

#### ADVISORY COMMITTEE

Prof S.Ramachandram, Vice-Chancellor, OU  
Prof S.Sameen Fatima, Principal, UCE(A), OU  
Prof P. Premchand, Dean, Informatics, OU  
Prof P. Ramkumar, Dept of CSE, UCE, OU

#### CONVENORS

Dr. K. Veerabhadra Rao, Dept of CSE  
Prof. Venkat Dass Maredu, Dept of CSE

#### ORGANISING COMMITTEE

Mr. S. Ram Babu, Head, Dept of CSE  
Mr. S. Srinivas Rao, Dept of CSE  
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Mrs. K. Jaya, Dept of CSE  
Mrs. C. Vani, Dept of CSE

## "Mathematics for Researchers in Cryptography"

INAUGURAL FUNCTION on 17-04-2017 at 9.15 A.M.  
Chief Guest: **Prof. SAMEEN FATIMA, Principal, UCE, OU**

FOR INAUGURATION ALL PARTICIPANTS ARE REQUESTED TO BE SEATED IN HALL BY 9.10 A.M.

DAYS\TIME	17 <sup>th</sup> April (Monday)	18 <sup>th</sup> April (Tuesday)	19 <sup>th</sup> April (Wednesday)
930 TO 1100	CG	CG	CG
1100 TO 1115	TEA BREAK	TEA BREAK	TEA BREAK
1115 TO 1245	CG	CG	CG
1245 TO 1345	LUNCH BREAK	LUNCH BREAK	LUNCH BREAK
1345 TO 1515	VS	VS	VS
1515 TO 1530	TEA BREAK	TEA BREAK	TEA BREAK
1530 TO 1700	VS	VS	VS

For Details Contact:

**Prof. VENKAT DASS MAREDU**

CONVENOR

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Osmania University, Hyderabad.

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Email : vmaredu@gmail.com

### THREE DAY WORKSHOP

(In Commemoration of Sir Srinivasa Ramanujan)

ON

## MATHEMATICS FOR RESEARCHERS IN CRYPTOGRAPHY

(On the Occasion of Centenary Celebrations)

APRIL 17-19, 2017

FACULTY DEVELOPMENT PROGRAMME  
17-19, APRIL, 2017



Venue

Sir Srinivasa Ramanujan Computing Hall  
DEPT. OF CSE, UCE, OU



Department of Computer Science and Engineering  
UNIVERSITY COLLEGE OF ENGINEERING (A)

OSMANIA UNIVERSITY, HYDERABAD

TELANGANA STATE

## THEME

Mathematics is the pioneer subject for all the disciplines in human history. Computer Science is no exception for this kind of argument; even learned doyens are of the opinion that mathematics is also mother and fathom for Computer Science & Engineering. This course is being organized on the eve of Centenary Celebrations, Osmania University. Hence, on this historical occasion it is a great pleasure to meet all the researchers. Enough emphasis is given to mathematics to improve the skills of research in the field of Cryptography. We have also included the applications of cryptography.



**(SR) Prof.S.Ramachandram,**  
Vice-chancellor



**(SF) Prof. Sameen Fatima**  
Principal,  
University College of Engineering(A),  
Osmania University, Hyderabad – 500 007.



**(VS) Dr. V Srinivas OU**

### Number Theory

- Divisibility
- G.C.D
- Prime and Relatively Prime Numbers
- Testing of Primality
- Euclid's Algorithm
- Modular Arithmetic
- Fermat's and Euler's Theorems
- The Chinese Remainder Theorem
- Applications of Number theory in Cryptographym,Some Examples

## SPEAKERS



**(CG) Dr. C. GOVERDHAN**

Chairperson, Board of Studies in Computer Science  
Department of Mathematics, Osmania University

### ABSTRACT ALGEBRA

- Introduction to Groups, Examples
- Addition and Multiplication Modulos with Examples..
- Homomorphism, Permutations
- Cyclic Groups
- Rings, Types of Rings, Examples
- Fields, Finite Fields, Examples.
- Discrete Logarithm
- Applications in Elliptic Curve Cryptography (ECC)



**(MV) Prof. Venkat Dass Maredu (OU)**  
Relations and Functions



**(KV) Dr.K.Veerabhadra Rao (OU)**  
Examples of Research Problems



## REGISTRATION FORM

### THREE DAY WORKSHOP ON

**(in commemoration of Sir Srinivasa Ramanujan)**  
**MATHEMATICS FOR RESEARCHERS IN CRYPTOGRAPHY**  
**17<sup>th</sup> - 19<sup>th</sup> April 2017**

*Sponsored by:*

**Department of CSE, UCEOU, Hyderabad**  
*on the eve of Centenary Celebrations*

Name : Prof/Dr/Mr/Mrs \_\_\_\_\_

Designation : \_\_\_\_\_

Organization Address : \_\_\_\_\_

Tel : \_\_\_\_\_ Fax : \_\_\_\_\_

Address for Communication : \_\_\_\_\_

Mobile : \_\_\_\_\_

Email : \_\_\_\_\_

Registration Fee : \_\_\_\_\_

D.D.No. \_\_\_\_\_ Dated : \_\_\_\_\_

Drawee Bank : \_\_\_\_\_

Date : \_\_\_\_\_

Place : \_\_\_\_\_

Please e-mail the registration form on or before 15<sup>th</sup> April, 2017.

Signature

### REGISTRATION FEE DETAILS:

STUDENT	Rs. 2000/-
FACULTY	Rs. 3000/-
INDUSTRY	Rs. 5000/-
Last Date for Registration	15 <sup>th</sup> April, 2017

**Intake : 30 only, FCFS is followed**