

COURSE DESCRIPTION

COURSE NAME		SECURITY OF WIRELESS NETWORKS AND MOBILE DEVICES				CODE: MSI2103
STUDY YEAR	MASTER II	SEMESTER	I	COURSE STATUS (C -compulsory/ OP -optional/ F -facultative)		C
HOURS PER WEEK				TOTAL HOURS PER SEMESTER	TOTAL HOURS INDIVIDUAL ACTIVITY	CREDITS
C	S	L	Pr.			
2	2	-	-	56	184	8
				EVALUATION (P -during the semester, C -oral examination, E -written examination, M -mixed)		TEACHING LANGUAGE
				M		English
COURSE TEACHER		TEACHING AND SCIENTIFIC DEGREE, FIRST NAME, LAST NAME			FACULTY/DEPARTMENT	
		LECT. DR. SORIN IFTENE			Department of Computer Science	
PREVIOUS COURSES REQUESTED						
OBJECTIVES	This course will present the most important mechanisms dedicated to protect data integrity and confidentiality, access control, authentication, user privacy, quality and continuity of service, in wireless and mobile environments.					
GENERAL DESCRIPTION	<p>The topics of the course are:</p> <ul style="list-style-type: none"> -Wireless Technology Overview -Risks and Threats of Wireless -Security under Resource Constraints (bandwidth, memory, computation, energy constraints) -Intrusion and Anomaly Detection in Wireless Environments -Key Management in Wireless Environments -Privacy and Anonymity in Wireless Environments -Public Key Infrastructure in Wireless Environments -Authentication, Authorisation, and Access Control in Wireless Environments -Standards in Wireless Security (Equivalent Privacy Standard (WEP), Extensible Authentication Protocol (EAP), Wi-Fi Protected Access (WPA, WPA2), IEEE 802.11i) -Bluetooth Security -RFID Security -Secure Mobile Commerce -Secure Wireless Multimedia Broadcast 					
DESCRIPTION OF SEMINARY / LABORATORY WORK	Seminars intend to stimulate students in their own research in wireless security - improve their ability of extracting, presenting, and discussing results from the most relevant papers and try to extend/improve them.					
TEACHING METHODS	On-line and blackboard presentation.					
BIBLIOGRAPHY (SELECTION)	<ul style="list-style-type: none"> - S. Gritzalis, T. Karygiannis, C. Skianis (editors). <i>Security and Privacy in Mobile and Wireless Networking</i>. Troubador Publishing, 2009 - N. Sklavos, X. Zhang . <i>Wireless Security and Cryptography: Specifications and Implementations</i>. CRC Press, 2007 - C. Gehrman, J. Persson, B. Smeets. <i>Bluetooth security</i>. Artech House, 2004 - P.H. Cole, D.C. Ranasinghe (editors). <i>Networked RFID systems and lightweight cryptography: raising barriers to product counterfeiting</i>. Springer-Verlag, 2008 - NIST Federal Information Processing Standards - conference and journal articles 					
EVALUATION	conditions	presentation of a report on a selected topic (P), midterm exam (ME), final exam (FE)				
	criteria	P, ME, FE ≥ 5				
	evaluation methods	presentation of a report on a selected topic (P), midterm exam (ME), final exam (FE)				
	final result - formula	0.4P+0.3ME+0.3FE				