

研發業務

Research and Development

壹 成立研發小組

為辦理研究發展業務，本會於九十年四月二日成立研發小組，主要工作內容包括訂定研究重點、執行「公共建設永續發展科技計畫」及「防災國家型科技計畫」及對本會所辦理之各項研究計畫予以審議及管考。

貳 工程研究發展業務

一、訂定本會研究發展重點

本會為扮演全國公共工程之規劃、審議、協調及督導角色，擬定本會科技發展目標為：「公共建設之永續發展」，期透過提昇公共建設決策、管理、防災之知能、對策及技術，妥適籌劃管理公共建設並研擬相關防災對策，以促進經濟持續成長、提高全民生活水準、帶動國家全面發展，並追求各項資、能源有效利用與節約，與自然環境建立和諧關係。同時於本會網站上開闢「研究發展」專區，除介紹本會研發重點外，期能多方蒐集意見，供作未來辦理研究發展之重要參考。

二、執行「公共建設永續發展中程綱要計畫」及「防災國家型科技計畫」

辦理「公共建設永續發展中程綱要計畫」，從營建資源減廢、再利用、節能設計，到考量生命期程之公共建設規劃設計、施工、防災、管理維護及最終處理等不同階段，建立涵蓋管理知能與工程技術之公共建設發展對策，九十年度共計完成二十七項



本會九十年度委託研究案聯合研討會

相關之委託研究計畫。另配合第一期防災國家型科技計畫，於九十年度完成九項與公共工程防災相關課題之研究計畫。

三、辦理本會研究計畫之審議與管考作業

依據「本會專案研究計畫先期審議標準作業程序」與「本會委託專案研究作業要點」辦理本會研究計畫之審議與管考。本會90年度委託研究計畫數量為企劃處6件、技術處14件、工管處6件、及研發小組15件，共41件。

1 Establishment of the Research and Development Committee

The PCC established its Research and Development Committee on Apr. 2, 2001 to handle its R&D matters. The major work of the Committee consists of the formulation of the main points of R&D work, implementation of the Sustainable Public Construction Technology Development Plan and the National Disaster Prevention Technology Project, and the review and monitoring of R&D projects carried out by the PCC.

2 Engineering Research and Development

1. Formulation of the Focal Points of PCC R&D

The PCC performs a planning, review, coordination, and supervisory role in the nation's public construction, and the goal of its technology development is the sustainable development of public construction. Its aim is to carry out appropriate planning and management of public construction through enhanced decision-making, management, and disaster prevention know-how, countermeasures, and technology, and to formulate measures for disaster prevention, so as to stimulate the continuous development of the economy, upgrade the living standards of the people, and bring about overall national development, as well as to pursue the effective utilization and conservation of resources and energy; and, in this way, to establish a harmonious relationship with the natural environment. At the same time, a special "R&D Section" has been developed on the PCC website to

introduce the focal points of the Commission's R&D work with the aim of collecting a wide range of opinions for use as an important reference in carrying out future R&D work.

2. Implementation of the Medium-term Framework Plan for the Sustainable Development of Public Construction and the National Disaster Prevention Technology Project

The carrying out of the Medium-term Framework Plan for the Sustainable Development of Public Construction involves the establishment of public construction development measures for different stages of a project, from construction resources waste reduction, recycling, and energy-saving design to planning design that takes life cycle into consideration, implementation of construction, disaster prevention, management, and maintenance, and on to final disposition. A total of 27 related research projects were completed in 2001. In addition, nine research projects related to national construction disaster prevention were completed in 2001 in coordination with the first stage of the National Disaster Prevention Technology Project.

3. Review and Monitoring of PCC Research Projects

The PC carries out review and monitoring of its research projects in accordance with the Preliminary Review Procedures for PCC Research Projects and the Operating Guidelines for Research Projects Commissioned by the PCC. Research projects commissioned by the PCC in 2001 include six for the Planning Department, 14 for the Technical Department, six for the Construction Management Department, and 15 for the Research and Development Division, for a total of 41 projects.



本會委託研究計畫一覽表 Research Projects Commissioned by the PCC

研 究 案 名 稱 Name of Research Project
工程技術顧問機構管理條例及技師倫理規範(草案)之研究
The Statute for the Administration of Engineering Consulting Organizations and Ethical Standards for Technicians (draft)
歐美日各國於國家不同發展階段所對應之公共建設發展策略
Infrastructure Development Policies for Different Stages of Development in Europe, America, and Japan
「政府採購卡試辦計畫」推動及法制研究等作業委託案
Implementation of the Government Procurement Card Trial Operation Project, and the Legal System
重大採購事件效益評估委託研究
Results Assessment of Major Procurement Incidents
XML在政府電子採購之研究
XML in Government e-Procurement
採購專業人員管理制度之研究
Administrative System for Professional Procurement Personnel
公共工程技術資料庫整合(九十年度)委託專案計畫
Public Construction Technology Databank Integration (Fiscal Year 2001)
研擬參與公共建設可行性評估及先期規劃作業手冊
Operations Manual for Formulation of Infrastructure Project Participation Feasibility Evaluation, and Preliminary Planning
設計與施工建造契約、統包契約文件之研訂
Formulation of Construction Design and Implementation Contract Documents and General Contractor Contract Documents
公共工程同等品認定機制之研究
Equivalent Product Determination Mechanism for Public Construction
營建資源再利用於公共工程—廢玻璃、廢輪胎工地試鋪成效評估
Recycling of Construction Resources in Public Construction-Evaluation of Trial Construction Site Pavement using Waste Glass and Tires
編撰「民間參與公共建設甄審作業手冊」(草案)
Compilation of Selection Operations Manual for Private Participation in Infrastructure Projects (draft)
民間參與公共建設整體作業手冊委託規劃案
Planning of Overall Operations Manual for Private Participation in Infrastructure Projects
探討引進外資投入國內民間參與公共建設之研究
A Discussion of the Attraction of Foreign Investment for Private Participation in Domestic Infrastructure Projects
推動綠營建工程評估審議制度及評估指標之研究
An Assessment and Evaluation System for the Promotion of Green Construction, and Assessment Indexes
道路工程建立綠營建工程設計規範與設計準則
Establishment of Green construction Design Rules and Standards for Road Construction
台灣地區隧道岩體分類系統暨隧道工程資料庫之建立(第二期)
Establishment of a Databank for a Tunnel Rock Mass Classification System and Tunnel Engineering
民間參與公共建設財務評估模式規劃
Planning of a Financial Assessment Model for Private Participation in Public Construction
國內外各類型公共建設民間參與政策及推動機制調查
A Survey of Different Types of Policies and Promotion Mechanisms for Private Participation in Infrastructure Projects in Taiwan and Overseas

公共工程資源及工料分析基本架構標準文件標準化

Standardization of Basic Framework Tender Documents for the Analysis of Public Construction Resources and Materials

地方政府民生工程管理制度與作業手冊建立之研究

Establishment of a Management System and Operations Manual for People's Livelihood Construction by Local Governments

建制結合地理資訊系統(GIS)之工程計畫管控模式之研究

Establishment of a Construction Planning Control Model Incorporating the Geographic Information System (GIS)

公共建設永續經營管理維護制度之研究

Management and Maintenance Systems for Sustainable Public Construction

公共建設風險管理之研究

Risk Management in Public Construction

順應全球化趨勢公共工程主辦機關工程管理之研究

Construction Management Conforming to International Trends by Agencies in Charge of Public Construction

公共工程廠商遲延履約之處理機制

A Disposition Mechanism for Progress Delays by Companies Carrying Out Public Construction

建置國家公共建設指標之研究

Establishment of National Indexes for Public Construction

應用衛星遙測技術建立公共建設天然災害即時勘災機制之研究

Use of Satellite Remote Sensing Technology to Establish a Timely Natural Disaster Inspection Mechanism for Public Construction

本會在天然災害防治及復建角色之研究

The Role of the PCC in Natural Disaster Prevention and Reconstruction

公共建設之永續發展中程綱要計畫及績效指標之研究

A Medium-Term Outline Plan and Performance Indexes for the Sustainable Development of Public Construction

河域上中下游整體規劃之研究

Integrated Planning for Upstream, Midstream, and Downstream River Areas

以統包制度加速推動國家計畫之研究

Accelerated Implementation of National Projects Through the General Contractor System

公共工程電子化推動架構之研究

A Framework for Promotion of the Electronization of Public Construction

廿一世紀公共工程建設科技研發規劃之研究

Public Construction Technological R&D Planning in the 21st Century

工程建設品質管理機制檢討與改善方案之研究

A Review of the Construction Quality Management Mechanism, and Improvement Programs

焚化爐地震災變管理及復舊對策之研究

Incinerator Earthquake Management and Rehabilitation Measures

新澆置混凝土震後工程性質與處理對策之研究

Nature of Post-Earthquake Engineering for Maturing Concrete, and Disposition Measures

橋梁結構耐震隔震及減震技術之應用研究

Application of Seismic Resistance, Vibration Isolation, and Shock Absorption Technology in Bridge Construction

提昇台灣營建產業國際競爭力之研究

Upgrading of the International Competitiveness of Taiwan's Construction Industry

中美日公共工程耐震隔震及減震設計之比較分析

A Comparative Analysis of Seismic Resistance, Vibration Isolation, and Shock Absorption Design for Public Construction in Taiwan, the United States, and Japan

地下維生線系統耐震及改善之研究

Earthquake Tolerance of Underground Sewage Systems, and Means of Improvement