International Winter School- Manipal University Jaipur [IWSMUJ]-2023

[Hybrid Mode]

Course/Project Overview

Name of Course/Project -SEM Analysis using SmartPLS HANDS ON

Name of instructor: Dr. Vaibhav Bhatnagar, Dr. Devershi Pallavi Bhatt, Dr. Shilpa Sharma
Session: Jan.-Feb. 2023
Language of instruction: English
Number of contact hours: 36
Credit awarded: 03

Objective of Course/Project

- Use all of the various features and reports associated with the four primary estimating algorithms built into SmartPLS 3.0 software
- Understand how to specify, model, estimate and interpret PLS path model parameters for direct, indirect, total, group difference, mediating and moderating variables

Syllabus:

Introduction to level of data, look and feel of Software, Features of SmartPLS, Functions of SmartPLS, Validation of data, Drawing the model, model window, handling missing data, data errors, Bootstrapping algorithm, Blind folding, calculating effective size, PLS algorithm, Initial weights, Mediation, extension of simple mediation, complex mediation, moderation, moderation in path models. Product indicator, introduction to second order latent.

Organization of Course

Total contact hrs 36		
1st week:	10 hrs (classes)	2 hrs (self-study/project)
2nd week:	10 hrs (classes)	2 hrs (Mid-term exam/assessment/discussion)
3rd week:	10 hrs (classes)	2 hrs
4th week:	6 hrs (Classes)	2hrs (End term exam)

Mode of lectures: Hybrid mode lecture and hands-on

Course/Project Plan

Lecture no.	Topic	Lecture mode	Instructor
L: 1-3	Introduction to level of data, look and feel of Software	Online/ Offline	Dr. Devershi Pallavi Bhatt
L: 4-5	Features of SmartPLS, Functions of SmartPLS	Online/ Offline	Dr. Shilpa Sharma
L: 6-7	Validation of data, Drawing the model	Online/ Offline	Dr. Vaibhav Bhatnagar
L: 8-11	model window, handling missing data	Online/ Offline	Dr. Devershi Pallavi Bhatt
L:12-13	Data Errors, Bootstrapping algorithm, Blind folding	Online/ Offline	Dr. Shilpa Sharma
L:14-15	calculating effective size, PLS algorithm	Online/ Offline	Dr. Vaibhav Bhatnagar
L: 15-19	Initial weights, Mediation, extension of simple mediation	Online/ Offline	Dr. Devershi Pallavi Bhatt
L:20-21	Complex mediation	Online/ Offline	Dr. Shilpa Sharma
L: 22-25	moderation, moderation in path models	Online/ Offline	Dr. Vaibhav Bhatnagar
L: 26-30	Product indicator	Online/ Offline	Dr. Devershi Pallavi Bhatt
L: 31-34	introduction to second order latent.	Online/ Offline	Dr. Shilpa Sharma
L: 35-36	NFL Example	Online/ Offline	Dr. Vaibhav Bhatnagar

Brief profile of the instructors

1. Dr. Vaibhav Bhatnagar

Dr. Vaibhav Bhatnagar is working as an Assistant Professor (Senior Scale) in the Department of Computer Applications, Manipal University Jaipur. He achieved Gold Medal in Graduation, Silver Medal in Post-Graduation. He is one of the youngest persons who completed their Ph.D. in Information Technology in Rajasthan. His current google citation is 250. His research interests are in the field of Data Science and Machine Learning. He has expertise in R, Orange, Tableau and Medcalc. He has published more than 20 research papers is SCI, Scopus, Web of Science, etc indexed Journal. He has also completed and submitted research projects funded Department of Science and Technology. He is also supervising Ph.D. Scholars.

2. Dr. Devershi Pallavi Bhatt

Presently working as Professor and Head in department of Computer Applications, Manipal University Jaipur, Jaipur from July 2016. Previously worked for reputed institutes like Banasthali Vidyapith, Niwai, Tonk; Pune University, Pune; Punjab Technical University for last 14 years. One Ph.D. in Computer Science and Engineering has been awarded under her guidance, Supervising Four Ph.D. scholars in Manipal University Jaipur in the area of IoT, Information and Network Security, Image and Video Forensics and Augmented Reality. Published around 30 National/International research publication in Indexed Journals and Conferences of repute. Acted as keynote and keynote speaker in various platforms National and International including Bureau of Indian Standards. Presented in reputed platforms in India and abroad including NITs and IITs.

3. Shilpa Sharma

Dr. Shilpa Sharma is presently working as Associate Professor in the department of Computer Applications at Manipal University Jaipur. She has completed her PhD (Computer Science) in 2013 in Software Engineering. She has done her MCA in the year 2006. She has around 16 years of rich experience in academics and 9 years of post-PhD experience. She has more than more than 30 publications in International / national journals/conference proceedings. Her research interests include Software Engineering, AI and its applications and Image Processing. She has guided 3 PhD and guiding 3 PhD students in Deep Learning and Cyber Security. She is also member of reviewer board of various journals and technical program committee of several reputed conferences.