

Workshop on Stochastic Modelling and ALM

Date: 5th May, 2014

**Venue: DoubleTree by Hilton Gurgaon-New Delhi NCR Sector 56, Golf Course Road, Gurgaon
Haryana - 122011, India**

Timings: 09:00 am- 06:00 pm

CPD Credit: 4hrs

The Educational Committee has scheduled a Workshop on Stochastic Modelling and ALM

Synopsis

Government regulations and professional standards are requiring the use of stochastic modelling in determining the solvency and capital adequacy of companies, as well as aiming to have a better understanding of the efficient use of economic capital within the firm.

Asset-liability management is one of the main components in understanding the risk of a firm that can be tackled with stochastic modelling.

This course will discuss what is required from stochastic modelling, the governance framework around the modelling and how its results are used, and the technical issues in using stochastic modelling for ALM. The emphasis of the workshop is on the understanding of the stochastic modelling process and its use in ALM. References will be given to sources of detailed knowledge.

Topics:

- Introduction
 - When and why to use a stochastic model
 - Governance procedures
 - Regulatory requirements in different jurisdictions
 - Case studies
- Asset-liability modelling
 - Types of modelling
 - Liability risk factors
 - Asset risk
 - Standard methodologies
 - Duration matching
 - Discount factors
- Statistical methodologies
 - Real world vs risk-neutral approaches
 - Basic probability distributions
 - Correlation and copulas
 - Parameter estimation
 - Bootstrapping
- Monte Carlo simulation
 - Variance reduction
 - Modelling distributions
 - Modelling correlations and copulas
- Applications
 - Economic Scenario Generation
 - Life insurance risks
 - General insurance risks
 - Asset-liability management
- Model validation
 - Calibration
 - Review
- Communication
 - Audience
 - Black-box results?
 - Inherent risks

Who should attend

Anybody involved in the use or creation of stochastic models; recipients of risk reports that use stochastic models; senior managers of quantitative staff; Risk Committee members; regulators.