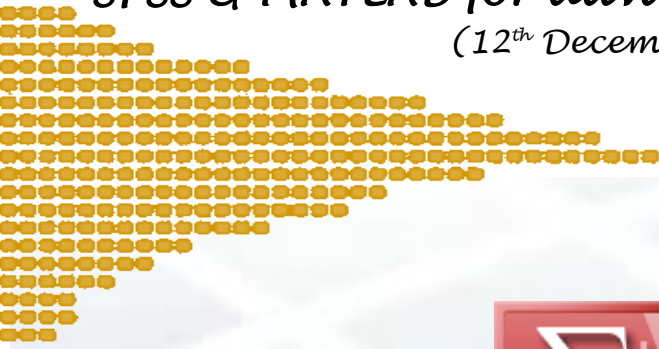A report on

A three day workshop on
"SPSS & MATLAB for advances in Engineering & Technology"
(12th December to 14th December, 2013)

Presented By: Varsha Raina & Dhruv Vyas

Organized By:

B.V.M Engineering College, VV Nagar

CEPT & ISTE

Technical workshop of

"SPSS & MATLAB for Advances in Engineering & Technology",

BVM Engineering College, VV Nagar

A Three Day Technical workshop on **SPSS & MATLAB for Advances in Engineering & Technology** was held from 12[th]December to 14th December, 2013 jointly organized by Department of Civil and Structural Engineering, BVM Engineering College, VV Nagar with the valuable support from CEPT & ISTE.

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 of the growing fields 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 was to make research scholars aware of statistical research methods using SPSS and their application in marketing research. The workshop was helpful to research scholars in their research work.

The workshop was attended by the students of Post-Graduate stream of Civil and Structural Engineering Department of B.V.M. Engineering College and M.S. University. The main objective of the said workshop was to make the students aware of the SPSS &MATLAB software as a tool for analysis of construction related data and its various practical application in the Construction Industry. This workshop aimed to involve research scholar with their respective project where they can get real experience of essential dimensions of Research using Statistical Techniques, Marketing Research, Charts, Hypothesis Testing, Cluster Analysis, Factor Analysis, SPSS, etc.

Inaugural Session:

The Workshop was chaired by Prof. F. S. Umrigar, Principal BVM College. Prof. A. K. Verma, Head, Structural Engineering Department. Prof. D.K. Vyas, Civil Engineering Department, Prof. (Dr.) Tirupti Dave, Head, Humanity & Science Department, Program Convener Prof. Indrajit Patel & Prof. J.J Bhavsar were present dignitaries on the dias. Prof. A.N. Rohilgar, Prof. (Dr.) Tirupti Dave and Prof. V.G. Khambolja were the distinguished experts. Prof. J.R. Pitroda, Civil Engineering Department & Mrs. Jagruti Shah as the program coordinators and 30 participants from various institutes attended the workshop.

Ms. Varsha Raina, student coordinator welcomed all invitees & participants in the workshop. The function was inaugurated with prayer & lighting the lamp. She requested Prof. (Dr.) Indrajit Patel to share his view on this occasion.

Dr. Indrajit Patel gave us an overview and insights into program and how students would benefit from this workshop and will get a strong foundation for their career ahead.

Dr. F. S. Umrigar, Principal, B.V.M. Engineering College talked about the new software along with the course curriculum are necessary to learn to be updated with the current theme of the learning world.

At the end of inaugural session, vote of thanks was given by Prof. J.J. Bhavsar, highlighting the immense contribution of the organizers, Civil & structure Department, CEPT & ISTE for their valuable support to the workshop.

<u>Workshop conduct</u>:

The workshop, handled by workshop coordinators, was conducted for three days with finesse as the expert speakers gave us a background to begin with as to how the software is related to the studied theory. They also taught and explained the students the various functions of the software.

The entire workshop was divided into theory and practical session with the former taken first. The total theory and practical sessions conducted were 8 and 7 respectively. Various test like T-Test, Linear Regression Modelling, Analysis of

Quantitative and Qualitative Data. In the practical session assignments of covered theory portion enhanced the students learning and cleared their doubts, if any, making them well conversant and at ease with the software.

One session was taken by Mr. Ashish, Student- CEM covering many aspects of SPSS software mainly Frequency Distribution Method, Chi Square Test Independent Sample T-Test, Regression Modelling focusing on Experimental data forecasting. These methods were illustrated by him in the applications in construction industry such as Auto-clave Aerated Blocks, Ready Mix Concrete and Industrial Waste.

The expert insights into MATLAB was provided by Prof. (Dr.) Sanghvi of GCET Engineering College focusing on the practical applications of "for-loop programming" in highway, over bridges, underpass and road industry.

The workshop was well appreciated by the students from the institutes outside as well as within the college.

<u>Valedictory Session:</u>

The workshop was concluded with the valedictory session, with the certificate distribution ceremony. The concluding address was given by Dr. Indrajit Patel highlighting that such workshop need to be taken more with great enthusiasm and vigour. He stressed that student's participation and initiative is the key to the conduct of such successful workshop.

Dr. L.B. Zala emphasized that the learnt statistical tool is currently being used in the transportation industry and helpful in the generation of graphical models. He said that the CEPT initiative and support helps us in the conduct of many such workshop.

Dr. A.K. Verma drove home the point that the research tools can enhance the researcher's knowledge and thus can facilitate and support the theory and field experience.

The workshop ended with the students and experts feedback and vote of thanks by Prof. J.J. Bhavsar, thereby, acknowledging the various efforts of the contributing organisations, faculty and non-faculty members, and lastly with the National Anthem.