

## Instructions

1. Registration will be on First Come First Serve basis.
2. DD should be drawn in favour of "Director NIT Goa" payable at Goa.
3. The deadline for receiving the duly filled in registration form is 1 Aug, 2015.
4. The participants may send an advance copy (scanned) of the filled in registration form along with the DD to [venkatanaresh@nitgoa.ac.in](mailto:venkatanaresh@nitgoa.ac.in) to confirm the registration or it can be remitted by bank transfer and the account details are as follows

Name of the account: DIRECTOR NIT GOA  
Account number: 132800101000653  
IFSC code: CORP001328  
Bank name: Corporation Bank  
Branch code: 001328

## Address for Correspondence

Dr. Venkatanareshbabu Kuppili,  
Asst. Professor, Computer Science and Engineering  
National Institute of Technology Goa  
E-mail: [venkatanaresh@nitgoa.ac.in](mailto:venkatanaresh@nitgoa.ac.in)  
Phone: +91-9049436708 (P).

For further details please log on to: [www.nitgoa.ac.in](http://www.nitgoa.ac.in)

Venue : Department of Computer Science and Engineering  
National Institute of Technology Goa, Farmagudi-403401

## How to reach NIT Goa

The institute is located at Farmagudi which is about 4 km from Ponda, Goa and 29 km south east of Panjim and 25 km from Madgaon. Farmagudi is well connected by road with various parts of Goa, and also with the Dabolim airport. There are regular bus services between Panjim, Madgaon, Dabolim airport and the Madgaon railway station to Ponda.



# REGISTRATION FORM

Name:.....  
Gender: Male/Female.....  
Designation:.....  
Qualification:.....  
Department:.....  
Organization:.....  
Contact Address:.....  
.....  
.....  
Contact No.....  
E-mail:.....  
Details of Registration Fee:.....  
DD No. & Date:.....  
Bank name & Branch.....  
Amount in Rupees:.....  
Signature of the Applicant:.....  
Signature of Sponsoring Authority (if any):.....



## Three day STTP on Recent Trends in Artificial Intelligence for Big data (Aug 7 – Aug 9, 2015)

Organized by



## Department of Computer Science & Engineering

National Institute of Technology Goa,  
Farmagudi, Ponda, Goa-403401  
Website: [www.nitgoa.ac.in](http://www.nitgoa.ac.in)

## SHORT TERM TRAINING PROGRAMME



### On Recent Trends In Artificial Intelligence For Big data

## RTAIB-2015

#### About the Institute

The National Institute of Technology Goa (NIT Goa) is a premier technical Institute of the region. NIT Goa was established in the year 2010 by an act of parliament (NIT act 2007) and it is declared as 'Institute of National Importance'. NIT Goa is an autonomous Institute and functioning under the aegis of Ministry of Human Resource Development (MHRD), Govt. of India. The Institute offers Under Graduate and Post Graduate courses in three Engineering Departments: (1) Computer Science and Engineering (2) Electronics and Communication Engineering and (3) Electrical and Electronics Engineering. The Institute also offers Ph.D. in all these engineering departments. Along with that the Institute also offers Ph.D. programme in Mechanical Engineering, Physics, Chemistry, Mathematics, Economics and English. The Institute admits students into B. Tech program on the basis of ranks obtained in the Joint Entrance Examination JEE (Mains) and the scheme of Direct Admission to Students Abroad (DASA). The institute has been sincerely attempting to deliver quality education and to achieve excellence in teaching, learning and research with high professional ethics. For M. Tech Programme, the Institute admits students through valid GATE score followed by CCMT (Centralized Counselling for M. Tech Admissions).

#### Department of Computer Science and Engineering

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. programs leading to the award of B. Tech, M. Tech and Ph.D. Degrees in Computer Science and Engineering. The department is guided by highly qualified and energetic faculty members with diverse research interests. On research front, the students are exploring innovative ideas in the fertile areas 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.

#### About RTAIB-2015

Big data, so much a part of the digital world, have rendered the scatterplot overloaded with data points or information. AI techniques for small data are insufficient to unmask the underlying relationships in Big data. The term Big data covers the explosion of high frequency digital data in terms of quantity, diversity and heterogeneity. Big data is not just about the large volume of data but it's about the topology of data which comprises of velocity, veracity and value. The main aim of this STTP would be to understand recent trends in Artificial Intelligence for Big data - Architecture and Models, Applications, Algorithms, Open Source Tools and research challenges in Machine Learning especially neural networks, information retrieval and natural language processing.

**\*Note: Hands on sessions on R and Hadoop for Big data shall be conducted by Ms. Vidya Torquato (8 years of experience at Apple Inc.)**

#### RTAIB-2015 objective

Big data is comprised of massive and complex data sets that are difficult to process using traditional database management tools or data mining techniques. The big data challenges include capture, storage, search, sharing, transfer, analysis and visualization. Therefore, in recent years, intelligence exhibited by machines or software i.e. Artificial Intelligence has received wide attention from the technical and business fraternity for big data processing. This course will cover how to process huge amounts of data to uncover hidden patterns, correlations and will demonstrate various technical aspects of big data processing techniques.

It will provide:

- A basic understanding of the issues and problems involved in massive on-line repository systems.
- An insight of currently used techniques that satisfy the needs of such massive on-line systems.
- An indication of the current research approaches, which are likely to be the basis for future solutions.

#### Course outline

This course aims to provide a comprehensive understanding of Big data Analytics, mining massive datasets and data science. Major topics include:

- 1) Small data to Big data era changes
- 2) Needs and necessities for Big data processing
- 3) Heterogeneous node split measure for Big data
- 4) Fast decision tree classifier for Big data
- 5) Map-reduce based decision tree classifiers
- 6) Probabilistic neuron models for Big data
- 7) Fast learning in Multilayer perceptron for Big data applications
- 8) Nature inspired model for computational intelligence
- 9) Spiking neuron models for Big data
- 10) Map- Reduce based Artificial Neural network models for Big data processing
- 11) Spiking wavelet radial basis neural network model for Big data
- 12) Variable assessment test for Big data
- 13) Hands-on session on R and Hadoop for Big data.

#### Eligibility

Faculty members and experts from industry, Research Scholars, UG and PG students from recognized institutions and universities.

#### IMPORTANT DATES

Last Date for Registration: 01/08/2015

Intimation of Selection: 02/08/2015

STTP Date: 7/08/2015 to 9/08/2015

#### REGISTRATION DETAILS

Rs. 4000: For fulltime research scholars, faculty and people from industries.

Rs. 2000: For PG students

Rs. 1000: For UG students

Please note that registration fee includes, kit with course material, certificate of participation, high-tea and lunch.

#### Organizing Committee

##### Patron

Prof. G. R. C. Reddy

Director

National Institute of Technology Goa

##### Coordinator

Dr. Venkatanareshbabu Kuppili

Asst. Professor, Dept. of CSE

National Institute of Technology Goa

##### Resource Persons

Dr. Venkatanareshbabu K (Ph. D, Indian Institute of Technology Delhi)

Dr. Purushothama B R (Ph. D, National Institute of Technology Warangal)

Dr. Veena T (Ph. D, Indian Institute of Technology Madras)

Dr. Pravati Swain (Ph. D, Indian Institute of Technology Guwahati)

Ms. Vidya Torquato (MS, Wayne State University, USA)