

Laboratory

To support the studies in order to be effective, FTTM have 28 laboratories, each coordinated by a Laboratory Manager.

1. Minerals Exploration & Evaluation Laboratory
2. Mineralogy, Microscopes and Geochemistry
3. Hydrogeology and Hidrogeokimia
4. Geomechanics & Mining Equipment Laboratory
5. Mining Environment Laboratory
6. Mining Valuation and Planning Laboratory
7. Mineral Economics and Computing Laboratory
8. Processing of Minerals Laboratory
9. Analysis of Mineral and Coals Laboratory
10. Lab. Solid Oxide System Laboratory
11. Pyrometallurgy Laboratory
12. Floating Alloy and Characteristics Laboratory
13. Hydro and Electrometallurgy Laboratory
14. Reliability Metals and Corrosion Laboratory
15. Instrumentation and Electronics Geophysics Laboratory
16. Computational Geophysics Laboratory
17. Engineering and Environmental Geophysics Laboratory
18. Seismology and Geodynamics Laboratory
19. Volcanology and Geothermal Laboratory
20. Characterization and Modeling Physical Properties of Rocks Laboratory
21. Geophysical Exploration Laboratory
22. Petroleum Engineering Computation Laboratory
23. Geothermal Engineering Laboratory
24. Reservoir Engineering Laboratory
25. Production computing Laboratory
26. Production optimization Laboratory
27. Well stimulation Laboratory
28. Drilling and Production Laboratory

Besides the laboratories, FTTM also have supporting facilities such as

- Lecture Classroom, discussions, seminars, audio-visual equipped with the latest tools
- A library with a collection of books and scientific journals that are always updated
- The computer lab connected to the intranet and internet



FTTM Leader

Dean	: Prof. Sri Widiyantoro M.Sc., Ph.D.
Vice Dean for Academic Affairs	: Prof. Dr. Ir. Ridho Kresna Wattimena MT
Vice Dean for Resources Management	: Dr. Susanti Alawiyah ST, MT

Head of Study Program

Mining Engineering	: Dr.Eng. Ganda Marihot Simangunsong
Petroleum Engineering	: Dr.Ing. Bonar Tua Halomoan Marbun
Geophysical Engineering	: Dr. Andri Dian Nugraha S.Si, M.Si
Metallurgy Engineering	: Dr.Eng. Akhmad Ardian Korda, ST, MT
Mining Engineering (Master & Doctoral)	: Dr.Eng. Syafrizal, ST., MT.
Petroleum Engineering (Master & Doctoral)	: Dr. Ir. Taufan Marhaendrajana M.Sc.
Geophysical Engineering (Master & Doctoral)	: Dr. Darharta Dahrin MS
Geothermal Engineering (Master)	: Dr.Eng. Ir. Sutopo, M.Eng.
Metallurgy Engineering (Master)	:

Head of Research Groups

Prof. Dr. Ir. Sudjati Rachmat DEA	: Drilling, Production, and Management of Oil and Gas
Prof. Dr. Hasian P. Septoratto Siregar DEA	: Reservoir Engineering
Prof. Dr. Sudarto Notosiswoyo M.Eng.	: Earth Resources Exploration
Dr. Ir. Eddy Agus Basuki, M.Sc.	: Metallurgy Engineering
Prof. Dr. Ir. Budi Sulistianto MT	: Mining Engineering
Prof. Dr. Djoko Santoso M.Sc.	: Applied Geophysics and Exploration
Prof. Dr. Antonius Nanang T Puspito M.Sc.	: Global Geophysics
Prof. Dr. Ir. Sigit Sukmono M.Sc.	: Exploration and Engineering Seismology

Professors

- Antonius Nanang Tyasbudi Puspito, Prof. Dr., M.Sc.
- Awali Priyono, Prof. Dr.rer.nat.
- Budi Sulistianto, Prof. Dr. Ir., MT.
- Djoko Santoso, Prof. Dr. Ir., M.Sc.
- Dobby Abdassah, Prof. Ir., M.Sc., Ph.D.
- Hasian Parlindungan Septoratto Siregar, Prof. Dr. Ir., DEA.
- Irwandy Arif, Prof. Dr. Ir., M.Sc.
- Made Astawa Rai, Prof. Dr. Ir.
- Pudji Permadi, Prof. Ir., M.Sc., Ph.D.
- Purnomo Yusgiantoro, Prof. Ir., M.Sc., MA, Ph.D.
- Ridho Kresna Wattimena, Prof. Dr. Ir., MT
- Rudy Sayoga Gautama Benggolo, Prof. Dr. Ir.
- Satria Bijaksana, Prof. Dr.
- Sigit Sukmono, Prof. Dr. Ir., M.Sc.
- Sri Widiyantoro, Prof., M.Sc., Ph.D.
- Sudarto Notosiswoyo, Prof. Dr. Ir., M.Eng.
- Sudjati Rachmat, Prof. Dr. Ir., DEA
- Syoni Soepriyanto, Prof. Dr. Ir., M.Sc.
- Tutuka Ariadji, Prof. Ir., M.Sc., Ph.D.
- Wawan Gunawan Abdul Kadir, Prof. Dr., MS.



Basic Science Center - B Building, 4th floor
Ganesa Street No.10
Bandung, 40132 Indonesia
Phone : +62-22-2506282
Fax : +62-22-2514922
Website : www.fttm.itb.ac.id
Email : info@fttm.itb.ac.id

FTTM

Faculty of Mining and Petroleum Engineering
Institute of technology Bandung (ITB)



Institut Teknologi Bandung

ITB establishment began with the establishment of the Technische Hogeschool (THS) in 1920, with two faculties: the Faculty of Engineering and the Faculty of Mathematics and Natural Sciences, which is part of the University of Indonesia. Currently ITB has 45 undergraduate programs, 53 magister study programs and 26 doctoral study programs, are in the 7 faculties and 5 schools. Currently ITB has 2 campuses located at Jl. Ganesha 10 (Campus Ganesha) and Jl. Jatinangor (ITB Jatinangor).

Faculty of Mining and Petroleum Engineering

Faculty of Mining and Petroleum Engineering is one of the 12 Faculties / Schools in ITB. FTTM history began in 1959 with the establishment of the Faculty of Mineral Technology (FTM), which was originally called the Department of Minerals Technologies, with two departments, namely the Department of Mines (established in 1949) and the Department of Geology (founded in 1950). In 1998 inaugurated the Department of Geophysical Engineering which was originally a study program at the Department of Geological Engineering. In 1999, the Faculty of Mineral Technology changed its name to the Faculty of Earth Sciences and Mineral Technology (FIKTM), with the Department of Geophysics and Meteorology merged, which was originally located at the Faculty of Mathematics and Natural Sciences. For maximizing the educational administrative services, in 2007 the Faculty of Earth Sciences and Mineral Technology formed into 2 Cognate Scientific Unit, the Faculty of Mining and Petroleum Engineering (FTTM) and the Faculty of Earth Science and Technology (FITB). Since the date of February 12, 2007 FTTM officially manages four undergraduate degrees, five master degrees and three doctoral degrees programs.

Vision and Mission

Vision

“To become an excellent faculty in the field of exploration, production, and utilization of earth resources and the mitigation of natural disasters that contributes to the improvement of the qualities of natural environment, economic, and social, for the prosperities of the nation and mankind.”

Mission

“To create, share, and apply science and technology of resource management and natural disasters mitigation and produce outstanding human resources, especially in Indonesia, and the world. Doing university Tridarma (education, research, and community services) in transparent, accountable, responsible, independent and equitable means for achieving the best FTTM role.”



Implementation of University Tridarma in FTTM-ITB

Education in FTTM-ITB aims to produce graduates who work in the field of technology and capable of conducting mineral exploration, exploitation and managing mining resources, highly competitive, superior and environmentally sound, and able to keep up with technology. The undergraduate program is conducted for 4 years with minimum load of 144 Semester Credit Units, while the Master Program for 2 or 1.5 years with minimum load of 36 credits, and the Doctoral Program for 3 years.

The learning process is equipped with laboratories which are planned to support education, and maintained and enhanced in accordance with the needs of education.

In accordance with the geographical location of Indonesia, located in the Indonesian Maritime Continent, FTTM-ITB carry out research on the basic characteristic of the Indonesian Maritime Continent, with the aim of supporting and enriching the curriculum and improve the quality of graduates.

On the basis of the expertise possessed, every faculty carry out community service in an effort to participate in the development in the field of industrial minerals as well as an increase in human resources. This community service oriented to the needs of industrial and technological development.



Research Group

Research Group is a group of academic staff who join themselves into groups according to the science and expertise. Study Program, Program for Research and Community Service Program emerged and developed because of the potential that exists within the groups.

FTTM ITB has 8 Research Group namely: Earth Resources Exploration; Mining Engineering; Metallurgical Engineering; Mechanical Drilling, Production and Management of Oil and Gas; Reservoir Engineering; Applied Geophysics and Exploration; Exploration Seismology and Engineering; and Global Geophysics Group.

Undergraduate Programs

In carrying university Tridarma (Education, Research, and Community Services) FTTM-ITB manage four undergraduate programs. The study programs are Mining Engineering, Petroleum Engineering, Geophysical Engineering and Metallurgical Engineering.

Science taught by four studies programs were divided into 3 groups: Basic Sciences, Engineering Science and Engineering Design. Besides these sciences are also taught other sciences such as Humanities, Social Studies, Statehood, Environment, Religion and Sports.

In efforts toward international recognition, curriculum for undergraduate programs in the Faculty of Mining and Petroleum are prepared with reference to the ABET (Acreditation Board for Engineering and Technology), which is an international accreditation based in the United States.

Masters and Doctorate programs

In addition to undergraduate programs, FTTM-ITB also implement five Graduate Program Studies consist of Mining Engineering, Petroleum Engineering, Geophysical Engineering and Geothermal Engineering.

FTTM-ITB also implement three Doctoral Programs, consist of Mining Engineering, Petroleum Engineering and Engineering Geophysics.

Cooperation

FTTM-ITB has done a good cooperation with the industry and with educational institutions and research, both domestically and international. This cooperation is carried out to support the educational goals FTTM-ITB is relying on research and community empowerment. Domestic cooperation including with the Ministry of Energy and Mineral Resources, SKK Migas tekMIRA, LIPI, BATAN, BPPT, DKP, PT Pertamina Tbk, PT Tambang Timah Tbk, PT ELNUSA Tbk, Star Energy Geothermal (Wayang Windu) Ltd, PT Pertamina Geothermal Energy (PGE), PT Tambang Batu Bara Bukit Asam, PT Krakatau Steel, PT Kaltim Prima Coal, PT Freeport Indonesia, PT Caltex Pacific Indonesia, Yayasan Rio Tinto Indonesia, Lemigas, and Badan Meteorologi & Geofisika.

Relationships with several universities and related institutions from abroad including Australia, Netherlands, Italy, Japan, Germany, France and United States has also been and/or are currently running. Besides, teaching staff regularly attend international seminars and visit industry and universities abroad in the framework of cooperation between ITB with universities and other institutions abroad.



Research Activities

Research is one of the major activities to support quality education. The research is involving teaching staff, students and laboratory technicians. Sources of research funds conducted in FTTM-ITB are derived from various institutions, such as the Ministry of National Education, the Ministry for Research and Technology, Industry, Domestic and Overseas Universities as well as from ITB.

- **Mining Engineering**

In Mining Engineering, research topics generally associated with the evaluation of mineral resources and reserves estimation, hydrogeology, groundwater pollution, characterization of the rock mass, the stability of underground structures, the development of excavation techniques with the dredger, rock breaking technology, good mining technique, the economy and ratings in mining, processing and utilization of mineral and coal

- **Petroleum Engineering**

In Petroleum Engineering, there are areas of expertise such as petroleum economics, drilling, improved oil recovery, production, reservoir modeling, reservoir characterization, well modeling.

- **Geophysical Engineering**

Geophysical engineering research focused on solving problems in the industry and the community on topics related to the exploration, utilization of the earth's resources and natural disaster mitigation that contribute to improving the quality of the natural environment, economic and social for the welfare of the Indonesian nation and mankind.

- **Metallurgical Engineering**

In Metallurgical Engineering research topics generally associated with rock breaking technology, the separation of minerals present in the ore from the mining process and then extracting precious metals, minerals or ores. In addition, research on the utilization of mineral and coal, corrosion, extractive metallurgy, ceramics and metallurgical engineering physics.

Future of FTTM-ITB

With the enactment of free trade era Indonesia will become developed country, followed by the growth industries in various sectors, and would require considerable infrastructure to maintain stability. At that time supply of energy and raw materials (mining resource) and water resources will be largely needed. Attempts to obtain these resources is a significant challenge because of the availability of reserves are limited. Besides, the complexity of the geology in Indonesia with the characteristics of active geodynamic, great number of volcanoes and earthquake, Indonesia has a lot of natural disaster potential.

Thus, we need a breakthrough with superior human resources in terms of mastery in exploration, production, processing and utilization technology of the earth's resources and natural disaster mitigation. FTTM ITB as an institution has played an active role for providing experts who are ready to become human resources that excel in the field. FTTM ITB will also equip its graduates with soft skill such as communication, teamwork, and leadership to face global challenges in Indonesia and the world for the benefit of mankind