



सत्यमेव जयते

राष्ट्रीय प्रौद्योगिकी संस्थान रायपुर NATIONAL INSTITUTE OF TECHNOLOGY RAIPUR

(An Institute of National Importance)
Under Ministry of Education, Government of India



DEPARTMENT OF MINING ENGINEERING

ABOUT THE NATIONAL INSTITUTE OF TECHNOLOGY RAIPUR AND MINING ENGINEERING DEPARTMENT

The National Institute of Technology Raipur, formerly known as Government College of Mining and Metallurgy, was established on 1st May 1956. The institute is dedicated to the development of technical education, producing skilled graduates in the field of engineering and technology. The development of India as an emerging industrial power requires the combination of cost-effectiveness and efficiency, along with the production of world-class technology. For over five decades, NIT Raipur has been committed to this goal. Currently, the institute offers graduate-level courses in twelve disciplines, including the oldest branch of Mining. The Mining Engineering Department at NIT Raipur offers B. Tech. and Ph.D. programs in Mining Engineering.

DEPARTMENT STRENGTH

In addition to its academic programs, the mining engineering department also provides research and development, testing, and consultancy services to address real-time mining issues. These services cover areas such as blasting technology, rock excavation, blast design and optimization, slope stability, waste dump slope stability monitoring, strata control and monitoring plans, subsidence prediction and control, mine planning, mine ventilation, environmental concerns, and occupational health and safety at mines. The Department is also capable of conducting physio-mechanical testing of soil and rock. It has gained widespread recognition in the industry due to its strong reputation built on years of service excellence and expertise. The Department has successfully completed numerous research, consultancy, and testing projects, and its team of professionals and experts is committed to delivering high-quality services to clients across various industrial sectors.

DEPARTMENT RESOURCES

The Department of Mining Engineering boasts state-of-the-art labs specializing in Blasting Technology, Rock Mechanics, Strata Control, and Mine Environment. These labs are furnished with advanced equipment, including seismographs, large and small direct shear test machines, ultrasonic pulse velocity instruments, and tri-axial test facilities. Furthermore, they are supported by various cutting-edge software such as Blastware, Wip-Frag, FLAC Slope, FLAC 2D, FLAC 3D, UDEC, VENTSIM, Hexagon Mine Planning Software and many more.

The department's proficient faculty and technical staff are adept at utilizing a diverse range of instruments and software. This proficiency significantly enhances their ability to expedite research, consultancy, and testing project progress.

The Mining Engineering Society (MES) and the Society for Mining, Metallurgy, and Exploration (SME) Student Chapter at NIT, Raipur, an International Student Chapter, are actively addressing a wide range of issues in the mining field. These collaborative efforts, conducted with the guidance and support of the Department of Mining Engineering, promote innovative solutions and advancements in the field.

Key Services of Mining Engineering Department

- Physio-mechanical Testing of Soil and Rock
- Blast Design and Optimization
- Slope & Waste Dump Slope Stability and Monitoring
- Design of Support System and Strata Control & Monitoring Plans
- Subsidence prediction and Control Planning
- Mine planning
- Mine Ventilation Design
- Environmental Audit
- Risk-Based Accident/Incident Investigation
- Safety Audits... and in other area depending upon the requirements...

Key Stakeholders of Mining Engineering Department



Scan for details about the Research Profile of the Department of Mining Engineering



Scan for details about the Research Profile of NIT Raipur

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