

Dr. Yohan Suryanto, S.T, M.T Semester Ganjil 2020/2021

## Kriptografi 1 Pengantar

## Outline

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# Dr. Yohan Suryanto, St. MT related certificated on cyber security:

- 1. CEI (Certified EC-Council Instructor)
- 2. CNSP (CompTIA Security Network Professional)
- 3. CNVP (CompTIA Network Vulnerability Assessment Professional)
- 4. ECSA (EC-Council Certified Security Analyst)
- 5. CompTIA Pentest+ (CompTIA PenTest+ ce Certification)
- 6. CompTIA CSAP (CompTIA Security Analytics Professional)
- 7. CTIA (EC-Council Certified Threat Intelligence Analyst)
- 8. CEH Master (EC-Council CEH Master)
- 9. CEH Practical (EC-Council CEH Practical)
- CompTIA CySA+ (CompTIA CySA+ ce Certification)
- 11. CEH (EC-Council Certified Ethical Hacker)
- 12. CompTIA Security+ (CompTIA Security+ ce Certification)
- 13. CND (EC-Council Certified Network Defender)
- 14. CCNA (Cisco Certified Network Associate)
- 15. HCAI (Huawei Certified Associate Instructor)
- HCIA RS (Huawei Certified ICT Associate Routing and Switching)
- 17. HCAI (Huawei Certified Academy Instructor)

#### Jadwal Perkuliahan

- Perkuliahan 14 September 2020 Januari 2021
- UTS November
- UAS Januari 2021
- Ujian perbaikan -
- Pembagian Daftar Nilai Sebelum Februari 2021

### Assessment

#### • Grading:

Assignment : 30 % | 0%

• UTS : 30 % 10%

• UAS/ Project : 40 % 15%

: 30%

: 35%

## Tujuan Perkuliahan

Mahasiswa memahami konsep kriptografi, dasar-dasar kriptanalisis, dan implementasinya untuk pengamanan sistem informasi.

#### Syllabus

- 1. Pendahuluan
- 2. Pengenalan Matlab / Octave
- 3. Dasar-dasar matematika kriptografi
- 4. Algoritma Kriptografi klasik
- 5. Dasar-dasar Kriptanalisis
- 6. Matematika Kriptografi Struktur Aljabar
- 7. Algoritma symmetric key modern AES
- 8. Hashing
- 9. Distribusi Symmetric key

#### Referensi

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- Attaway, Stormy. Matlab: a practical introduction to programming and problem solving. Butterworth-Heinemann, 2013.
- Hoffstein, Jeffrey, et al. An introduction to mathematical cryptography. Vol.
  New York: springer, 2008.
- Menezes, Alfred J., Paul C. Van Oorschot, and Scott A. Vanstone. Handbook of applied cryptography. CRC press, 1996.
- Stinson, Douglas R. Cryptography: theory and practice. CRC press, 2005.