Institute of Actuaries of India

Unit No. F-206, 2nd Floor, F Wing, Tower II, Seawoods Grand Central, Plot no R-1,
Sector 40, Near Seawoods Railway Station, Navi Mumbai- 400706
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April 30th, 2021

ANNOUNCEMENT

R- THE STATISTICAL SOFTWARE FOR ACTUARIAL EXAMINATIONS- WEBINAR SERIES

I. ABOUT THE PROGRAM

CS1B and CS2B examinations are based on application of R- statistical software where many students find difficulty in scoring of minimum marks. It's a matter of both learning and regular practice to acquire the expected level of statistical modelling skills for an Actuary. There are quite a good number of members who have cleared pre-2019 curriculum without learning R software who also require basic training to develop their skills. Keeping in view of a wider audience in need of guidance and support on a PAN India basis, it may be appropriate to conduct regular and sufficient number of webinars in order to familiarise with R, which eventually will lead to acquire strong modelling skills by all concerned. The Actuarial profession is committed to develop adequate capacity and resources for the market.

Though important concepts in CS1 and CS2 will be referred, the program is not meant to cover all syllabus related objectives. The idea is to create a strong stepping stone for those who want to reach and practice in the R platform. The model of delivery envisages short interactive online workshop sessions of duration of 2 hours each in regular intervals by the expert faculty member. The webinar can also be recorded in the desktop which may be used for guidance to practice to progress in developing models.

II. PROGRAM SCHEDULE:

Webinars will start on 22nd May, 2021 which will be spread over 10 sessions in next 2 weeks, each session of 2 hours duration. The 10 sessions are divided into two parts:

  i. R-BASICS (5 sessions, 10 hours)
 ii. R-APPLICATIONS (5 sessions, 10 hours)

A beginner in R to register for both (a) & (b); those who have already acquired basic knowledge needs to register for (b) only to enhance their capacity and application levels. In order to make it convenient to all employed members, the schedule included all weekend days till 6th June, 2021, four days in a week. Attendees are expected to work on their assignments on a regular basis to maintain the continuity of learning and practice. The program schedule is available in **ANNEXURE-I**

III. REGISTRATION:

✓ **Registration fee- R- BASICS**   : Rupees thousand (**₹1,000.00**) only.
✓ **Registration fee- R -APPLICATIONS**   : Rupees thousand five hundred (**₹1,500.00**) only.
✓ **Registration menu** : Login to IAI >>>Class room coaching>>Registration
✓ **Registration open**   : On 30th April, 2021 6.00PM.

Fellow and Associate members to add 18% GST extra.

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IV. FACULTY

Dr. Raju N. Former Professor and Head, Department of Statistics, University of Calicut.

V. COVERAGES:

i. R-BASICS

- What is R? Why R for us?
- Description and installation of R GUI and its IDEs.
- Packages - meaning, inbuilt, installing & loading more
- Environments in R, Arithmetic in R
- Import and export - various files types(citation needed to finalise list of types such as .csv)
- Help features and functions from packages
- Data and its edition - vector, matrices, data frames, lists, arrays and under them numeric, character, factor, missing cells.
- Graphics - plot(inbuilt function) and ggplot2 package
- Probability and Mathematical statistics (prior knowledge assumed) in R
- Conditional statements - do. call, if else
- R loops(also used to make own function) - for, while, repeat

ii. R-APPLICATIONS

- R loops - apply family
- Statistical distributions
- Simulations based on specific distributions
- Statistical Testing (Hypothesis Tests)
- One way, Two way ANOVA
- Regressions (Linear, GLM)
- Introduction to Time Series Analysis
- Introduction to Machine Learning Algorithms
- Introducing Actuarial Packages (actuar, chain ladder)

VI. BENEFITS OF ATTENDING THE PROGRAM:

- ✓ Unique program to learn R for Actuarial examinations
- ✓ Beginning of learning R, begins to understand similar software like SAS, SPSS etc.,
- ✓ Development of new skill for all future times
- ✓ Interacting with expert faculty
- ✓ Gaining new job opportunities in the areas of data analytics and data science
- ✓ Gaining unique skill in the current employment
- ✓ Subsidised fees.

VII. CONTACT:

Point of contact for all related queries: Vinod Kumar Kuttierath, Head-Education & Training at hoet@actuariesindia.org or 022 6243 3359

Program Schedule

Date	Day	Timings	Webinar
22nd May	Saturday	6.30 PM-8.30 PM	R-Basic
23rd May	Sunday	6.30 PM-8.30 PM	R-Basic
25th May	Tuesday	6.30 PM-8.30 PM	R-Basic
27th May	Thursday	6.30 PM-8.30 PM	R-Basic
29th May	Saturday	6.30 PM-8.30 PM	R-Basic
30th May	Sunday	6.30 PM-8.30 PM	R-Applications
1st June	Tuesday	6.30 PM-8.30 PM	R-Applications
3rd June	Thursday	6.30 PM-8.30 PM	R-Applications
5th June	Saturday	6.30 PM-8.30 PM	R-Applications
6th June	Sunday	6.30 PM-8.30 PM	R-Applications