# **Introduction to**

# National Formosa University (Taiwan)







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# An Overview

Established: 1980

President: Dr. Wen-Yu Jywe

**Full-time Faculty members: 333** 

**Students:** 10,406 (2014 Fall)

Location: Huwei Township, Yunlin County, Taiwan (Population 70,288)

Web site: www.nfu.edu.tw Academic Programs:

College of Engineering	Program	Faculty
Department of Power Mechanical Engineering & Graduate Institute of Mechanical and Electro-Mechanical Engineering	B.S., M.S., Ph.D.	21
Department of Mechanical and Computer-Aided Engineering	B.S., M.S.	17
Department of Materials Science and Engineering & Institute of	D.S., WI.S.	17
Materials Science and Green Energy Engineering	B.S., M.S.	18
Department of Mechanical Design Engineering	B.S., M.S.	17
Department of Automation Engineering	B.S., M.S.	15
Department of Vehicle Engineering	B.S., M.S.	12
Department of Aeronautical Engineering & Graduate Institute of Aeronautical and Electronic Engineering	B.S., M.S.	26
College of Management		
Department of Industrial Management & Institute of Industrial Engineering and Management	B.BA., MS	12
Department of Information Management	B.BA., MBA	13
Department of Finance	B.BA., MBA	11
Department of Business Administration & Institute of Business and Management	B.BA., MBA	11
College of Electrical and Computer Engineering		
Department of Electro-Optics Engineering & Institute of Electro-Optical and Materials Science	B.S., M.S., Ph.D.	19
Department of Electrical Engineering	B.S., M.S.	22
Department of Computer Science and Information Engineering	B.S., M.S.	17
Department of Electronics Engineering	B.S., M.S.	17
College of Applied Arts and Sciences		
Department of Biotechnology	B.S., M.S.	14
Department of Leisure and Recreation	B.S., M.S.	11
Department of Multimedia Design & Institute of Digital Content and Creative Industries	B.A., M.S.	10
Department of Applied Foreign Languages	B.A.	19

National Formosa University was founded in 1980 as National Yunlin Institute of Technology. The school was restructured as National Huwei Institute of Technology in 1997 and then expanded into National Formosa University (NFU) in 2004. NFU, a polytechnic institute, has been focusing on industry application and dedicated to quality education; therefore, it has been recognized as one of the favorite universities among students and entrepreneurs in Taiwan.

Currently, there are 4 colleges, 19 departments, 18 master degree programs, and 2 doctoral degree programs in NFU. The total number of faculty members is 333, and the total number of enrolled students is more than 10,000. In 2012, NFU procured an approximately 17-hectare land in Yunlin High Speed Railway Station area for our new campus, and we are now formulating a plan for its future development.

About school performance, all programs in the College of Engineering and the College of Electrical and Computer Engineering are accredited by IEET. IEET is a non-profit and non-government organization, and is a member of Washington Accord, Seoul Accord, Sydney Accord, and NABEEA. As a result, the degrees issued by those programs are recognized in many countries.

In the areas of university-industry collaboration, patent licensing, and technology transfer, NFU has also ranked among the best technological universities in Taiwan. There are 416 Utility Patents awarded from 2004 through 2013, the average 1.24 patents per faculty member is ranked top in Taiwan. NFU has been awarded with the title of "The Best Technology Transfer Center" five times by NSC in 2007, 2008, 2010, 2011 and 2012, and was exempted from the evaluation.

NFU, since 2006, has received funding from Ministry of Education Teaching Excellence Projects for eight years in a row. Moreover, in 2013, NFU received grants from MOE's 2013~2016 "Plan for Developing Technological University Paradigms"

In accordance with MOE's reforms of Higher Technological and Vocational Education (TVE), NFU is striving to establish an industry-government-university connection and collaboration and make a "seamless link to industry" for our students. Our ultimate goal is to cultivate well-rounded human resources for industries and ensure all NFU students are well-trained, highly competitive, and readily employable after graduation, so that that NFU can live up to its reputation as "technological university paradigm".

# Location



## **Brief History**

- 1980 Provincial Yunlin Institute of Technology (**PYIT**) was established by the Taiwan government in July of 1980.
- 1981 The school was renamed as National Yunlin Institute of Technology (**NYIT**) because of governance transfer.
- 1991 The school was renamed as National Yunlin Polytechnic Institute (NYPI)
- 1997 The institute was reorganized and renamed as National Huwei Institute of Technology (NHIT) by the order of the Ministry of Education. The five-year junior college system was replaced by a two-year system and a four-year college system.
- 2004 The school was renamed as National Huwei University of Science and Technology (NHUST)
- 2005 The school was renamed as National Formosa University (NFU)

## **Enrolled students in Fall 2014**

	Male	Female	Total
Bachelor Program	6807	2422	9229
Master Program	905	245	1150
Ph.D. Program	24	3	27
Total	7736	2670	10406

# **Program Establishment**

1980	Mechanical and Computer-Aided Engineering
	Materials Science and Engineering
	Mechanical Design Engineering
	Power Mechanical Engineering
	Electrical Engineering
1988	Electro-Optics Engineering
	Automation Engineering
1990	Vehicle Engineering
1991	Industrial Management
1995	Aeronautical Engineering
2000	Information Management
2001	Applied Foreign Languages
2002	Computer Science and Information Engineering
	Finance
2003	Business Administration
	Biotechnology
2004	Multimedia Design
	Leisure and Recreation
2005	Electronics Engineering
	Master Programs
2002	Institute of Electro-Optical and Materials Science
	Institute of Mechanical and Electro-Mechanical Engineering
2004	
	Information Management (MBA)
2005	Electrical Engineering
2006	Institute of Materials Science and Green Energy Engineering
	Institute of Business & Management (MBA)
2007	Institute of Aviation and Electronic Technology
	Mechanical and Computer-Aided Engineering
2008	Computer Science and Information Engineering
	Automation Engineering
	Biotechnology
2009	Mechanical Design Engineering
	Leisure and Recreation
2010	Electronics Engineering
	Vehicle Engineering
2011	Finance (MBA)
2013	Digital Content and Creative Industries
	Ph.D. Programs
2005	Institute of Electro-Optical and Materials Science
2006	Institute of Mechanical and Electro-Mechanical Engineering

## **Research and Service Centers**

- 1. Precision Machine Center (PMC)
- 2. Micro-Electronic Mechanical System (MEMS) Design and Application Center
- 3. Photonics and Display Technology Center
- 4. Analytical Service Center of Agriculture and Biotechnology Product
- 5. New Product Development and Management Research Center
- 6. Energy Science and Technology Center
- 7. Innovation & Incubation Center
- 8. Intellectual Property and Technology Transfer Division









## **Achievements**

- NFU has received funding from MOE Teaching Excellence Projects for eight consecutive years (2006~2014).
- NFU received funding from MOE Subsidy Directions for Developing Technological University Paradigms in 2013~2016.
- The medals that NFU faculty and students won at international competitions in 2013 included one gold and one silver medals at the Invention & New Product Exposition (INPEX) in Pittsburgh, USA, five gold and three silver medals at the 24th International Invention, Innovation and Technology Exhibition (ITEX 2013) in Malaysia, one gold, one silver, and one bronze medals at the International Exhibition of Invention of Geneva, one gold and one silver medals at the 16th Moscow International Salon of Industrial Property "Archimedes", one gold and two silver medals at the International Salon of Inventions and New Technologies in Ukraine, three gold, four silver, and five bronze medals at the 2013 Taipei International Invention Show and Technomart (INST), two gold medals, two silver medals, and one special award at the International Warsaw Invention Show.
- NFU has received the "Outstanding Technology Transfer Center Award" from the National Science Council (NSC) in 2007, 2008, 2010, 2011, and 2012, becoming one of Taiwan's top five universities with such an honor.
- NFU was ranked as the second top of the nation's universities and colleges, in terms of the number of patent licensing agreements signed from 2005 to 2012.
- All programs in the College of Engineering and the College of Electrical and Computer Engineering are accredited by IEET. IEET is a non-profit and non-government organization, and is a member of Washington Accord, Seoul Accord, Sydney Accord, and NABEEA. As a result, the degrees issued by those programs are recognized in many countries.
- NFU won the Champion in the 2014 World Robot Olympiad (WRO) in Sochi, Russia.







# Performance of Industry-Academia Collaboration and Service

Number of Technology Transfers, 2008 - 2014					
Year	No. of General Transfers (GT)	GT Royalty Fee (NT\$)	No. of Preliminary Technology Transfers (PTT)	PTT Royalty Fee (NT\$)	Total Royalty Fee (NT\$)
2008	8	2,980,000	29	2,263,243	5,243243
2009	8	10,800,000	51	3,231,976	14,031,976
2010	14	5,170,000	36	2,866,774	8,036,774
2011	14	20,520,000	33	4,253,976	24,773,976
2012	8	2,200,000	22	1,128,485	3,328,485
2013	15	3,490,000	18	2,548,932	6,038,932
2014/5	9	1,940,000	11	777,327	2,717,327

Performance of Innovation & Incubation Center			
Year	No. of Participated Enterprises	Financial Sponsorship (NT\$)	
2006	12	3,872,900	
2007	16	8,050,000	
2008	15	6,849,600	
2009	30	8,653,603	
2010	44	11,628,300	
2011	42	16,139,183	
2012	77	32,483,823	
2013	36	10,440,575	

No. of Utility Patents 2004-2013/ No. of faculty member	No. of Technology Transfers 1991-2014
416 / 335 = 1.24	561

## **International Cooperation**

### **Partner Universities**

#### **Belarus**

Francisk Skorina Gomel State University

#### Canada

British Columbia Institute of Technology (BCIT)

#### China

Dalian University of Technology

China University of Petroleum (UPC)

Wuhan University of Science and Technology

Yangtze University

### Germany

Ilmenau University of Technology

#### India

Kalinga Institute of Industrial Technology(KIIT)

### Italy

The University of Calabria

### Japan

Kinki University

Meiji University

Osaka Institute of Technology

Gunma University

Hosei University

Kochi University of Technology

### Mongolia

Mongolian University of Life Sciences (Mongolian State University of Agriculture)

#### Russia

Moscow State Aviation Technological University

### Sri Lanka

University of Peradeniya

#### **Thailand**

Thammasat University

King Mongkut's University of Technology Ladkrabang

Nakhon Phanom University

#### **USA**

Southern Illinois University at Carbondale (SIUC)

Indiana University-Purdue University Fort Wayne (IPFW)

Pittsburg State University (PSU)

#### Silicon Valley University

#### Vietnam

Hanoi University of Science and Technology

Vietnam National University of Agriculture (Hanoi University of Agriculture)

Foreign Trade University

Phuong Dong University

Vinh University

Nguyen Trai University

### **Exchange Student Programs**

- 1. Kinki University (Japan)
- 2. Meiji University (Japan)
- 3. Osaka Institute of Technology (Japan)
- 4. Southern Illinois University at Carbondale (SIUC, USA)
- 5. Indiana University-Purdue University Fort Wayne (IPFW, USA)
- 6. Pittsburg State University (PSU, USA)
- 7. British Columbia Institute of Technology (BCIT, Canada)
- 8. Okanagan College (Canada)
- 9. Moscow State Aviation Technological University (Russia)

## **Joint Research Projects**

- 1. Department of Mechanical and Computer-Aided Engineering Technische Universität Dortmund, Germany.
- 2. Department of Electrical Engineering

Technische Universität Carolo-Wilhelmina zu Braunschweig, Germany.

3. Department of Biotechnology &

Institute of Molecular Biology, Slovak Academy of Science, Slovak.

4. Department of Leisure and Recreation

Meteorological Institute, University of Freiburg, Germany.

- Office of Research and Development (Research and Services Headquarters) & Center for Affordable Nanoengineering of Polymeric Biomedical Devices, Ohio State University, USA.
- 6. Micro-Electronic Mechanical System (MEMS) Design and Application Center & Center for Automotive Mechatronics Part at Keimyung University, S. Korea.

# **Programs in English**

College of Engineering	Master	Ph.D.
Department of Power Mechanical Engineering & Graduate	C	
Institute of Mechanical and Electro-Mechanical Engineering		
Department of Mechanical and Computer-Aided Engineering	0	
Department of Materials Science and Engineering & Graduate		
Institute of Materials Science and Green Energy Engineering	)	0
Department of Mechanical Design Engineering	0	
Department of Automation Engineering	0	
Department of Aeronautical Engineering & Graduate	$\circ$	
Institute of Aeronautical and Electronic Engineering		
College of Management		
Department of Industrial Management & Institute of Industrial	C	
Engineering and Management		
Department of Information Management	0	
Department of Finance	0	
Department of Business Administration & Graduate Institute of	C	
Business and Management		
College of Electrical and Computer Engineering		
Department of Electro-Optics Engineering & Graduate Institute		
of Electro-Optical and Materials Science		
Department of Electrical Engineering	0	
Department of Computer Science and Information Engineering	0	
College of Applied Arts and Sciences		
Department of Biotechnology	0	

# **Programs in Chinese**

College of Engineering	Bachelor	Master	Ph.D.
Department of Power Mechanical Engineering & Graduate	0	0	
Institute of Mechanical and Electro-Mechanical Engineering			
Department of Mechanical and Computer-Aided		0	
Engineering			
Department of Materials Science and Engineering & Graduate		0	
Institute of Materials Science and Green Energy Engineering	- C		0
Department of Mechanical Design Engineering	0	0	
Department of Automation Engineering	0	0	
Department of Vehicle Engineering	0	0	
Department of Aeronautical Engineering & Graduate Institute of		0	
Aeronautical and Electronic Engineering			
College of Management			
Department of Information Management	0	0	
Department of Finance	0	0	
Department of Business Administration & Graduate Institute of	0		
Business and Management			
College of Electrical and Computer Engineering			
Department of Electro-Optics Engineering & Graduate Institute	0		
of Electro-Optical and Materials Science			
Department of Computer Science and Information Engineering	0		
College of Applied Arts and Sciences			
Department of Biotechnology	0		
Department of Multimedia Design & Institute of Digital Content	0	0	
and Creative Industries			
Department of Applied Foreign Languages	0		

## **Admission**

### **Fall Semester**

Application Deadline: May 31

## **Spring Semester (only for graduate programs)**

Application Deadline: Nov. 30

**%**No Application Fee

## **Scholarships**

NFU Scholarship

- Tuition reduction
- O Dormitory fee reduction
- Living expense stipend
- Free Chinese courses

**%**Scholarship Award is decided by NFU Scholarship Committee

# **Tuition and Fees**

**Tuition** (each semester for Fall semester 2014 & Spring semester 2015)

**NT** \$

College of Engineering	Bachelor	Master	Ph.D.
Department of Power Mechanical Engineering & Graduate			
Institute of Mechanical and Electro-Mechanical	52,800	55,10	00
Engineering			
Department of Mechanical and Computer-Aided	52 900	<i>55</i> 100	
Engineering	52,800	55,100	_
Department of Materials Science and Engineering &			
Graduate Institute of Materials Science and Green Energy	52,800	55,100	_
Engineering			
Department of Mechanical Design Engineering	52,800	55,100	_
Department of Automation Engineering	52,800	55,100	_
Department of Vehicle Engineering	52,800	55,100	_
Department of Aeronautical Engineering & Graduate	<b>52</b> 000	<i>EE</i> 100	
Institute of Aeronautical and Electronic Engineering	52,800	55,100	_
College of Management			
Department of Industrial Management & Institute of	52 900	<i>55</i> 100	
Industrial Engineering and Management	52,800	55,100	
Department of Information Management	52,800	55,100	
Department of Finance	47,500	53,900	
Department of Business Administration & Graduate	47.500	52 000	
Institute of Business and Management	47,500	53,900	_
College of Electrical and Computer Engineering			
Department of Electro-Optics Engineering & Graduate	52 000	55 10	00
Institute of Electro-Optical and Materials Science	52,800	55,10	)()
Department of Electrical Engineering	52,800	55,100	_
Department of Computer Science and Information	<b>52</b> 000	<i>55</i> 100	
Engineering	52,800	55,100	_
Department of Electronics Engineering	52,800	55,100	_
College of Applied Arts and Sciences			
Department of Biotechnology	52,800	55,100	_
Department of Multimedia Design & Institute of Digital	47, 500	<i>52</i> ,000	
Content and Creative Industries	47,,500	53,900	_
Department of Applied Foreign Languages	47,,500	_	

Fees NT \$

Dorm (4~5p / room)	Network Usage	Student Insurance
\$6,600/semester	\$380/semester	\$360/semester

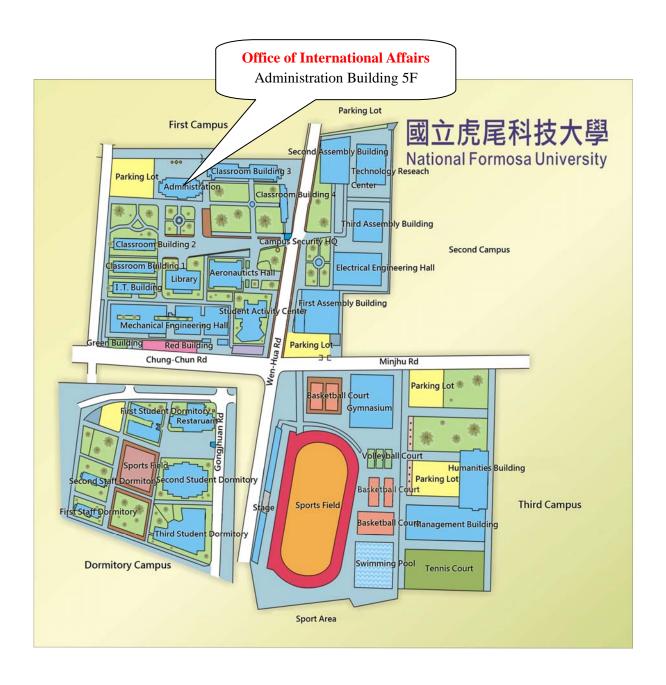
### **Other expenses (estimate)**

NT\$

Other expenses (meals, transportation, and others)	Books
80,000	10,000

- Foreign students with ARC and staying in Taiwan for 6 months have to pay National Health Insurance.
  (NT\$749/month)
- **%** Tuition and fees are subject to change.

## **Campus Map**





First Campus



**Second Campus** 



Third Campus

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