Distance Learning Course on "Practical Cryptography"

Organized By: Bangladesh Research and Education Network (BdREN) under Asi@Connect 2nd Call Project (WP5): Facilitating Distance Learning using Digital Conference Facility (fDLuDCf)

Online Registration through *https://dle.asiaconnect.bdren.net.bd/* by **9th January 2020**

Course Duration: Total 8 Class, 2 Hour/Class, 1 Class/Week; Starting from 11 January 2020

100% FREE! **Registration**

Financed by Asi@Connect/TEIN*CC/EU

Instructor

KASUN DE ZOYSA
University of Colombo School of Computing, Sri Lanka

Participants Eligibility
Country: Bangladesh, Bhutan, Nepal, Philippine, Sri Lanka, Thailand
Prerequisit:
➢ experience on Computer Networking
➢ understanding of Java/C++/C Programming
➢ Operating Systems (Windows and Linux)

Certificate/Award
✓ Digital Certificate will be delivered to successful Candidates.
✓ Top 10 Trainees of Final Result will receive award 100 Euro each.
✓ Final Result will be sum of Class Attendance 50% + Exam Score 50%

Course Description	The concepts and scientific thinking in Cryptography will be explored within the course and the student will be studying cryptographic algorithms and protocols. This course will help to build cryptography knowledge and can be used in other cybersecurity areas.
Learning Outcomes	Upon completion of this course, students will be able to do the followings: ➢ Understand the basic concepts and scientific thinking in cryptography. ➢ Describe a number of cryptographic algorithms and protocols. ➢ Develop cryptographically secure software applications.
Evaluation Criteria	Assignments 50 Marks + Final Examination 50 Marks • Five (5) programming assignments from the topics which cover in the week of 2, 3, 4, 5 and 6 (10 Marks for each assignment). • Final Examination (25 Multiple Choice Questions* 2 Marks)

Course Schedule

Week	Class Topic	Date	Times [GMT+6]	Duration
1	Introduction to Cryptographic Systems	11 January 2020	16:00~18:00	2 Hrs
2	Hash Functions	18 January 2020	16:00~18:00	2 Hrs
3	Block Ciphers	25 January 2020	16:00~18:00	2 Hrs
4	Block Ciphers Operational Modes	01 February 2020	16:00~18:00	2 Hrs
5	Properties of Arithmetic Operations	08 February 2020	16:00~18:00	2 Hrs
6	Public Key Cryptography	15 February 2020	16:00~18:00	2 Hrs
7	Key Management Protocols	22 February 2020	16:00~18:00	2 Hrs
8	Public Key Infrastructure (PKI)	29 February 2020	16:00~18:00	2 Hrs

Undergraduate/Post-Graduate Students of relevant study especially CSE/IT/ECE/EEE/ETE are Highly Encouraged to Apply

Contact: fdludcf@bdren.net.bd, +8801558910866