



NETWORK ANALYSIS FOR MINES AND MINERAL ENGINEERING

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IIT Kharagpur

TYPE OF COURSE : Rerun | Core_Elective | UG/PG

COURSE DURATION : 4 weeks (21 Feb' 22 - 18 Mar' 22)

EXAM DATE : 24 Apr 2022

INTENDED AUDIENCE : Student from B. Tech in Mining Engineering, Mineral Engineering, Mining Machinery Engineering, All M.Tech related to above B. Tech programs and Ph. D students

INDUSTRIES APPLICABLE TO : All Mining Industries send their Engineers/Managers to attend similar courses conducted mostly by Management Institutes/IE Departments. They may think of this online course

COURSE OUTLINE :

This course covers the basic of Program evaluation and review technique (PERT) & Critical Path Method (CPM) related to Mining and Mineral engineering situations. It is a part of quantitative decision making techniques, Optimization techniques and probabilistic approach. This course is basically designed to give a substantial understanding of the network analysis for mining/mineral and allied engineers or students. The course will start with the basics. Then it will cover the theoretical understanding of the problems along with a number of tutorials of simulated problems. Both the deterministic and probabilistic approach is covered in the syllabus. The software programming related to the network analysis will also be covered.

ABOUT INSTRUCTOR :

Kaushik Dey is an Assistant Professor, Department of Mining Engineering Indian Institute of Technology, Kharagpur, India. He has obtained B.E. (Mining), M. Tech (Opencast Mining) and Ph.D. (Mining) prior to work in the field of Tunneling and Mining sector for few years. Prior to join I. I. T. Kharagpur, Dr. Kaushik Dey was an Assistant Professor in Department of Mining Engineering at National Institute of Technology, Rourkela and at Indian School of Mines, Dhanbad. His research area includes excavation of rock by blasting or by mechanical cutting, mining operations, surface mining, whole body vibration etc. He has published around thirty five research papers in different journals apart from many others presented in the national/international conferences.

COURSE PLAN :

Week 1: Introduction to PERT and CPM and basic understanding

Week 2: Detailed understanding of CPM and optimization techniques

Week 3: Detailed understanding of PERT and probabilistic approach

Week 4: Critical analysis of the networks, computer programming