

DEPARTMENT OF MINING ENGINEERING
Institute of Technology, Banaras Hindu University
Varanasi-221005
<http://www.itbhu.ac.in/min>

Introduction:

The Department of Mining Engineering, the oldest Mining Engineering Department in India, came into existence in 1923. Along with B.Tech degree, M.Tech. degree in Mining Engineering in Mine Environment, Mine Planning and Rock Mechanics are also awarded. The Department was upgraded as a *Centre of Advanced Study* by Gov. of India in the area of Rock Mechanics and Ground Control in 1990 and another area of Geoenvironment was brought under Centre in 2004.

The Department is a constituent of IT-BHU and intake of students is solely on the basis of IIT-JEE for B.Tech courses. The Department is now the biggest in the country with all facilities related to Mining Engineering available under one roof. It is divided into six divisions with well equipped laboratories. Facilities have been developed for research of fundamental and applied nature in collaboration with mining industry and other sister research bodies, for dealing practical problems of the mining industry. Given below are the major Divisions of the Department:

- Rock Mechanics and Ground Control
- Mine Environment
- Mineral Beneficiation and Coal Preparation
- Mine Planning and Design
- Exploration and Exploitation
- Mine Machinery

Beside this, the Department has provided itself with an Underground Experimental Model Mine well equipped for demonstration, experimental and research purposes.

Prominent Courses offered:

Rock Mechanics, Mining Geology, Ground Control, Mine Surveying, Underground Mine Environment, Mining Machinery, Mine Development, Underground Coal Mining, Surface Mining, Mineral Processing, Environmental Management in Surface Mines, Computer Applications in Mining, Mine Management, Mine Economics, Mine Disasters, Mine Safety Engineering, Drilling and Blasting of Rocks, Numerical Methods in Geomechanics, Underground Metalliferous Mining and Mine Planning

Research:

Mining Technology

- Subsidence prediction 3D - Numerical Simulation
- Coal Pillar designing
- Feasibility evaluation of Partial extraction of coal pillars
- Rock bolt Support Design of underground mines
- Longwall panel simulation
- Planning of dragline operations in opencast mines
- Effect of blast vibration on dump stability
- Design of Blasting and fragmentation analysis
- Mine waste dump stability analysis
- Haul Road Design

Geo-environment

- Evaluation of Geo- Environmental and Geo-Technical properties of coal
- Prediction of Drainage quality and water resource management in coal
- Characterization and estimation of respirable particulate in opencast
- Fly-Ash utilization
- Slope stability analysis

Laboratories:

- Rock Mechanics & Ground Control
- Mine Planning & Design
- Mine Environment & Pollution Control
- Mineral Processing & Beneficiation
- Exploration & Exploitation
- Mining Machinery

Current Activities:

1. International Symposium on Rock Mechanics and Geoenvironment in Mining and Allied Industries (RGMA-09) in February 12-14, 2009.

The details of other ongoing activities are available in Departmental website.

Contacts:

Prof. N.C. Karmakar
Head of the Department, Mining Engg.
nc_karmakar@rediffmail.com
Ph: 0542-2369442 (O)

Dr. S.K.Sharma
Prof-in-charge, Mining Engg.
Training and Placement,
sksharma.min@itbhu.ac.in
+91-9450950078

Avinash Chhagani
Training and Placement Representative
Mining Part-III
avinash.chhagani.min05@itbhu.ac.in
+91-9336858880