

## **Five-day Workshop on Stochastic Processes in Engineering Applications**

**by**

**Dr Subhash Chandra Panja**

**Professor**

**Department of Mechanical Engineering**

**Jadavpur University**

Many phenomena connected with materials, processes, products and services are dynamic in nature, besides being affected by chance factor over and above assignable factor. This situation calls for Stochastic Process Models to study such phenomena. To describe, analyse, predict, control and optimise different types of time-varying random phenomena, we need to have working knowledge in some of the commonly used Stochastic Process Models and their solutions.

The objective of this Workshop is to provide participants with a broad understanding of some important Stochastic Processes which are useful in engineering analysis. While complex mathematical derivations will be avoided, insights into the development of each process and potential along with existing applications will be highlighted.

### **Topics to be covered:**

1. An overview of stochastic processes
2. Markov Chain
3. Poisson Process
4. Renewal Process
5. Birth-and-Death Process
6. Brownian Motion
7. Wiener Process
8. Selected Applications

**Dates:** In January 7-11, 2019

**No of Participants:** 20-25 (approx.)

## Five-day Workshop on Stochastic Processes in Engineering Applications

### REGISTRATION FORM

1. Name: \_\_\_\_\_

2. Affiliation: \_\_\_\_\_

3. Educational Qualification: \_\_\_\_\_

4. Address for Communication: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. Telephone Number(s): (O): \_\_\_\_\_  
(M): \_\_\_\_\_

6. E-mail: \_\_\_\_\_

\_\_\_\_\_  
Signature of the Participant

\_\_\_\_\_  
Signature of the Sponsoring Authority (with seal)