PONDICHERRY UNIVERSITY
(A Central University)

R.V. Nagar, Kalapet,
Puducherry-605 014
Phone: +91 0413 -2654726
Fax : 0413-2655865

Hon'ble Vice -Chancellor(officiating)
Prof.(Mrs.) Anisa Basheer Khan

Professor & H.O.D
Department of Commerce
Dr. Malabika Deo

Seven Days Workshop on

Introduction to Research, Parametric and Non Parametric, Regression, Classification and SEM

from 17th to 23rd OCTOBER, 2016

Venue

Department of Commerce,
School of Management

Organised by
Department of Commerce
School of Management
Pondicherry University

ABOUT THE INSTITUTION

Pondicherry University, established under an Act of Parliament in the year 1985, has grown from strength to strength in all possible ways all these years and has become a place of the educational hub of the country. 15 Schools, 37 Departments and 10 Centre's offering 175 PG & Research programs are within its fold and housed in the 800-acre sprawling Wi-Fi-enabled vibrant campus, which is just 12 kms away from the Puducherry town. It has all the state-of-the-art facilities in all the Schools and Departments paving the way for the students to have a student-friendly, result-oriented academic environment with green ambience. The University has made a giant leap in promoting usage of Information & Communication Technology (ICT) products/ services in the areas of teaching / learning, research and administration.

ABOUT THE DEPARTMENT

The Department of Commerce is one of the pioneering departments of SoM, Pondicherry University which came into existence in the year 1986. The mission of the Department is to work as an agent of change for principled, innovative, socially responsible and creative leadership in accounting, finance, taxation etc by providing the highest quality education for present and future business and academic leaders and advance the understanding and practice of commerce through research and outreach. The contribution of the Department in the advancement of Research has been significant through eminent efforts of virtuoso faculty members.

WHY THIS PROGRAMME

Advancements in information technology has given rise to myopic vision of researchers towards statistical methods employed, by using advanced tools of analysis in the form software's ignoring the basic structure and crux of these techniques. Thus making the whole process of research complicated, sometimes leading to flawed conclusions. So keeping these problems in view, department is going to organize the detailed 7 days national work shop to address these problems through expert overlook. This seven-day workshop will train researchers to identify different scales, variables and attributes in research, frame the research questions, develop the Objectives, formulate the hypothesis, test the hypothesis, explore the types of analyses required to perform the Regression Family, Classification and SEM and interpret the results.

REMEMBER
Limited Registrations
on First Come First Serve basis.

WORKSHOP COVERAGE

- **Introduction to research method & methodology and literature review**
- **Sampling techniques and questionnaire designing**
- **Statistical Testing: Parametric Vs Non parametric, power of the test, normality of the test, homogeneity of variance and boot strapping**
- **Parametric test : Selection of topic, research questions, objectives, hypothesis, guidelines for testing, testing the hypothesis based on tools.**
- **Non parametric test: Man Whitney U test, Wilcoxon signed rank test, Kruskal Wallis test and Fried man test**
- **Chi-square test: Goodness of fit test, Independence, Homogeneity and post hoc test**
- **Simple Regression, Multiple regression; Simultaneous & hierarchical regression**
- **Binary logistic regression and multinomial logistic regression**
- **Factor analysis, cluster analysis, discriminant analysis application using SPSS**
- **Structural Equation Modelling: Without latent variables, with unobserved variables.**
- **Confirmatory factor analysis, Exploratory factor analysis**
- **Indirect effect and concept of Mediation.**
- **Multi groups models, Bootstrapping, Latent growth model**

FEE

Fee has to be paid only after the confirmation of your registration The Workshop Registration fee **Rs. 1500/-** can be submitted in the form of Demand Draft drawn in favor of **"Finance officer Pondicherry university"** payable at Puducherry, Participants have to arrange for their own accommodation and travel. Registration Fee: Rs.1500/- includes Workshop kit, Certificate, Lunch & Tea.

Note: Participants should come with laptops with SPSS package for practical purposes.

Convener

Dr.Malabika Deo
Professor and HOD,
Department of commerce

Please contact:

Coordinator-cum Resource person

Dr. (LtCdr) G.Shanmugasundaram,
Associate Professor,
Department of Commerce,
Pondicherry University,
office: +91 0413 -2654726, 91 9843953698.
Mail to: sundaram_g2003@yahoo.com
sundaramg2003@gmail.com

Organizing Committee

Dr.P.Natarajan
Dr. G.Shanmugasundaram,
Dr. D.Lazar
Dr. V.kavitha
Dr.K.B.Nidheesh
Dr.P.S.Velmurugan
Dr.S. Shijin

DEPARTMENT OF COMMERCE
SCHOOL OF MANAGEMENT
PONDICHERRY UNIVERSITY, PUDUCHERRY

Seven Days Workshop On Introduction to Research, Parametric and Non Parametric, Regression, Classification and SEM

17th to 23rd OCTOBER, 2016

VENUE: **Dept. of Commerce, School of Management.**

OBJECTIVES:

1. **To understand different types of variables- independent, dependent, and mediating variables, attributes and selection of appropriate statistical tools**
2. **Students should be able to identify the topic of their own study, research problem, framing the research objective, research hypothesis, selection of variables, setting guidelines for testing the hypothesis, testing the hypothesis and selection of appropriate statistical tools and interpretation of the output.**
3. **Students should be familiar with parametric and non-parametric, regression, classification, SEM and designing of research using quantitative and qualitative data.**

TIME		PROGRAMME
Day- 1	09:45 am to 10:00 am	Inaugural address ***Introduction to research method and methodology, literature review***
Day- 1	11:30 am to 11:40 am	Morning tea and Networking break
Day- 1	11:40am 01:10 pm	***Sampling techniques and questionnaire design.***
Day- 1	1:10 pm to 2:30 pm	Lunch cum Networking break
Day- 1	02:30 pm to 04:00 pm	***Statistical Testing*: Parametric** Vs Non parametric, Power of the test, Normality of the test, Homogeneity of variance and Boot strapping ***Resource Person: Dr (Lt Cdr) G Shanmugasundaram***
Day -1	04:15pm to 05:45 pm	***Parametric test Application:*** selection of topic, research questions, objectives, hypothesis, guidelines for testing, testing the hypothesis based on parametric tools.

		Resource Person: Dr (Lt Cdr) G Shanmugasundaram
Day - 2	09:45 am to 10:00 am	***Chi-square test*:** Goodness of fit test, Independence, Homogeneity and post hoc test. Selection of topic, framing the research questions, setting objectives on the basis of research questions, preparing hypothesis based on the objectives, selection of variables for prepared hypothesis, selection of appropriate tools for analysis, testing the hypothesis, setting guidelines for testing hypothesis on the basis of three type of chi-square test. ***Resource Person: Dr (Lt Cdr) G Shanmugasundaram***
Day - 2	11:30 am to 11:40 am	Morning tea and Networking break
Day - 2	11:40am 01:10 pm	***Non parametric test*:** Man Whitney U test, Wilcoxon signed rank test, Kruskal Wallis test and Fried man test. Selection of topic, framing the research questions, setting objectives on the basis of research questions, preparing hypothesis based on the objectives, selection of variables, selection of appropriate tools for analysis, setting guidelines for testing hypothesis and testing hypothesis based on non-parametric test
Day - 2	1:10 pm to 2:30 pm	Lunch cum Networking break
Day- 2	02:30 pm to 04:00 pm	***Simple Regression:*** What is the line of best fit? What is the beta, what is the positive beta, zero beta, and negative beta? What is standardized beta and un-standardized beta? What are regression coefficients? What are homoscedasticity, heteroscedasticity? What is Explained variation, unexplained variation? ***What is R^2*** and how it is different from adjusted R-square Why might be R-square be less than 1.00? Is R-square<1.00 good or bad? What you need to run a regression? What assumptions are to be considered for running a regression? What do mean by Error terms-independent, what you mean by error terms normally distributed. How to write Hypothesis, interpretation and application in SPSS software ***Resource Person : Dr D Lazar***
Day-2	04:15pm to 05:45 pm	***Multiple regressions:*** What do you mean by linear relationship? Is it important to see the linear relationship to run a simple or multiple regressions? What is collinearity and multicollinearity? Why do you consider about multicollinearity?
Day-3	09:45 am to 10:00 am	***Application:*** How to run Simultaneous regression and hierarchical regression. Preparation of topic, research questions, objectives, hypothesis, selection of variables, guidelines for testing the hypothesis, testing the hypothesis and interpretation based on simple and multiple regression. ***Resource Person: Dr (Lt Cdr) G Shanmugasundaram***
Day-3	11:30 am to 11:40 am	Morning tea and Networking break
Day-3	11:40am 01:10 pm	Introduction to ***Mediation;*** computing, testing and interpreting mediation in regression. Framing the research questions, objectives, and hypothesis, guidelines for testing the hypothesis and testing the hypothesis, interpretations and preparing findings.
Day-3	1:10 pm to 2:30 pm	Lunch cum Networking break

Day-3	02:30 pm to 04:00 pm	Introduction to ***moderation,*** computing, testing and interpreting moderation in regression.
Day-3	04:15pm to 05:45 pm	***Binary Logistic Regression***: Regression on limited dependent variables, binary logistic regression. Running a regression with categorical variables, how you could do econometric with the help of demographic variables. How to prepare topic, research questions objectives, hypothesis, selection variables, guidelines for testing the hypothesis, testing the hypothesis on the basis of binary logistic regression tool. ***Resource Person : Dr D Lazar***
Day- 4	09:45 am to 10:00 am	Writing the hypothesis, testing the hypothesis, interpretation of hypothesis and its applications in the SPSS software.
Day- 4	11:30 am to 11:40 am	Morning tea and Networking break
Day- 4	11:40am 01:10 pm	***Multiple Nominal Logistic Regressions:*** Understand the principles and theory of underlying logistic regression, Understand proportions, probabilities, odds, odds ratios, logits and exponents. Developing ability to frame the topic, research questions, objectives, hypothesis, and selection of variable on tool based analysis. Implementation of multiple logistic regressions analyses using SPSS and accurately interpret the output. ***Resource Person: Dr (Lt Cdr) G Shanmugasundaram***
Day- 4	1:10 pm to 2:30 pm	Lunch cum Networking break
Day- 4	02:30 pm to 04:00 pm	Understand the assumptions underlying logistic regression analyses and how to test them. Finally, to appreciate the applications of logistic regression in educational research, and think about how it may be useful in your own research ***Resource Person: Dr (Lt Cdr) G Shanmugasundaram***
Day -4	04:15pm to 05:45 pm	***Why Factor Analysis?*** If you want to do factor analysis what type of topic, research questions, objectives you want frame. Can you possible to frame hypothesis for factor analysis
Day - 5	09:45 am to 10:00 am	***Application*** in factor analysis
Day - 5	11:30 am to 11:40 am	Morning tea and Networking break
Day - 5	11:40am 01:10 pm	***Cluster analysis***
Day - 5	1:10 pm to 2:30 pm	Lunch cum Networking break
Day- 5	02:30 pm to 04:00 pm	***Discriminant Analysis:*** Discriminant Analysis, how it is different from logistic regression, Assumptions of the Discriminant Analysis, Research Diagnosis and Discriminant Analysis, Canonical Variate Loadings. Proper selection of variable, implement Discriminant Analysis using SPSS and accurately interpret the output.
Day-5	04:15pm to 05:45 pm	***Application of discriminate*** analysis with the help of SPSS
Day-6	09:45 am to 10:00 am	Structural Equation Modelling without latent variables.
Day-6	11:30 am to 11:40 am	Morning tea and Networking break

Day-6	11:40am 01:10 pm	Structural equation modelling with unobserved variables
Day-6	1:10 pm to 2:30 pm	Lunch cum Networking break
Day-6	02:30 pm to 04:00 pm	***Confirmatory Analysis***
Day-6	04:15pm to 05:45 pm	***Exploratory Factor Analysis***
Day-7	09:45 am to 10:00 am	***Indirect effect and concept of Mediation***
Day-7	11:30 am to 11:40 am	Morning tea and Networking break
Day-7	11:40am 01:10 pm	Multi groups models
Day-7	1:10 pm to 2:30 pm	Lunch cum Networking break
Day-7	02:30 pm to 04:00 pm	***Bootstrapping***
Day-7	04:15pm to 05:45 pm	***Latent growth model***

Instructions to participants

1. Classes will start exactly at **09.45 AM** in all the days and end by **5.30 PM** or after.
2. Selected participants should arrange their **travelling plan** accordingly.
3. Lap top with SPSS and AMOS software is **mandatory** for all the participants.
4. Participants should attendfc **all the session** without fail, attendance will be considered in each and every session. In case if they are absent in any of the session that will be specified in the certificate. Therefore, Participant who are interested and are free from all other engagements alone should apply.
5. The **"SPSS data files"** will be sent to selected participants well in advance to the date of workshop. You may clearly mention your **E-Mail ID's**.
6. Participants should arrange accommodation by their **own.**
7. **Only limited seats** are available, registration will be on first come first serve basis. Closing date of admission will be intimated in the University website.
8. Registration fee is **non-refundable** but is transferable for fresh registration of other candidates.

Coordinator & Resource Person
Dr. (LtCdr) G.Shanmugasundaram,
Associate Professor,
Department of Commerce,
School of Management,
Pondicherry University,
Puducherry – 605014
Phone: 0413 -2654726, 91 9843953698.
Mail to: sundaramg2003@gmail.com

Registration Form

SEVEN DAYS WORKSHOP ON INTRODUCTION TO RESEARCH, PARAMETRIC AND NON PARAMETRIC, REGRESSION, CLASSIFICATION AND SEM

(17th to 23rd OCTOBER, 2016)

Kindly fill the form in Capital Letters and send soft copy only to sundaram_g2003@yahoo.com, or **sundaramg2003@gmail.com.**

1. **Name of the Participant:**
2. **Gender (***Put tick mark***) : Male Female**
3. **Designation :**
4. **Qualification :**
5. **Institution :**
6. **Research Stage:** **(Put tick mark)**

Course work	Review of lit.	Data collection	Thesis writing

7. **Mobile No :**
8. **Email Id :**
9. **Mailing Address :**
10. **Fee details :**

Date: **DD No.**

(Signature of the Participant)

Note:

1. Preference will be given to supervisors, professors and Ph.D scholars**.**

2. Fee will be asked to pay only after selection by concerned committee members.

3. No participant will be allowed to attend class without laptops.

4. Only after confirmation, selected candidates will be asked to pay the registration fee and will be asked to send hard copy of registration form along with DD.