Resource Persons

1. **Prof. I. Tomba Singh**
   Ret'd Professor in Mathematics, Manipur University (MU), Canchipur, Imphal
   Presently: Senior Professor of Mathematics, Manipur International University (MIU), Airport Road, Ghari , Imphal
2. **Dr. Salam Samarendra Singh**
   Associate Professor of Mathematics, G.P Women's College , DMU, Imphal
3. **Dr. Th. Ibungomacha Singh**
   Associate Professor of Computer Science & Engineering &HOD, MIT, Manipur
4. **Dr. Ranbir Soram**
   Assistant Professor of Computer Science & Engineering, MIT, Manipur
5. **Dr. Rajeev Rajkumar**
   Assistant Professor of Computer Science & Engineering, MIT, Manipur
6. **Dr. Khoirom Motilal Singh**
   Assistant Professor of Computer Science & Engineering, IIIT, Manipur
7. **Dr. Oinam Bidyapati Chanu**
   Assistant Professor of Computer Science & Engineering, NIT, Manipur

Registration Details

For online registration, follow the program link or scan the QR code:

https://forms.gle/u6bDZywS6ouwhLat8

For offline registration, submit the duly filled registration form to: abom4urs@gmail.com or WhatsApp to +91-8794184615

Registration Fee: *Rs. 1500/-*

Contact Person: Dr. N. Shibiraj Singh

8794184615/7005173958 ✉ *abom4urs@gmail.com*

Chief Patron

Gurumayum Premchand Sharma
Principal, Pravabati College

Patron

Ng. Joyshankar Singh
Assistant Professor & Co-ordinator IQAC, Department of Geology, Pravabati College

Convener

Ningthoujam Shamungou Singh
Assistant Professor & HOD , Department of Mathematics, Pravabati College

Program Co-ordinator

Dr. Ningthoujam Shibiraj Singh
Assistant Professor
Department of Mathematics
Pravabati College

Organizing Committee Members

1. **Khoisnam Ibungo Singh,**
   Assistant Professor of Mathematics
2. **Sanasam Sanathoi Devi**
   Assistant Professor of Mathematics
3. **Dr. Raju Rajkumar Singh,**
   Assistant Professor of Computer Science
4. **Dr. Abujam Santoshkumar Singh,**
   Assistant Professor of Zoology
5. **Dr. Nongmeikapam Sharat Singh,**
   Assistant Professor of Physics
6. **Salam Brajabidhu Singh,**
   Assistant Professor of Statistics

One Week Faculty Development Program

on

"Cryptography: Foundations and its Directions in Research"

15th – 21st January 2024

Sponsored By:
The Directorate of University & Higher Education, Government of Manipur

Organised By:
The Department of Mathematics
Pravabati College,
Mayang Imphal - 795132

PRAVABATI COLLEGE
Mayang Imphal – 795132
(Govt. Aided & NAAC Accredited "B" Grade)

About the College

The Pravabati College was established on 1st December 1981 as a private Co-educational College by Chirom Nimai Singh in fond memory of his mother Smt. Chirom Ongbi Pravabati Devi under the Societies Registration Act. XXI of 1860. The college is located at Mayang Imphal which is at a distance of about 22 km from the state capital, Imphal on the southern corner of Manipur valley in Imphal West district. The college is permanently affiliated to Manipur University Vide order No. 2972 dated the 16th May 2004.

The co-educational college is accredited with B grade by NAAC, Bangalore and was included under section 2(f) and 12-B of the UGC Act, 1956 in 2005 and 2010 respectively. At present, the college is a full-fledged degree college having classes for undergraduate students both in B.A, B.Com & B.Sc streams in 21 disciplines. The college is receiving financial assistance from the UGC since the 11th plan period for its infra-structural development like - indoor stadium, women's hostel, swimming pool, fitness centre etc. and are now within the college campus. The college after 36 years of its establishment received recurring grant-in-aid from the state government in the 19th, December, 2016.

About the Department

The Department of Mathematics has been in existence after 14 years since the inception of this college in 1st December 1981.With the sincere and dedicated efforts of its founder teachers the department of mathematics starts its journey by opening B. Sc. (Gen) in 1995 and B. Sc. (Hons.) Mathematics in 2015. The department aims at providing opportunities for students to explore areas of mathematics outside the classroom and to enhance inter-student communication and co-operation. The goal is to enable students to express mathematical ideas more creatively and to develop their talent while making them confident, capable and responsible human beings.

About the FDP

Overview

Cryptography, which concern with the secrecy that applies complex mathematics and logics to design strong encryption methods. With the advancement of information technology, computer security is much more needed in making communication secure. This leads to an increase reliance on cryptography which provides security features of confidentiality, message authentication and data integrity. These security features are solely depends on the modern cryptosystem which are based heavily on applied mathematics and computer science. The aim is to provide fundamental theory and its research direction in the field of cryptography.

Objectives

- Gain knowledge on basic principles of applied cryptography, including classical cryptography, modern secret key and public key cryptography.
- Identify Research Problems in the area of Cryptography.
- Participants can acquire skills in cryptanalytic attacks.
- Understanding security (attacks and defences) in complex real life systems and the role of keys, cryptographic algorithms and protocols.
- Learn basic techniques to protect data in computer and communication environments against several different varieties of fraud.

Target Participants

This program is open to faculties of institutions affiliated to Manipur University/Other University.

Certification

Certificates will be issued to all the successfully completed participants.

Tentative topics to be covered

1. Overview of cryptology and the Mathematics for cryptology.
2. Classical and modern cryptography.
3. Cryptography and information Security.
4. Stream and Block Cipher.
5. Data Encryption Standard (DES).
6. Public Key Cryptography.
7. Elliptic Curve Cryptography.
8. Digital Signature and IP Security.
9. Cyber security through cryptography.
10. Research Aspects and Directions.

Selection Criteria

Selection will be done based on *first-cum-first-serve basis* and the confirmed candidates will be notified immediately. The maximum number of participants will be **50 (fifty)**. The list of selected participants will be notified in the institute web site www.pravabaticollege.ac.in and also will be sent to their personal *e-mail* ids.

Important Dates

Last date of submission of application: **13th January 2024**
Selection list intimation: **14th January 2024**
Duration of Program: **15th -21st January 2024**

Payment Details for Registration

Payment can be made through bank transfer or GPay

Bank Details:
Account Name: N. Shibiraj Singh
Account No.: 10313114476
IFSC Code: SBIN0018971
Bank Name: SBI, Lilong Branch

GPay No.:8794184615

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