Chia-Yuan (Kent) Chen, PhD
Associate Professor
Department of Mechanical Engineering
Director of International Relations Division, OIA
Welcome to National Cheng Kung University (NCKU)
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NCKU was established in 1931.

- Enrollment: 21,252 (2017 Fall)
- Faculty: 1,336
- Research faculty: 364
- Staff: 2,053
- Alumni: over 140,000

NCKU campus: 11
Total: 187 hectares

- Colleges: 9
- Departments: 43
- Institutes: 38
- BS programs: 44
- MS programs: 105
- Doctoral programs: 58
- 33 English programs & 661 English courses
### Engineering
- Mechanical Engineering
- Chemical Engineering
- Resources Engineering
- Materials Science and Engineering
- Civil Engineering
- Hydraulic and Ocean Engineering
- Engineering Science
- System and Naval Mechatronic Engineering
- Aeronautics and Astronautics
- Geomatics
- BioMedical Engineering
- Environmental Engineering
- Ocean Technology and Marine Affairs
- Civil Aviation
- International Bachelor Degree Program on Energy
- International Curriculum for Advanced Materials Program
- International Graduate Program of Civil Engineering and Management
- International Master Program on Natural Hazards Mitigation and Management
- International Medical Device Innovation

### Science
- Mathematics
- Chemistry
- Physics
- Earth Sciences
- Photonics
- Space and Plasma Sciences
- Center for Theoretical Sciences

### Management
- Accountancy
- Statistics
- Industrial and Information Management
- Transportation and Communication Management Science
- Business Administration
- International Business
- Information Management Finance
- Telecommunications Management
- Physical Education, Health & Leisure Studies
- Executive Master of Business Administration (EMBA)
- International Management (IMBA)
- Advanced Master of Business Administration (AMBA)

### Liberal Arts
- Chinese Literature
- Foreign Languages and Literature
- History
- Taiwanese Literature
- Art
- Archaeology
- Master Academic Program in Drama
- Center of Multiple-Cultural Studies

### Medicine
- Nursing
- Medical Laboratory Science and Biotechnology
- Occupational Therapy
- Physical Therapy
- Biochemistry and Molecular Biology
- Cell Biology and Anatomy
- Public Health
- Clinical Pharmacy and Pharmaceutical Sciences
- Physiology
- Environmental and Occupational Health
- Basic Medical Sciences
- Pharmacology
- Behavioral Medicine
- Microbiology & Immunology
- Molecular Medicine
- Oral Medicine
- Clinical Medicine
- Allied Health Sciences
- Gerontology
- Department of Food Safety / Hygiene and Risk Management

### Bioscience & Biotechnology
- Life Sciences
- Biotechnology and Bioindustry Sciences
- Tropical Plant Sciences

### Social Sciences
- Political Science
- Economics
- Law
- Psychology
- Political Economy
- Education

### Electrical Eng. & Computer Science
- Electrical Engineering
- Computer Science and Information Engineering
- Manufacturing Information and Systems
- Microelectronics
- Computer & Communication Engineering
- Medical Informatics
- Master Degree Program on Nano-Integrated-Circuit Engineering

### Planning & Design
- Architecture
- Urban Planning
- Industrial Design
- Creative Industry Design
- Master Program on Techno Art
### English Program

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engineering (12)</strong></td>
<td>• Int’l Bachelor Degree Program on Energy&lt;br&gt;• The Int’l Curriculum for Advanced Materials Program</td>
</tr>
<tr>
<td><strong>Management (4)</strong></td>
<td>• Inst. of International Management&lt;br&gt;• Inst. of International Business</td>
</tr>
<tr>
<td><strong>Medicine (2)</strong></td>
<td>• Dept. of Nursing&lt;br&gt;• Inst. of Allied Health Science</td>
</tr>
<tr>
<td><strong>Planning &amp; Design (1)</strong></td>
<td>• Institute of Creative Industry Design</td>
</tr>
<tr>
<td><strong>Liberal Arts (1)</strong></td>
<td>• Dept. of Foreign Languages &amp; Literature</td>
</tr>
<tr>
<td><strong>Bioscience &amp; Biotechnology (3)</strong></td>
<td>• Dept. of Biotechnology and Bioindustry Sciences&lt;br&gt;• Inst. of Tropical Plant Sciences</td>
</tr>
<tr>
<td><strong>Electrical Eng. &amp; Computer Science (8)</strong></td>
<td>• Institute of Computer Science and Information Engineering&lt;br&gt;• Inst. of Computer &amp; Communication Engineering</td>
</tr>
<tr>
<td><strong>Science (1)</strong></td>
<td>• Dept. of Physics</td>
</tr>
<tr>
<td><strong>Social Science (1)</strong></td>
<td>• Int’l Doctoral Program in Principles and Implications of Mind Sciences</td>
</tr>
</tbody>
</table>
## Degree Programs taught in English
(or with enough English-medium instruction courses for graduation)

<table>
<thead>
<tr>
<th>College</th>
<th>Degree Programs/ Department/ Institute</th>
</tr>
</thead>
</table>
| **Engineering**          | 1. International Bachelor Degree Program on Energy  
2. International Master Degree Program on Energy Engineering  
3. International Doctoral Degree Program on Energy Engineering  
4. The International Curriculum for Advanced Materials Program (iCAMP)  
5. International Master Program on Natural Hazards Mitigation and Management  
6. Dept. of Environmental Engineering  
7. Dept. of Biomedical Engineering  
8. Master of The International Institute of Medical Device Innovation (MDI)  
9. Dept. of Materials Science and Engineering  
10. Nano-Micro Engineering Ph.D. Degree Program of the Department of Materials Science and Engineering  
11. Dept. of Civil Engineering  
12. Dept. of Geomatics |
| **Electrical Eng. & Computer Science** | 1. Dept. of Electrical Engineering  
2. Dept. of Computer Science & Information Engineering  
3. Inst. of Manufacturing Information & Systems |
# Degree Programs taught in English
(or with enough English-medium instruction courses for graduation)

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<thead>
<tr>
<th>College</th>
<th>Degree Programs/ Department/ Institute</th>
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</thead>
<tbody>
<tr>
<td><strong>Electrical Eng. &amp; Computer Science</strong></td>
<td>7. MS Degree Program on Nano-Integrated-Circuit Engineering</td>
</tr>
<tr>
<td></td>
<td>8. MS Degree Program on Nano-Integrated-Circuit Engineering</td>
</tr>
<tr>
<td><strong>Management</strong></td>
<td>1. Inst. of International Management</td>
</tr>
<tr>
<td></td>
<td>2. Dept. of Industrial &amp; Information Management</td>
</tr>
<tr>
<td></td>
<td>3. Inst. of Information Management</td>
</tr>
<tr>
<td></td>
<td>4. Inst. of International Business</td>
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<tr>
<td><strong>Medicine</strong></td>
<td>1. Inst. of Allied Health Science</td>
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<td>1. Dept. of Biotechnology and Bioindustry Sciences</td>
</tr>
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<td></td>
<td>2. Inst. of Tropical Plant Sciences</td>
</tr>
<tr>
<td></td>
<td>3. Dept. of Life Sciences</td>
</tr>
<tr>
<td><strong>Liberal Arts</strong></td>
<td>1. Dept. of Foreign Languages &amp; Literature</td>
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</tbody>
</table>
Top research centers

Research Center for Energy Technology and Strategy (RCETS)

Innovation Center for Advanced Medical Device Technology (MDIC)

Center of Infectious Diseases and Signaling Research (CIDSR)

Disaster Prevention Research Center

Orchid Research & Development Center
# University Ranking

<table>
<thead>
<tr>
<th>Worldwide</th>
<th>Taiwan</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="#" alt="QS Logo" /></td>
<td><strong>#222</strong></td>
</tr>
<tr>
<td><img src="#" alt="QS Asia University Ranking Logo" /></td>
<td><strong>#35</strong></td>
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<td><img src="#" alt="Academic Ranking of World Universities Logo" /></td>
<td><strong>#76-100</strong></td>
</tr>
<tr>
<td><img src="#" alt="Enterprises Favorite College Students Logo" /></td>
<td><strong>#1</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Top Universities in Taiwan</strong></td>
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<tr>
<td></td>
<td><strong>Academic achievement #3</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Teaching achievement #2</strong></td>
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</tbody>
</table>
Developments on Higher Education

At NCKU, we put efforts on...
- Interdisciplinary Studies
- Academia-Industry Collaboration
- International Academic Cooperation
- Regional Education Hub
Achievements of NCKU

Translation Science

Smart Technology

Globalization Social Innovation

Academia-Industry Collaboration

National Policy-oriented issues

Global Entrepreneurship

Smart aquaculture, algae cultivation, clean energy...
Big data, AI, cloud computing, Bio-technology, medical device innovation, long-term care 2.0...
Green energy, sustainable environmental development, disaster prevention, smart grid...
Patent, especially in the filed of bio-med, Nano tech and cloud computing...
Innovation competition, start-ups, eco-system...
Social service, positive research, Zeelandia project, Min-nan area research...
NCKU research team led by Professor Wen-Chieh Tsai (Department of Life Sciences), has decrypted the Apostasia genome sequences, and which will be applied to precise breeding of orchids. This groundbreaking study was published in Nature, which is one of the world's top academic journals.
Automatic Virtual Metrology (AVM) NT$ 100 million

Professor Fan-Tien Cheng (Institute of Manufacturing Information and Systems), has developed “Automatic Virtual Metrology”, and successfully applied to the production line to boost production capacity. Since 2014, UMC, ASE, FEMCO, AIDC, FE-TECH, ITRI and other companies have all introduced AVM systems through technology transfer or industry-university cooperation. It is estimated that AVM will have a total transfer fee for more than NT$ 100 million.
AIDC and NCKU took a further step in their cooperation by joint participation in the Alpha Magnetic Spectrometer (AMS-02) project. The two parties, represented respectively by AIDC Chairman Anson Liao and President Jenny Su of NCKU, signed an agreement on the development of condenser for the upgrade of the thermal control system in the AMS-02 project, which is an international project directed by the physics Nobel Laureate Prof. Samuel Ting. The new condenser will be installed by astronauts onto the AMS-02 detector after the thermal system passes the safety inspection by NASA.