



A TRAINING ON STATISTICS AND R BY DR. GOKUL BHANDARI\*

@ DEERWALK INSTITUTE OF TECHNOLOGY, SIFAL, KATHMANDU

## OBJECTIVE

Introduction to (Normal, Chi-sq and F -distribution): The participants will be able to write their own Simulation programs to demonstrate various fundamental distributions underlying statistical theories) For example:

<https://gokul.shinyapps.io/shinyDoc/stat1.Rmd>; <https://gokul.shinyapps.io/shinyDoc/stat2.Rmd> and derivation such as <http://rpubs.com/gokul108/19896>

## TARGET GROUP

- Statistics Faculty Member of colleges and professionals.

## TRAINING METHOD

- Lecture
- Group Work

## COURSE DURATION/DATES

**Enrollment deadline:**15th July, 2016

**Duration:**15hours (3 hours per day for 5 days within 23rd to 30th of July)

## COURSE OUTLINE

- Statistics and the R environment
- Exploring data with graphs
- Exploring model assumptions
- Correlation
- Linear regression
- Logistic regression
- Comparing two means
- Generalized linear models (GLM1)
- Analysis of Covariance (ANCOVA)
- Two way independent ANOVA
- Repeated measures design
- Mixed designs
- MANOVA

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\* Profile of \*Dr. Gokul Bhandari: Please visit, <http://www1.uwindsor.ca/odette/gokul-bhandari>



**Followings will be covered in R**

- 1) Data inputs: Data structure, data input, annotating data set, date function, access data from: EXCEL/ data frame /list, matrix.
- 2) Data management: recoding, treating missing values, merging values selecting observation, time series data management, reshape data (casting...).
- 3) Using functions: in-build statistical mathematical functions, self-created functions (control flow, loops, conditional...), for matrix.

**Followings will be covered in Statistics**

- 1) Hypothesis testing parametric and non-parametric, chi-square test for independence and degree of fit, bootstrapping (?).
- 2) Linear regression: simple, multiple, dummy variable, modeling for time series data, residual analysis and validity tests. (model selection, heteroscedasticity, autocorrelation, multicollinearity ...),
- 3) Non-linear regression: logistic, logit/probit, categorical regression(?).

**FEE STRUCTURE**

- Institutional Enrollment Rs.12000/ participant
- Individual Enrollment Rs. 8000/ participant

**MODE OF PAYMENT**

- Full payment on the day of enrollment.

**HOW TO APPLY**

Registration by email or phone call. Please contact Mr. Pravin Thapalia via email or phone as follows:

- Email: [contact@deerwalk.edu.np](mailto:contact@deerwalk.edu.np)
- Contact Number: 01-4467153/9860422021