# **National Institute of Technology Goa**

Farmagudi, Ponda-403 401, Goa

STCC - PA & IS - 2014

## **REGISTRATION FORM**

Name:
Gender: Male □ Female □
Designation:
Qualification:
Department:
Organization:
Contact Address:
Contact No.:
E-mail:
Accommodation required: Yes/No
Details of Registration Fee:
DD No:Date:
Bank:Branch:
Signature of the Applicant
Signature of Sponsoring Authority (if applicable)

# **Organizing Committee**

### Patron

Prof. G R C Reddy Director, National Institute of Technology Goa

#### Coordinator

Dr. Damodar Reddy Edla Asst. Professor, Dept. of CSE National Institute of Technology Goa

## **Co-Coordinators**

Dr. T Veena Asst. Professor, Dept. of CSE National Institute of Technology Goa

Mr. Purushothama B R Asst. Professor, Dept. of CSE National Institute of Technology Goa

# **Correspondence Address**

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# **Highlights of the Programme**

- ➤ Resource persons from reputed institutions like IITs/NITs and Industry/R&D Laboratories.
- Kit with course material and certificate.
- > Free accommodation in student hostels.
- ➤ Free meals (Breakfast, High Tea and Lunch) on all five days.
- > Free trip to some places of Goa on last day of the event.

# **Venue**

Department of Computer Science and Engineering National Institute of Technology Goa, Farmagudi.

## **Short-Term Certificate Course**

on

# Pattern Analysis and Information Security

(30 June - 4 July, 2014)



# Organized by



Department of
Computer Science & Engineering
National Institute of Technology Goa
Farmagudi, Ponda-403 401, Goa

# **About NIT Goa**

The National Institute of Technology Goa (NIT Goa) is an 'Institute of National Importance' established in the year 2010 by an act of parliament (NIT Act 2007). The Institute offers Under Graduate, Post Graduate and Ph. D programmes in three Engineering Departments: Computer Science and Engineering, Electronics and Communication Engineering and Electrical and Electronics Engineering. Also, the Institute offers Ph.D in Mechanical Engineering, Physics, Chemistry, Mathematics, Economics and English. The Institute is sincerely attempting to deliver quality education and to achieve excellence in teaching, learning and research with high professional ethics.

# **About the Department**

Department of Computer Science and Engineering was established along with the stepping stone of the Institute. The department currently offers Under Graduate, Post Graduate and Ph. D programmes leading to the award of B. Tech, M. Tech and Ph. D degrees in Computer Science and Engineering. The department is guided by highly gualified and energetic faculty members with diverse research interests. The department owns three full-fledged laboratories for computing purposes. On research front, the students are exploring innovative ideas in the fields of Data Mining, Information Security, Pattern Analysis, Distributed Systems, Algorithm Design, Artificial Intelligence, Wireless Sensor Networks and many more. In order to match with the fast pacing technologies, various workshops and seminars are being organized by the department throughout the year. Also, to foster unity among all the students of the branch, students have taken an initiative to form a group for computer science as CODE (Computer Science Organization for Developers and Engineers).

# **About the Short-term Course**

The primary objective of this short-term certificate course is to provide insights into different challenges in Pattern Analysis and Information Security. The course structure is designed so as to motivate the research scholars, students, faculty members and industry people towards the fertile areas of Pattern Recognition and Information Security. This course will also provide knowledge about latest innovations in these fields. Broadly, the course contents are as follows.

- 1. Introduction to pattern analysis
- 2. Bayes decision theory
- 3. Parametric density estimation
- 4. Gaussian mixture model
- Sequential pattern classification: Hidden Markov model
- 6. Non-parametric methods for density estimation
- 7. Methods for dimensionality reduction
- 8. Non-metric methods for pattern classification: Decision trees, Classification & regression trees (CART)
- 9. Discriminant analysis techniques
- 10. Regression/ Function approximation
- 11. Pattern Clustering
- 12. Number theory fundamentals
- 13. Foundations of cryptography
- 14. Cryptographic protocols and Provable security framework
- 15. Threshold cryptography for fault tolerant systems
- 16. Cloud computing security
- 17. Key management
- 18. Network and system security.

# **Event Dates**

The five-day short-term course commences on 30<sup>th</sup> June, 2014 and ends on 4<sup>th</sup> July, 2014. The total number of hours of the event will be around 25 including Theory and Practical.

# **Targeted Audience**

- Research Scholars
- Post Graduate Students
- > Faculty Members
- > Industry Persons

# **Registration Fee**

- ➤ ₹ 6000: For faculty members, Industry persons
- ₹ 5000: For research scholars
- > ₹ 3000: For PG/UG students

# **Accommodation**

Accommodation for the participants will be arranged in the student hostels. If any participant wants to stay in hotel near to NIT Goa, the charges shall be borne by the candidate only. However, the participants can contact the course coordinator for details of the nearest best hotels.

# **Instructions**

- 1. The number of seats is limited to 20.
- 2. Registration of seats will be on First Come First Serve basis.
- 3. DD should be drawn in favour of "Director NIT Goa" payable at Goa.
- 4. The deadline for receiving the duly filled in registration form is 20th June. 2014.
- The participants may send an advance copy of the filled in registration form along with scanned copy of the DD to dr.reddy@nitgoa.ac.in in order to confirm the participation.
- 6. Participants have to attend at least 20 hours of the lectures to get the certificate.

# **How to reach NIT Goa**

NIT Goa is located in Farmagudi, Ponda. The Dabolim Airport is about 35 kilometers and the nearest Railway Station at Madgaon is about 20 kilometers from the Institute. The Ponda Bus stand is about 4 kilometers.