

Course Outline and Objectives:

This course serves as a foundational course on probability and statistics. To teach or to understand machine learning, a good knowledge in probability and statistics is required. But most often, both teachers and practitioners do not get a formal exposure to probability and statistics. This course is intended to fill this gap and to provide rigorous training on the fundamentals of probability and statistics required for machine learning.

Course Contents:

Probability spaces and Bayes theorem. Introduction to Bayes decision theory and its application to pattern classification. Random variables and expectation. Inequalities: Markov, Chebyshev, Chernoff bounds and their applications. Sequence of random variables and law of large numbers. Basics of Markov chains and Google page rank algorithm. Introduction to multivariate statistics. Maximum likelihood estimate and introduction to Bayesian statistics and its application to machine learning.

Course Organization:

The course will consist of lectures and tutorial/problem solving sessions.

Faculty:

IISc faculty will deliver the lectures.

Eligibility:

The course is meant for faculty of AICTE – recognized engineering colleges. Selected teachers will be paid TA at actual subject to the limit of Three tier AC train/bus fare by the shortest route from the place of work to Bengaluru and back. **However, the maximum TA payable is Rs.3000/-**. They will be provided with a daily allowance of Rs.500/- per day (for 5 days only) towards boarding and lodging as per QIP rules, and will be supplied with the course materials. **The lodging charges will be Rs.300/- per day. Local participants will be paid DA @ Rs.150/- per day for 5 days.**

A few seats are available for non-sponsored (self-support) teachers, scientists from R&D organisations, practicing engineers from industry and other interested in this course. **A course fee of Rs.10,000/- will be charged to these participants.** This will entitle them to participate in the course and receive the course material. Single room **accommodation** is available on the Institute campus at the **Hoysala House**. The participants have to request in advance along with the registration form for such accommodation. The lodging charges will be **Rs.1000/- per day**, for self-sponsored college teachers and **Rs.1500/- per day** for other participants, subject to availability of accommodation.

CENTRE FOR CONTINUING EDUCATION
Indian Institute of Science
Bengaluru – 560 012

QIP Short Term Course
On
Probability and Statistics for Machine Learning

28 November – 2 December, 2016

Registration Form

(Please mail to reach before 28th October, 2016)

1. Name.....
2. Age:..... Sex: Male/Female
3. Office address
4. Landline No. with STD code:.....
5. Mobile No.
6. Email ID:.....
7. Academic Qualifications
Degree subject year University
Diploma/B.Sc./B.A.....
B.E/B.Tech/M.Sc.
M.E/M.Tech./M.Phil.....
Ph.D. Completed/Pursuing/Intend pursuing:.....
Thesis title/Proposed Research Area:.....

8. Teaching Experience.....(Years)
9. Industry Experience(Years)
10. Courses taught/professional responsibilities.....

11. Accommodation required Yes / No
12. Self-support candidate : Rs. 10,000/-
 Demand Draft No.....
 dated.....

I agree to abide by the rules of the QIP courses. If selected, I shall participate in the course for the entire duration.

Date:
Place:

Signature

The applicant Mr/Ms.....

from our institution will be permitted to attend the QIP Short Term Course on “**Probability and Statistics for Machine Learning**” to be held during **28th Nov. – 2nd Dec., 2016** at the Indian Institute of Science, Bengaluru, if selected. He/she will be granted necessary leave of absence.

Place:

Date:

Signature of Head of the
Department

Signature and Seal of the
Principal of the Institution

(Xerox copy of this form may also be used)

Please mail the filled-in application form to:

The Section Officer
Centre for Continuing Education
Indian Institute of Science
Bengaluru - 560 012
Telephone: 080-23600911, 22932055/2491
Email: [so@cce.iisc.ernet.in/](mailto:so@cce.iisc.ernet.in)
office@cce.iisc.ernet.in

To reach on or before: 28th October, 2016

Intending participants may use the attached application form or a xerox copy of the same. Applicants from AICTE recognized colleges are required to submit their applications sponsored by their colleges.

Non-sponsored (self-support) teacher applicants /others should send their application along with a **DD for Rs.10,000/-** drawn in favour of “**Registrar, Indian Institute of Science, Bangalore-560012**” payable at Bengaluru.

Deadlines:

Receiving completed application: **28th October, 2016**

Intimation of selection: **4th November, 2016**

QIP Short Term Course On

Probability and Statistics for Machine Learning

28th November – 2nd December, 2016

Coordinator

Dr. Ambedkar Dukkipati
Dept. of Computer Science & Automation

Sponsored by
AICTE, NEW DELHI



Centre for Continuing Education
Indian Institute of Science
Bengaluru – 560 012