

National Institute of Technology

Karnataka

Summer Mentorship Program - 2020

CRYPTOGRAPHY

Objective

This course aims at introducing fundamentals of cryptography and give basic knowledge about different types of cryptography and their applications. It also covers some basic algorithms related to different types of cryptography. The SMP will also be covering application of these concepts.

Why this SMP?

This SMP will provide the basic knowledge about cryptography. If you are willing to work in the field of security of the computers and networks then this SMP is very much for you and will provide you a great foundation. This SMP will help you to learn the topic from scratch and there are no prerequisites for this course.

Schedule

Topics :

Week 1: Introduction to cryptography + Simple Python Programs

Week 2: Encryption and decryption + Cryptopals questions

Week 3: Different types of Cipher and implementation of simple problems + Cryptopal questions

Week 4: Introduction to AES Encryption + Cryptopal questions

Week 5 : DES Algorithm + Cryptopal questions

Week 6: RSA Algorithm + Cryptopal questions

Week 7: Hash Functions + Digital Certificates + Keys

Week 8: Introduction to Quantum Cryptography

Contact Details:

Shreesha Bharadwaj - 9740714752

Karn Tiwari - 9611836736

Super Mentors:

Madhumitha Nara

Niwedita