

AMMI-25 ADVANCES IN MINE VENTILATION

UNIT-1 ADVANCED TREATMENT OF AIR FLOW IN MINES;

- 1.1 Thermodynamics considerations
- 1.2 Instrumentation and monitoring in mine ventilation and air conditioning

UNIT-2 PLANNING AND DESIGN OF MINE VENTILATION SYSTEMS

- 2.1 Network theory and analysis by digital computer,
- 2.2 Heat flow from rocks

UNIT-3 MINE HEAT LOAD CALCULATION

- 3.1 Design of refrigeration and air conditioning systems in mines
- 3.2 Degasification of coal mines

UNIT-4 LEAKAGE

- 4.1 Re-circulation and reversal of air flow
- 4.2 Methane drainage- control and case studies
- 4.3 Network analysis- controlled flow models by CPM

UNIT-5 NATURAL SPLITTING PROBLEMS BY HARDY-CROSS AND OTHER TECHNIQUES

- 2.1 Environmental monitoring and automatic control systems

Reference Books:

1. G.B. Mishra, Mine Environmental Engineering. Pub: Dhanbad Publisher, Dhanbad
2. L.C. Kaku, Numerical Problems on Mine Ventilation. Pub: Punam Publisher
3. Mutmansky & Weng, Mine ventilation & Air conditioning. Pub: John Willey & Sons