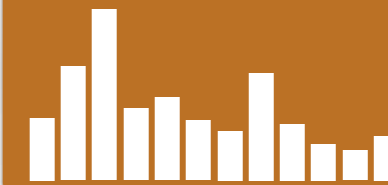


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Construction Engineering and Management



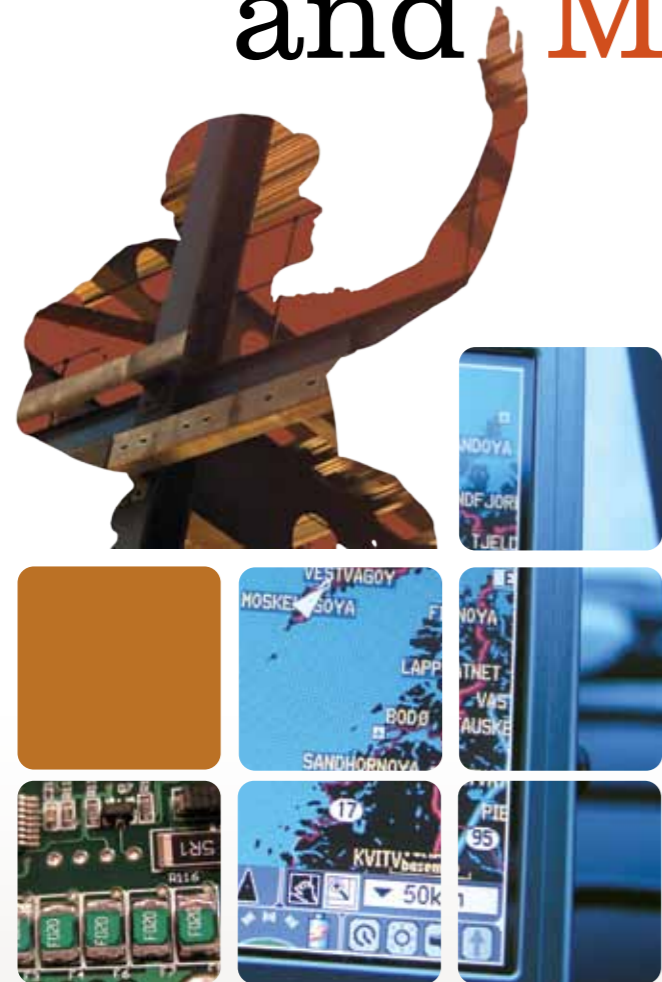
Construction Engineering and Management



Introduction

Taiwan has entered the era of research & development (R&D). Advanced R&D requires compatible private and public facilities. The scope of Construction Engineering and Management (CEM) deals with all the issues of the private and public facilities life-cycled from planning, design, procurement, construction, commissioning, transfer, operations, maintenance, to disposal. CEM is an inevitable part of the chain linking to innovative R&D which will have a profound impact on the future of Taiwan. In order to cope with the challenge, Civil Engineering Graduate School of National Taiwan University (NTU) started to enroll CEM postgraduate students in 1990. In 1998, the Ministry of Education officially approved NTU Construction Engineering and Management program. In addition, Engineering Master of Business Administration (EMBA) in CEM was offered in 2003 to strengthen collaboration between the construction industry and the academic. In recent years high-tech industry has played a crucial role on Taiwan's technology and economy. To sustain Taiwan high-tech industry, NTU CEM program initiated teaching and research on facilities needed for high-tech R&D&Manufacturing in 2006. Up to 2009, there are around 60 PhD, 220 MS and 130 EMBA students who either had graduated or are presently studying in NTU CEM program.

Construction Engineering and Management



Learning & Research Environment

Interdisciplinary approach in construction engineering and management is necessary in the 21st century. It requires talents of all kinds to improve the quality of CEM R&D. The talents include, not limited to, the experts from civil engineering, architecture, construction, mechanical engineering, chemical engineering, electrical engineering, physics, chemistry, biology, material engineering, medicine, law, management, finance and economy.

Besides having excellent learning and research facilities, National Taiwan University not only has high quality of students, faculty and staff, but also has the most faculties and departments in Taiwan. Her CEM curriculum and research subjects are specifically designed based on faculty specialties, student interests, the mandatory requirements from Ministry of Education, NTU existing research facilities, and evaluation on many preeminent CEM programs around the world. Seven out of the thirteen faculty members are full-time and the other six are adjunct faculties from industry. All the faculty members have domain expertise and they cover a very broad spectrum of research subjects as follows:



Research Subject

- High-Tech Facility Engineering and Management
- Cleanroom and Contamination Control
- Intelligent Color Image Recognition
- Ecology Engineering and Sustainable Engineering
- Green Building and Factory
- Engineering Project Management
- Engineering IT Management and Enterprise Resource Planning
- Public-Private Partnerships and Build-Operate-Transfer: Governance and Policy
- Construction Globalization and Strategy Management
- Real Estate Market and Property Evaluation
- Knowledge Sharing and Incentive System
- Construction Economics
- Construction Laws and Regulations
- BOT Planning Management
- Construction Productivity and Improvement
- Building Planning and Management
- School and Hospital Construction
- Construction Equipment and Mechanical & Electrical Systems
- Construction Life-Span and Cost Analysis
- Engineering Risk Management and Decision Analysis
- Harmony among Civil Engineering, Environment, Ecology and Landscape



Faculty

Professor CHANG, Luh-Maan

High-Tech Facility Engineering and Management, Cleanroom Design, Construction Productivity, Intelligent Color Image Recognition

Associate Professor CHEN, Po-Han

Intelligent Automated Image Recognition, Construction Operations, Construction Sustainability, Virtual and Augmented Reality, Artificial Intelligence in Construction

Jointly-appointed Professor CHEN, Sih-Li

Phase Change, Heat Transfer, HVAC

Professor GUO, Sy-Jye

Construction Management, Construction Law & Contract, Risk and Decision Analysis, Building Planning and Maintenance

Associate Professor HO, Shih-Ping

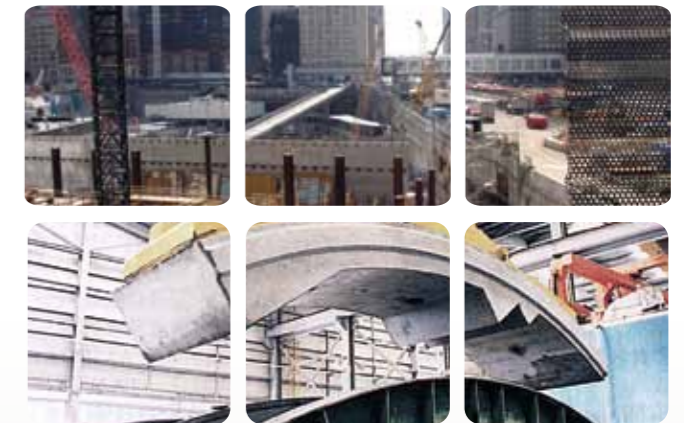
Sustainable Infrastructure Development and PPPs/BOT, Internationalization in A/E/C Industries, Organization and Strategy Management, Game Theory Modeling, Financial Economics

Jointly-appointed Professor LIN, Chien-Yuan

Transportation and Land Use, Land Development and Management, Infrastructure Planning and Urban Development

Professor TSERNG, Hui-Ping

Project Management, Construction Financial Management, Construction Estimating & Scheduling, Project Performance Evaluation, Construction Automation & Robotics



Adjunct Faculty

Professional Expert CHOU, Nelson Nan-Sun

Ecological Engineering, Landslide and Mudflow Remedial Measures, Sustainable Civil Engineering

Professional Expert KAO, Tsung-Chung

Project Management, Contract Management, Railway Engineering

Professor LIAO, Ching-Lung

Construction Automation, Project Management with Case study, Railway Engineering, Reinforced Concrete Design and Application

Professional Expert TSENG, Dar-Jen

Public Construction, Tunnel Engineering, Engineering Geology, Foundation Engineering

Associate Professor WANG, Ming-Teh

Construction Law & Contracting Management, Construction Economics & Finance, Policy and System of Construction Industry

Professor YIN, Yen-Liang

Construction System Interface Integration, Auto-Construction Research, Synchronization Engineering Construction Management