

S1

Computer Systems Engineering



Outstanding School of
Applied Science Technology
Engineering & Mathematics.

future
life
skills

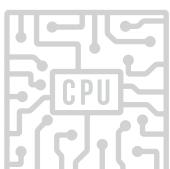
Uniting People
with Seamless
Computer Systems

Computer Systems Engineering

Tentang S1 Computer Systems Engineering

Apa itu *Computer Systems Engineering?*

Computer Systems Engineering (CSE) merupakan program studi yang mempersiapkan mahasiswa dengan keahlian / penguasaan sistem cerdas (*IoT-based Technopreneurship*) dengan *exposure* bisnis dan inovasi.



Fokus S1 Computer Systems Engineering

Universitas Prasetiya Mulya

01

02

Communications & Network

Cabang ilmu komputer yang mempelajari teknologi jaringan (*networking*) termasuk komponen pendukung untuk mendukung interkoneksi (*communication*) antar *devices*.

Aplikasi:

Wireless Technologies
(WiFi, WLAN, 5G), CISCO Devices.

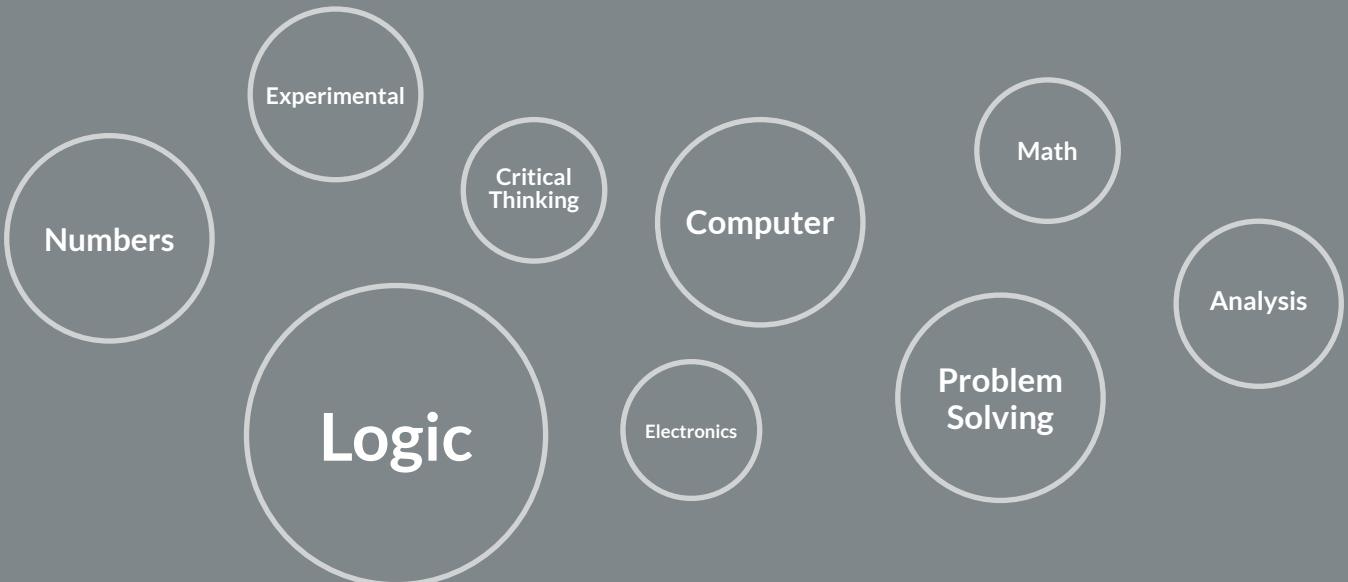
Intelligent Systems

Penggabungan sistem komputer dan *Artificial Intelligence (Machine Learning, Data Science/Engineering)*, yang mempelajari interaksi antara manusia (*human*) dengan mesin (*robot*) yang mempunyai aspek intelegensi (*smart*).

Aplikasi:

JARVIS/Iron-Man, Smart City, *Internet of Things (IoT)*.

Jika Kamu Menyukai



Maka Program Studi *Computer Systems Engineering* merupakan pilihan tepat untuk kamu.

CSE Real Facts !

01. CSE is everywhere -- you name it !
Wearables, Smart Appliances (Car, Fridge, Phone, ..), Communications (WiFi, Sensor Networks, 5G), AI-based systems (Siri, Google Assistant)
02. Being a CSE Engineer means you are a logical, creative, and intelligent person-- all in one !



Kurikulum

Science & Maths

- Basic Sciences
- Engineering Maths

Soft Skills

- Applied Communications
- Personal Development
- Logical & Critical Thinking

Major & Minor / Electives

- Electronics & Programming
- Microprocessor-based Systems
- Wireless Technology & Computer Networks
- Artificial Intelligence (Data Science)
- (IoT) Internet of Things
- Database & Web Programming
- Electives*
(Robotics, Cloud Technology,..)

Entrepreneurship

- Business & Management
- Creativity & Technological Innovation
- Business Innovation
- Digital Strategy

Co-op Program (1 tahun bekerja / riset)

- On Job Training
- Community Development Project
- Professional Residency

Profil Lulusan

*Entrepreneurial
Engineer
di bidang rekayasa
sistem komputer*

01

Memiliki pengetahuan yang komprehensif tentang sistem berbasis komputer (*IoT-based Technopreneurship*).

02

Memiliki jiwa inovasi dan pengetahuan dasar tentang bisnis.

Prospek Karir

01

IoT / AI Specialist

Membuat sistem pintar (IoT) yang menggabungkan *hardware (sensors)* dan *software (App)*.

Contoh:

- Implementasi *Digital Assistance (voice-based)* berdasarkan AI (*SIRI, Google Assistant*) untuk *smartphone*
- Implementasi *tracking location (google location)* di *mobile terminal (App)*, dll

02

Chief Technology Officer (CTO)

Sebagai *executive level* di perusahaan yang berfokus dan mengembangkan isu terkait teknologi.

03

Computer Systems Specialist

Merancang produk/ sistem pintar (*smart systems*) berbasiskan komputer.

Contoh:

- Rumah pintar (*smart house*)
- Perangkat pintar (*smart appliances*).

04

Computer Network Expert

Merancang / mengimplementasi jaringan (berbasis internet).

Contoh:

- Perancangan jaringan WLAN untuk SOHO (*Small Home Small Office*) memakai perangkat CISCO

Faculty Member

S1 Computer Systems Engineering

- Bergelar S2 (Master) dan S3 (Doctor) dari Universitas dalam dan luar negeri (Singapura, Perancis, Korea, Jerman)
- Profesor tamu dari luar negeri (Inggris, Jepang, Singapura)
- Berpengalaman dalam proyek riset industri

Laboratorium /Center

Virtual Lab.
Basic Science Lab.
Ambient Intelligence Lab.
Circuits & Electronics Lab.
CSE Workspace
Communications & Networks Lab.
Embedded Systems Lab.
Computing Lab.
High Performance Computing Cluster
AI / Data Science Center
STEM-Preneur Center



Kegiatan yang dilakukan

Workshop (on-site/off-site)

- Build Your Own Game And Console
- Network's Apprentice
- Remote Control HACK
- Be Like STARK



Seminar / Webinar / Talk Series

- Preparing you to become a Researcher!!
- Human-Machine Paradigm
- The Dangerous of Digital World
- Life's Engineered
- IoT Around You
- Computer Graphics:
Computer Engineering Perspective



Guest Lecture in Computer Engineering

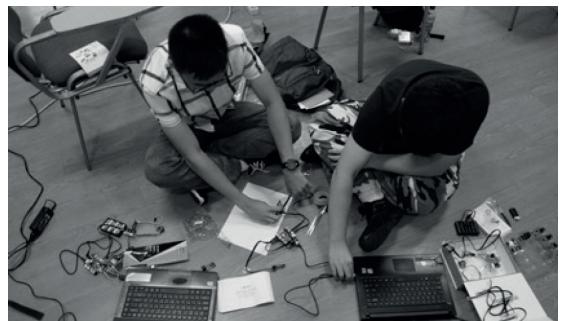
- Prof. Ian McLoughlin (University of Kent)
- Prof. Pitoyo Hartono (Chukyo University)
- Mr. Gian Wijoyo (Telkomsel)
- Mr. On Lee (CTO of CDP Venture, CDP Labs, Kaskus)



Kegiatan yang dilakukan

Camp / Club / Academy

- Infinity Camp (Yearly)
3-day summer course (AI, Robotics, Games)
- High School Computer Engineering Club
- IoT Academy



Kerjasama yang Dilakukan



Focus:
Digital Transformation
& Industrial Automation



Focus:
Engineering,
Systems Integration,
Factory Automation



Focus:
IoT, AI, Smart Retail



STEM
Prasetiya Mulya

future
life
skills

This material is prepared in September, 2020.
For updated info, further programs offering and detailed direction,
please visit www.prasetyamulya.ac.id



Universitas Prasetiya Mulya | BSD Campus
Kavling Edutown I.1, Jl. BSD Raya Utama
BSD City, Tangerang 15339
Telp. (021) 304 50 500 . Fax: (021) 304 50 555

© 0815 1166 2005 | 0812 4111 660
✉ info@prasetyamulya.ac.id
🌐 www.prasetyamulya.ac.id
🐦 🌐 @prasmul