大同大學

TATUNG UNIVERSITY

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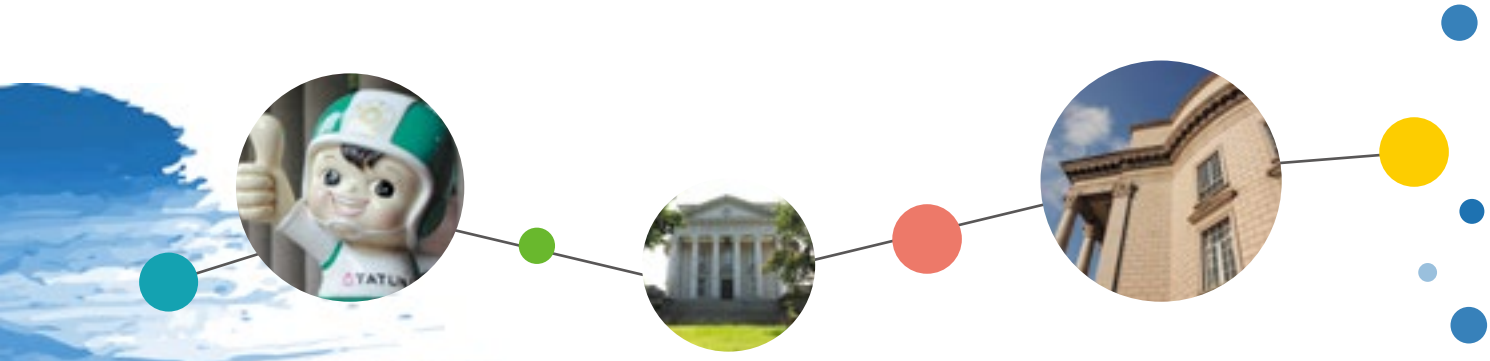


INTRODUCTION TO TATUNG UNIVERSITY (TTU)

ABOUT TTU

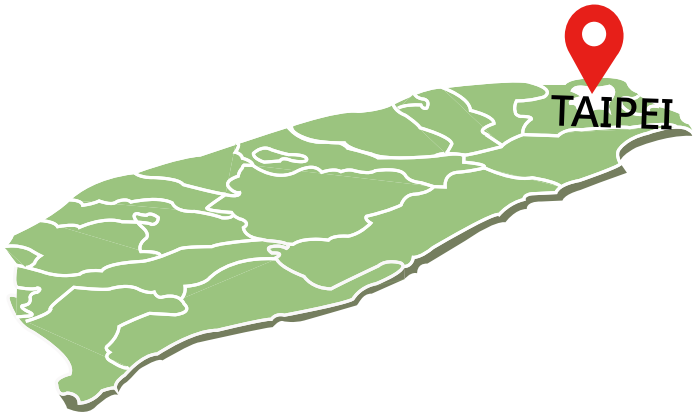
Tatung University (TTU) is a teaching and research-oriented private university highly recognized for its engineering and management programs. Having developed side by side with Tatung Company, the leading electric and electronic multinational company with annual sales of 10 billion US dollars and 40,000 employees worldwide, TTU has placed a special emphasis on practical and professional learning. Over the years, it has a proven track of success in educating and training talented engineers, business professionals, and industrial leaders.

LOCATION

Conveniently situated in downtown of Taipei City, TTU can be easily accessed by bus and subway. Also, surrounded by stores, museums and restaurants, TTU members have plenty of opportunities to explore the rich, creative, lively, and colorful aspects of this Asian metropolitan city.

HISTORY

Aware that having a well educated and talented work force is crucial to the long-term success of a business, Mr. Shan-Chih Lin (林尚志), founder of Tatung Company, donated 80% of his personal assets to an association in 1942 to establish what is now known as Tatung University and Tatung Senior High School. Since then, the university has been the principal stockholder and the think tank of Tatung Company. Formerly known as Tatung Institute of Technology, which was accredited firstly as a two-year college and then as a four-year institute, Tatung University adopted its present name in 1999. Throughout the period of its development, it has been cooperating closely with the company to provide a practical and intellectual learning environment to engineers, scientists, business/industrial managers, artists, and experts in many other professional fields.



MISSION

TTU has been working toward its principal mission of educating and training experts and professionals, especially those in the engineering, business management, and industrial design fields, to meet the increasing demands of the society and to satisfy the needs of economic, social, cultural, and other human developments.

CHARACTERISTICS

Perfect Combination of Theory & Practice

Having grown and developed side by side with Tatung Company, Tatung University, from its very beginning, has the tradition of emphasizing and encouraging practical trainings in addition to theoretical teachings. Students are required not only to test their learned knowledge in the equipped laboratories, but also to apply the theories and sharpen their skills through internships sponsored by Tatung Company or its subsidiaries. Moreover, students are encouraged to apply their general and/or specialized knowledge through active participation in local or international humanitarian/voluntary works. The opportunity to acquire substantial hand-on experience during their schooling enables the TTU graduates to be job-ready immediately following the completion of their studies and to remain highly competitive and successful throughout their career life.

Well-Rounded Education

Aiming to train its students to become experts in their chosen professions, to develop their leadership ability and the ability to work well with others as a team, and to increase their sense of responsibility, TTU has designed a thorough curricula for its students. In addition to the specialized courses, TTU students are required to take courses in different fields and those outside of their own department. Also, to meet the demands of the global economy, students are required to learn English, Japanese, and/or another foreign language.

Leadership Training

In addition to the specialized knowledge and skills, TTU emphasizes on its students' leadership ability. Through frequently participation in various student activities, special occasions, and international events, TTU students are given a great opportunity to develop their sense of honor, of responsibility, of working and to learn to coordinate, to think independently, creatively, and analytically, and to take initiatives.

Personal Attention to Students

Acknowledging that most skills can be best learned through continuous practice and close supervision, TTU maintains a low faculty-student ratio which, in term, enables professors to constantly supervise each student's performance and develop a close relationship with them. Each TTU student is being supervised by two faculty members who monitor his/her academic and general progress and promptly provide the student with consultation whenever needed. In addition, in his/her junior year (usually the third year of the undergraduate study), each student would be teamed up with a professor who acts as the student's research advisor and provides necessary guidance on research projects and career planning.

Highly Qualified & Dedicated Faculty

Emphasizing both on teaching and research, TTU faculty members not only many hours a day in mentoring students, but also actively involve themselves in basic and/or applied researches, international activities (e.g. international conferences, international joint research projects, exchange of faculties), and paper publications. The great majority of them are doctoral degrees holders and have worked and/or studied abroad. Since many of them came from the business or industrial sectors, they are highly experienced both academically and professionally and are closely connected to industrial and business world.

Extensive Research Experience

TTU encourages its faculty members to publish quality research results in highly recognized international publications. Graduate students follow their advisors to improve their academic and research skills on a daily basis. Most of the faculty members actively participate in independent or joint research projects sponsored by Tatung University, academic and government agencies and constantly attend international and national conferences or seminars.

FEATURES

Dormitory

To accommodate international students and students out-of town, TTU has a 10-floor dormitory capable of housing approximately 1000 students. Conveniently located right across the street from the campus, it provides TTU students with a safe, affordable, and comfortable living quarters with Internet connection.

Library

The library houses more than 187,930 volumes of books and 215 periodicals. Internet, 60 online databases, and 138777 electronic journals are made easily accessible to all TTU members.

Computer Center

TTU computer center is equipped with the most updated facilities, such as Gigabit Ethernet Switch (Cisco 6509), a wireless switch (Cisco and Aruba), an IP PBX system (Alcatel OmniSwitch), and more than forty rack servers. Combined with two PC classrooms and two distance learning classrooms, the wired and wireless networks at TTU also enable its students and faculties to conduct substantial scientific and scholastic researches.

TTU computer center had passed ISO9000, BS7799 and ISO27001 certifications to reach the worldwide criteria for information security and management. We continuously strive to provide efficient IT support and safe IT environment for teaching, research and administration.

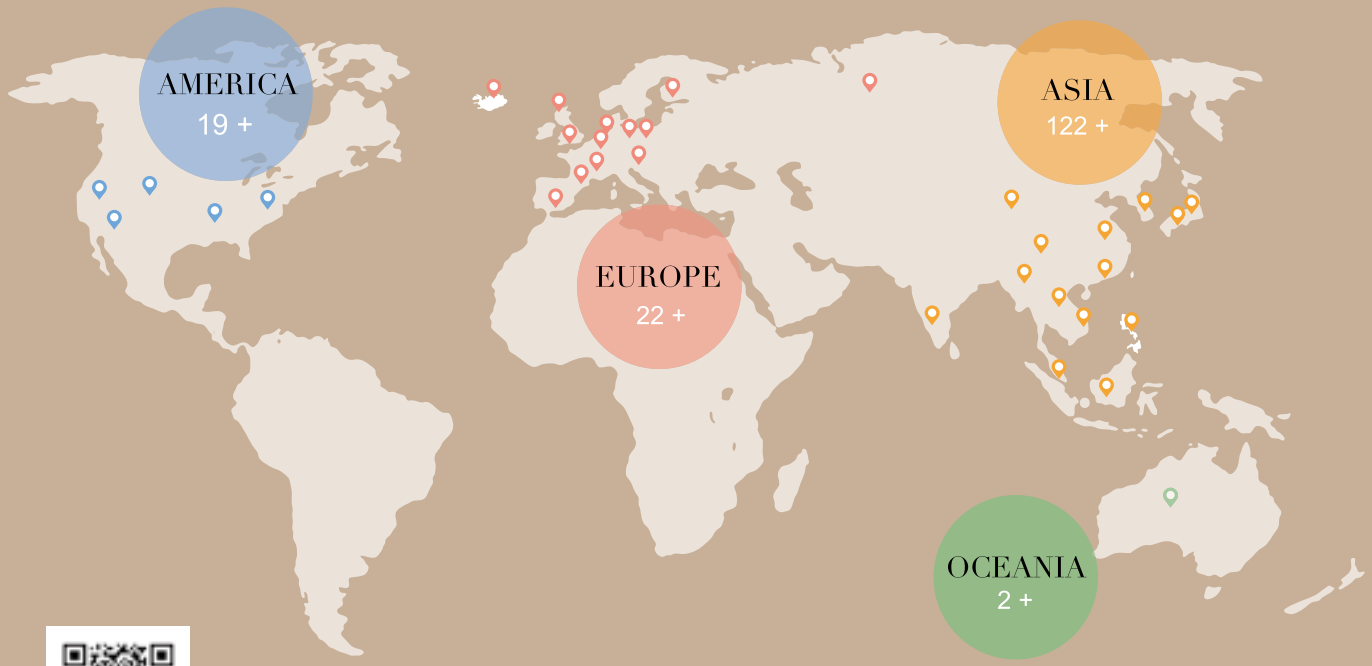
INTERNATIONAL ACADEMIC COOPERATION

To increase the students' ability to compete in the global market, TTU not only requires its students to learn foreign languages, but also has been focusing on globalization of its campus and educational system. By offering a great number of scholarships, grants, and funds to its students and faculty members, TTU has strongly encouraged its members to engage in various exchange programs and international activities, such as international joint research projects, internships, and voluntary tasks. Also, foreign dignitaries, scholars, and researchers pay frequent visit to TTU and periodical participation of TTU regularly participates in international education exhibitions.

PARTNER SCHOOLS

Outbound Exchange Program/ Dual-Degree Program/ Double Degree

- Germany | Stuttgart University of Applied Sciences
- Netherlands | Fontys University of Applied Sciences
- Austria | Upper Austria University of Applied Sciences
- France | Angers Graduate School of Business-ESSCA
- United States of America | Iowa State University
- Japan | Chiba University
- Japan | Kumamoto University



Research and Development

Research and Development

The Office of Research and Development was established for the purpose of elevating the quality of academic research, teaching and school affairs. Comprehensively deal with the matters of industrial-academic collaboration, academic cooperation, innovation, and incubation.

Based on the concept of "Integration of Construction and Education, Research and Development" with a global perspective, outstanding researchers are integrated in the school to conduct research with industry. More importantly, TTU was awarded five times as Excellence in Industry-Academic Cooperation by the Chinese Institute of Engineers (CIE) in recent decade.

"Energy Storage & Conversion Technology Research Center", "Smart Internet of Things Research and Development Center", "Innovative Design and System Integration Research Center", and "Innovative Chemical Engineering and Biotechnology Center" were developed as university-level to lead academic research toward global industry.

Food Nature Village provides an environment for elders to experience the process of planting and harvest.

Research centers

Tatung University has established four university-level research centers as follows:

Energy Storage & Conversion Technology Research Center (ESCT)

The ESCT research center was founded in 2009 under the cooperation with Tatung Co. from 2000 to 2007 as a self-sustained research group based on the facilities of the pilot run for cathode materials. Thereafter, ESCT cooperated with Taiwan Textile Research Institute and Chung-shan Institute of Science and Technology from 2006-2008 to develop electrode materials for the next generation of lithium ion batteries and the commercial cells characterization and modeling . After the establishment, with financial sponsorship from Toes Opto-Mechatronics Co. (2008-2015) and National Science Council (2009-2015), ESCT accomplished LiFePO4-based battery manufacturing technology development, high energy density lithium-rich and high-voltage spinel cathode materials, and zero-strain anode materials.

At present, the increased deployment of renewable generation of energy, coupled with the high cost of managing peak grid demand, is driving interest in stationary energy storage technologies within the utilities industries. One of the currently under researches of ESCT are cathode materials, aging mechanisms and electrochemical properties, and model of lithium ion batteries for power applications. Other R&D topics includes supercapacitors, fuel cells, solar cells, and smart grids. Along with TTU's Smart Internet of Things Research and Development Center, further study will focus on the development of battery management system (BMS) and smart grid.

At ESCT, we share the vision that electrical energy storage is not only a key driver for the electrification of transport but will also play a vital role in catalyzing the integration of renewable energy sources. To exploit such systems in an efficient and economic manner, ESCT has set up a common research infrastructure for the testing and characterization of electrochemical storage systems.

Smart Internet of Things Research and Development Center (SIRD)

Smart Internet of Things R&D (SIRD) Center was established by Professor Fu-Chiung Cheng of the Department of Computer Science and Engineering in March 2016.

The goals of SIRD are to:

- Develop Internet of Things (IoT) and Artificial Intelligence (AI) techniques and apply AIoT patents worldwide
- Design AIoT systems and products
- Study and apply AIoT business models
- Set up university spin-off AIoT business enterprises

Researchers and students work on preparing Li-ion batteries.

5 L fermentation system

SIRD Center is partially supported by the following industry-academic projects in 2016-2020:

- A Study of Mobile Intelligence and Data Storage Architecture for the Internet of Things Applications, Ampacs Co. NT$2,100,000
- Smart IoT Data Center, TISNet, NT$750,000.
- Cloud-Based System Software for IoT Applications, Tatung Co. NT$1,400,000
- Intelligent Gateway Software for IoT Applications, Tatung Co. NT$1,600,000
- Design and Implementation of an IoT-based water quality detection system, Oyatt Co. NT$759,000
- Chabot and IoT integration in Smart Robots, Tatung Co. NT$2,400,000
- Automatic connection of a Wi-Fi tree network, Tatung Co. NT$1,270,000
- Multifunctional spray sterilization module design R&D plan: IoT cloud design and architecture planning, DTF Tech Group, NT$300,000
- Smart Earbud System Development, Tatung Co. NT$1,270,000
- Engineering App Development for True Wireless Smart Earbuds, Tatung Co. NT$1,270,000

Since 2016, we demonstrated our AIoT applications (such as smart home system, smart data center and large scale IoT wireless charging system) to more than 300 worldwide companies, governmental units or academic institutions, including renowned companies such as Sony Mobile, Compal Electronics, and Xiaomi. We owned more than 30 patents, including 4 international IoT patents, and many more are in progress.

SIRD center is set up not only for expanding AIoT businesses, but also for AIoT educational programs for all levels of students ranging from primary school to college. Our AIoT IDE tools (http://iot.ttu.edu.tw) are free on line and make developing AIoT applications easy and fun. We expect more funding in the coming year and need you to join us and make a better and smarter world through AIoT technologies.

Innovative Design and System Integration Research Center

Research projects that cross fields will be the trend of the future as they inspire innovative thinking and better service design. For the purpose of integrating product, media and innovation designs research, this research center combines the resources from various TTU departments—in particular, the College of Design–to improve design research and interdisciplinary cooperation. As a result, better results will be generated by experts from diverse fields.

The members of this research center specialize in areas such as: human factor design, design expression, color design, integrated database application, interaction design, product design, interface design, design cognition, research of design behavior, user behavior, indicator system design in public space, human-computer interaction, intelligent space and so forth.

With previous research projects funded by Ministry of Science and Technology (MOST), the Taiwanese government, and legal foundations and industries; this research center is expected to fill the gap between industry and academy in order to gain more opportunities together.

Innovative Chemical Engineering and Biotechnology Center

Cooperate with the government to strengthen the international competitiveness of the chemical and biotechnology industry, and promote the development of five major projects such as bulk drugs, pharmaceuticals, animal vaccines, flowers, and biological pesticides. It also cooperates with the "Taiwan Bioeconomic Industry Development Plan", including strengthening the industrialization R & D role of the value chain, establishing a biotechnology venture capital fund, promoting an integrated breeding mechanism, and establishing the Taiwan Food and Drug Administration (TFDA) to build and internationalize Converged medical regulatory environment, etc. In addition, the "Taiwan Bioeconomic Industry Development Plan" is mainly used in the three major fields of agriculture, health, and industry. Based on this, its application and expansion will be introduced into the fields of health care, industry, green chemistry, medical materials, pharmaceuticals and agricultural biotechnology in order to expand the industrial scale and adjust the industrial structure. By combining government resources and policy support, create an environment in which the chemical and biotechnology industry is conducive to entrepreneurship, investment, and growth. In view of the above-mentioned industry development trends, the University established an Innovative Chemical Engineering and Biotechnology Center in 2017 to assist the development of related industries.

IoT applications demo in Hua-Shan 1914 Creative Park for the 104 Program for Promoting Teaching Excellence Universities

Undergraduate & Graduate Programs

Undergraduate & Graduate Programs

Currently, TTU has 4 colleges, offering 10 undergraduate programs, 9 master degree programs (including 7 master degree programs for working students), and 6 doctoral degree programs.

TTU COLLEGES			
Departments	Bachelor	Master	Ph.D.
COLLEGE OF ENGINEERING			
Mechanical Engineering	● (Electro-Mechanical Program) ● (Precision Mechanical Program)	●	●
Materials Engineering	●	●	●
Chemical Engineering and Biotechnology	●	●	●
COLLEGE OF ELECTRICAL ENGINEERING & COMPUTER SCIENCE			
Electrical Engineering	● (Electrical and System Engineering Program) ● (Electronics and Communication Engineering Program)	●	●
Computer Science and Engineering	●	●	●
COLLEGE OF MANAGEMENT			
Business Management	●	● (MBA, EMBA)	
Information Management	●	●	
Applied Foreign Languages	●		
COLLEGE OF DESIGN			
Media Design	● (Interaction Design Program) ● (Digital Game Design Program)	●	
Industrial Design	●	●	
Design Science			●

COLLEGE OF ENGINEERING

Department of Mechanical Engineering

About Us

The Department of Mechanical Engineering was founded in 1963. The rapid development of technology leads industry and academia to the era of professional services and teamwork. Hence, engineers with specialty knowledge and teamwork concepts are highly demanded in job markets. In accordance with the demand, Tatung ME offers B.S. degree in two sub divisions, Electro-Mechanical Division (EMD) and Precision Mechanical Division (PMD), for students to learn more specialized skills and knowledge. The EMD focuses on developing student abilities in applying mechanical engineering technology to the field of electronic industry, such as mechatronic control system, electronic firmware, digital system, robot vision, electronic cooling, etc. The PMD focuses on cultivating the abilities of system integration and design of our students, educating them to develop and design processing facilities of the precision industry, and enhancing their abilities for engineering analysis and mechanical design. The energy issue and semiconductor engineering present a more practical option for the career of PMD students.

The graduate program offers degree leading to either M.S. or Ph.D., providing students to pursue advanced coursework, in-depth training and research. Tatung ME ranked 14th (including all public and private universities in Taiwan) based on the "Best Graduate School of Taiwan" surveyed by Cheers Magazine in 2008.

Primary Research Areas

Energy and Thermo-Fluid Systems

Bioheat Transfer, Micro-fluidic, Nano-fluidic, Flow in Porous Media, Hydrogen Technology, Fuel Cell, Electronic Cooling

Control Systems

Intelligent Control, Intelligent Mechatronics, Computer Vision, Automation System Design, Robotics, Wireless Sensor Network, RFID/SAW, Nature-Inspired Systems, Bio-Inspired Computation

Design and Manufacturing

Micro-Electro-Mechanical Systems, Ultrasonic Device, Package Mechanics, Fatigue/Fracture Mechanics, Vibration/Acoustics, Metal Cutting, Reverse Engineering, High Power LED, Sensor, Thin Film, Engineering Optimization, CAD/CAE

Core Courses

Undergraduate

Calculus, General Physics, General Physics Laboratory, Programming Language, Machine Shop Practice, Engineering Mathematics, Manufacturing Processes, Engineering Drawing, Computer-aided Drafting, Engineering Mechanics-Statics, Engineering Mechanics-Dynamics, Mechanics of Materials, Engineering Materials, Machine Design, Thermodynamics, Fluid Mechanics, Heat Transfer, Kinematics and Dynamics, Electric Circuits, Electronics, System Dynamics, Automatic Control, Mechanical Engineering Experiment, Independent Study on Mechanical Engineering

Electro-Mechanical Division

Introduction to Mechatronics, Integrated Mechatronic Design, Principles and Applications of Sensors, Introduction to Microprocessor, Introduction to Machine Vision, Digital System, Electronic Cooling

Precision Mechanical Division

Computer-aided Design and Manufacture, Finite Element Analysis, Molds & Dies Design, Introduction to Semiconductor Engineering, Mechanical Vibrations, Introduction to Energy System

Graduate

Energy Technology, Computational Fluid Mechanics, Design of Heat Exchangers, Advanced Fluid Mechanics, Fuel Cell - Theory and Practices, Micro-fluidics Chip, Thin-film Solar Cell Processing Equipment Integration, MEMS Design, Optimum Design Analysis, Fracture Mechanics and Fatigue Analysis, Finite Element Methods, Ultrasonic Engineering, CAD/CAM Integrated System, Advanced Electro-mechanics, Advanced Control System, Applications of Computer Vision, Noise and Vibration Control Engineering, Nature-inspired Systems, Robotics, Bio-Inspired Computation,

Contact

TEL: +886-2-25925252 ext. 6171

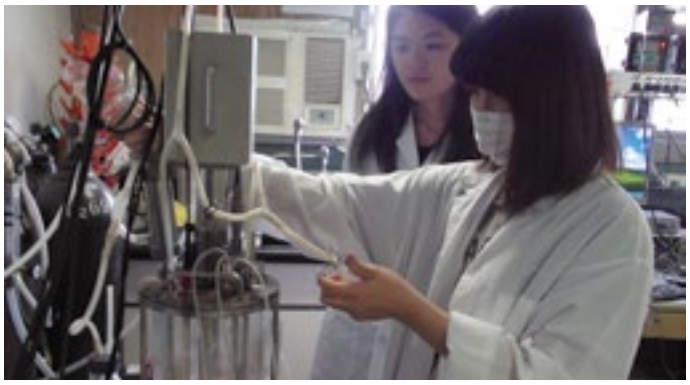
WEB SITE: http://me.ttu.edu.tw/bin/home.php

COLLEGE OF ENGINEERING

Department of Chemical Engineering and Biotechnology

About us

The Department of Chemical Engineering and Biotechnology is dedicated to excellence in chemical and biological engineering theories and education in the hope of training students to be versed in transferring technologies to industries. We emphasize scientific reasoning together with engineering technology training to help facilitate the best education possible to our students. We also encourage pursuit of careers to better living conditions for humanity and ensure a harmonious relationship between humans and nature.



Primary Research Areas

Today, the research areas our faculty is actively involved in are not only in the traditional chemical engineering fields, but also in developing nanotechnology, high-tech materials science, resources and environmental protection, sustainable energy, biomedical engineering, biological information, food and agriculture, etc.

Core Courses

Our core courses include Engineering Mathematics, Organic Chemistry, Physical Chemistry, and Biochemical Engineering. Students may choose a chemical engineering subprogram or biotechnology subprogram. In the chemical engineering subprogram, Transport Phenomena and Unit Operation, Polymer Chemistry, Chemical Thermodynamics, and Chemical Reaction Engineering are included. In the biotechnology subprogram, Molecular Biology, Biomedical Engineering, Food Technology, and Plant Tissue Culture are included. Hands-on experiments are emphasized in all courses.

Course Requirements:

Requirements for a Bachelor's degree in Engineering: 128 course credits

Requirements for a Master's degree in Engineering: 36 course credits

Requirements for a Ph.D. in Engineering: 34 course credits

Contact

TEL: +886-2-21822928 ext.6272, 6312

Web site: http://cebt.ttu.edu.tw/bin/home.php

Department of Materials Engineering

About us

The undergraduate program of the Department of Materials Engineering was established in 1983 to offer BS degree. The department also offers graduate programs of MS and PhD degrees for full-time study as well as part-time which is suitable for practicing engineers. Full-time students are required to perform research and write a thesis for their Master's and PhD degrees. The department provides a variety of courses for students to build knowledge for the employment in either academic or industry. Students are mandated to participate in factory practice to gain solid foundation for their future careers. Besides, there are several employment-related programs. Our academic program provides the highest quality education in the fundamentals and applications of technologically-relevant materials. This is presented in a unique multidisciplinary setting where students can tailor their education and research to their own specialized interests. Our department has been recognized for the quality of its educational program and the research activities of our world-renowned faculty by IEET (Institute of Engineering Education Taiwan) accreditation since 1996. Today our department has over 12 full-time professors, 50 graduate students, and 340 undergraduate students.

Primary Research Areas

The research fields in our department are diversified, covering all classified materials such as metals, ceramics, polymers, and composites. The faculty members implement research projects in both basic and applied categories. The research funds are subsidized from institutions of Ministry of Science and Technology, government institutes and private corporations, etc. Our full-time faculties are very active in research and have published over 100 technical papers in the past five years. They perform research in nanomaterials, advanced ceramics, high technical polymers, new metals, and biomaterials. All students are strongly encouraged to join one of the professional researches and to participate in many volunteer programs sponsored by each laboratory. The department owns laboratories in the following fields: light metals, structural materials, surface and heat treatment, fracture and surface science, powder metallurgy, electronic ceramics and solid state chemistry, electronic- and bio-materials, glass materials, energy storage materials, thermo-chemistry, carbon materials, thin film surface modification, and nanotechnology. Our department is equipped with practical and advanced instruments, including high resolution field-emission scanning electronic microscope (FE-SEM), transmission electronic microscope (TEM), X-ray diffraction (XRD), thermal analysis instruments (DTA, DSC, TMA), glow discharge optical emission spectrometry (GDOS), material testing system (MTS), etc.

Core Courses

This following core curriculum gives the foundation in the fundamental and practical practices of materials science and engineering for undergraduate students: Materials Science and Engineering, Physical Metallurgy, Metallurgical Thermodynamic, Electric Properties of Materials, Polymer Materials, Metallic Materials, Ceramic Materials, Mechanical Properties, X-ray Diffraction, Structure of Materials, Phase Transformation, Manufacturing Processes, Modern Physics, and Project Laboratory. Our department offers many courses for graduate students, such as Evaluation Techniques of Materials, Advanced Solid State Physics, Electron Microscopy, X-ray Crystallography, Surface Analysis Techniques, Physical Properties of Crystals, Advanced Phase Transformations, Advanced Electrochemistry, Advanced Ceramics, Electronic Ceramics, Biomedical Polymers, Measurement of Nanotechnology, etc.

Our educational programs interweave concepts of materials engineering and materials science throughout the curriculum.

Course Requirements:

Requirements for a B.S. Degree: 128 credits of courses.
Requirements for a M.S. Degree: 39 credits of courses.
Requirements for a Ph.D. Degree: 37 credits of courses.

Contact

TEL: +886-2-21822928 ext.6333
Web site: http://www.mse.ttu.edu.tw/bin/home.php

Department of Electrical Engineering

About us

The Department of Electrical Engineering was founded in 1963. The mission of the department is to provide EE students with a fundamental understanding of electrical engineering built on a foundation of physics, mathematics, and computing. Undergraduates are expected to acquire the experimental, design, and communication skills needed for continued study at the graduate level or for the practice of electrical engineerings. Our curriculum offers a number of specialization areas, including microelectronics, VLSI, control systems, power systems, computer networking and security, computer architecture and digital systems, electromagnetics, communications and signal processing, and electro-optical Engineering.

The graduate program offers degrees leading to either a M.S. or Ph.D. in EE, providing students with advanced coursework, in-depth training, and research opportunities in several fields. Both undergraduate and graduate programs are accredited by the Engineering Accreditation Criteria of IEET (Institute of Engineering Education Taiwan Accreditation Council).

Primary Research Areas

Microelectronics and VLSI:

analog, RF, digital and mixed-signal ICs, architecture, embedded systems

Control Systems:

fuzzy systems and their applications, intelligent control, robotic systems, neural networks and their applications, hybrid models of neural network and fuzzy.

Electric Power and Energy Systems:

power systems and power electronics, renewable energy, smart grid, cogeneration, energy efficiency, power system analysis, power quality, power industry deregulation, and power converter applications.

Electro-optical Engineering:

nano-photonics technology in surface plasma sensors, fiber-optics bio-sensors, high speed vacuum microelectronics with carbon nanotube and grapheme emitter, and advance thin film transistor for display applications by rapid thermal annealing of polycrystalline silicon.

Antenna and Microwave:

antenna design, EMI measurement, RFID, bio-electromagnetic application and high-speed interconnect, etc.

Core Courses

Undergraduate:

Introduction to computer, programming, logic design, logic design experiments, electric circuits(I)(II), electronics(I)(II), electromagnetics(I)(II), electrical engineering laboratory, programming laboratory, electrical and electronic circuits laboratory, project laboratory, differential equation, linear algebra, Fourier analysis and its applications, probability and statistics, signals and systems, integrated circuit design, microprocessor applications, computer architecture, introduction to electrical machinery, control system design, integrated circuit design, digital signal processing.

Graduate:

Modern filter design, introduction to embedded system, digital electronic circuits, RFIC design, analog integrated circuits, introduction to VLSI, mixed-signal IC design.

Fuzzy theory and applications, control system design, numerical methods, multivariable linear systems, robotic systems, adaptive control, system identification, optimal control.

Electrical power distribution for industry, power system analysis, power electronics, power system operation and control, switching power supply, smart power grid.

Electro-optical engineering, solid-state electronic device and physics, modern optics, laser optics, display technology, IC process technology, thin-film technology and nano-technology.

Course Requirements:

Requirements for a degree of Bachelor of Engineering: 128 credits of courses

Requirements for a Master degree of Engineering: 33 credits of courses

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TEL: +886-2-21822928 ext 6389

Web site: http://eettu.ttu.edu.tw

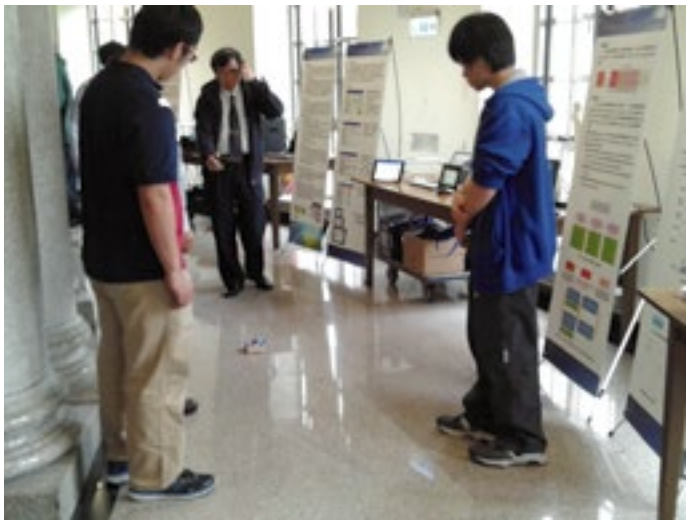
Department of Computer Science and Engineering

About Us

Founded in 1982, the Department of Computer Science and Engineering at Tatung University offers a fine program that prepares students to meet the challenges of tomorrow and assume leadership in an ever changing world. To this end, the requisite core courses place equal emphasis on both theoretics of computer science and hands-on training to ensure that students have the necessary breadth of knowledge and skills for their future career. Elective courses such as web programming, computer graphics and animation, computer security, concurrent programming, cryptography, artificial intelligence, embedded multi-core systems, and web semantics from six learning tracks, namely, communications and signal processing, information security, embedded systems design, computer architecture, multimedia networks, and WWW technologies, provide additional depth of knowledge from a wide spectrum of fields in computer science.

The mission of the Department is clear: we are here to inspire. Through the synergistic efforts of the faculty and staff, the Department provides a curriculum that aims at cultivating independent thinking, research skills, a desire for continuous learning, and in particular, an ability for applying theoretical findings to engineering applications. We are also here to serve; our well-established mentor system assigns to each student two mentors to counsel him/her in all aspects of the student's life, whether it is of an academic or personal nature.

Continuing a history of excellence, the Department strives to promise students, the faculty and staff a life that makes a difference, a life that is both enriching and fulfilling when confronted with the challenges and opportunities of a rapidly evolving world.



Primary Research Areas

Software and Intelligent Systems:

Pattern recognition, XML technologies, semantic web, service-oriented architecture, human-computer interaction, ubiquitous computing, context-aware computing, social aspect computing, computer graphics, game programming

Hardware and Computer Architecture:

Embedded systems design, integration of the computer, communications, consumer electronics, and contents, concurrent and distributed programming

Network Communications and Signal Processing:

Digital image processing, digital speech processing, mobile/wireless communications, broadband multimedia networks, cryptography, information security

Core Course

Real-time Operating Systems, Distributed Database Systems, Design and Control of Equipment for a Home Network, Software Design Methodologies, Data Compression and Error Correction, Fuzzy Theories and Applications, Introduction to W3D Technology, Network Defense Techniques and Applications, Human-Computer Interaction, Computer Vision for Digital Homes, Information Retrieval and Extraction, etc.

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TEL: +886-2-21822928 ext. 6565

Web site: http://www.cse.ttu.edu.tw/bin/home.php

College Of Management

Department Of Business Management

About us

This department was founded in 1963 after being approved by the Ministry of Education. In response to the trend of globalization, a graduate school was established in 1976. In 1999, an EMBA program was set up to provide managers with professional knowledge and skills to advance their careers. This department and graduate institute aims to foster business managers, equipping them with managerial expertise, foreign language proficiency, the ability of utilizing information technology, and global perspective.

Primary Research Areas

- marketing management, consumer behavior, customer relationship management, internet marketing.
- strategic management, international business, innovation, entrepreneurship
- human resource management, knowledge management
- production and operation management, supply chain management
- corporate finance, corporate governance, financial statement analysis, managerial economics.
- quantitative methods, applications of multivariate data analysis in marketing research and management

Core Courses

Undergraduate:

Accounting, Economics, Introduction to Business, Introduction to Management, Statistics, Marketing Management, Cost Accounting, Production and Operation Management, Financial Management, Human Resource Management, Organizational Behavior, Strategic Management, International Business, Innovation Management

MBA and EMBA Program:

Managerial Economics, Managerial Accounting, Consumer Behavior, Marketing Research, Human Resource Management, Production and Operation Management, Corporate Finance, Strategic Management, Management Science, Multivariate Analysis, Research Methods, International Business Management, International Marketing

Course Requirements:

- Undergraduate: 79 required credits plus a minimum of 49 optional credits.
- MBA degree: 43 required credits plus a minimum of 9 optional credits.
- EMBA: 12 required credits plus a minimum of 30 optional credits.

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TEL: +886-2- 21822928 ext. 6670

Web site: http://www.mba.ttu.edu.tw/bin/home.php

College Of Management
Department Of Information Management

About us

The Department of Information Management was established in 1992, offering bachelor and master's degrees. Aiming at nurturing students with the abilities of information services and system development, the department provides five types of courses: 1.Business Fundamentals, 2. Analytical and Critical Thinking, 3. Interpersonal, Communication, and Teamwork Skills, 4. Information Technology, 5. Enterprise System Development and Service. Besides academic and application-oriented courses, students can also select three professional programs: Big Data, e-Business and Artificial Intelligence to enhance their professional skills.

Primary Research Areas

- Big Data: Big Data Analytics, Business Intelligence, Data Warehousing, Data Mining, Business Forecasting, Social Network Analysis
- E-Business: Service Science, Electronic Commerce, Information Security, Customer Relationship Management, Enterprise Resource Planning, Robot Process Automation
- AI: Artificial Intelligence, Computational Intelligence, Deep Learning, FinTech, Internet Of Things, Chat Robot, Cloud Computing

Core Courses

Computer Programming, Data Structure, Management Information Systems, Database Management, System Analysis and Design, Business Data Communication, Information Security, Electronic Commerce, Accounting, Operations Management, Marketing Research, Project Management, Business Intelligence System, Enterprise Resource Planning, Cloud Computing, Big Data Analytics, Financial Technology, and so on.

Course Requirements:

Requirements for a degree of Bachelor of BA: 128 credits of courses

Requirements for a Master degree of BA: 32 credits of courses

Requirements for a PhD degree of Information Engineering (Major in Information management): 18 credits of courses

Contact

TEL: +886-2-21822928 ext.6787

Web site: http://www.mis.ttu.edu.tw

Department Of Applied Foreign Languages

About us

The Department of Applied Foreign Languages, established in 2008, is an academic department in the College of Business Management at Tatung University (TTU), which is renowned for its science, engineering, and business education. The Department aims to nurture students to acquire language skills with a special focus on skills applications in professional areas through a variety of courses designed. It also aims to strengthen students' interdisciplinary skills and interpersonal abilities developed upon their awareness of their roles in relation to others, and to help students develop a global view.

Key Objectives for the Students:

- To possess the ability to use foreign languages proficiently and professionally.
- To possess cross-cultural awareness and the ability to work as a team.
- To be socially aware and caring, and to recognize the globe as a whole community.
- To be able to think independently and critically, and to learn continually.

Primary Research Areas

The professional curriculum consists of three main areas:

- Foreign Language for Business and Professional Communication
- Translation and Interpretation Studies
- Foreign Language Teaching.

Students should choose one of the three as the focus to prepare for their future career and continue to strengthen their abilities.

Core Courses

Introduction to Linguistics, English Conversation, English Pronunciation and Oral Practice, Writing in English, Reading in English, Introduction to Literary Works, Aural-oral Training in English, Japanese Grammar and Sentence Patterns, Japanese Conversation…

Course Requirements:

Requirements for a degree of Bachelor of Arts in Applied Foreign Languages: 128 credits of courses

Contact

TEL: +886-21822928 ext.7542

Web site: http://afl.ttu.edu.tw/bin/home.php

College Of Design

Department Of Industrial Design

About us

Founded in 1973, the department aims to enhance students' creativity, logical reasoning ability, and the ability to design products with artistic taste. The postgraduate program was first offered in 1995 which leads to a degree of M. Des. in Industrial Design, providing students with opportunities to pursue advanced coursework and researches in several fields.

The students in the department regularly participate in international competition of design. The students have been awarded "Best of Best" by Red Dot design award for four years in a row during 2010~2013. In 2013 iF Design Ranking, Tatung University is ranked 4th in the Asia Pacific area. In 2013 iF Design Ranking, Tatung University is ranked 18th in the world. Alumni excellent performance is deeply trusted by the industries.

Primary Research Areas

- Human Factors
- Artifact and Sustainable Design
- Product Form
- Interaction Design
- Design Culture
- Assistive Device Design
- Design Strategy and Management
- User-Centered Design
- Service Design and Social Science
- Model-Making

Core Courses

Undergraduate:

Visual Presentation, Basic Design, Human Factors, Design Methods, Product Design and Development, Computer-Aided Design, Color Theory, Workshop Practice, Graphic Design, Visual Thinking, Mechanism, Manufacturing Processes, Senior Design Project.

Postgraduate:

Research Methods, Design of Experiments, Virtual Reality, Design Image, Perception and Preference Study, Universal Design, Color-design Study, Design Information Management, Cultural Product Innovation, Design Management, Thesis.

Course Requirements:

Requirements for a B. Des. degree of Science: 128 credits of courses

Requirements for a M. Des. Master degree of Science: 38 credits of courses

Contact

TEL: +886-2-21822928 ext.6720

Web site: http://www.id.ttu.edu.tw

College Of Design

Department Of Media Design

About us

The Design College of Tatung University was ranked as Top 10 design school in Asia Pacific region and Top 20 in Global. The Department of Media Design is located in the elite section of city center of Taipei, with convenient transportation and rich cultural gatherings, such as Taipei Fine Arts Museum, National Palace Museum, Huashan 1914 Creative Park, Songshan Cultural and Creative Park, and so forth.

The Department of Media Design offers two programs, Interaction Design and Game Design.

The curriculum includes Basic Design, Design Aesthetic, Interaction Design, HCI, UI/UX design, Color Design, Game Design, Table-Game design, 2D/3D Animation, Scenario Design, Design Method, Photography, Handheld Application Design, Digital Music, etc.

Various types of domestic and international performances, exhibitions and design competitions are provided to enhance competitiveness and gain industry-university exchanges.

Many invited and visiting professional designers join the faculty to develop students' humanistic and artistic accomplishment, and information technology integration capability.

Primary Research Areas

- Interaction Design
- UI/UX Design
- Game Design
- Visual Design

Core Courses

Interaction Design, Game Design, UI/UX Design, Service Design, Design Management, Design Sketch, Color Science, Photography, 2D/3D Animation, Digital Music, Design Methods, Portfolio Design, Project Design

Course Requirements:

128 credits for a Bachelor of Design.

Contact

TEL: +886-2-77364851

Web site: http://www.md.ttu.edu.tw/

College Of Design

Graduate Institute of Design Scienc

About Us

The Graduate Institute of Design Science offers doctoral degree with the specific goal of increasing the leaders of next generation with ability not only in developing creative, comprehensive, and scientific design of solutions to solving the complex problems, but also creating a better world for human beings.

Primary Research Areas

- Design and Image Communication
- Ergonomics of Design Cognition
- Design Strategic and Management
- Interactive Media and Space Design
- Technology Integration of Interactive Design
- Virtual Reality
- Universal Design
- Design Culture & History
- Service Design, Marketing and Management

Core Course

Virtual Reality, Design Image, Perception and Preference Study, Universal Design, Color-design Study, Design Information Management, Cultural Product Creativity, Design Management, Topics on Design Science

Contact

TEL: +886-2-21822928 ext.6232

Web site: http://www.ds.ttu.edu.tw/bin/home.php

TATUNG COMPANY PROFILE

Established in 1918 and headquartered in Taipei, Tatung Company has evolved into a conglomerate from its substantial heritage. From its inception, Tatung has abided by its founding values of "Integrity, Honesty, Industry, and Frugality". The Company is listed on the Taiwan Stock Exchange (TSE) under the trading code of 2371.

Tatung Company holds 3 business groups, which include 6 business units such as Power Equipment BU, Motor BU, Smart Solution BU, System Integration BU, Advanced Electronics BU, and Home Appliances BU. Being a leader in the field of energy saving and green energy creation, Tatung has pioneered in the development of national smart grid in Taiwan and many smart IoT solutions.

Tatung is also a leading brand for energy saving and green energy related systems and services in Taiwan. Our specialized smart solutions can be easily applied to smart community, smart buildings, smart home, smart healthcare, and smart surveillance systems. One of the many achievements by the Company includes the award winning microgrid system built for Pingtung County Government. The project won the Smart Energy Saving Award for the Innovative Application of Smart City by the Board of Science and Technology, the Executive Yuan of Taiwan.

As a conglomerate, Tatung's investees involve in some major industries such as optoelectronics, energy, system integration, industrial system, branding retail channel, and asset development. Those that are public listed on the Taiwan Stock Exchange include Chunghwa Picture Tubes(2475), Forward Electronics(8085), Shan Chih Semiconductor(3579), Green Energy Technology(3519), Tatung Fine Chemicals(4738: Emerging stock market), Elitegroup Computer Systems(2331), and Tatung System Technologies(8099).

Taiwan

Tatung Co.

Power Business Group
Consumer Business Group
System Business Group
Real Estate Asset Management Division

Investments

Chunghwa Picture Tubes, Ltd.
Forward Electronics Co., Ltd.
Shan Chih Semiconductor Co., Ltd. (Reinvest GET)
Shan Chih Asset Development Co., Ltd.
Tatung Consumer Products (Taiwan) Co., Ltd.
Chunghwa Electronics Development Co., Ltd.
Tatung System Technologies Inc.
Tatung Fine Chemicals Co., Ltd.
Toes Opto-Mechatronics Co., Ltd.
Tatung Medical & Healthcare Technologies Co., Ltd.
Shan Chih Investment Co., Ltd.
Chih Sheng Investment Co., Ltd.
Others

China

Tatung Information Technology (Jiangsu) Co., Ltd.
Tatung (Shanghai) Co., Ltd.
Tatung Wire and Cable (Wujiang) Co., Ltd.
Tatung Compressors (Zhongshan) Co., Ltd.

Japan

Tatung Company of Japan, Inc.

Thailand

Tatung (Thailand) Co., Ltd.

Singapore

Tatung Electronics (Singapore) Pte. Ltd.
Tatung Information (Singapore) Pte. Ltd.
Tatung Electric (Singapore) Pte. Ltd.

U.S.A

Tatung Co. of America, Inc.
Tatung Electric Co. of America, Inc.

Mexico

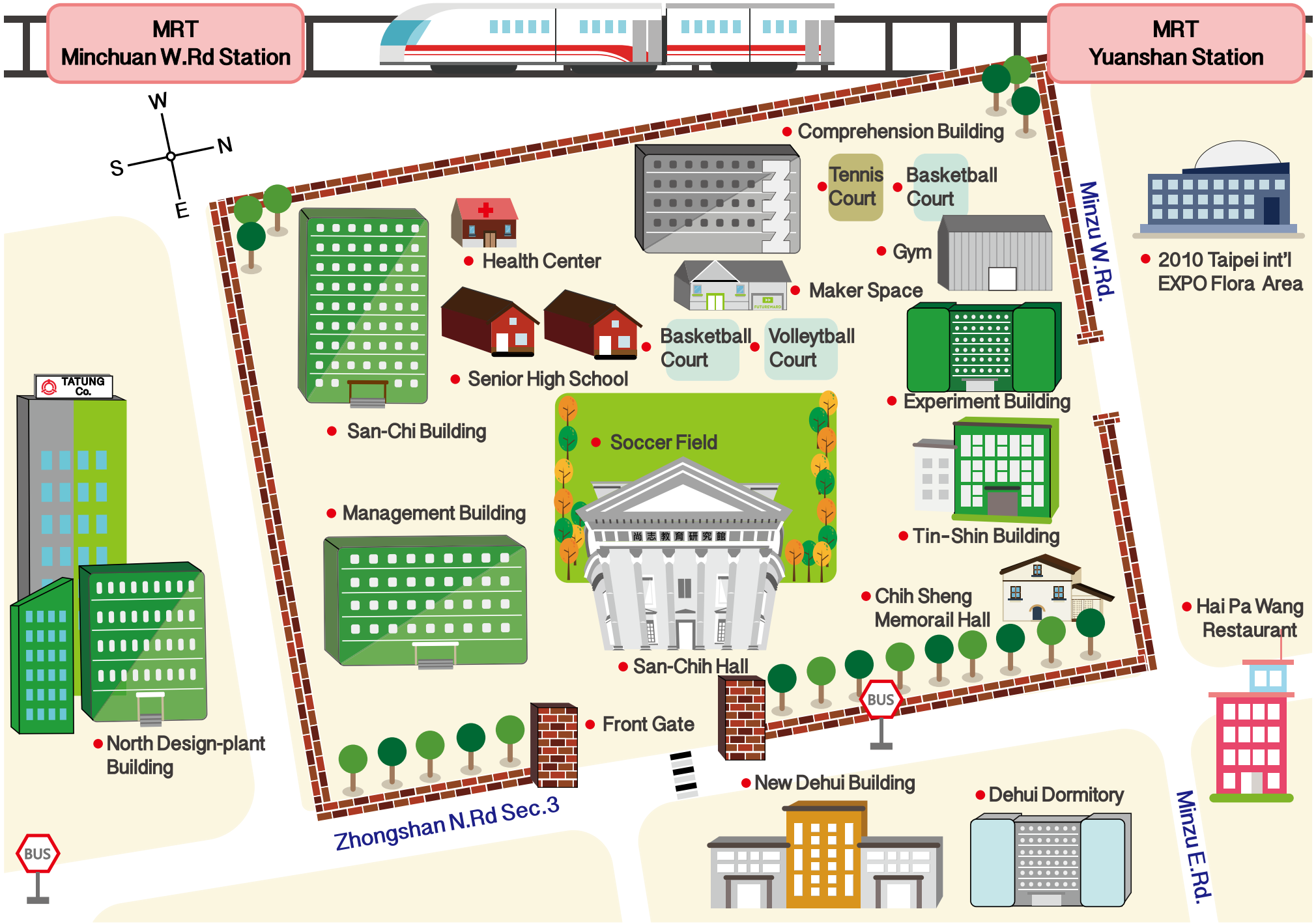
Tatung Mexico S.A. de C.V.

Czech

Tatung Czech s.r.o.

Dubai

(The new investment company in Dubai is setting up.)


MRT
Minchuan W.Rd Station
MRT
Yuanshan Station
W
S
N
E
Comprehension Building
Tennis Court
Basketball Court
Minzu W.Rd.
2010 Taipei int'l EXPO Flora Area
Health Center
Gym
Maker Space
Basketball Court
Volleyball Court
Senior High School
Experiment Building
San-Chi Building
Soccer Field
Tin-Shin Building
Management Building
Chih Sheng Memorail Hall
Hai Pa Wang Restaurant
San-Chih Hall
BUS
TATUNG Co.
North Design-plant Building
Front Gate
New Dehui Building
Dehui Dormitory
Zhongshan N.Rd Sec.3
Minzu E.Rd.
BUS

- College of Engineering
- College of Electrical Engineering & Computer Science
- College of Management
- College of Design

Tatung University

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http://www.ttu.edu.tw/