



*NATIONAL WORKSHOP  
ON  
STRUCTURAL EQUATION MODELING*

**11<sup>th</sup> February - 17<sup>th</sup> February, 2017**



**Organized By:**

**University School of Applied Management  
Punjabi University, Patiala - 147002**

## ABOUT UNIVERSITY SCHOOL OF APPLIED MANAGEMENT

The University School of Applied Management (USAM) was established at Punjabi University, Patiala in the year 2011 to cater to the needs of modern day business and industry. The focus of five year integrated MBA is to prepare the students for an alternate career in business and industry of the 21<sup>st</sup> century. The main feature of the programme is concentration on the sectoral areas like banking and insurance, financial markets, digital marketing, retail marketing, leadership and corporate entrepreneurship, etc. The programme makes a difference in terms of skill development of the students, teaching pedagogy and evaluation pattern with main focus on continuous appraisal of the students. There is a provision of workshops on soft skills, personality development, communication skills and development of presentation skills of the students. The school also emphasizes upon various interdisciplinary subjects like democracy governance, world history in 21<sup>st</sup> century and fundamentals of sociology, to prepare the students for the new age jobs of the present day global and domestic business.

## ABOUT THE WORKSHOP

There has been a continuous emphasis on research, publications and training for faculty and research scholars. With the ever changing business and economic environment, customer taste and preferences, not only academics but business organizations have also felt the need for identifying and analyzing the rich and meaningful business and consumer data. Therefore, this training on statistical tools using Statistical Package for Social Sciences (SPSS) software and AMOS would greatly benefit in enhancing research and publications skills of the faculty members and researchers alike. This workshop will be conducted in a highly interactive manner, with greater emphasis on giving participants hands-on experience in handling, analyzing and interpreting different datasets for modeling and forecasting.

## RESOURCE PERSONS

The course content will be delivered by the subject experts from reputed academic institutes having core competency in the Structural Equation Modeling (SEM). Besides, experts from industry will supplement the practical aspects of the course content.

## TARGET AUDIENCE

The program is designed for research scholars, faculty members of business schools, industrialists interested in doctoral or other research work in the area of management (and other behavioral science areas such as Marketing / HR / Commerce / Applied Management / Psychology / Sociology / Public Administration etc.). This workshop will also be useful for teaching courses in research methodology, marketing research and other research oriented courses. Project leaders, research professionals and managers from interdisciplinary fields in industry could also participate.

## HOW TO APPLY

There are only 50 seats for participants in the workshop. The number of seats have been kept restricted with an idea to make it a focused and convenient interaction. Interested candidates are requested to send their nomination to the workshop co-ordinators latest by 4<sup>th</sup> February, 2017 through Registration Form in prescribed format (attached at the end) along with a Demand Draft of the requisite amount in favor of '**Advanced Techniques for Research**' payable at Patiala. Participants are requested to confirm the availability of seats well in advance before making any payment. The communication for this purpose can be made at [usamworkshop@gmail.com](mailto:usamworkshop@gmail.com). The selection will be based on first come first serve

**Fee can also be paid through NEFT/IMPS to the following bank account:**

Account Number : 65274773021

Account Name : Advanced Techniques for Research

IFSC Code : STBP0000009 (State Bank of Patiala, Punjabi University Branch, Patiala)

## REGISTRATION FEE

**Rs. 5,000\***

**\* Fee includes daily lunch and tea/refreshment during workshop.**

Accommodation will be charged extra and will only be provided to outstation participants (on twin sharing basis) in the university guest house/hotel, subject to availability of rooms and as per university/hotel rates. Participants interested for the accommodation should send a request mail to the workshop co-ordinators in advance.

## IMPORTANT NOTE FOR PARTICIPANTS

Participants are requested to bring their own laptop along with them. No laptops / PCs will be provided by the organizers. A certificate of participation will be issued for attending the workshop. Full attendance is mandatory.

# TENTATIVE TECHNICAL SCHEDULE

## Day 1

Research Process, Types of Research,  
 Concept of Measurement (Metric and Non-Metric), Reflective and Formative Scales  
 Objectives and Hypothesis Formulation in Research  
 Data Processing and Data Cleaning  
 Pathway to Statistical Analysis  
 Practical Sessions on Data Processing and Data Cleaning

## Day 2

Simple and Multiple Linear Regression  
 Exploratory Factor Analysis

## Day 3

Introduction to Partial Least Squares (PLS)- SEM.  
 Concept of Reliability and Validity  
 Differentiation between SEM and PLS-SEM.  
 Working with the Smart PLS graphics.  
 Practical Session on PLS SEM.

## Day 4

Introduction to AMOS  
 Path Analysis in AMOS  
 Basics of CFA; Differentiation between EFA and CFA  
 Hands-on Session on CFA

## Day 5

Testing Reliability and Validity in CFA  
 Various Statistics of CFA: Measurement Model and Model Fit  
 First-order and Second order CFA.  
 Prerequisites of SEM : Common Method Variance.

## Day 6

Structural Model  
 Higher-Order Effects: Moderation and Mediation.  
 Moderated-Mediation Analysis  
 Hands-on Session on SEM

## Day 7

Misc. Topics in SEM, Report/Research Paper Writing  
 Discussions & Valedictory

<b>First Session</b>	:	<b>09:30 - 11:00</b>
<b>Tea Break</b>	:	<b>11:00 - 11:15</b>
<b>Second Session</b>	:	<b>11:15 - 01:00</b>
<b>Lunch Time</b>	:	<b>01:00 - 02:00</b>
<b>Third Session</b>	:	<b>02:00 - 03:30</b>
<b>Tea Break</b>	:	<b>03:30 - 03:45</b>
<b>Fourth Session</b>	:	<b>03:45 - 05:30</b>

## ORGANISING COMMITTEE

### WORKSHOP DIRECTOR

**DR. MANJIT SINGH**

PROFESSOR & HEAD

Email: [smanjitt@gmail.com](mailto:smanjitt@gmail.com)

Contact No: 98558-24622

### CHIEF CO-ORDINATOR

**DR. SARANG NARULA**

ASSISTANT PROFESSOR

Email: [sarangnarula@gmail.com](mailto:sarangnarula@gmail.com)

Contact No: 98156-57333

### CO-ORDINATORS

**RAJDEEP SINGH**

Email: [rajdeep.srcc@gmail.com](mailto:rajdeep.srcc@gmail.com)

Contact No: 99886-29630

**JATIN GOYAL**

Email: [jatin2goyal@gmail.com](mailto:jatin2goyal@gmail.com)

Contact No: 81462-23355

### FACULTY MEMBERS OF THE DEPARTMENT

**DR. RITU LEHAL**

PROFESSOR

**DR. KAPIL SHARMA**

ASSISTANT PROFESSOR

**DR. NIDHI WALIA**

ASSISTANT PROFESSOR

**DR. RAVI SINGLA**

ASSISTANT PROFESSOR

**DR. NIMARTA MANN**

ASSISTANT PROFESSOR

**DR. HARSIMRAN KAUR**

ASSISTANT PROFESSOR

**DR. SULAKSHNA DWIVEDI**

ASSISTANT PROFESSOR

**MS. BANDHANPREET KAUR**

ASSISTANT PROFESSOR

**MR. GAGANDEEP SINGH**

ASSISTANT PROFESSOR

## COMMUNICATION DETAILS

### DR. SARANG NARULA

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### NOTE

Last Date for Registration  
is 4<sup>th</sup> February, 2017.