



# SHORT COURSE ON DATA ANALYSIS USING R & R-STUDIO

## 27 – 28 December 2018, Peradeniya

Applications are called for the above two-day Short Course organized by the Department of Statistics & Computer Science, Faculty of Science in collaboration with Board of Study in Statistics and Computer Science of the Postgraduate Institute of Science (PGIS) to be held at the PGIS during 27 - 28 December 2018.

### COURSE OVERVIEW

R is an open source statistical software which is widely used among statisticians, and researchers in other discipline for statistical data analysis and graphical visualization in recent years. Graphical User Interface packages and Integrated Development Environments associated with R make it an interactive and easy to use alternative to other commercial statistical packages such as MINTAB, SAS or SPSS.

This Short course aims to give an introduction to R, RStudio, and other associated packages for data processing, to perform basic and advanced statistical analysis, to obtain publication quality graphics reproducible research work

### TARGET PARTICIPANTS

Research Students, Academics and Professionals who need a knowledge in Statistics and Statistical Programming in order to conduct Data analysis. Familiarity with basic statistical methods is expected. Experience with any other Statistical Software is desirable, but not necessary.

### RESOURCE PERSONS

Prof. P. Wijekoon      Prof. Y.P. R. D. Yapa  
Dr. S. P. Abeyesundara   Dr. H.T.K. Abeyesundara  
Dr. L.S. Nawarathna.

Department of Statistics & Computer Sc., Faculty of Science, University of Peradeniya

### Day 1: 27<sup>th</sup> December, 2018

- Introduction to R, R Studio, R Notebook and associated packages, Data Management.
- Descriptive Statistics, Visualization techniques,
- Hypothesis testing: One sample and Two sample tests for Mean, Variance and Proportions.
- Analysis of Variance: One-way and two-way ANOVA, Mean separation techniques, Multifactor Designs

### Day 2: 28<sup>th</sup> December, 2018

- Cluster Analysis: K-means clustering and Hierarchical clustering.
- Dimensionality Reduction Methods: Principal Component Analysis and Factor Analysis.
- Categorical Data Analysis: Odds ratio, Logistic regression

### COURSE FEE : Rs. 7000/=

(Includes Tea, Lunch and all workshop materials)

### WORKSHOP COORDINATORS

Prof. P. Wijekoon and Dr. S. P. Abeyesundara  
Department of Statistics & Computer Science,  
Faculty of Science, University of Peradeniya.  
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### APPLICATION PROCEDURE

Download the Application from PGIS website [www.pgis.lk](http://www.pgis.lk) and submit the completed application form with the full payment on or before **21<sup>st</sup> December 2018** to:

Assistant Registrar,  
Postgraduate Institute of Science,  
University of Peradeniya,  
P.O. Box 25, Peradeniya.

For more details,  
Please contact 081-2394793, 081-2394788