

# ALLOCATION OF BSc. PROJECT

## DESIGN AND IMPLEMENTATION OF SECURE SURVEILLANCE WIRELESS SENSOR NETWORK

### PROJECT DATA:

**Branch:** ..... Electrical Engineering .....

**Department:** ..... Communications .....

**Field of Research:**    **Wireless Sensor Networks (WSN)**

### Abstract:

Design and implementation of key management for secure surveillance wireless sensor network. We study the wireless sensor network and its applications such as surveillance. We choose motion detection wireless sensors with infrared capabilities to be employed in the network. First, we develop WSN with base station and motion detection sensors. Second, the targets are detected by the sensors and any target is reported with its location to the base station. Third, the network needs key management system to distribute the encryption keys for the network and this is our task to fully distribute the keys for all sensors in the network.

### Description of the Task:

- Simulation of Surveillance WSN
- GUI for Surveillance WSN on the computer
- Design and Implementation of Secure Surveillance WSN

### Experimental and Computer Work:

- Simulation of Secure Surveillance WSN using MATLAB
- Programming the sensor mote
- Design and Implementation of key management for Surveillance WSN

### Time Table:

No.	Date	Task	Evaluation	Notes
1	24/9/2011	Understanding the objectives of the project		
2	29/10/2011	Simulation of Secure Surveillance WSN		
3	28/1/2012	Implementation of Surveillance WSN		
4	25/2/2012	Building the GUI of Surveillance WSN		
5	31/3/2012	Key Management for Surveillance WSN		
6	9/6/2012	Submission of the project		

### Supervisors:

No.	Rank	Name
1	Assoc. Prof.	KHALED HUSSEIN MOUSTAFA