



Syllabus 2017 Applied Information Sciences Internet and its Security

Japanese

Basic information

held this year:	yes
instructor(s)	Glenn M.Keeni
room	GSIS-206
schedule	The latter period (Tuesday) 14:40-16:10
begins on:	10/03

Objectives and outline

Internet and Information (In-)Security have been developing in tandem. In this lecture, the Internet technologies and related information security aspects are discussed. Students will learn the philosophy and the basics of Internet technology and will also develop an insight into the associated security concerns. The underlying theme will be the weakness of the implicit trust model in information networks that is widely used. Each lecture will focus on one aspect of the Internet, will discuss at least one related attack, examine the corresponding trust model, show its vulnerability, and demonstrate how the vulnerability is utilized in the attack.

There will be no pre-requisites for the lecture.

Class plan

1. Basics of Internet and information security
2. Networking and data encryption
3. Internet protocol suite(TCP/IP)
4. Physical layer, datalink layer and their security
5. Network layer and its security (1)
6. Network layer and its security (2)
7. Network layer and its security (3)
8. Transport layer and its security
9. Application layer and its security - Name service
10. Application layer and its security - DHCP
11. Application layer and its security - Mail
12. Application layer and its security - Web
13. Network management
14. Security related to people
15. Concluding remarks

Evaluation

Grading will be based on attendance, 3 mini-tests, 2 reports/homework.

Textbook(s)

- No textbook. References are below. Additional information (Web site and articles) will be provided in a class.
1. Network Security- Private Communication in a public world: Charlie Kaufman Radia Perlman. Mike Speciner
 2. Introduction to Computer Security: Michael Goodrich, Roberto Tamassia
 3. Computer Networks: Andrew S Tanenbaum

Web site

None

Office hours

Contact us by e-mail.

Other information

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