

Short Term Course On

Coding Theory and Cryptography: Fundamentals and Applications

13-17 December, 2017

Organized by



Department of Computer Science and Engineering
Indian Institute of Technology (Indian School of Mines)
Dhanbad-826004, Jharkhand, India

Sponsored by

Information Security Education and Awareness (ISEA) Project Phase-II
MeitY, Government of India



Aim:

The course materials would be presented in research oriented manner so that the participants may organize themselves for future research in the field of Coding Theory and Cryptography.

Programme Objective:

The following objectives will be achieved by participants after successfully completing this course.

- To understand the need of coding theory and cryptography during data transmission over the public communication channel.
- To comprehensive understanding with some research issues.

Programme Contents:

Source Coding: Prefix codes, Lempel-Ziv coding, Burrows–Wheeler Transform etc.

Channel Coding: Cyclic Codes, Convolutional Codes, Turbo Codes, and LDPC Codes

Cryptography: PKI-and Identity based Cryptosystem, Key Management etc.

Applications: based on Coding theory and cryptography.

Tentative List of Speakers

Prof. G. P. Biswas, Department of Computer Science & Engineering at Indian Institute of Technology (Indian School of Mines), Dhanbad

Prof. Rana Barua, Stat-Math Unit at Indian Statistical Institute, Kolkata

Dr. Adrish Banerjee, Department of Electrical Engineering, at Indian Institute of Technology, Kanpur

Dr. Sachin Tripathi, Department of Computer Science & Engineering at Indian Institute of Technology (Indian School of Mines), Dhanbad

Dr. Abhay Kumar Singh, Department of Applied Mathematics at Indian Institute of Technology (Indian School of Mines), Dhanbad

Dr. Arup Kumar Pal, Department of Computer Science & Engineering at Indian Institute of Technology (Indian School of Mines), Dhanbad

Date and Venue

December 13-17, 2017 at Indian Institute of Technology (Indian School of Mines), Dhanbad.

Target Participants and Eligibility Criteria

Academic Institutions: Postgraduate Students, Research Scholars and Faculty Members.

Others: Employees of Govt., Public and Private sector having at least a graduate degree holder.

About Location

Indian Institute of Technology (Indian School of Mines), Dhanbad is well connected by rail and road. The institute is located at a distance of about 3 KMs from Dhanbad Railway Station in Jharkhand State.

Registration Fee

There is **no registration fee**. The selected participants will be informed by e-mail.

Accommodation

Limited shared accommodation is available at our institute guest house (i.e known as EDC) on payment basis. The accommodation could be arranged against prior intimation.

Instructions

- ✚ Registration will be on a first come first served basis and limited number of seats are available.
- ✚ Participants are requested to download the registration form available online at institute website and send the scanned copy of the filled in Registration Form via e-mail in order to confirm the participation.
- ✚ Send the scanned copy of registration form to the given Email id: arupkrpal@iitism.ac.in
- ✚ Register online at https://www.isea-pmu.in/event-registration-public?event_no=1428

Contact Details

Dr. Sachin Tripathi, PI ISEA Project Phase-II

Dr. Arup Kumar Pal, Co-PI ISEA Project Phase-II

Dept. of Computer Science & Engineering

Indian Institute of Technology (Indian School of Mines), Dhanbad

Jharkhand-826004, India

Phone: 0326-2235636(O), +919471191359(M) and +91-9470985812(M)

Email: var_1285@yahoo.com and arupkrpal@iitism.ac.in

REGISTRATION FORM

**Short Term Course on
Coding Theory and Cryptography: Fundamentals and Applications**

(13-17 December, 2017)

**Organized by Indian Institute of Technology
(Indian School of Mines), Dhanbad**

Name: _____

Designation: _____

Organization: _____

Gender: _____

Date of Birth (DD/MM/YYYY): _____

Educational Qualification: _____

**Address for
Correspondence:** _____

Mobile No: _____

E-mail ID: _____

Aadhar No: _____

Accommodation Required: (Yes/No): _____

Experience: _____

Teaching: _____

Others (Specify): _____

Date:

Signature of Applicant