

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

LIST OF FDP ORGANISED

| S.N | NO. | ACADEMIC YEAR | TOPIC | DATE | Coordinator |
|-----|-----|------------------|--|------------------------------|--------------------|
| 1 | | 2022-2023 | Five Days Faculty Development program on Cryptography and Cyber Security | 12.06.2023 to 16.06.2023 | Dr. B.Selvalakshmi |
| 2 | , | 2021-2022 | Online - Six Day FDTP - Summer on Cryptography and Network Security | 11.07.2022 to 16.07.2022 | Dr. B.Jaishanthi |
| 3 | | 2020-2021 | Five Day Online Faculty Development Program Cloud Computing. | 24.05.2021 to 28- 05-2021 | Mr.Sudheer Redddy |

Faculty Development Program

On

"Cryptography and Cyber Security"

June 12th to 16th 2023

REGISTRATION FORM

| Name | |
|--------------|---|
| Designation | : |
| Gender | : |
| Organization | |
| Address | |
| Mobile | |

Academic staff/ Research Scholar/Student

E-mail

The registration details should be sent to the below mentioned Email Id

nsbc19@gmail.com

CHIEF PATRON

Prof. M. Mala M.A., M.Phil. Chairperson

PATRONS

Dr. R.Ramesh, Principal

Dr. Srinivasan (Prof. & Dean)

Dr. S. Surendran (HOD/CSE)

Coordinator

Dr.B.Selvalakshmi

Contact info: bselvalakshmi@tagoreengg.ac.in

Organizing Committee

Ms. B. Jaishanthi (Asso. Prof / CSE)

Ms.F.L.Dixy Ginu (AP/CSE)

Ms.D.Meenakshi(Assitant Professor)

Signature Fdp Date : 12th to 16th June 2023

Faculty Development Program

On

"Cryptography and Cyber Security"

June 12th to 16th 2023

Organized by

Department

Of

Computer Science and Engineering



TAGORE ENGINEERING COLLEGE RATHINAMANGALAM, CHENNAI-127

Website: www.tagore-engg.ac.in/nsbc

E-mail: nsbc19@gmail.com

ABOUT THE COLLEGE

Tagore Engineering College is a reputed institution that is affiliated to Anna University. Located 6 kms from Vandalur. The college is a heaven for academic activities. There are 7 streams of Engineering offered here viz, CSE, ECE, IT, Aero, Mechanical, Civil and EEE. The college also provides four Master's Degree programmes. The ME (CSE) in this institution ranks high among the private Engineering College that offers this course in Chennai. The College maintains an excellent academic record and is rerouted for its discipline and decorum.

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The Department of Computer Science and Engineering is one among the oldest disciplines of engineering in our college with an excellent infra structure facility. Our department believes in a single thought which exemplifies the motto of our college "Labor to Glory". Our department boosts of highly qualified and well experienced faculty. The department of CSE has invited over about 60 colleges from Chennai city alone and has sent

invites to numerous colleges all over India to take part in this Faculty development program.

The department takes immense pleasure in inviting the faculty from all engineering colleges to make this event a grand success. It is a five days FDP organized by the department of CSE. This event will be a platform for the faculty to share their technical and soft skills talents.

ABOUT THE FDP

Cryptography, the art and science of secure communication, is fundamental to modern digital security. It involves the encryption and decryption of data to ensure its confidentiality, integrity, and authenticity. Through techniques like encryption algorithms and key management, cryptography enables secure communication channels, protects sensitive information, and verifies the identities of communicating parties, value. It facilitates smart contracts, engagement, and agreements with inherent, robust cyber security features.

Cryptography finds widespread applications in various domains, including

secure online transactions, data protection, digital signatures, and authentication protocols like SSL/TLS.

Topics to be covered

- Foundations of Cryptography
- Cryptographic Protocols and Applications
- · Cryptanalysis and Attacks
- · Applied Cryptography
- · Network Security
- Cyber Security
- Endpoint Security
- Identity and Access
 Management (IAM)
- · Cloud Security
- · Secure Software Development

| Day | Session 1 9.00 a.m. to 10.30 a.m. | Session 2 10.45 a.m. to 12.15 p.m | | Session 3 1.30 p.m. to 3.00 p.m. | Session 4 3.15 p.m. to 4.45 p.m |
|------------|--|--|----------------|--|--|
| 12.06.2023 | OSI Security Architecture Dr. Anusooya G Assistant Professor, Department of Computer | Security Attacks – Security Services and Mechanisms – A Model for Network Security Dr. Anusooya G Assistant Professor, Department of Computer Science and Engineering VIT, Chennai | | Classical encryption techniques: Substitution techniques, Transposition techniques, Steganography Dr. B.Swaminathan Assistant Professor, Department of Computer Science and Engineering Saveetha University. Chennai | Foundations of modern cryptography: Perfect security – Information Theory – Product Cryptosystem – Cryptanalysis. Dr. B.Swaminathan Assistant Professor, Department of Computer Science and Engineering Saveetha University. Chennai. |
| 13.06.2023 | Number theory – Algebraic Structures - Modular Arithmetic - Euclid's algorithm- Congruence and matrices Dr.S.SADAGOPAN Assistant Professor Department of Computational Intelligence, SRM Institute of Science and Technology, Kattankalathur,chennai | SDES – Block Ciphers – DES, Strength of DES Dr.S.SADAGOPAN Assistant Professor Department of Computational Intelligence, SRM Institute of Science and Technology, Kattankalathur, Chennai | Lunch break | Differential and linear cryptanalysis – Block cipher design principles – Block cipher mode of operation Dr. Anand M Assistant Professor Department of Data Science and Business Systems, SRM Institute of Science and Technology, Kattankalathur,chennai | Evaluation criteria for AES – Pseudorandom Number Generators – RC4 – Key distribution Dr. Anand M Assistant Professor Department of Data Science and Business Systems, SRM Institute of Science and Technology, Kattankalathur,chennai |
| 14.06.2023 | | RSA cryptosystem – Key distribution – Key management- Dr. Rukmani P Associate Professor Department of CSE, Vellore Institute of Technology, Chennai | | Diffie Hellman key exchange — Ms. D.Bhuvaneswari, Assistant professor, Department of IT, Tagore Engineering College, Chennai. Dr. Jani Anbarasi L Assistant Professor, Department of Computer Science and Engineering VIT, Chennai | Elliptic curve arithmetic – Elliptic curve cryptography Dr. Jani Anbarasi L Assistant Professor, Department of Computer Science and Engineering VIT, Chennai |
| 15.06.2023 | Authentication requirement – Authentication function – MAC Ms.Mercy.H Assistant Professor Department of CSE, Jerusalem College of Engineering, Chennai. | Hash function – Security of hash function: HMAC, CMAC – SHA – Digital signature and authentication protocols Ms.Mercy.H Assistant Professor Department of CSE, Jerusalem College of Engineering, Chennai | Lunch break | Entity Authentication: Biometrics, Passwords, Challenge Response protocols – Authentication applications – Kerberos Ms. Vanitha Sheeba Assistant Professor Department of CSE, Jerusalem College of | Key management and distribution – Symmetric key distribution using symmetric and asymmetric encryption – Distribution of public keys – X.509 Certificates. Ms. Vanitha Sheeba Assistant Professor Department of CSE, Jerusalem College of Engineering, |

| | | | Engineering, Chennai | Chennai |
|-----------|--|---|---|---|
| 16.6.2023 | Cyber Crime and Information Security – classifications of Cyber Crimes Mrs. G.Bhuvaneswari Assistant Professor Department of CSE Tagore Engineering College, Chennai | Tools and Methods – Password Cracking, Keyloggers, Spywares Mrs. G.Bhuvaneswari Assistant Professor Department of CSE Tagore Engineering College, Chennai | SQL Injection – Network Access Control- Cloud Security Mrs. S.Bharvathavarthini Assistant Professor Department of CSE Tagore Engineering College, Chennai | Web Security – Wireless Security Dr.B.Jaishanthi Mrs. S.Bharvathavarthini Assistant Professor Department of CSE Tagore Engineering College, Chennai |
| 17.6.2023 | Test for Participants Ms.S.S.Bhaviya Assistant Professor, Tagore Engineering College, Chennai-600127 | Group Discussion B.Selvalakshmi, Assistant Professor, Tagore Engineering College, Chennai-600127 | Presentation by Participants B.Selvalakshmi, Assistant Professor Tagore Engineering College, Chennai-600127 | Test paper Discussion and Distribution & Valedictory function Ms.S.S.Bhaviya Assistant Professor, Tagore Engineering College, Chennai-600127 Dr.B.Jaishanthi Associate Professor&Head, Tagore Engineering College, Chennai-600127 |

Faculty Development Programming

On

"SUMMER ON CRYPTOGRAPHY AND NETWORK SECURITY"

JULY 11TH To 16TH 2022

REGISTRATION FORM

| Name | : |
|-------------|-----|
| Designation | n : |
| Gender | : |
| Organizatio | on: |
| Address | : |
| Mobile | : |
| E-mail | : |

Academic staff/ Research Scholar/Student

Category

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PATRONS

Dr. R.Ramesh, Principal

Dr. Srinivasan (Prof. & Dean)

Dr. S. Surendran (HOD/CSE)

COODINATOR

Dr. B. Jaishanthi

Contact Info: bjaishanthi@tagore-engg.ac.in

ORGANIZING COMMITTEE

Ms.Dr. B. Selvalakshmi (AP / CSE)

Ms. S.S. Bhaviya(AP/CSE)

Ms. S. Jayanthi (AP/CSE)

FDP Date : 11th to 16th June

Faculty Development Programming

On

"SUMMER ON CRYPTOGRAPHY AND NETWORK SECURITY"

JULY 11TH To 16TH 2022

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About the Department

The Department of Computer Science and Engineering is one among the oldest disciplines of engineering in our college with an excellent infra structure facility. Our department believes in a single thought which exemplifies the invites to numerous colleges all over India to take part in this national level technical workshop.

The department takes immense pleasure in inviting the students from all engineering colleges to make this event a grand success. It is a two days workshop organized by the department of CSE. This event will be a platform for the students to showcase their technical and soft skills talents.

About the fdp

The aim of this FDP is to introduce the faculty the areas of cryptography and cryptanalysis. This course develops a basic understanding of the algorithms used to protect users online and to understand some of the design choices behind these algorithms. Our aim is to develop a workable knowledge of the mathematics used in cryptology in this course. The course emphasizes to give a basic understanding of previous attacks on cryptosystems with the aim of preventing future attacks. A wide variety of basic

cryptographic primitives will be discussed along with recent developments in some identity-based like advanced topics encryption, encryption, attribute-based functional encryption, two-party/multi-party computation, bitcoin and crypto-currency and postquantum cryptography. The cryptanalysis part will help us understanding challenges for cyber security that includes network security, data security, mobile security, cloud security and endpoint security.

Topics to be covered

- · Basic cryptography concept
- Cryptographic Algorithm
- · Network Security Protocol
- · Authentication and Authorization
- · Secure communication Channel
- Key Management
- Security protocols and models
- Cryptographic attacks and countermeasure
- · Digital Signature and Certificates
- · Security standards and compliance

| Day | Session 1 9.00 a.m. to 10.30 a.m. | Session 2 10.45 a.m. to 12.15 p.m | | Session 3 1.30 p.m. to 3.00 p.m. | Session 4 3.15 p.m. to 4.45 p.m |
|------------|--|---|----------|--|--|
| 11.07.2022 | Security trends | Model of network security Dr. S. Muthurajkumar Assistant Professor, Department of Computer Technology, Anna Univerrsity Chennai | | Classical encryption techniques Dr. P. Vasuki Assistant Professor, Department of Computer Science and Engineering SSN College of Engineering, Chennai | Foundations of modern cryptography Dr. P. Vasuki Assistant Professor, Department of Computer Science and Engineering SSN College of Engineering, Chennai |
| 12.07.2022 | Department of Computer | SDES – Block cipher | ch break | Differential and linear cryptanalysis Dr.S.SADAGOPAN Assistant Professor Department of Computational Intelligence, SRM Institute of Science and Technology, Kattankalathur,chennai | Advanced Encryption Standard Dr.S.SADAGOPAN Assistant Professor Department of Computational Intelligence, SRM Institute of Science and Technology, Kattankalathur,chennai |
| 13.07.2022 | Department of Data Science and | RSA cryptosystem Dr. Anand.M Assistant Professor Department of Data Science and Business Systems, SRM Institute of Science and Technology, Chennai | | Diffie Hellman key exchange Dr. R Kathiroli Assistant Professor Department of Computer Technology Anna university, (MIT campus) | Elliptic curve cryptography Hands On Dr. R Kathiroli Assistant Professor Department of Computer Technology Anna university, (MIT campus |
| 14.07.2022 | Message Authentication Dr. Rukmani P Associate Professor Department of CSE, Vellore Institute of Technology, Chennai | Digital signature and authentication protocols Dr. Rukmani P Associate Professor Department of CSE, Vellore Institute of Technology, Chennai | | Entity Authentication Dr. Jani Anbarasi L Assistant Professor, Department of Computer Science and Engineering VIT, Chennai | Authentication applications Hands On Dr. Jani Anbarasi L Assistant Professor, Department of Computer Science and Engineering VIT, Chennai |
| | Electronic Mail security | IP security | | System Security Hands On | System Security Hands On |

| | Mrs. G.Bhuvaneswari Assistant Professor Department of CSE Tagore Engineering College, Chennai | Mrs. G.Bhuvaneswari Assistant Professor Department of CSE Tagore Engineering College, Chennai | Mrs. S.Bharvathavarthini Assistant Professor Department of CSE Tagore Engineering College, Chennai | Mrs. S.Bharvathavarthini Assistant Professor Department of CSE Tagore Engineering College, Chennai |
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| | Test for Participants Ms.S.S.Bhaviya Assistant Professor, Tagore Engineering College, Chennai-600127 | Group Discussion Ms. B.Selvalakshmi, Assistant Professor, Tagore Engineering College, Chennai-600127 | Presentation by Participants Ms. B.Selvalakshmi, Assistant Professor Tagore Engineering College, Chennai-600127 | Test paper Discussion and Distribution & Valedictory function Ms.S.S.Bhaviya Assistant Professor, Tagore Engineering College, Chennai-600127 |
| 17.07.2022 | | | | Dr.B.Jaishanthi Associate ProfessorTagore Engineering College, Chennai-600127 |

Faculty Development Program

On

"CLOUD COMPUTING"

May 24th to 28th 2021

REGISTRATION FORM

| Name | : |
|----------------|--------------------------|
| Designation | : |
| Gender | : |
| Organization | : |
| Address | : |
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| Academic staff | Research Scholar/Student |

Signature

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Chairperson

PATRONS

Dr. L. Raja, Principal

Dr. D. Sheela, (Prof. & Dean)

Dr. M. A. Paneerselvam, (Prof./EEE)

Dr. S. Surendran (HOD/CSE)

COORDINATOR

Mr.Sudheer Reddy

Organizing Committee

Ms. B. Jaishanthi (Asso. Prof / CSE)

Mr. D. Meenakshi(AP / CSE)

Ms. B. Selvalakshmi (AP / CSE)

FDP : 24th to 28th May

Faculty Development Program

On

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May 24th to 28th 2021

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Department

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Computer Science and Engineering



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RATHINAMANGALAM, CHENNAI-127

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Cloud computing is the biggest buzz in the computer world these days - maybe too big of a buzz. Cloud computing means different things to different people. Cloud computing is not a small, undeveloped branch of IT. Research firm IDC thinks that cloud computing will reach \$42 billion in 2012. You can do everything on the cloud, from running applications to storing data off-site. You can run entire operating systems on the cloud. Cloud Computing aims to provide computing everywhere. It delivers computing resources on demand over the internet in terms of anything anywhere, anytime concept. It provides everything as a service to its users, infrastructure platform software. hardware workplace data, and security.

Cloud computing has made revolutionary transformations in government and business. Cloud Computing transforms the databases and application software into huge data centers, where the management of the services and data may not be trustworthy.

TOPICS COVERED

- Introduction to Cloud Computing
- Cloud Services Model
- · Cloud Deployment Model
- · Virtualization in cloud computing
- · Cloud Infrastructure component
- · Cloud security
- · Cloud Storage and Database
- Cloud Networking
- Cloud Mitigation Strategy
- · Monitoring and Management in Cloud
- Cloud Native Development
- Legal and Regulatory in Cloud Computing

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|------------|--|--|-------|--|---|
| 24.05.2021 | ComputingSystem Models for Distributed and Cloud Computing | NIST Cloud Computing Reference Architecture Dr. Rukmani P Associate Professor Department of CSE, Vellore Institute of Technology, Chennai | | Dr. Jani Anbarasi L Assistant Professor, Department of Computer Science and Engineering | Cloud Infrastructure: Architectural Design of Compute and Storage Clouds – Design Challenges Dr. Jani Anbarasi L Assistant Professor, Department of Computer Science and Engineering VIT, Chennai |
| 25.05.2021 | Taxonomy of Virtual Machines – Hypervisor – Key Concepts Dr. K. Jayashree, Department of Artificial Intelligence and Data Science Panimalar Engineering College chennai | Virtualization structure — Implementation levels of virtualization Dr. K. Jayashree, Department of Artificial Intelligence and Data Science Panimalar Engineering College, chennai | break | Virtualization Dr.S.K.Lavanya Professor Department of Computer Science and Engineering MIT,Chennai | Hardware Virtualization — Virtualization of CPU, Memory and I/O devices Dr.S.K.Lavanya Professor Department of Computer Science and Engineering MIT,Chennai |
| 26.05.2021 | Storage Virtualization – System-level of Operating Virtualization Dr. B.Jaishanthi Associate Professor Department of Computer | Virtual clusters and Resource Management – Containers vs. Virtual Machines Dr. B.Jaishanthi Associate Professor Department of Computer Science and Engineering, Tagore Engineering College, Chennai | | Components – Docker Container Dr. D. Soniya Priyadarshini Associate Professor Department of CSE, MGR University, | Docker Container – Docker Images and Repositories Dr. D. Soniya Priyadarshini Associate Professor Department of CSE, MGR University, Chennai |
| 27.05.2021 | Assistant Professor Department of Computer Science and Engineering, Tagore Engineering College, Chennai | Amazon AWS Dr. B.Selvalakshmi, Assistant Professor Department of Computer Science and Engineering, Tagore Engineering College, Chennai | | Mrs. G.Bhuvaneswari Assistant Professor Department of CSE | Eucalyptus Mrs. G.Bhuvaneswari Assistant Professor Department of CSE Tagore Engineering College, Chennai |
| | Software Developer, Wipro Technologies, Chennai | Virtualization System-Specific Attacks: Guest hopping – VM migration attack - hyperjacking Mr.Sanjay Software Developer, Wipro Technologies, | | Ms. Dixy.F.L Assistant Professor Department of Computer Science and | Identity and Access Management (IAM) - IAM Challenges Ms. Dixy.F.L Assistant Professor Department of Computer Science |

| 28.05.2021 | | Chennai | Tagore Engineering College, Chennai | and Engineering, Tagore Engineering College, Chennai |
|------------|---|---|---|--|
| 29.05.2021 | Test for Participants Ms. Dixy.F.L Assistant Professor, Tagore Engineering College, Chennai-600127 | Group Discussion B.Selvalakshmi, Assistant Professor, Tagore Engineering College, Chennai-600127 | Presentation by Participants G.Bhuvaneswari Assistant Professor Tagore Engineering College, Chennai-600127 | Test paper Discussion and Distribution & Valedictory function Dr.B.Jaishanthi Associate Professor Tagore Engineering College, Chennai-600127 |