Construction Engineering and Management at Tsinghua University

Prof Dongping FANG
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Tsinghua Facts

55 Departments in 15 Schools
3,100 faculty members
31,000 students
HISTORY

1911 Tsinghua University Founded (100 years ago)
1926 Civil Eng. Division in Engineering School
1928 Dept of Civil Engineering

Railway
Hydraulic
Municipal
Structure
and Road
Engineering

1952 Dept of Hydraulic Engineering
1953 Division of Construction Engineering
1985 Construction Engineering and Management
(a program in civil engineering department)

Dept of Civil Engineering
Dept of Hydraulic Engineering

School of Civil Engineering

Dept of Civil Engineering
Dept of Hydraulic Engineering
Dept of Construction Management

VIP Graduate: Hu Jintao, the President of P.R. China
Department of Construction Management

18 faculty members
100 undergraduate students
70 graduate students + PhD candidates

Department Organization

• Administration:
  – Under School & shared School General Office
  – Dept Head & Deputy Head + Dept Secretary

• Academic Institutes:
  – Institute of Engineering Management
  – Institute of Real Estate Studies
  – Institute of International Engineering Project Management
  – Institute of Construction Tech & Project Mgmt

• Joint Centers:
  – Tsinghua-Gammon Construction Safety Research Center
  – Tsinghua-Hong Kong PolyU Center for IT in Construction
  – Tsinghua-RICS Learning Center
  – Tsinghua-CIOB Learning Center
Research

Construction Engineering, Economics and Management

construction engineering
building technology and green construction, advanced technology for concrete engineering, IT and productivity in construction;

building economics
value management, life-cycle costing and feasibility study for developers;

laws and regulations related to construction
construction laws, insurance and bonding system, and anti-corruption strategies in public and private works;

Research

Construction Engineering, Economics and Management (continued)

project management
organizational project management, project governance, procurement and contract management; risk management for construction program/projects

international construction and project finance (BOT/PFI/PPP);

SHE (safety, health and environment) management in construction
Safety culture, BBS, environmental management system and life-cycle environmental impact assessment of construction project.
Research

Real Estate Economics and Management

urban and real estate economics, real estate finance and investment, real estate development, housing policy, property management and land management.

Current research

Information Cost and Market Efficiency in Housing Market
the Spatial Interaction of Jobs and Housing in Chinese Cities
the Urban Economy and Housing Market, the Urban Housing Price Index based on Real Transactions in 40 Major Chinese Cities
the Measurement of Risk and Return in Chinese Real Estate Market

Degree Programs

• **Undergraduate Program (full-time) (30 students/year)**
  Construction and Real Estate

• **Masters Program (full-time) (15-20 students/years)**
  Management Science and Engineering with specialization in:
  - Construction Project Management
  - Real Estate Economics and Management
  - Advanced Construction Technology

• **Masters Program (part-time) (200 students)**
  • Project Management
  • Architecture and Civil Engineering

• **Ph.D. Program (full-time) (30 students)**
  Management Science and Engineering with specialization in:
  - Construction Engineering and Management
  - Real Estate Economics and Management
Tsinghua Summer School for International Construction 2011
The summer school will cover hot topics in international construction, including:
Global and Chinese construction industry,
Project financing,
Safety and risk management,
and Labor issues, etc.

For more information and register, please visit http://www.globalprogram.cn
Construction Engineering and Management Innovation Competition
Yu Kuan Chair Professors Group

Master’s program for international students

International Construction and Project Management
Targeted Students

- **Priority**
  - 1st Mgmt. professionals (managers, CEOs)
  - 2nd Perspective undergrads

- **Requirements**
  - **Mandatory**
    - Non-Chinese / international students
    - First Degree: Bachelor
    - English ability (GRE, TOFEL, Etc.)
  - **Preferable**
    - Industrial experience
    - Professional qualifications
    - MS degree
    - Chinese proficiency

Themes / Features

- Internationalization
- Sustainability
- Effective project delivery
- Chinese culture / market
The ICPM Framework

Graduation Requirements: Courses

**Required:** Culture, Math, Seminar, etc. (Credit = 9)
**Optional:** (Credit = 14)

**Research Skills**
- Mathematics (Operational Research, Applied statistics) (REQ)
- Lit. Review / Proposal, Seminar (REQ)
- Metrics (Liao)
- Research Methods (TBD)
- English Writing for Construction Students (TBD)

**Technical Aspect**
- Construction Management (Pan) (PM) (HR)
- Concession Project Finance (Wang) (FM)
- Risk and safety management in construction (Fang) (PM)
- Professionalism, Ethics, and Leadership (Ofori) (BM)
- Information Technology (Chimney) (PM)
- Construction Business Management (Flanagan) (BM)

**Theme / Culture**
- Chinese Fundamental (REQ)
- Chinese Culture (REQ)
- Construction Contract Law (Liao)
- Regional / Urban and Real Estate Economic (Yang, Zheng) (Market)
- Anti-Corruption in the Construction Industry (Deng) (HR)
- History of Chinese Architecture (Dept. of Architect)
- Green Building (Dept. of Architect)
- Intl Project Management (TBD)
Graduation Requirements: Research

- Master Report (Supervisor + Reviewer)
  - Min. standard: Case studies or above
  - Expected achievement: International comparisons OR Practical solutions

- Master Thesis (with Defense)
  - Min. standard: regular master
  - Expected achievement: academic contributions

Leveraging Courses and Research

- Research
- Course

- Report
- CR=27

- Thesis
- CR=23
Tsinghua Campus Tour

2011/8/9
Question?

Thanks