



FACULTY OF ENGINEERING

Universitas Brawijaya



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Greetings from Dean



Welcome to our Faculty of Engineering

We welcome you on behalf of the faculty members, staffs and students of Faculty of Engineering, Universitas Brawijaya (UB). These are exciting times for all engineers as the rapid research development through the influence of the latest technological concepts, such as Industry 4.0.

Our faculty was established in 1963. Now it has grown with 271 faculty members, numerous researches and reputable publications, roughly 5000 active students and supporting staffs. Hopefully, we can always meet the expectation of society as a reliable institution of higher education.

Our faculty is currently working progressively to achieve our goals as one of the eminent institutions in the field of engineering in Asia. Some of the driving principles of our faculty are embodied in our vision and mission statements.

We welcome you to discover further through this book. Your comments or suggestions will help us move to the next level and provide us with encouragement to maintain excellence.

Together We Do The Best!

Prof. Ir. Hadi Suyono, S.T., M.T., Ph.D., IPU., ASEAN Eng.
Dean of Faculty of Engineering



Why Choose FT UB ?

The Campus

Faculty of Engineering (FTUB) is established since 1963 and located in the centre of Malang city on elevation 440 – 667 m above sea level surrounded by great view and cool weather all year. Faculty of Engineering Brawijaya has 8 undergraduate programs, 6 master programs, 3 doctoral programs and Professional Engineer Program. Campus facility including research centre are arranged within area 24.091m², and accessed by mostly public transport.

Technology Exposition (IPITEX), 2018 National Mechanical Design Competition, 2018 International Young Inventors Awards, 2018 INOTEK Malang Technology Innovation, and many others.

International University Partnerships

FTUB has developed cooperation with many top universities and institutions in various countries located in Asia Pacific and Europe. The cooperation covers double degree agreement, student exchange program and joint-research. FTUB also provide technology and human resources for reputable National and International Corporation.

Specialized Research Activities

Research activity at FTUB is facilitated by many research centers within specific area and supported by funding gained from various sources, such as government, private institutions and multinational industries. Some eminent research activities are bioengineering, power system engineering and energy management.

Multicultural Environment

FTUB opens opportunity for international students and scholars to experience the blend of traditional and modern culture of Malang and Indonesia while studying at once. The students of FTUB are not only from domestic region of Indonesia but also of international students.

Ease of Living

Malang city was surrounded by many attractive tourism destinations and connected by inter-city connection highway also equipped by domestic airport. The city known as education city which has more than 50 universities and colleges, also home for traditional culinaries which throughout along the city. Most of students stay in city benefit from the affordable of living expense in Malang.





Vision Mission Value

Vision

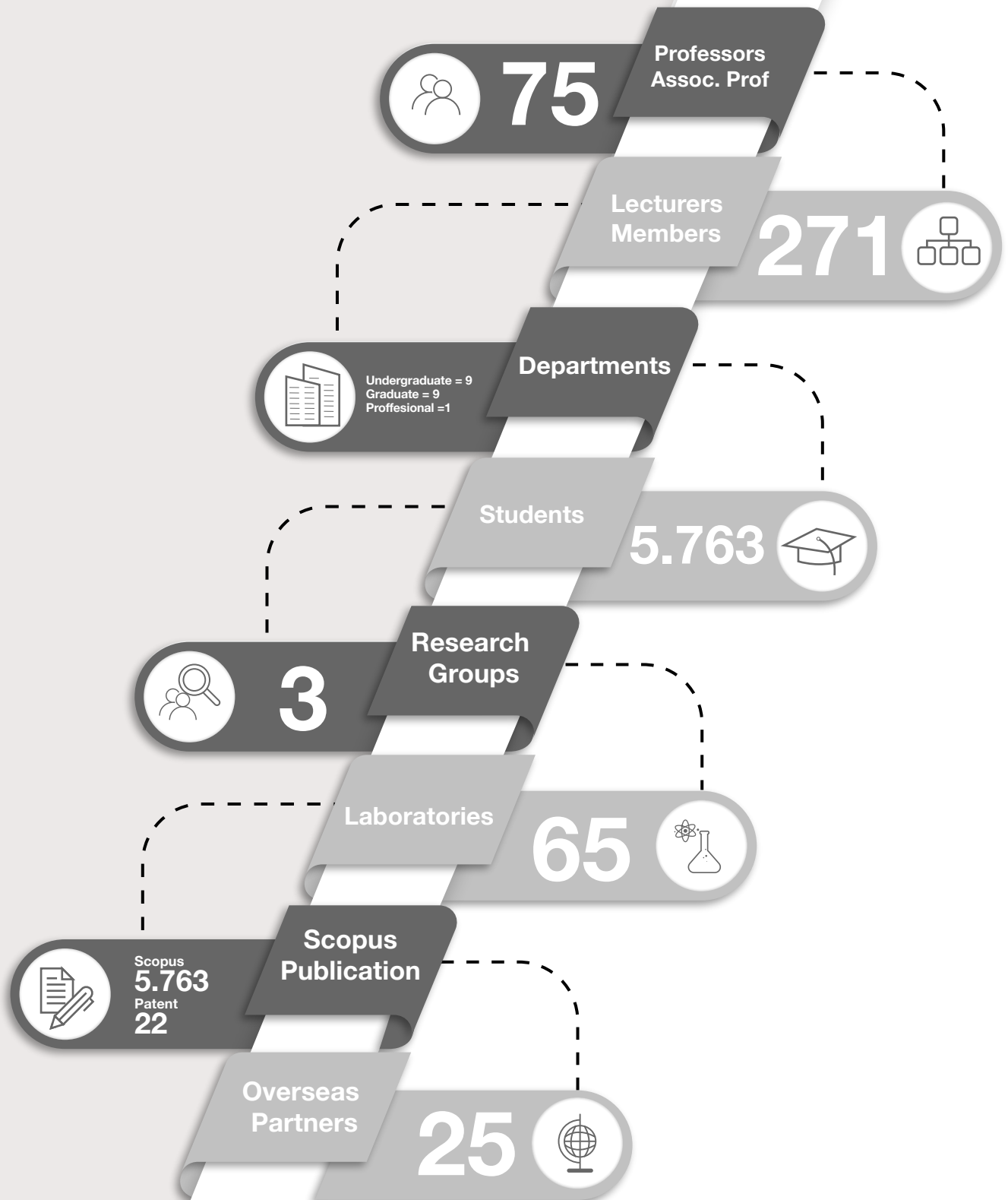
In 2020, Faculty of Engineering Universitas Brawijaya became an eminent institution in the field of engineering in Asia, and is able to play an active role in national development through education, research, and community service.

Mision

- Provide education with high quality to produce graduates with good quality of engineering skill, entrepreneurial, and noble character.
- Do the research, development and dissemination of science and technology, as well as community service activities, especially in the field of engineering in order to improve the standard of living of the people, the nation, and humanity.



Faculty in Number



Partnership



Changzou Institute Of Technology



University of Miyazaki, Japan
Kyoto University
Yamaguchi University
Yamanashi University

National Central University, Taiwan
National Sun Yat Sen University
National Chiao Tung University Taiwan
National Cheng Kung University Taiwan



Universiti Tun Hussein Onn
Universiti Malaysia Pahang
Universiti Sains Malaysia

University of Wollongong
University of Newcastle
University Of Technology Sydney
University of Southern Queensland



Department of Civil Engineering



Civil Engineering Department of the Faculty of Engineering, Universitas Brawijaya is the first department in FTUB since 1963. It aims to produce highly qualified graduates with rich knowledge and excellent basic skills in civil science and technology. With that, it is expected that the alumni will be able to actively participate and contribute actively to the community development.

Currently, the Civil Engineering Department organizes an undergraduate study program (accredited nationally with grade A), a graduate master degree program (accredited nationally with grade A), and a higher research doctoral degree program (accredited nationally with grade B). The department has established international collaboration with well-known universities, mostly in the Asia Pacific region through joint research and double degree programs.

As the backbone of its educational system, the Civil Engineering Department is supported by 41 (forty one) lectures graduating from both international and national reputable universities; that consist of 3 (three) professors, 14 (fourteen) associate professors, and 11 (eleven) assistant professors. Civil Engineering Department students are also known for their achievements. They won the grand champion at the National Bridge Competition 5 times in a row in 2012, 2013, 2014, 2016, and 2017.

In order to support students' and lecturer's learning and research activities, the Civil Engineering Department has a library with wide range of theses, research reports, journal and textbooks. There are four laboratories and a studio available to enrich research experience of the students and academic staffs, i.e.:

1. Structure and Construction Material Laboratory
2. Transportation and Remote Sensing Laboratory
3. Soil Mechanics and Geology Laboratory
4. Construction Management Laboratory
5. Computation Laboratory

Furthermore, several research activities are conducted in cooperation with other engineering departments, such as the Water Resources Engineering Department.

Department of Mechanical Engineering



The education is supported by 38 (thirty-eight) high capability lecturers that consist of 7 (seven) professors, 12 (twelve) associate professors, and 14 (fourteen) assistant professors who graduate from international or national reputable universities.

Students of Mechanical Engineering Department are also well-known for their excellent achievements in national and international competitions, such as the winner of Special Award ARCA Medal In Seoul International Fair, the Indonesian representative team at Ecco Shell Marathon contest in Malaysia in 2013, and the winner at several national go kart competitions.

Established in 1963, Mechanical Engineering Department of the Faculty of Engineering, Universitas Brawijaya is one of the first departments along with Civil Engineering Department. It aims to graduate alumni with the ability to understand basic knowledge of mechanical engineering that can be applied to the field of technology and the development of science.

Mechanical Engineering Department organizes an undergraduate study program (accredited nationally with grade A), a graduate master degree program (accredited nationally with grade A), and a higher research doctoral degree program (accredited nationally with grade B) the research of which focus on Energy Conversion, Manufacture and Industrial Engineering, also Material Engineering

The department is also equipped with good quality laboratories, modern classrooms, and a library, which houses reference books, research journals, final assignment reports, and other facilities. The laboratories are:



Department of Water Resources Engineering



Water Resources Engineering Department of the Faculty of Engineering, Universitas Brawijaya, which was established in 1976, is a pioneer in the water resource engineering and management field in Indonesia. Even up to today, the university is one of the few universities in Indonesia which offer water resource engineering studies.

The teaching and learning program in the Water Resources Engineering Department aims to produce capable, knowledgeable, open-minded and skilled graduates in the field of water resources engineering.

Currently, the department offers an undergraduate study program (accredited nationally with grade A and certified internationally with AUN-QA), a graduate master degree program (accredited nationally with grade B), and a higher research doctoral degree program (accredited nationally with grade B).

To support its dynamic education program, Water Resources Engineering Department employs 38 (thirty eight) lecturers, including 4 (four) professors, 14 (fourteen) associate professors, and 10 assistant professors who graduate from international and national reputable universities.

Water Resource Engineering Department students are also known for their achievements, such as the winner of Indonesia Water Building Competition, the winner of Civil Innovation Paper Competition, and the participant of Summer Course in Yamaguchi University.

To support students' and staff's learning and research activities, a library is provided with more than 2500 collection of books, including academic journals, reference books, handouts, lecture notes, manual engineering laboratory, scientific magazines, research report, theses, dissertations, and electronic databases. In addition, the laboratories in Water Resources Engineering Department are:

1. Basic Hydraulic Laboratory
2. Applied Hydraulic Laboratory
3. Hydrology Laboratory
4. River Engineering Laboratory
5. Soil and Groundwater Laboratory
6. Hydraulic Structures Laboratory

Department of Electrical Engineering



Electrical Engineering Department of the Faculty of Engineering, Universitas Brawijaya has been established since 1978. The teaching and learning activity in Electrical Engineering Department aims to produce capable, knowledgeable, and skilled graduates in the field of electrical engineering.

Currently, the department offers an undergraduate study program (accredited nationally with grade A) in five different majors, which are Electrical Energy Engineering, Electronic Engineering, Communication Engineering, Control Engineering, and Computer Engineering. It also offers a master degree program (accredited nationally with grade A) in three different majors, which are Electrical Power System, Electronic and Control System, and Information and Communication System. Especially in its master degree program, the Electrical Engineering Department has established international cooperation, i.e. double degree, joint research, and joint supervision programs with overseas universities in Japan and Taiwan.

Students of Electrical Engineering Department are also well known for their achievements in national and international competitions, such as the winner at Mechatronics, Robotic and Automation Competition (MRAC) 2018 and the winner of Gold Ticket at Republic of Internet of Things (RIoT) 2018

The teaching and learning process at the Electrical Engineering Department is conducted by 46 lecturers, including a professor, 15 (fifteen) associate professors and 17 (seventeen) assistant professors who graduate from international and national reputable universities.



To accommodate teaching and learning, and research activities, the Electrical Engineering Department has modern classrooms, a library, and laboratories. The laboratories are:

1. Electrical Basics and Measurement Laboratory
2. Electronic Laboratory
3. Electrical Machinery Laboratory
4. High Voltage Engineering Laboratory
5. Telecommunication Laboratory
6. Control System Laboratory
7. Digital System Laboratory
8. Power Electronic Laboratory
9. Computer and Network Laboratory
10. Electrical Power System Laboratory
11. Transmission and Micro Wave Laboratory
12. Informatics and Computer Laboratory
13. Micro Hydro Laboratory
14. Mechatronic and Robotic Laboratory
15. Design and Prototype Laboratory



The Architecture Department of the Faculty of Engineering, Universitas Brawijaya is the 5th department established in 1983. It aims to produce highly qualified graduates as professional architects who have excellent expertise in building planning and architectural design.

Currently, the Architecture Department manages a vocational study program, an undergraduate study program (accredited nationally with grade A), and a postgraduate master degree program (accredited nationally with grade A).

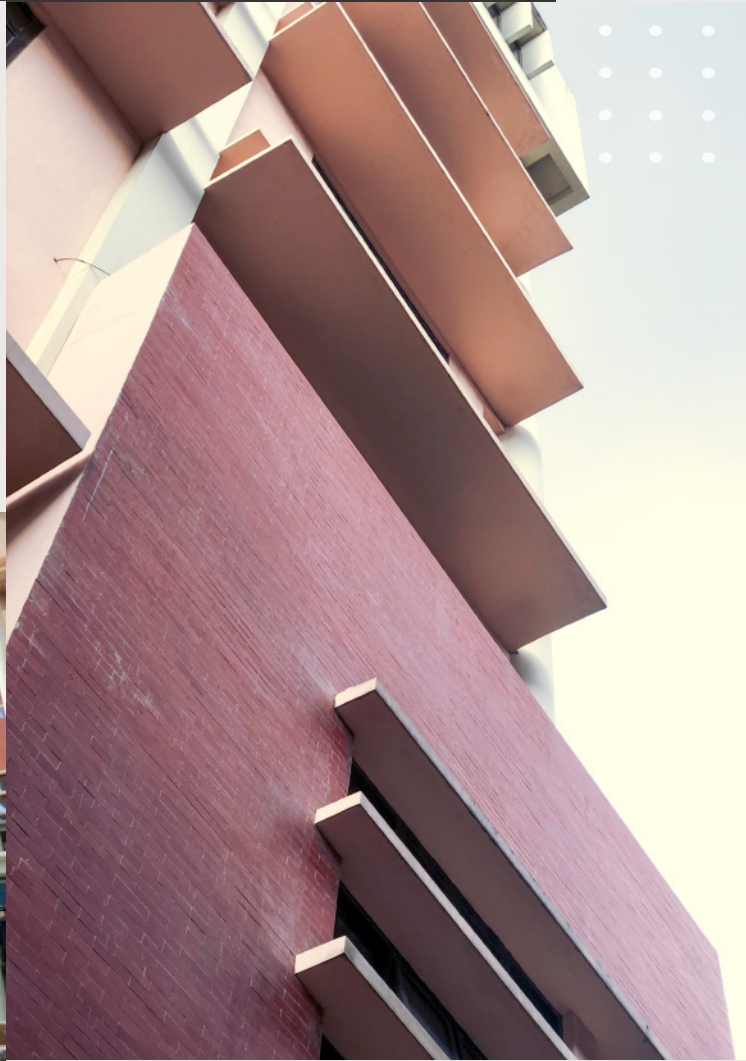
To support its learning and research process, the department employs 30 (thirty) well-qualified well-qualified lectures Including a professor, 4 (four) associate professors, and 24 (twenty-four) assistant professors who graduate from international and national reputable universities.

All of the academic activities, such as learning, research, and community development, are accommodated within an integrated 3 level building. This building houses a set of facilities, such as modern classrooms, drawing studios, a computer studio, a final assignment studio, and a library. Moreover, to support students' and lecturers' learning and research activities, the department provides several laboratories, including:

- 1.Nusantara Architecture Laboratory
2. Art and Architectural Design Laboratory
- 3.Urban and Settlement Design Laboratory
- 4.Building Science and Technology Laboratory
- 5.Communication and Digital Architecture Laboratory
- 6.Final Project and Documentation Laboratory



Department of Regional and Urban Planning



The Regional and Urban Planning Department of the Faculty of Engineering, Universitas Brawijaya has been established since 2005. It envisions becoming an internationally standardized institution in urban and regional planning emphasizing in sustainable development in developing countries.

Currently, The Regional and Urban Planning Department manages an undergraduate study program (accredited nationally with grade A) and a graduate master degree program (accredited nationally with grade B). In cooperation with the Civil Engineering Department, The Regional and Urban Planning Department also offers a master degree program with a particular concentration in urban and regional planning.

To support the academic process, The Regional and Urban Planning Department is supported by 31 (thirty-one) well-qualified lecturers including a professor, 4 (four) associate professors and 9 (nine) assistant professors who graduates from international and national reputable universities.

To support its teaching and learning, research, and community development process, the department occupies a two level building with modern classrooms, a studio, a library, and laboratories. The laboratories are:

- 1.Environment, Infrastructure, and Information SystemLaboratory
- 2.Urban Design and Planning Laboratory
- 3.Regional Development and Public Policy Laboratory.

Department of Industrial Engineering



Industrial Engineering Department of Faculty of Engineering, Universitas Brawijaya is the 7th department which has been established since 2005. It envisions becoming an eminent education in industrial engineering area through education, research, and community service. Due to the broadness and complexity of a system, Industrial Engineering UB graduates are prepared to have the knowledge and skills in various disciplines, be able to team up with others, analyze data, and have profound logical thinking in making decisions. With those competences, Industrial Engineering Department alumni will have comprehensive competitive advantages to fulfill industrial requirements.

Currently, Industrial Engineering Department organizes an undergraduate study program (accredited nationally with grade A) and is still in preparation for establishing the graduate master degree program.

Industrial Engineering Department employs 37 (thirty-seven) highly qualified lecturers as the backbone of its academic system, including a professor and 7 (seven) assistant professors who graduate from international and national reputable universities. The Department has always committed to improving the teaching quality by supporting

Industrial Engineering Department students are also well-known for their excellent achievements in national and international competition, such as the Awardee of Cargill International Scholarship, the Winner of Bronze Medal at World Invention and Technology Expo (WINTEX) 2018, and the delegation of Harvard National Model United Nations (HNMUN), and many other events.

The department is supported by a 7 level building to accommodate the learning and research activities with several facilities such as modern classrooms, an auditorium, discussion rooms, a library, a canteen, prayer rooms, and also laboratories and a studio. The laboratories and studio are:

1. Work Design and Ergonomics Laboratory
2. Statistics and Quality Engineering Laboratory
3. Industrial Computer Laboratory
4. Manufacturing System Laboratory
5. Simulation and Industrial Application Laboratory
6. Industrial Management Studio



Department of Chemical Engineering



The Chemical Engineering Department of the Faculty of Engineering, Universitas Brawijaya was established in 2014. It envisions having outstanding capability in delivering education programs, researches, and community development programs particularly in the field of chemical engineering.

Currently, Chemical Engineering Department organizes an undergraduate study program (accredited nationally with grade B). It employs 13 (thirteen) highly qualified lecturers as the backbone of its academic system, including a Professor, and 2 (two) Associate Professors who have been graduated from national and international reputable universities.

To support the academic environment, Chemical Engineering Department is supported with several modern classrooms, a discussion room, a library, and laboratories. Laboratories are also a crucial element in this department. Therefore, high-tech tools and utilizations are provided in their three laboratories to support the learning and research experience for the students and academic staffs. The laboratories in the department are including:

1. Bio Process Laboratory
2. Unit Operation Laboratory
3. Science Laboratory

International Program

PROGRAMS FOR STUDENTS

SHORT COURSE

Short course is a program designed for international students coming from either partner universities or private interests, who are interested in getting international academic exposures and experiences at Faculty of Engineering UB and Indonesia. The objective of this program is to provide a global understanding of Indonesian society and policy. International students will also have an opportunity to experience Indonesian culture and make new friends from all around the world. The courses are designed for two up to four weeks. Accommodation and tuition fee will be covered by UB.

EXCHANGE

Exchange is a program allowing transfer credits for students taking a semester study at the partner universities abroad. The objective of this program is to provide global experience of studying and living abroad. All exchange students are required to enroll for 24 credits per semester. Students will receive academic transcripts at the end of the program. Accommodation and tuition fee will be covered by UB.

MASTER DUAL DEGREE

Master dual degree is a program where students take double degree in two universities consisting of 2 semesters in UB and 2 semesters in partner universities. The objective of this program is to provide global experience of studying and living abroad, as well as doing joint research under supervision from the two universities. All master dual degree students are required to enroll for 24 credits per semester or 48 credits per year and enroll thesis in partner universities. Students will receive academic transcripts, graduation certificate, and degree from the two universities. Tuition fee will be covered by UB. receive academic transcripts, graduate certificate, and degree from two universities. Tuition fee will be covered by UB.

PROGRAMS FOR LECTURERS

VISITING PROFESSOR

Visiting professor is a teaching program carried out by lecturers from universities abroad. The objective is to provide global knowledge and the latest scientific research for students about one of the engineering subjects.

SABBATICAL LEAVE

Sabbatical leave is granted for the purposes of study, research, or other pursuit of value to the scholarly agenda of the faculty members and the University. The objective especially is to enable the faculty members to increase their competence in teaching and research.

RESEARCH COLLABORATION

- Inter-university Exchange Project
- International Research/ Publication, funded by Ministry of Research, Technology and Higher Education of the Republic of Indonesia
- International Research, funded by international sponsor



International Admission

Eligibility for Admission:

- Does not hold Indonesian nationality.
- Demonstrate good academic competence (proven with a high academic merit)
- Applicants should apply directly (filling the online application form)
- The eligibility based on a desk evaluation by the UB's admission committee
- There is no entry test for admission unless a special condition occur
- International applicants must meet the academic and language requirements and commit to comply with particular regulations of government related to education policy.
- English language proficiency minimum International TOEFL (ITP) score of 500/IELTS overall score of 5.5 (international program/in English) or Bahasa Indonesia proficiency minimum (regular program/in Bahasa Indonesia).

Undergraduate Program Admission:

- Requires a good academic performance In high school or college

Postgraduate Program Admission:

- Good Honor at bachelor's degree (undergraduate) or equivalent in the subject or related discipline.
- Excellent record at master's degree and capability in conducting academic research.
- Hold international publication (journal) are preferred.

Admission Period

- Undergraduate: February-August (for A level) and September-January (for O level)
- Postgraduate: September-January and February-August

Documents that should be prepared to apply online:

- Current color photograph (min: 100 Kb, max: 1 Mb)
- Certificate and academic transcript
- Evidence of English proficiency certificate – TOEFL/IELTS (for non-native speakers of English)
- Certificate of Indonesian Language course (if any)
- Copy of passport
- For Master and PhD program require to submit a research proposal via email at io@ub.ac.id

Documents that should be prepared to apply online:

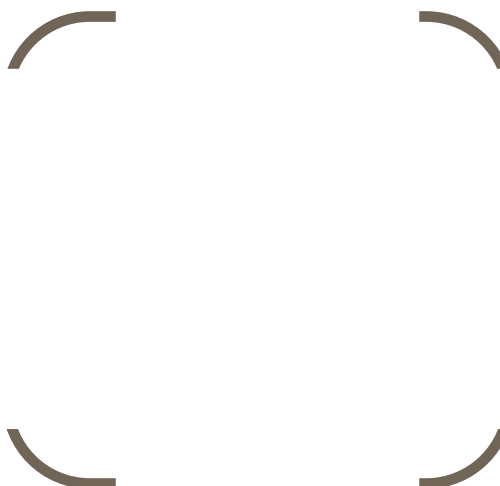
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- Copy of passport
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Apply online: <http://selma.ub.ac.id/wp-app/pendaftaran/isa>

Fees for International Student of Faculty of Engineering Universitas Brawijaya

Types of Fee	Undergraduate	Postgraduate	
		Master's	Doctorate
Application fee (Paid once at first registration)	\$100	\$100	\$100
Tuition fee per semester	\$1,250	\$1,500	\$2,000
Admission fee (Paid once at first registration)	\$2,650	\$2,650	\$3,150

Scan Barcode





Campus Facilities



LIBRARY

The library plays a central role in the accumulation and curation of the university's intellectual assets, and in facilitating their utilization for education, research, and community engagement.

www.lib.ub.ac.id

HEALTHCARE

Universitas Brawijaya's hospital (RSUB) functions as both a medical research facility and also a community healthcare institution. The vision is being a hospital with service excellence and international reputation.

www.rumahsakit.ub.ac.id

IO UB

International Office provides information and advisory about international collaboration, programs, or activities for lecturers, students, and staffs.

io.ub.ac.id

HOUSING

UB provides housing for international researches and students at several locations close to its campus. It has 20 rooms for international students, a meeting room, a cafeteria, and an internet access.

griyabrawijaya.ub.ac.id

SPORTS

UB provides a sport clubhouse to facilitate the students and staffs to do some sport activities, such as fitness, aerobic, zumba, futsal, badminton, and tennis. We also have a football court and a climbing wall.

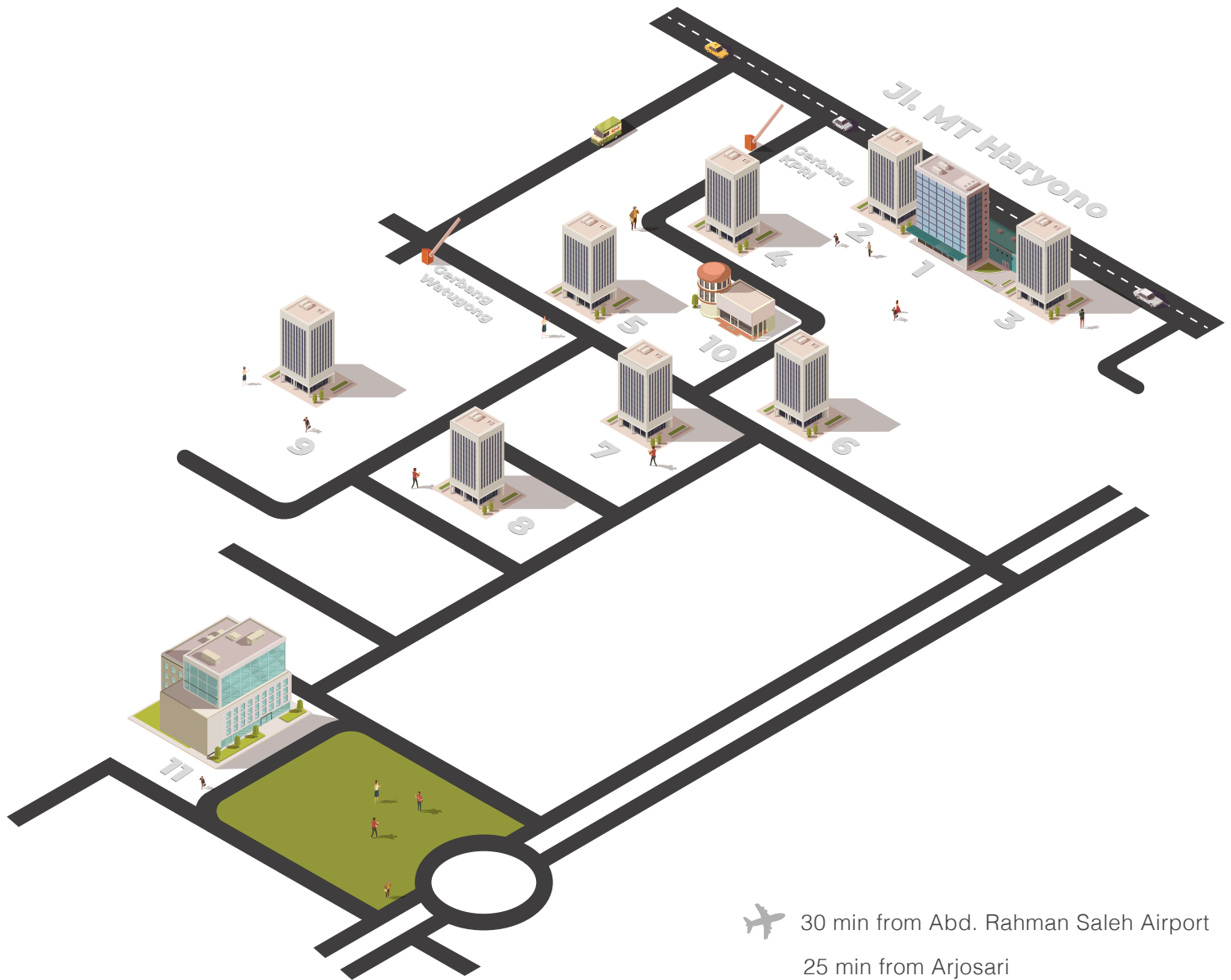
www.sportcenter.ub.ac.id

CULTURAL

For our international guests who want to experience Malang art culture, we provide traditional dance and music performance by Unitantri. It is a community that has the experience of performing at various events.

unitantri.ub.ac.id

Engineering Campus Map



1. Faculty of Engineering Building
2. Architecture
3. Urban & Regional Planning
4. Chemical Engineering
5. Civil Engineering

6. Water Resource Engineering
7. Industrial Engineering
8. Mechanical Engineering
9. Electrical Engineering
10. Al-Hadiid Mosque
11. Rectorate Building



The Beautiful Malang

About Malang Raya

Malang Raya, the second largest region in East Java, is known for its cooler temperatures, beautiful surrounding countryside and attractive streets lined with historical buildings. Malang Raya covers the area of Malang City (Kota Malang), Batu City (Kota Batu) and Malang Regency (Kabupaten Malang).

Set on the Brantas River, Malang City grows as a center for trade, industries, and education. In the old days, the Dutch used it as a holiday escape, and a number of the mansions, government buildings and churches they built still remain standing today.

Several Hindu temples and relics such as the Singosari Temple from the 12th century can be found in Malang Regency. It also blessed with beautiful natural attractions like the magical Bromo Mountain, the highest peak in Indonesia in Semeru Mountain, waterfalls, and also beach along the South Region of Malang Regency.

The last area, Batu City is the highland of Malang Raya. It produces variety of fruits, vegetables and flowers and has been a major area for tea plantation since the Dutch colonial. Nowadays, Batu City completed with modern attractions such as parks and museums.



1. Mount Bromo
2. Jatim Park 2 Batu Secret Zoo
3. Museum Angkut
4. Jatim Park 1
5. Coban Talun Waterfall
6. The Great Mosque Of Malang
7. Jatim Park 3
8. Kampung warna warni
9. Katedral Kayu Tangan
10. Omah Kayu
11. Alun Alun Malang



FACULTY OF ENGINEERING

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