

Mobile and Cloud Security

Overview

This is an advanced level course on the concepts and principles of Mobile and Cloud Security. The focus of this class is on emerging threats and countermeasures in the Mobile/Cloud computing paradigm. The topics to be covered include: (i) Basics of Mobile and Cloud Computing, (ii) Basics of Security Attacks, Mechanisms and Services, (iii) Security of Mobile Computing: malware, privacy and authenticating access, (iv) Case Study on Bring Your Own Device (BYOD) Security, (v) Case Study on Mobile Payment Security, (vi) Cloud Computing Security: Data Management, User Authentication, Contingency Planning and Compliance, (vii) Case Study on Identity Management, Single Sign On and Shibboleth and (viii) Case Study on Software Defined Networking (SDN) Security.

Course participants will learn these topics through lectures and hands-on experiments. Also, case studies and assignments will be shared to stimulate research motivation of participants. The course will feature lectures, quizzes, assignments and exams.

Dates for the Course	6th June, 2016 to 17th June, 2016
Host Institute	IIT Madras, Chennai
No. of Credits	2
Maximum No. of Participants	60
You Should Attend If...	<ul style="list-style-type: none"> ▪ You are a computer engineer, computer programmer, networking professional, network security professional or researcher from academia, industry or a Government research organization interested in mobile and cloud security. ▪ You are a student or faculty from an academic institution interested in learning how to do research on mobile and cloud security.
Course Registration Fees	<p>The participation fees for taking the course is as follows:</p> <p>Student Participants: Rs.2000 Faculty Participants: Rs.6000 Government Research Organization Participants: Rs.10000 Industry Participants: Rs.20000</p> <p>The above fee is towards participation in the course, the course material, computer use for tutorials and assignments, and laboratory equipment usage charges. The participants may be provided with hostel accommodation, depending on the availability, on payment basis.</p>

Course Faculty



Prof. Byrav Ramamurthy is currently a Professor and Graduate Chair in the Department of Computer Science and Engineering at the University of Nebraska-Lincoln (UNL). He is the author of the book "Design of Optical WDM Networks - LAN, MAN and WAN Architectures" and a co-author of the book "Secure Group Communications over Data Networks" published by Kluwer Academic Publishers/Springer in 2000 and 2004 respectively. He served as the Chair of the IEEE Communication Society's Optical Networking Technical Committee (ONTC) during 2009-2011. He served as the IEEE INFOCOM 2011 TPC Co-Chair. He is currently an Editor-in-Chief for the Springer Photonic Network Communications (PNET) journal.

His research areas include network security, optical and wireless networks, peer-to-peer networks for multimedia streaming and telecommunications. His research work is supported by the U.S. National Science Foundation, U.S. Department of Energy, U.S. Department of Agriculture, NASA, AT&T Corporation, Agilent Tech., Ciena, HP and OPNET Inc.

Course Coordinator

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