

# **GUJARAT TECHNOLOGICAL UNIVERSITY**

(Established Under Gujarat Act No.: 20 of 2007)

# ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)



GUJARAT TECHNOLOGICAL UNIVERSITY www.gtu.ac.in



CENTRE FOR MARKETING EXCELLENCE www.gturesearchcentres.edu.in

A Workshop on Advanced Statistical
Techniques for Marketing Research Using
SPSS

GUJARAT TECHNOLOGICAL UNIVERSITY (GTU), "CENTRE FOR MARKETING EXCELLENCE (CME)" announces "A WORKSHOP ON ADVANCED STATISTICAL TECHNIQUES FOR MARKETING RESEARCH USING SPSS" on 16<sup>th</sup> to 17<sup>th</sup> November, 2013 by Dr. K. Muralidharan, Dr. Raju M. Rathod & Dr. Ritesh K. Patel. The workshop aims to impart knowledge on Advanced Statistical Techniques, Marketing Research, Charts, Hypothesis Testing, Cluster Analysis, Factor Analysis, SPSS, etc.

# **ABOUT THE WORKSHOP**

Statistical data analysis is one of the essential parts of the study in any field specifically in business and economics. Data analytics is one the growing field and there are many opportunities in corporate sector as research analyst for the one who is equipped with data analysis using software skills. The objective of this workshop is to make scholars aware of statistical research methods using SPSS and their application in marketing research. The workshop will be helpful to Ph.D. Scholars in their research work.

Following topics will be covered in the workshop:

### Module-I

- Basics of Statistics
- Measures of Central Tendency, Dispersion & Skewness
- Basics of Probability and Normal Distribution
- Testing of Means & Variances
- Basic Commands of SPSS
- Data Handling, Data Preparation, Missing Value Analysis



### **Module-II**

- Creating & Editing Graph-board Visualizations including SPSS Maps
- Multivariate Techniques
- Factor Analysis
- Principal Component Analysis

### **Module-III**

• Classification and Segmentation Techniques (Cluster Analysis)

### **Module-IV**

- Estimation & Hypothesis Testing: Z, t and chi square test
- Correlation & Regression Analysis

### Module-V

• One Way ANOVA and Two Way ANOVA

### Module-VI

• Discriminant Analysis for Classification and Prediction

### **Module-VII**

- Multidimensional Scaling (MDS) for Brand Positioning
- Attribute-based Perceptual Mapping using Discriminant Analysis

# **RESOURCE PERSONS**

### • Dr. K. Muralidharan

Professor of Statistics, Department of Statistics, Faculty of Science, The M. S. University of Baroda, Vadodara.

### • Dr. Raju M. Rathod

Associate Professor, Department of Management, G. H. Patel Post Graduate Institute of Business Management, Sardar Patel University, Vallabh Vidyanagar, Anand.

### • Dr. Ritesh K. Patel

Assistant Professor, PG Research Centre for Governance Systems, Gujarat Technological University, Ahmedabad.



# GTU - CENTRE FOR MARKETING EXCELLENCE

# DETAILED SCHEDULE

DAY-1: Saturday, 16 <sup>th</sup> November 2013	
Schedule	Time
Registration, Tea & Breakfast	10.30 am -11.00 am
Inaugural Function and Key-note Address	11.00 am - 11.30 am
Module-I	
Instructor: Dr. K. Muralidharan	11 20 01 00
Basics of Statistics	11.30 am - 01.00 pm
Measures of Central Tendency, Dispersion & Skewness;  Paging of Purkshillty and Normal Distribution.	
Basics of Probability and Normal Distribution  Testing of Manya & Manianasa  Testing of Man	
<ul> <li>Testing of Means &amp; Variances</li> <li>Basic Commands of SPSS</li> </ul>	
Data Handling, Data Preparation, Missing Value Analysis	100 100
Lunch Break Module-II	1.00 pm - 2.00 pm
Instructor: Dr. K. Muralidharan	
Creating & Editing Graph-board Visualizations including SPSS	2.00 pm - 4.00pm
Maps	2.00 pm - 4.00pm
Multivariate Techniques	
• Factor Analysis	
Principal Component Analysis	
Tea Break	4.00 pm – 4.30 pm
Module-III Instructor: Dr. K. Muralidharan	
Classification and Segmentation Techniques (Cluster Analysis)	4.30 pm - 5.30 pm
DAY-2: Sunday, 17 <sup>th</sup> November 2013	
Schedule	Time
Tea & Breakfast	10.30 am – 11.00am
Module-IV	
Instructor: Dr. Raju Rathod	11.00
• Estimation & Hypothesis Testing: Z, t and chi square test	11.00 am- 1.00 pm
Correlation & Regression Analysis	
Lunch Break	1.00 pm – 2.00 pm
Module-V	
Instructor: Dr. Raju Rathod	2.00
One Way ANOVA and Two Way ANOVA	2.00 pm -3.00 pm
Module-VI	
Instructor: Dr. Ritesh Patel	2.22
Discriminant Analysis for Classification and Prediction	3.00 pm -4.00 pm
Tea Break	4.00 pm- 4.30 pm
Module-VII	
Instructor: Dr. Ritesh Patel	1.20 5.20
<ul> <li>Multidimensional Scaling (MDS) for Brand Positioning</li> <li>Attribute-based Perceptual Mapping using Discriminant Analysis</li> </ul>	4.30 pm -5.30 pm
1 11 1	

# **BRIEF PROFILE OF SPEAKERS**



**Dr. K. Muralidharan** is currently working as Professor and Head of department of Statistics, Faculty of Science, The Maharajah Sayajirao University of Baroda, Vadodara. He is also the Director of Population Research Centre, MSU Baroda. He has obtained his MSc degree in Statistics from Calicut University, Kerala; MPhil and Ph.D. in Statistics from Sardar Patel University and has completed Post Doctoral Fellowship from Institute of Statistical Science at Academia Sinica, Taiwan. He is an internationally qualified Six Sigma Master Black belt from Indian Statistical Institute, Bangalore. He has about twenty two years of teaching and research experience and has guided about five research students

for doctorate degree. He has over eighty publications in international and national journals. He is the Coordinating Editor of Journal of Probability and Statistical Science published from Taiwan, Associate Editor of Journal of Indian society for Probability and Statistics published from India, Associate Editor of International Journal of Mathematics, Statistics and Operations Research published from Singapore and Associate Editor of Investigations in Mathematical Science published from India. He has won number of awards and fellowships including the Commonwealth Academic Fellowship sponsored by British Council, UK. Recently, he was awarded Young emerging future leader of Quality and Reliability by Society for Reliability Engineering, Quality and Operations Management (SREQOM), Swedan. Recently, He has published a book entitled "Statistical Methods for Quality, Reliability and Maintainability" (ISBN-978-81-203-4543-0 wtih PHI learning Pvt. Ltd, New Delhi. This book is a blend of three disciplines, namely: management, science and engineering and can be very useful for Six Sigma consultants and practitioners besides Statistics and Mathematics students.



**Dr. Raju M. Rathod,** MBA (Gold Medallist, 2001) is having specialization in Marketing Management. He has worked as Assistant Professor at P.G. Department of Business Studies, Sardar Patel University, Vallabh Vidyanagar for 9 years. Presently he works as Associate Professor, at G.H. Patel P.G. Department of Business Management (MBA), Sardar Patel University for last two year. He is also delivering lectures as visiting faculty in M.Sc. Home Science. He is also recognized Ph.D guide in Management and M.Phil guide in Commerce. He has also passed the UGC-NET exam in Management Subject. He earned the degree of Ph. D in the area of Retailing from MBA Department, Sardar Patel

University. He has attended Faculty Development Programme from Indian Institute of Management Ahmadabad (IIM-A), Ahmedabad in 2009. He has done certificate course in SPSS from P.G. Department of Statistics, Sardar Patel University. He has also contributed dozen of papers in leading national level journal and magazines His book on "Encouraging Stories of Successful Entrepreneurs" is published by Sardar Patel University Press.



**Dr. Ritesh K. Patel** is currently working as Assistant Professor at PG Research Centre for Governance Systems at Gujarat Technological University (GTU), Chandkheda, Ahmedabad. He has gained his MBA degree in Marketing from Hemchandracharya North Gujarat University, Patan; Ph.D. in the area of Marketing from Sardar Patel University, Anand; Cleared University Grants Commission (UGC), National Educational Testing Bureau (NET), 'National Eligibility Test for Lectureship' in the subject of Management. Prior to joining GTU he has worked as Academic Associate with Indian Institute of

Management Ahmedabad (IIM-A); He has also worked as Assistant Professor at Institute of Law, Nirma University. He also poses five years of industry experience at Managerial Level in the area of Marketing. He has presented several research papers in various national and international level conferences. His research papers have been published in various referred journals of national and international repute. Based on his thesis he has published a book (Patel Ritesh K & Patel Rajnikant P (2012), Brand Management in Retail Banking, LAP LAMBERT Academic Publishing, Deutschland/Germany, ISBN: 978-3-659-27382-7, available on: https://www.morebooks.de/). His area of consulting and teaching are Branding, Advertising, Transnational Marketing, Consumer Value, and Retailing.



## REGISTRATION PROCESS

**Dates:** 16<sup>th</sup> to 17<sup>th</sup> November, 2013 (10.30 am to 5.30 pm). **Venue:** GTU Chandkheda Campus.

**Registration:** Entry is free and for registered Ph.D. Scholars only of GTU using online registration link mentioned at the end.

Seats: Only 50 Seats available on first-cum-first serve basis using online registration link mentioned at the end.

### **Important Instructions for Participants:**

- The participants will be acknowledged about their seating arrangements and conformation of their seats via e-mail.
- The certificate of participation will be issued only after successful completion of the workshop.
- Participant may bring their personal laptops with pre-installed SPSS for effective practical learning. Trial versions are available online on: <a href="https://www.ibm.com">www.ibm.com</a>
- Once registered, it is not possible to cancel the registration. However in case of any emergency participant needs to inform about the vacant seat immediately via e-mail to below mentioned contact persons. So that others can benefit from the workshop.

### **Contact Persons:**

- Ms. Krishnaba Parmar,
   Assistant Professor, PG Research Centre for Marketing Excellence,
   Gujarat Technological University (GTU),
   E-mail: ap2\_cme@gtu.ac.in, Direct: (079) 23267514, Personal: 9687822802
- Dr. Ritesh K. Patel,
   Assistant Professor, PG Research Centre for Governance Systems,
   Gujarat Technological University (GTU),
   E-mail: ap\_cgs@gtu.edu.in, Direct: (079) 23267585, Personal: 9687100199

### Kindly register your seats on the following link:

https://docs.google.com/forms/d/1KNrtFaA0\_nCsrw3YScZZstAe4GsVFw5zNmDjc3ztB4/viewform?edit\_requested=true

Registration opens on: Friday, 11<sup>th</sup> October 2013. Registration closes on: Monday, 28<sup>th</sup> October 2013.



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### **CHANDKHEDA CAMPUS**

Nr. Vishwakarma Government Engineering College, Visat - Gandhinagar Highway, Chandkheda, Ahmedabad – 382424 – Gujarat. Phone: 079-23267500, Fax: 079-2630 1500.

