



UNIVERSITAS  
GADJAH MADA

# Dual Degree Master Program in Computer Science at Universitas Gadjah Mada and National Central University, Taiwan

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Universitas Gadjah Mada, Yogyakarta

Alumni Sharing #2  
Lab Sistem Cerdas DIKE FMIPA UGM  
Thursday, August 27, 2020



# Introduction

Diyah Utami Kusumaning Putri, S.Kom., M.Sc., M.Cs.



## EDUCATION BACKGROUND

- ❑ 2012-2016 S.Kom., Universitas Gadjah Mada, Indonesia
- ❑ 2017-2019 M.Cs., Universitas Gadjah Mada, Indonesia
- ❑ 2018-2019 M.Sc., National Central University, Taiwan  
(*Dual Degree Program*)

## THESIS

- ❑ 2019: Constrained Matrix Factorization in Real and Complex Domain for Face and Facial Expression Recognition
- ❑ 2016: Implementation Mamdani Fuzzy Inference System for Content-Based News Recommendation System

## RESEARCH INTEREST

- ❑ Machine Learning
- ❑ Data Science
- ❑ Natural Language Processing

# Double Degree Program S2 Ilmu Komputer UGM



- ❑ Department of Computer Science and Information Engineering, **National Central University (NCU)**, Taiwan
- ❑ Department of Information Management, **National Taiwan University of Science and Technology (NTUST)**, Taiwan
- ❑ Graduate School of Natural Science and Technology, **Kanazawa University**, Japan
- ❑ School of Computer Science, **University of Birmingham (UoB)**, United Kingdom.



# National Central University Taiwan

- ❑ Lokasi: Zhongli, Taoyuan City, Taiwan
- ❑ Area: 62 hektar
- ❑ Mahasiswa: 12000
- ❑ Faculty Members: 970
- ❑ 8 colleges
  - ❑ College of Liberal Arts
  - ❑ College of Science
  - ❑ College of Engineering
  - ❑ School of Management
  - ❑ College of Electrical Engineering and Computer Science
    - ❑ Department of Computer Science and Information Engineering
  - ❑ College of Earth Sciences
  - ❑ College of Hakka Studies
  - ❑ College of Health Sciences and Technology





# Prosedur Pendaftaran

1. Melamar program *dual degree* dengan mengirimkan **berkas dokumen** ke universitas tujuan dan/atau mendaftar melalui situs kampus. Pengiriman dokumen akan dibantu oleh OIA MIPA
2. Universitas tujuan akan menyeleksi berkas yang telah kita kirimkan
3. Hasil akan dikirimkan melalui email dan/atau *Letter of Acceptence* yang dikirimkan ke universitas asal



# Dokumen

- ❑ *Application Form*
- ❑ *Dormitory Application Form (optional)*
- ❑ Fotokopi Paspor
- ❑ Fotokopi Ijazah S1 dan Transkrip Nilai S1
- ❑ Transkrip Nilai S2 (yang telah disahkan)
- ❑ Sertifikat TOEFL/TOEIC/IELTS
- ❑ *Letter of Recommendation* (1 atau 2)
- ❑ *Curriculum Vitae*
- ❑ Rencana Penelitian Tesis
- ❑ Pas foto (format paspor)

# Letter of Acceptance



國立中央大學

NATIONAL CENTRAL UNIVERSITY  
Office of International Affairs

桃園市中壢區中大路 300 號 300, Zhongda Rd., Zhongli District, Taoyuan City, Taiwan 320  
Tel: +886-3-4207107 / Fax: +886-3-4203384 / www.ncu.edu.tw / IntlAdms@ncu.edu.tw

## Letter of Acceptance

This is to certify that DIYAH UTAMI KUSUMANING PUTRI, the student of Universitas Gadjah Mada, has been accepted to participate in the Dual Degree Program in the Department of Computer Science and Information Engineering at National Central University from September 2018 to June 2019. Tuition fees and credit fee are exempted based on the signed dual degree agreement.

Universitas Gadjah Mada 學生 DIYAH UTAMI KUSUMANING PUTRI 獲准參與以互惠為原則之國立中央大學資訊工程學系雙聯學制計畫，時間自 2018 年 9 月至 2019 年 6 月止。履行方式依兩校簽署之跨國雙聯學制合約內容執行之。以此函證明其入學許可，請准予該生之相關證件申請。

Sincerely,

Hsieh-Lung Hsu  
Vice President for International Affairs  
National Central University

*LoA* menjelaskan **skema beasiswa** yang akan diperoleh selama mengikuti program *dual degree*

## Skema Beasiswa

- Free Tuition fees*
- Free credit fee*
- Beasiswa sebagai *research assistant* tergantung lab
- Fasilitas: PC pribadi dan akses ke lab 24 jam

# Perkuliah



- ❑ Pemilihan matakuliah melalui sistem *add & drop* selama 2 minggu awal perkuliahan
- ❑ Setiap kelas memerlukan *authorization code* yang didapatkan saat kuliah pertama
- ❑ Terdapat beberapa mata kuliah bahasa inggris yang ditawarkan
- ❑ Diwajibkan mengambil 9 *credits* (3 mata kuliah)
- ❑ Kuliah bersama dengan mahasiswa S1, S2 dan S3





# Mata Kuliah (Pengantar Bahasa Inggris)

Source: <https://cis.ncu.edu.tw/Course/>

## Fall Semester - 2018

- ❑ Natural Language Processing
- ❑ Programming Language Design
- ❑ Introduction to Bayesian Data Analysis
- ❑ Introduction to Data Science
- ❑ Machine Learning
- ❑ 3D Computer Graphics
- ❑ Computational Geometry
- ❑ Chinese Listening and Speaking I
- ❑ Seminar

## Spring Semester - 2019

- ❑ Computer Architecture
- ❑ Introduction to Deep Learning
- ❑ Information Retrieval and Extraction
- ❑ Social Media Mining
- ❑ Seminar

# Transfer Mata Kuliah



UNIVERSITAS GADJAH MADA

## NCU Application for the Credits Waivers

\_\_\_\_年\_\_\_\_月\_\_\_\_日\_\_\_\_day

姓名 Name	學號 Student ID No			電話 Phone
系所 Department	年級/班組 Grade/Class	年級 Grade	班組 Class	身份 Status <input type="checkbox"/> 新生 New student <input type="checkbox"/> 轉學生 Transfer student <input type="checkbox"/> 在校生 At school
原已修科目學分及成績 Credits and grades of the courses already taken		可抵免本校科目學分 Transferable credits		審核意見 Suggestion and Verification
科目 Subject	學年 Academic year	學期 Semester	學分 Credits	成績 Grades
科目 Subject	課號 Course Number	學分 Credits	必修 Required	選修 Elective
			開課單位 Teaching unit	系所 Major Department
			審核及簽章 Signature	審核及簽章 Signature
系所初審		教務處複審		
准予抵免必修：____學分；選修：____學分		准予抵免共計：____科____學分		
共計：____科____學分				
系所經辦 College/Department	系主任/所長 Chairman	註冊組經辦 Section of Registrar	註冊組組長 Registrar	教務長(或授權人) Dean of Academic Affairs



國立中央大學  
National Central University  
ZHONGLI, TAIWAN 32001, R.O.C.  
TRANSCRIPT OF ACADEMIC RECORD

Student Name : DIYAH UTAMI KUSUMANING PUTRI(普蒂雅)  
Registration NO : 107522628  
Date Enrolled : 09/2018

Degree Awarded : 06/2019 Master of Science

Major : Computer Science and Information Engineering  
School : College of Electrical Engineering and Computer Science

The following transcript is hereby certified as correct according to the record of the university.

Subject	Crt.	Grade	Subject	Crt.	Grade	Subject	Crt.	Grade
===== 2018 First Semester =====								
CE6001 Seminar	0							
CE6139 Introduction to Bayesian Data Analysis	3							
CE6143 Programming Language Design	3							
CE7024 Natural Language Processing	3							
CE7067 Thesis Research in Computer Science	1							
LN9065 Chinese Listening and Speaking I	2							
Total Credits & Average Grade	10							
===== 2018 Second Semester =====								
CE5051 statistical learning	3	TR						
CE6002 Seminar	0							
CE6020 Artificial Intelligence	3	TR						
CE6029 Advanced Algorithms	3	TR						
CE6039 Database	3	TR						
CE6143 Introduction to Data Science	3	TR						
CE7068 Thesis Research in Computer Science	1							
SE6023 Introduction to Cloud Computing	3	TR						
SE6030 Software engineering practices	3	TR						
Total Credits & Average Grade	1							
Cumulative Average Grade								
This is								
Average In Total(50% of Cumulative Average Grade and 50% of Thesis)								
Grade Point Average								
***** END OF TRANSCRIPT *****								

Scores	Graduate	Undergraduate	GPA
100-80	A	A	4
79-70	B	B	3
69-60	F	C	2
59-1	F	F	1
0	F	F	0

Grade remark
*** The grade has not been submitted yet
TR Transferred
W Withdrawn
P Pass
F Fail
Δ Not for credit in a degree program
EX Exemption

*Li-chick Chang*

Registrar





# Lab Research

Source: <https://en-test.csie.ncu.edu.tw/department/lab>

- 1) Artificial Intelligence & Pattern Recognition Lab
- 2) Image Processing & Virtual Reality Lab
- 3) High-Speed Communication and Computing Lab
- 4) Human Computer Interaction & Learning Lab
- 5) Agile Method Lab
- 6) Lab of Cryptography & Information Security
- 7) Database Lab
- 8) Computational Intelligence and Human-Computer Interaction Lab
- 9) Mobile Broadband Network Lab
- 10) Wireless Network and Multimedia Lab
- 11) Knowledge System Lab
- 12) Software Methodology Lab
- 13) Advanced Computing & Networking Lab
- 14) Multimedia Information Networking Lab
- 15) Web Intelligence & Data Mining Lab
- 16) Advanced Defense Lab
- 17) Intelligent Information Service Research Lab
- 18) Wireless Ad-Hoc and Sensor Networks Lab
- 19) Machine Intelligence & Automation Technology Lab
- 20) Object-Oriented Technology Lab
- 21) Multimedia Signal Processing Lab
- 22) Parallel and Distributed Computing Lab
- 23) **Deep Learning and Media System Lab**
- 24) Machine Learning and Biometric Recognition Lab
- 25) Programming and Software Lab
- 26) Data Analytics Research Team



# Aktivitas di Lab

## Deep Learning and Media System Lab



### Research Areas

- Multimedia Processing
- Speech, Music and Audio Processing
- Image, Video and Computer Vision
- Wearable Device, Embedded System and IC Chip Design
- Big Data and Machine Learning
- Internet of Things
- Artificial Intelligence, Deep Neural Networks and Data Compression

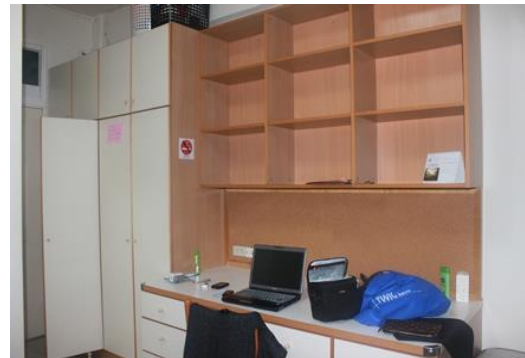
### Activity

- Research
- Weekly Report
- Meeting

# Suasana Kampus



# Dormitory



## Biaya Dormitory NCU

- International Dormitory
  - Fall Semester - ( 5 bulan) - NT 11,930
  - Spring Semester (7 bulan) - NT 16,700
- Female Dormitory
  - Fall Semester - ( 5 bulan) - NT 7,730
  - Spring Semester (7 bulan) - NT 10,620
- Male Dormitory
  - Fall Semester - ( 5 bulan) - NT 8,330
  - Spring Semester (7 bulan) - NT 11,660
- Kos
  - NT 2,500/ bulan

# Oral Defense

- ❑ Mempersiapkan *joint thesis supervision agreement* dan berkas penilaian yang diisi dan ditandatangani dosen di UGM dan NCU
- ❑ Mempersiapkan tesis sesuai dengan format UGM dan NCU
- ❑ Mempersiapkan presentasi dalam Bahasa Inggris
- ❑ Sidang dilakukan 1 kali menggunakan *teleconference*, dihadiri oleh pembimbing dan penguji dari UGM dan NCU



# Graduation Ceremony



UNIVERSITAS GADJAH MADA



Wisuda dilaksanakan serentak dan 1 tahun sekali pada tanggal 1 Juni 2019





# Daily Life in Taiwan



# Makanan Taiwan



## NCU Halal Card Muslim Dietary Guide

Shūcài  
**蔬菜**  
VEGETABLE

Dòufu  
**豆腐**  
TOFU

Yú  
**魚**  
FISH

Hǎixiān  
**海鮮**  
SEAFOOD

Niúnǎi  
**牛奶**  
MILK

Dàn  
**蛋**  
EGG

Jī  
**鸡**  
CHICKEN

Niúròu  
**牛肉**  
BEEF

Yā  
**鴨**  
DUCK

É  
**鵝**  
GOOSE

Yángròu  
**羊肉**  
LAMB

Zhūròu  
**猪肉**  
PORK

Pījiǔ  
**啤酒**  
BEER

Shé  
**蛇**  
SNAKE

Xiěyè  
**血**  
BLOOD

Jiǔ  
**酒**  
ALCOHOL

Zhū yóu  
**猪油**  
LARD

Taiwan Halal Label

✓ **EDIBLE**

~ **Only Islamic customs**

✗ **NO**

**素**  
Vegetarian

Formmit Utada
 Formmit\_utada
 Formmit Utada

## 國立中央清真卡 Guólì Zhōngyāng Dàxué Qīngzhēn Kǎ NCU Halal Card

1. 不好意思，因為我是穆斯林(回教徒)，飲食必須符合清真教義規範。麻煩請協助我遵守規定。
2. 我不可以吃任何含豬或血的產品，如豬肉、豬油、培根、火腿、香腸、豬血、豬血糕、鴨血。
3. 我不可以吃或喝含有酒精的食品、酒或飲料。
4. 如果必須用炒過豬肉或豬油的鍋子來作我的飯菜，麻煩拜託您將鍋子先清洗乾淨之後再炒。
5. 我不能吃任何不符合伊斯蘭教屠宰方式的牛、羊肉或雞、鴨、鵝肉。
6. 謝謝您的幫助，感恩大德。

1. Sorry, because I am a Muslim (Muslim), the diet must conform to the halal doctrine. Please help me to comply with the regulations.
2. I can't eat any products that contain pigs or blood, such as pork, lard, bacon, ham, sausage, pig blood, pig blood cake, duck blood.
3. I can't eat or drink alcohol, food or drink.
4. If you have to use a pot of fried pork or lard to make my meal, please ask me to clean the pot before frying.
5. I cannot eat any beef, lamb or chicken, duck or goose that does not conform to the Islamic slaughter.
6. Thank you for your help and gratefulness.



# Tempat Ibadah



# Transportasi



# Health Care System



## Covid19 Cases



# Budaya di Taiwan



Membersihkan Meja setelah Makan



Antri



Membuang Sampah

# Budaya di Taiwan



Menggunakan Reusable Bag



# Taiwan ranked 2nd safest country worldwide by Numbeo

Publication Date: July 14, 2020 |



A-

A+



Taiwan is the second safest country in the world and safest in Eastern Asia as per the latest crime index recently released by international database firm Numbeo. (MOFA)

Taiwan is the second safest country in the world and the safest in Eastern Asia, according to the latest crime index recently released by international database firm Numbeo.

# Persatuan Pelajar Indonesia di Taiwan



**Persatuan Pelajar Indonesia (PPI)** merupakan organisasi resmi pelajar dan mahasiswa Indonesia yang menuntut ilmu di luar negeri

# Indonesian Cultural Days



# Tips

- ❑ Dasar-dasar pemrograman, matematika dan statistika penting untuk dipahami
- ❑ Penting untuk mengikuti perkembangan *paper* terbaru sesuai dengan *research interest*
- ❑ Memperbanyak pengalaman saat masih kuliah
- ❑ Persiapan



THANK YOU

國立中央大學