



**BMS**

**INSTITUTE OF TECHNOLOGY AND MANAGEMENT**

**Avalahalli, Doddaballapura Main Road, Yelahanka, BENGALURU-64**

**DEPARTMENT OF MATHEMATICS**

**Open course on  
Engineering Optimization Techniques with Real Life  
Applications  
12<sup>th</sup> - 16<sup>th</sup> February, 2019**

The Five days open course on “**Engineering Optimization Techniques with Real Life Applications**” organized by the department of Mathematics is held during 12<sup>th</sup> - 16<sup>th</sup> February 2019. There were 68 students from various branches who registered for the open course.

The course started with the introduction to Operations research and overview of optimization with real life applications using various techniques by Mr. Muneshwara M S. In this session he explained the history of Operations research and discussed various techniques. The second session was handled by Dr. Jojy Joseph Idicula where she taught the concept of Linear programming problem with graphical solution.

The second day started with the session on simplex method which we can use to solve LPP by Mrs. Sree Lakshmi T. K. She explained how to formulate the LPP and get the optimal solution of maximization and minimization problem using simplex method. The afternoon session was handled by Dr. Annapoorna M S. and discussed about Duality Theory. She explained the primal and dual problems with their differences.

Dr. Karabi Sikdar started the morning session on the third day. She taught Big M method to the students by introducing the surplus and artificial variables and gave some real life examples and formulated them. The afternoon session was handled by Dr. Jojy Joseph Idicula who taught the Transportation problems. She explained VAM, North- West corner rule and Least cost method to solve the transportation problems. She also explained how to get the optimal solution using Modified Distribution (MODI) method.

The Fourth day morning session was handled by Mrs. Anitha Kiran. Topics of discussion was balanced and unbalanced Assignment problems using Hungarian method with various examples. The afternoon session covered the topic Game theory taught by Mr. Kallur V Vijayakumar.

All the sessions were very informative and interactive. Using simple and interesting examples the concept of optimization was made understandable for all students. A quiz was conducted for all the participants on the fifth day and feedback was collected. Students gave a very good feedback about the course.

