MscIT – Sensor Networks

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Instructor: M.H. Assaf
Class Schedule: **Lecture** Monday 2:00– 5:00 p.m., Wednesday 2:00 – 5:00 p.m.
Location: Classroom 6
Lab time/location: TBD
Office Hours: 1:00 – 2:00 p.m. Wednesday or by appointment
E-mail: mansour.assaf@utt.edu.tt
Course URL: www.u.tt/ict

Course Description

This is a graduate course on Sensor Networks. Students in the class should have completed an undergraduate course on Computer Network. This class provides a broad introduction to advanced topics in sensor networks.

Prerequisite:

Computer Networks

Assessment:

Homework (2)	20%
Project Presentation	30%
Final Project Report	50%

No late assignments will be accepted.

Reference Material:

Ad Hoc & Sensor Networks: Theory and Applications, Carlos De Morais Cordeiro, Dharma Prakash Agrawal - World Scientific Publishing Company, Incorporated, 2006.
Distributed Sensor Networks: A Multiagent Perspective (Multiagent Systems, Artificial Societies, and Simulated Organizations), Victor Lesser, Charles L. Ortiz Jr., and Milind Tambe - Kluwer Academic Publishers.
Principles of Embedded Networked Systems Design, G. Pottie and W. Kaiser, Cambridge, 2005.
Wireless Sensor Networks: An Information Processing Approach, F. Zhao and L. Guibas, Elsevier/Morgan-Kaufmann, 2004.

Course Schedule

WEEK	TOPICS	REFERENCES
1	**Introduction to Sensor Networks**	**V. Lesser, C. Ortiz Jr., and M. Tambe C. Cordeiro, and D.Agrawal and class notes.**
2	**Sensing Platforms**	**Selected Publications from the Technical Literature**
3	**Location Discovery**	**C. Cordeiro, and D. Agrawal, W. Kaiser and G. Pottie, F. Zhao and L. Guibas Along with selected publications and class notes.**
4	**Medium Access Control Protocols**	**V. Lesser, C. Ortiz Jr., and M. Tambe C. Cordeiro, and D.Agrawal, W. Kaiser and G. Pottie, F. Zhao and L. Guibas and class notes.**
5	**Physical Layer, Energy Consumption and IEEE 802.15.4**	**W. Kaiser and G. Pottie, F. Zhao and L. Guibas, selected publications, and class notes.**
6	**Routing Protocols**	**Reference Material, selected publications, and class notes.**
7	**Storage and Clustering**	**Reference Material, selected publications, and class notes.**