2 session per day from 10:00 AM up to 2:00 PM**
- Interns will be provided with paper material during the program.

- The **Maximum** number of interns is **30**.
- A **1 month Internship** Certificate of attendance will be awarded to each of the interns at the end of the program accredited from the GUC.

How to Apply? :

Please send your CV (Preferably from the University E-mail) to the following email address internship.guc@gmail.com with the **subject** (*GUC IEEE Internship summer 2010*).

Deadline for applying: 15th of June 2010 (15-6-2010)

Upon receiving interns' CVs they will be receiving an email with the **date** and **time** of their interviews. All interviews will take place at the **GUC** during **June**.

Detailed Program:

(The Duration of each session is 4 hours from 10:00AM to 02:00PM with a break in between)

Start Date	End date	Event
28-6-2010	1-7-2010	4 sessions (1 session per day) covering: 1-Fundamental Parameters of Antennas 2-Linear Wire Antennas
1-7-2010	10-7-2010	ten-days Break .[Note 1]
11-7-2010	15-7-2010	-An Exam on 11-7-2010 including all discussed topics.[Note 2] -5 days sessions (1 session per day) covering: 1-Wire Antennas (continue) 2-Antenna Arrays 3-Apperature Antennas
19-7-2010	26-7-2010	-Friday and Saturday are off. -An Exam on 19-7-2010 including all discussed topics. [Note 3] -6 sessions (1 session per day) covering: modern simulation tools: <ul style="list-style-type: none"> • HFSS and CST
27-7-2010	31-7-2010	-4 Sessions (1 session per day) : 1-Fabrication and testing.

- *[Note 1]: aimed to give interns enough time to work on the discussed material and catch up.*
- *[Note 2]: Interns **MUST** pass this exam in order to proceed with the program.*
- *[Note 3]: Interns **MUST** pass this exam in order to proceed with the program.*