

FACULTY OF INDUSTRIAL TECHNOLOGY (FIT)
Fakultas Teknologi Industri (FTI)
Petra Christian University (PCU)

NAVIGATE THE CHALLENGES WITH THE TECHNOPRENEURSHIP SPIRIT

Program Sarjana (Undergraduate/bachelor degree program) yang ditawarkan :

1. Electrical Engineering
2. Internet of Things
3. Sustainable Mechanical Engineering and Design
4. Automotive
5. Industrial Engineering
6. Global Logistics and Supply Chain
7. Informatics
8. Business Information System
9. Data Science and Analytics

Postgraduate Program (Program Pascasarjana/Profesi) :

- Master's Program in Industrial Engineering
- Engineer Profession Education Department

Program Internasional (International Program):

- Int. Business Engineering (p.41)

MESSAGE FROM DEAN

Revolusi industri terus terjadi dan membawa dampak signifikan dalam kehidupan kita. Seiring perkembangan teknologi, industri semakin modern. Tuntutan untuk meningkatkan otomasi pada industri dengan kecerdasan buatan menjadi tantangan masa kini. Teknologi modern ini memerlukan SDM yang memadai.

Untuk memenuhi SDM ini, FTI hadir dengan 10 program level S1 (1 program internasional), 1 program profesi insinyur, dan 1 program master. Lulusan dapat berkarir sebagai professional dan techno-entrepreneur.

“As engineers, we were going to be in a position to change the world – not just study it.”

— Henry Petroski

Dr. Ir. Ekadewi Anggraini Handoyo, M.Sc.
DEAN, FACULTY OF INDUSTRIAL TECHNOLOGY

Find Out More :



<https://petra.ac.id/faculty/12>

WHY YOU SHOULD BE PART OF US (FACULTY OF INDUSTRIAL TECHNOLOGY (FIT))

- We Build with Technopreneur Spirit
Membentuk praktisi yang kritis dan kreatif untuk menciptakan kesempatan baru.
(Shaping critical and creative practitioners to create new opportunities.)
- Convey Many Experience
Menunjang praktik nyata mungkin melalui fasilitas pembelajaran yang inovatif.
(Providing hands-on practice through innovative learning facilities.)
- Adaptive to Government Programs
Rancangan kurikulum teradaptasi dan sejalan dengan program Merdeka Belajar Kampus Merdeka (MBKM).
(The curriculum is designed to adapt and to align with Merdeka Belajar Kampus Merdeka (MBKM) program)
- Leadership Enhancement Program (LEAP)
Program inovatif yang dirancang untuk merespon Industry 4.0, Society 5.0, dan semua perubahan zaman.
(An innovative program designed to respond to Industry 4.0, Society 5.0, and the ever-changing era.)

Study Track :

Ada beberapa jalur studi yang bisa kamu ambil. Cek simbol pada daftar program!
(You can choose 3 study paths. Check the symbol on the list of programs!)

● REGULAR TRACK

Jalur ini menerapkan kurikulum dengan rangkaian metode pembelajaran komprehensif dan menjamin international experiential learning untuk program yang kamu minati.

(It provides a comprehensive curriculum and international experiential learning tailored to your interests.)

■ MASTER'S TRACK

Upgrade ke Master's Track untuk meraih gelar S1 dan S2 di bawah fakultas yang sama hanya dalam 5 tahun dengan satu paket perhitungan biaya.

(Get your bachelor's and master's degrees under the same faculty in just 5 years with bundled funding.)

★ INTERNATIONAL TRACK

Dengan menambah International Track ke jalur studimu, maka proses pembelajaran juga mencakup ragam aktivitas internasional (p.38).

(Expand your range of activities for a more international learning experience (p.38).)

PSST!

Khusus International Track, kamu juga akan mendapatkan international professional certification dan mengikuti 20 SKS kuliah dalam Bahasa Inggris untuk persiapan international cross-culture. Convey Many Experience Menunjang praktik nyata mungkin melalui fasilitas pembelajaran yang inovatif.

(Providing hands-on practice through innovative learning facilities. Get an international professional certification and 20 credits of lectures in English to prepare for international cross-culture)

ELECTRICAL ENGINEERING

Program ini menghasilkan engineer yang memiliki HIKMAT (Hikmat, Integritas, Kompeten, Mandiri, Adaptif, Terampil), berjiwa teknopreneur, dan siap bersaing di era Industri 4.0.

Program berfokus pada pengembangan Sistem Automasi Cerdas (Smart Automation System) dan dibagi menjadi 2 bidang studi: Teknik Energi Listrik dan Teknik Elektronika. Dengan menerapkan project-based learning, program ini akan membekalimu dengan pengetahuan dan kompetensi terkini yang relevan dengan perkembangan industri teknik elektro.

This program produces engineers with HIKMAT (WISDOM; Wisdom, Integrity, Competent, Independent, Adaptive, Skilled), a technopreneur spirit, ready to compete in the Industrial 4.0 era.

The program focuses on developing Smart Automation Systems and is divided into two fields of study: Electrical Energy Engineering and Electronic Engineering. By applying project-based learning, this program will equip you with the latest knowledge and competencies relevant to developing the electrical engineering industry.

4 Years (Study Duration)

8 Semester (Two in a Year)

144 Credits (Cores and Specials)

Building Foundations : Building math and basic science knowledge, learning basic

Deepening Skills : Deepening knowledge skill in electrical engineering and IoT field

Integrating System : Integrating various parts via project-based learning

Preparing Career : Apprenticeship program in industry, doing final project in a team

Career Prospects :

- Automation Integrator
- Robot Engineer
- Maintenance Engineer
- Electrical Design Engineer
- Electrical Contractor

Find Out More :



<https://electrical.petra.ac.id>

INTERNET OF THINGS

Program ini menghasilkan engineer dan inovator di bidang Internet of Things (IoT). Kamu akan dilengkapi dengan pengetahuan dan kompetensi untuk merancang dan menerapkan sistem IoT di berbagai bidang kehidupan (industri, rumah, kantor, perkotaan, pertanian, healthcare, dll.). Program ini menerapkan pendekatan project-based learning dan dilengkapi dengan Laboratorium Telematika dan Internet of Things (bekerja sama dengan Handyman Smart Home). Mari bergabung dan siapkan diri kamu menghadapi era Society 5.0.

This program produces engineers and innovators in the field of Internet of Things (IoT). You will get knowledge to compete in designing and implementing IoT systems in various areas of life (industry, home, office, city, agriculture, healthcare, etc.). This program applies a project-based learning approach and is equipped with Telematics and Internet of Things labs (in collaboration with Handyman Smart Home). Join and prepare yourself for the Society 5.0 era.

4 Years (Study Duration)

8 Semester (Two in a Year)

144 Credits (Cores and Specials)

Building Foundations : Building math and basic science knowledge, learning basic

Deepening Skills : Deeping knowledge skill in electrical engineering and IoT field

Integrating System : Integrating various parts via project-based learning

Preparing Career : Apprenticeship program in industry, doing final project in a team

Career Prospects :

- Start Up Founder
- IoT Hardware and Software Engineer
- IoT Product Manager
- App Developer

Find Out More :



<https://iot.petra.ac.id>

SUSTAINABLE MECHANICAL ENGINEERING AND DESIGN

Topik ramah lingkungan menjadi marak karena kesadaran masyarakat dan banyaknya program berskala global yang merespon permasalahan tersebut. Hal tersebut tentu mempengaruhi permintaan desain permesinan yang berwawasan lingkungan dan berkelanjutan. Program ini merupakan inisiasi yang turut mengambil bagian dengan menyediakan program seperti Sustainable Mechanical Engineering and Design, yang dapat kamu ambil di PCU.

The topic of being environmentally friendly has become popular because of public awareness and the many global-scale programs that respond to these problems. This certainly affects the demand for ecologically sound and sustainable engine design. This program is an initiative that takes part by providing programs such as Sustainable Mechanical Engineering and Design, which you can take at PCU.

4 Years (Study Duration)

8 Semester (Two in a Year)

144 Credits (Cores and Specials)

Building Foundations : Creating new motivation through basic science and exploration and formation of Christian value

Deepening Skills : Understanding fundamental engineering and social community

Integrating System : Creating simple engineering problems and civics through short internship in automotive companies

Preparing Career : Researching for problem solving in automotive engineering with Technology R.I.4.0

Career Prospects :

- Entrepreneur
- Contractor/Supplier
- Mechanical and Electrical Consultant
- Professional in Industries
- Production/Engineering/ RnD Manager

Find Out More :



<https://smed.petra.ac.id>

AUTOMOTIVE

Sebagai satu - satunya program sarjana otomotif di Jawa Timur, kami memahami kebutuhan industri otomotif saat ini. Dalam program ini, kami akan menyiapkanmu menjadi individu berkompeten secara teori dan praktik melalui pembelajaran di laboratorium dan melalui rekan industri yang ada. Kamu juga akan dibimbing dalam manajemen bidang permesinan untuk memenuhi kualifikasi yang di butuhkan.

As the only automotive undergraduate program in East Java, we understand the needs of the automotive industry today. In this program, we will prepare you to become a theoretically and practically competent individual through laboratory learning and through our existing industry partners. You will also be guided in the management of the machinery sector to meet the required qualifications.

4 Years (Study Duration)

8 Semester (Two in a Year)

144 Credits (Cores and Specials)

Building Foundations : Creating new motivation through basic science and exploration and formation of Christian value

Deepening Skills : Understanding fundamental engineering and social community

Integrating System : Creating simple engineering problems and civics through short internship in automotive companies

Preparing Career : Researching for problem solving in automotive engineering with Technology R.I.4.0

Career Prospects :

- Auto Aftermarket Entrepreneur
- Automotive Dealer Owner/ Manager
- Repair Center Owner/Manager
- Industry Professional

Find Out More :



<https://automotive.petra.ac.id>

INDUSTRIAL ENGINEERING

Program ini mempersiapkanmu menjadi pemimpin di dunia industri dengan kemampuan berpikir kritis dan inovatif dalam mengintegrasikan sumber daya untuk meningkatkan efisiensi, efektivitas, dan produktivitas perusahaan. Ada banyak pengalaman belajar yang menyenangkan di laboratorium bersama teman-teman sekaligus melatih kepemimpinan melalui berbagai kegiatan organisasi mahasiswa. Program magang kerja sebagai tugas akhir di industri nasional dan internasional mempersiapkan kalian untuk langsung terjun di industri.

This program prepares you to become a leader in the industrial world equipped with critical and innovative thinking skills to optimize company efficiency, effectiveness, and productivity. There are many enjoyable learning experiences in the laboratory with friends while developing leadership skills through various student organization activities. The internship program as a final assignment in national and international industries will prepare you to directly engage in the industry

4 Years (Study Duration)

8 Semester (Two in a Year)

144 Credits (Cores and Specials)

Building Foundations : Understand the basic concepts and principles of industrial engineering

Deepening Skills : Apply techniques for data analysis in industry decision-making

Integrating System : Designing systems for measuring quality and productivity in industry

Preparing Career : Conducting research to provide solutions for industrial problems

Career Prospects :

- Engineering Manager
- Operation Manager
- Business Development Manager
- Health and Safety Environment Engineer
- Quality Assurance Manager

Find Out More :



<https://industrial.petra.ac.id>

GLOBAL LOGISTICS AND SUPPLY CHAIN

<https://glsc.petra.ac.id>

Sebagai negara kepulauan dengan lebih dari 17.000 pulau, Indonesia memiliki tantangan tersendiri dalam mengatur sistem distribusi dalam dan luar negeri. Industri logistik Indonesia memegang peranan strategis sekaligus memiliki potensi ekonomi yang besar untuk bertumbuh di masa depan.

Program ini akan mempersiapkanmu menjadi pemimpin di industri logistik dengan pengalaman belajar langsung di laboratorium dan di industri. Berbagai kegiatan organisasi kemahasiswaan juga akan memberikan pengalaman leadership dan teamwork untuk menjadi Global Socioleader di masa depan. Kalian juga berkesempatan untuk magang sebagai tugas akhir di berbagai perusahaan logistik di Indonesia.

As an archipelagic country with over 17,000 islands, Indonesia faces unique challenges in managing its distribution systems domestically and internationally. The logistics industry in Indonesia plays a strategic role and holds significant economic potential for future growth.

This program will prepare you to become a leader in the logistics industry through hands-on learning experiences in both the laboratory and the field. Various student organization activities will also provide opportunities to gain leadership and teamwork skills, shaping you into a future Global Socioleader. Moreover, you will have the chance to intern as your final assignment in various logistics companies across Indonesia.

4 Years (Study Duration)

8 Semester (Two in a Year)

144 Credits (Cores and Specials)

Building Foundations : Understand basic concepts and principles of industrial engineering and logistics

Deepening Skills : Applying data analysis techniques for logistics industry decision making

Integrating System : Designing measurement system for quality and productivity in the logistics industry

Preparing Career : Conducting research to provide solutions for industrial problems

Find Out More about our **GLOBAL LOGISTICS AND SUPPLY CHAIN** program at Petra Christian Univesity, please visit website: <https://glsc.petra.ac.id>



INFORMATICS or Computer Science (INFORMATIKA)

<https://informatika.petra.ac.id>

Beragam sektor di dunia sudah melakukan digitalisasi pada sistem operasionalnya, sehingga hal ini sudah menjadi umum. Namun, bagaimana kamu dapat mengikuti laju perkembangan dan kebaruan yang tidak ada hentinya?

Program ini memiliki empat konsentrasi yang dapat kamu pilih sebagai fokus studimu: Artificial Intelligence, Game Development, Cyber Security, dan Mobile Application Development. Dengan begitu, kamu akan memenuhi kualifikasi dan siap menjadi bagian laju perkembangan industri teknologi informasi di masa kini maupun yang akan datang.

Various sectors worldwide have done digitalization in their operational systems, which makes it common nowadays. However, how can you keep up with the pace of unstoppable development and recency?

This program has four concentrations which you can choose as the focus of your studies: Artificial Intelligence, Game Development, Cyber Security, and Mobile Application Development. Therefore, you will get qualified and ready to be part of the fast-pace information technology industry development both in the present and the future

4 Years (Study Duration)

8 Semester (Two in a Year)

144 Credits (Cores and Specials)

Building Foundations : Understanding the concept and basis of computing systems

Deepening Skills : Implementing computing methods to enhance various aspects of organizations

Integrating System : Internalizing the spirit of entrepreneurship in the field of computing system

Preparing Career : Leading various development projects in the information technology field

Career Prospects :

- Full Stack Developer
- AI Engineer/Developer
- Cyber Security Analyst
- IT Manager/Consultant
- Network/Database Engineer

Find Out More about Informatics program of Petra Christian University, visit the website:

<https://informatika.petra.ac.id>



BUSINESS INFORMATION SYSTEM

Dengan dua pilihan konsentrasi: Enterprise Information System dan Business Intelligence, kamu akan mampu mengakomodasi perkembangan teknologi informasi dalam operasional perusahaan. Jiwa IT-savviness-mu akan dibekali dengan pengetahuan dan kompetensi yang dapat kamu gunakan untuk menghasilkan solusi terhadap suatu kebutuhan. Di samping itu, kamu juga akan dibentuk menjadi seorang praktisi berkarakter resilience.

With two choices of concentrations: Enterprise Information System and Business Intelligence, you will be able to accommodate the development of information technology in the company's operations. Your IT-savviness soul will be provided with knowledge and competencies that you can use to create solutions. Besides, you will be formed into a practitioner with resilience character.

4 Years (Study Duration)

8 Semester (Two in a Year)

144 Credits (Cores and Specials)

Building Foundations : Understanding the basic database structures and computer networks

Deepening Skills : Enhancing the knowledge of software engineering and database structure

Integrating System : Learning artificial intelligence techniques and approaches on advance level

Preparing Career : Preparing and securing a meaningful employment

Career Prospects :

- Business Analyst
- Information System Manager
- Enterprise Resource Planner
- IT Project Manager

Find Out More : <https://sib.petra.ac.id>



DATA SCIENCE AND ANALYTICS

Program ini adalah salah satu pilihan untuk kamu yang ingin mendalami sektor industri teknologi. Menariknya, program ini sudah didukung oleh teknologi terkemuka yang melibatkan beragam software dan information technology vendor dalam proses pembelajarannya, lho!

Konsentrasi studi berpedoman pada Kerangka Kualifikasi Nasional Indonesia (KKNI) jenjang 6 (enam), APTIKOM (Asosiasi Pendidikan Tinggi Informatika dan Komputer) serta ACM/IEEE computing curricula, menjadikanmu data scientist/engineer yang memenuhi kualifikasi dan unggul.

This program is a right choice for you who wants to explore the industry technology sector. This program is supported by leading technology that involves various software and information technology vendors in the learning process!

The concentration of studies is guided by the Indonesian National Qualifications Framework (KKNI) level 6 (six), APTIKOM (Association of Informatics and Computer Higher Education), and ACM/IEEE computing curricula, making you a qualified and excellent data scientist/engineer.

4 Years (Study Duration)

8 Semester (Two in a Year)

144 Credits (Cores and Specials)

Building Foundations : Understanding the basis of data extraction, processing, and visualization

Deepening Skills : Gaining valuable insights from data to support organizations' missions

Integrating System : Internalizing the spirit of entrepreneurship in the field of data analysis

Preparing Career : Leading analytical teams to acquire innovative solutions for companies' problems

Career Prospects :

- Data Architect/ Scientist/ Engineer
- Business Analyst (in various levels of expertise and corporate positions)

Find Out More :



<https://dsa.petra.ac.id>