



GAUTAM BUDDHA UNIVERSITY

School of Management

A WORKSHOP ON ADVANCED RESEARCH METHODOLOGY AND STATISTICAL ANALYSIS (July 1-7, 2012)

School of management, Gautam Buddha University, Greater Noida is organizing a seven-day workshop to train the participants in Research Methodology, Basics and Advanced Statistical Techniques by providing hands on experience in designing and executing appropriate analytical tools using SPSS.

Objectives of the Workshop:

- ☞ In view of the importance of data analysis in the current scenario, this program is designed to reap maximum benefits through **hands on experience on SPSS**.
- ☞ To enable the participants to define a research problem and develop a suitable methodology for addressing the key issues.
- ☞ To enable the participants to use various data analysis techniques in research: how to design the study; to collect data amenable to such analysis; and the issues involved in coding, editing, analyzing and interpreting the data collected.
- ☞ To focus on major research themes in Finance, Human Resource, Organization Behavior and Marketing etc.
- ☞ To impart the analytical capabilities to the project leaders, business analysts, faculty, research scholars, and post graduate students, who want to enhance the quality of their data analysis capabilities to facilitate decision making and publication.

How this workshop will help?

- ☞ Learn to formulate research problem.
- ☞ Groom participants in research methodology.
- ☞ Develop skills for selecting appropriate statistical tools for the research problem.
- ☞ Facilitate Research Scholars/ Business Analysts in effectively resolving their issues by enhancing the analytical skills.
- ☞ Equips with the analytical knowledge and skills to enhance the quality of work.
- ☞ Enhances managerial ability to apply different types of statistical tools, interpret and use the results for informed decision making.
- ☞ This will also enable the participants to take new projects and to write quality research papers.
- ☞ This workshop will contribute to UGC approved API score.
- ☞ Participant may access valuable E-Journals and Database of their interest from GBU library.
- ☞ Insight into how to write reports based on statistical analysis.
- ☞ Ability to use SPSS for data analysis and project consultancy.

For Whom:

This workshop targets three types of participants:

- ☞ Corporate Executives like business Analysts, research Analysts, Market Researchers, Consumer Researchers and all those who are responsible for helping management to take well informed decisions in solving management problems, by analyzing data and providing actionable insights to their management.
- ☞ Research Scholars who are pursuing their Ph.D. or M.Phil. Degrees and in the critical stage of analyzing their data in the areas of management, commerce, psychology, sociology and other allied disciplines.
- ☞ Faculty members in the said disciplines who are engaged in research and wish to master advanced statistical techniques to dig deeper into their data and to publish of their research papers in scholarly journals of international repute.

Prerequisites for participation:

- ☞ Curiosity to lean research methodology and statistical techniques through action learning and practice.
- ☞ Ability to operate Computer-Windows and MS office package.

Pedagogy:

The workshop will be skill oriented and would emphasize hands on data analysis using SPSS statistical package. Case studies and exercises will be used to complement learning. The programme is based largely through experiential learning of participants. The major focus will be on the effective use of SPSS. The classes will be held in a fully networked and air conditioned computer lab/ classroom and personal attention will be given to each participant. Participants are encouraged to bring their own laptops.

How this workshop is Different?

This workshop will provide concrete theoretical foundation for each technique using jargon free non-mathematical language and **majorly focused on practical training** emphasizing on the interpretation of SPSS outputs and drawing relevant conclusions.

Participation Fee:

S. No.	Category	Fee
1	Students	Rs.5000/-
2	Academicians	Rs.6000/-
3	Industry Professionals	Rs.8000/-

Fee includes the teaching material, one meal (Lunch) and two times snacks. Accommodation on sharing basis will be provided in the university guest house / Hostel at nominal rate of Rs.200/- per day per person inclusive of food or actual expenses whichever is less.

Modes of Payment:

A demand draft of the required amount should be made in the name of "**Gautam Buddha University**" payable at **New Delhi** and the same should reach us on or before **May 31, 2012** to the Organising Secretary at the below mentioned address:

Dr. Dinesh Kr. Sharma / Dr. Satish Kumar
Assistant Professor & Organizing Secretary
School of Management, Gautam Buddha University
Greater Noida, Gautam Budh Nagar (UP)- 201310

The last date for registration: May 31, 2012 by 5:00pm.

Limited numbers of seats (30) are available through registration on the basis of first come first served. The School of Management, reserves the right in selection of the participants.

ABOUT GAUTAM BUDDHA UNIVERSITY:

Gautam Buddha University, established by the Uttar Pradesh Act (9) of 2002, commenced its first academic session at its 511 acres lush green campus at Greater Noida in August 2008. The University envisions to become a world class centre for excellence in education with a special focus to serve the under privileged and economically challenged sections of the society. The campus and is modeled as a fully residential educational campus in line with the best institutions of higher learning across the globe. The uniqueness of its reputation is acknowledged through the format, content and pedagogy of its programmes and their relevance to the society. The University is recognized by the University Grants Commission under UGC Act and is a member of the Association of Indian Universities.



Participants may use the GBU Library (The Bodhisattva Dr. B. R. Ambedkar Library) which is a member of Indian National Digital Library in Engineering, Sciences and Technology (INDEST). GBU has subscribed many E-Journals and Electronic Resources such as:

- ☞ Springer Journals
- ☞ Emerald Journals
- ☞ Science Direct (Elsevier)
- ☞ EBSCO (Business Source Complete)
- ☞ ECCH (European Case Clearing House) Online Cases for Management
- ☞ DELNET (Developing Library Network)
- ☞ Oxford University Press
- ☞ IEEE (Electronic Library)
- ☞ JSTOR
- ☞ Centre for Monitoring Indian Economy (CMIE) off-line Database
 - a) Prowess
 - b) EIS(Economical Intelligence Service)
- ☞ ABI/INFORM Complete (Proquest)

SCHOOL OF MANAGEMENT:

The School of Management commenced its first batch of MBA in August 2008 with 120 students. Since then, it has been marching on with an integrated focus on exploring and creating new avenues for young aspirants through strategic collaborations with institutions and enterprises of national and international repute. SOM has state of the art classroom and computing facilities, supported by an extensive library of books, journals, films and databases, and a meditation centre. All academic programmes of GBU are fully residential. The serene and pollution-free campus, with extensive sports

and co-curricular facilities, is well equipped to meet all the essential requirements of the residents. The curriculum of all its academic activities has international and cross cultural focus. At present, the school offers three programmes in management, which are Masters in Business Administration (MBA) two year programme , Integrated MBA five year programme and Doctoral Programme (PhD) in all areas of business management – Finance, Marketing, Human Resources and Organization Behaviour, Strategic Management, Entrepreneurship, Operations and Information Management.



Workshop - Director:

Dr. Neeti Rana,

Dean, School of Management

Experts:

- ☞ **Prof. Manjula Chaudhary, Director, IITM.**
- ☞ **Dr. R.N. Pandey, ADG (MR) Ministry of Tourism, Govt. of India.**
- ☞ **Prof. S. Chandrasekhar, Professor, FORE School of Management, New Delhi.**
- ☞ **Prof. C.P. Gupta, Professor, Delhi University.**
- ☞ **Dr. Yogesh Upadhaya, Head, School of Management, Jiwaji University, Gwalior.**
- ☞ **Dr. Mohinder Chand, Kurukshetra University, Kurukshetra.**
- ☞ **Dr. Avneet Saxena, Manager, TCS, Bangalore.**
- ☞ **Dr. Brajesh Kumar, Professor, National Institute of Financial Management (NIFM).**

PROGRAMME SCHEDULE

	8:30 – 9:00 AM	9:00 – 10:20 AM	10:35 – 11:55 PM	11:55 – 01:15 PM	2:10 – 3:30 PM	3:45 – 5:05 PM	5:05 – 6:30 PM
July 1, 2012	Registration and Kit distribution	Inauguration Function and Key Note Speech on Relevance and Mileage offered by research	Preparing for Research: <ul style="list-style-type: none"> What is research? Alternatives to Research Attitude Measurement Research Process 	Sponsored Projects: <ul style="list-style-type: none"> How to get Sponsored Research Projects? Finding Research possibility for industry. How to write Proposal for Projects? 	Variables & Measurement: <ul style="list-style-type: none"> Data collection methods Concepts & constructs Quantitative Conceptualization and operationalization 	Introduction to Data Analysis Software: <ul style="list-style-type: none"> Creating Variables Scale of Data Coding Data Entering Data Cleaning Data Concepts & Detection of Outliers 	Reliability and Validity Tests: <ul style="list-style-type: none"> Concept and Difference between Reliability and Validity Practicing these on SPSS.
July 2, 2012	Group Presentation by Participants on first day Learning Points	Review of Literature & Hypothesis Setting: <ul style="list-style-type: none"> How to conduct a Systematic Literature Review? What a good research look like? From Research Questions to Hypotheses Types of Hypotheses Language of Hypotheses 	Hypothesis Setting & Procedures: <ul style="list-style-type: none"> Visiting International research papers to examine the practice. A Case Practice 	Measurement Scales and Questionnaire Design: <ul style="list-style-type: none"> The Value of a Good Survey Instrument Online Survey Methods Measurement Scales- Single and Multiple item Scales Scales and Index 	Statistical Representation of Scores: <ul style="list-style-type: none"> Central Tendency dispersion Shape: Skewness & Kurtosis Relationship between Statistics; Skewness and Central Tendency How to deal with Skewness and kurtosis 	Probability Distribution: <ul style="list-style-type: none"> Frequency Distributions- types and use USE of SPSS in examining distribution pattern. How to normalize the data? Statistical significance, level of significance. Statistical Power 	Hands on Practice: <ul style="list-style-type: none"> Designing suitable questionnaire by taking Hypothetical cases. Practice through Case- lets on Probability Distribution.
July 3, 2012	Group Presentation by Participants on second day Learning Points	Sampling: <ul style="list-style-type: none"> Probability and Non-Probability Sampling Determine the Appropriate Sampling Design Probability Sampling in Indian Context How large should a sample be? Sampling and Non-sampling error. 	Data Management via SPSS: <ul style="list-style-type: none"> Data and Time transformation, Replacing Missing Values, identifying Outliers, Treatment of Outliers, Merge Variables & append cases, Data Validation, Select Cases, Split File 	Data Presentation by using SPSS: <ul style="list-style-type: none"> Table Custom & Multi response tables, Seeing the Relationship Graphs & Charts (Error-bars, Scatter Dots, Box plot), Exporting Graphs, OLAP Cubes, Graph Boards, Summary Statistics, Frequency and Cross Tabs. 	Data Management via SPSS: <ul style="list-style-type: none"> Visual and Optimal Binning, Creating New Variables (Compute functions), Re-code into same/different variables, Syntax Generation & Editing. 	Hypothesis Testing Logic and Procedures: <ul style="list-style-type: none"> Specify Statistical Hypotheses and Significance Levels. Use Sample Statistic to decide the results. Chi-Square test T-Test: one sample, two sample and independent sample t-test. 	Practice for Hypothesis Testing Logic and Procedures using SPSS: <ul style="list-style-type: none"> Case study for practice Interpretation and analysis of the results

	8:30 – 9:00 AM	9:00 – 10:20 AM	10:35 – 12:55 PM	12:55 – 01:15 PM	2:10 – 3:30 PM	3:45 – 5:05 PM	5:05 – 6:30 PM
July 4, 2012	Group Presentation by Participants on third day Learning Points	Inferential Statistics: <ul style="list-style-type: none"> One-way ANOVA Factorial ANOVA Case Study Practicing the technique with SPSS Writing the results of hypothesis testing. 	Inferential Statistics: <ul style="list-style-type: none"> Parametric & Non-parametric techniques of Correlation Linear Regression Regression and Correlation through Graphs. Practicing the technique with SPSS Writing the results of hypothesis testing. 	Introduction of Multidimensional Techniques: <ul style="list-style-type: none"> Application Area Discriminant Analysis for Classification and Prediction Worked Example Interpretation of Computer Output 	Practice Session: <ul style="list-style-type: none"> Case Study-1 (Discriminant Analysis) Case Study-2 (Regression Analysis) 	Multiple Regression: <ul style="list-style-type: none"> Application Area Methods Numerical Example with SPSS Multi-co linearity Multiple correlation Heteroscedasticity Interpretation of Output 	Practice Session: <ul style="list-style-type: none"> Case Study-1 (Multiple Regression) Case Study-2 (Multiple Regression)
July 5, 2012	Group Presentation by Participants on fourth day Learning Points	Logistic Regression for Classification and Prediction: <ul style="list-style-type: none"> Application Area Logit & Probit Numerical Example with SPSS Logistic Regression Versus Linear Discriminant Analysis Interpretation of Output 	Factor Analysis: <ul style="list-style-type: none"> Application Area Methods Recommended Usage Worked Example Interpretation of Computer Output 	Cluster Analysis for Market Segmentation: <ul style="list-style-type: none"> Application Area Methods Recommended Usage Practicing the technique with SPSS Output and its Interpretation. 	Practice Session: <ul style="list-style-type: none"> Case Study-1 (Factor Analysis) Case Study-2 (Factor Analysis) 	Non-Parametric Tests: <ul style="list-style-type: none"> Run Test, Sign Test, Mann-Whitney U Test, Kruskal-Wallis Test, Mann-Kandal Test Practicing the technique with SPSS Output and its Interpretation. 	Practice Session: <ul style="list-style-type: none"> Case Study-1 (Non-Parametric Tests) Case Study-2 (Non-Parametric Tests)
July 6, 2012	Group Presentation by Participants on fifth day Learning Points	Conjoint Analysis for Product Design: <ul style="list-style-type: none"> Application Area Methods Number of Attributes and Levels Number of Combinations Utilities Tables for Conjoint Anlysis Output and its Interpretation. 	Attribute Based Perceptual Mapping Using Discriminant Analysis: <ul style="list-style-type: none"> Application Area Methods Recommended Usage Practicing the technique with SPSS Output and its Interpretation. 	Structured Equation Modeling –I (SEM-I): <ul style="list-style-type: none"> Application Area Confirmatory Factor Analysis (CFA) Tests Used in CFA and SEM Output and its Interpretation. 	Practice Session: <ul style="list-style-type: none"> Case Study-1 (Conjoint Analysis) Case Study-2 (Attribute Based Perceptual Mapping Using Discriminant Analysis) 	Structured Equation Modeling –II (SEM-II): <ul style="list-style-type: none"> Application Area Chi-Square Test in SEM Conclusion from SEM Analysis. 	Practice Session: <ul style="list-style-type: none"> Doubt Clearing Session Assisting in practice in using Statistical Packages
July 7, 2012	Group Presentation by Participants on sixth day Learning Points.	Research Paper Presentation: <ul style="list-style-type: none"> Group-I Group-II 	Research Paper Presentation: <ul style="list-style-type: none"> Group-III Group-IV 	Research Paper Presentation: <ul style="list-style-type: none"> Group-V Group-VI 	Review, Feedback, and Valedictory		

Organising Secretary:

Dr. Dinesh Kr. Sharma & Dr. Satish K. Mittal

Workshop Coordinators:

- ☞ Dr. Manisha Sharma, Asst. Professor
- ☞ Dr. S. Banerjee, Asst. Professor
- ☞ Dr. Ritu Shrivastav, Asst. Professor
- ☞ Dr. Rakesh Kr. Shrivastava, Asst. Professor

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REGISTRATION FORM

Sr. No.	Particulars	Provide details
1	Name of the participant:	
2	Designation:	
3	Organisation/Institute/College/University:	
4	Address:	Mob. No.: E-mail:
5	Participant Category: (please submit a letter from HOD/ or Copy of Student ID Card)	Students/ Academicians/ Industry Professionals
6	Fees paid particulars: DD No: Amount (Rs.): Dated: Name of Bank:	
7	If Accommodation required? a) If yes please indicate the duration b) Days c) Payment particulars @Rs.200/- per day for the duration (inclusive of food & sharing accommodation)	Yes/ No a) From: _____ to _____ b) Days : c) Amount: _____
8	Signature	