

# Dongsung Engineering

## Passion & Differentiation


"We create the best suitable solution using our superior technology to achieve our goal to be an Engineering Leader"



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# Dongsung Engineering

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# Greetings



MESSAGE FROM THE CEO

*'Dream your future as you wish.  
Dongsung will design it for you'*

We are witnessing breathtaking changes in the business environment today as we enter the so-called 4th industrial revolution era. The engineering service is also confronted with innumerable challenges such as expansion of private initiative businesses to satisfy various customer needs, diversifying project methodologies and an increasing demands of complicated development projects.

The corporate governance is also switching its focus from suppliers to customers. In another words, we fully understand our client's value in advance and satisfy their needs in order to maintain our competitive advantages. To achieve this goal, we must strengthen individual specialities, integrate various fields of engineering projects, and improve the Program Management ability to maximize the synergy effects.

We, Dongsung Engineering, have chosen "Humanity, Communication, Collaboration and Activeness" as our motto reflecting our core values to take it off to the higher level in the middle of these momentous changes. And we know our new vision will help strengthen the company's organization and manpower management. We have been preparing for the 4th industry society which requires utilization of a comprehensive technical system such as multi-modal center and low carbon green growth development project including water resources, environmental, urban planning and railway. Furthermore, we are aggressively pushing our efforts into the overseas market to improve our competitiveness with the goal of becoming the global engineering leader.

We have developed our unique system through the IT technology to boost the company's competitive abilities up into the market. Dongsung will make sure that we can play a dominant role in the engineering field to serve our clients. That is the only reason of our existence. We will not spare our potential energy to help improving your values.

Sincerely, President Kim, Hyung Chul.

# Dongsung Engineering Vision





# GREEN & SMART

## Introduction

Dongsung Engineering's goal is providing the best services to clients beyond their expectation with cutting edge technology. To follow this goal, our staffs keep concentrate on creating values for our clients through becoming an engineering leader in their professional fields based on endless study and innovation.

While serving for many projects of general planning and design, competitive design, and private funding, we have earned our core competence in road, bridge, tunnel and environmental fields. Now we are expanding our competences to water resource, urban planning/landscape, railway, water supply/sewerage and construction supervision with continuous technology development.

## Chronology

1991~2000

- Dongsung Engineering Co., Ltd founded
- Obtained ISO 9001
- Established Technology Research Institute
- Detailed Design for construction of Jinju-Tongyeong Expressway, Korea
- Detailed Design for construction of Yeosu-Yangpyeong Expressway, Korea
- Construction Supervision for the Construction of Pohang Ringroad, Korea
- Construction Supervision for Reconstruction of Miho Bridge on the Kyoungbu Expressway, Korea

2001~2005

- Detailed Design for construction of Yongin-Seoul Private Invest Expressway, Korea
- Basic and Detailed Design for construction of Youngkwang-Haejae National Road, Korea
- Detailed Design for Rehabilitation Work of Songdo coast Road, Korea
- Detailed Design for construction of Busan New-habour Back Road, Korea
- Basic Design for Railroad double-tracking(Iksan-Sinli), Korea
- Construction Supervision for Detour Road Work for National road No.4, Korea
- Construction Supervision for Installation of Shinyonggang Bridge, Korea

2006~2010

- Feasibility Study of 7 National Roads, Philippines
- Preliminary and Detailed Design for Nonhay -Banvang Road Construction, Lao PDR
- Detailed Design for Bypass of Temirlanovka Settlement Section, Kazakhstan
- Feasibility Study on the C-6 (Metro Manila) Expressway Project, Philippines
- Feasibility Study on the Baku Bay Marine Bridge Construction, Azerbaijan
- Construction Supervision of Western Europe-Western China International Transit Corridor, Kazakhstan
- The Feasibility Study on the Mamore bridge and accessway, Bolivia

2011~PRESENT

- Feasibility Study for Rehabilitation of National Road No.2 and No.22, Cambodia
- Feasibility Study for Improvement and Widening of N-45 (141km), Pakistan
- Feasibility Study on Improvement of Thanbyuzayat-Dawei National Highway, Myanmar
- Preparation of Design for 169km of National Roads, East Timor
- Almaty-Khorgos Road (0-171.1km) Reconstruction - Construction Supervision, Kazakhstan
- Feasibility Study and Basic Design for National Road No. 8 on the Asian Highway, Lao PDR
- Construction Supervision for the Upgrading and Maintenance of Baucau to Lautem Roads, East Timor
- Construction Supervision of CAREC Corridors 1 and 6 Connector road (Aktobe-Makat), Kazakhstan

## Licenses

### Engineering Service Provider

(KENCA, July.19.93)

### Public Surveying Business

(Gyeongsangbuk-Do, May.7.94)

### Technology Research Center

(Korea Industrial Technology Association, Oct.8.96)

### Traffic Impact Assessment Agency

(Ministry of Construction and Transportation, Oct.25.96)

### Environmental Impact Assessment Agency

(Environmental Impact Assessment Association, Nov.2.99)

### Supervision Firm

(Gyeongsangbuk-Do, Apr.16.04)

### Overseas Engineering Services Provider

(Ministry of Construction and Transportation, June.25.05)

### Safety Assessor

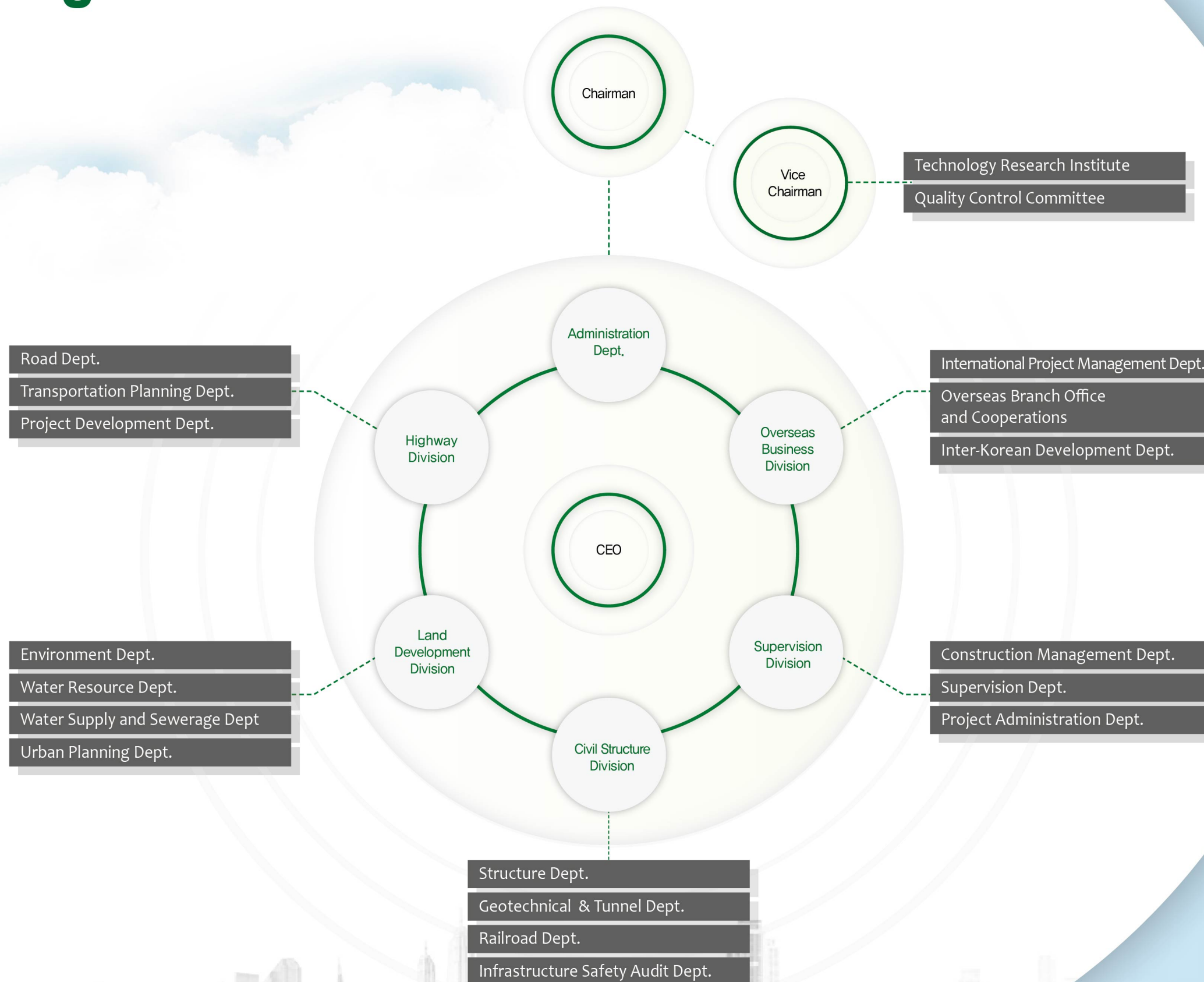
(Gyeongsangbuk-Do, Jul.13.07)

### Real Estate Developer

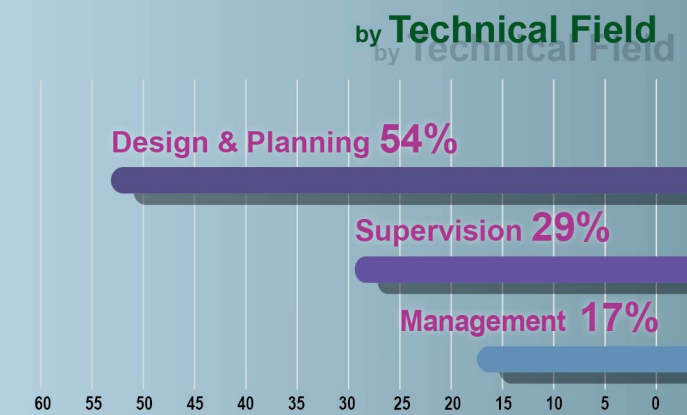
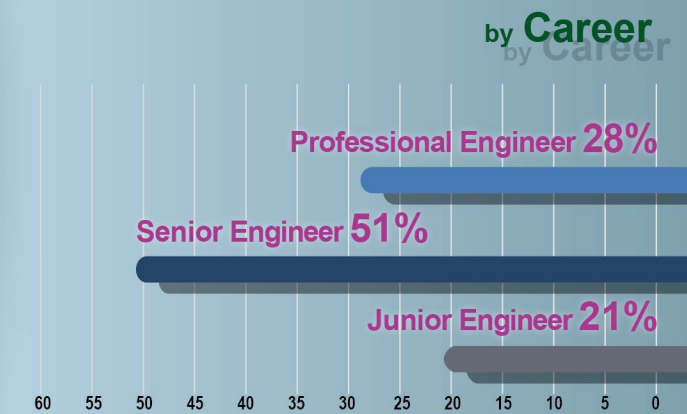
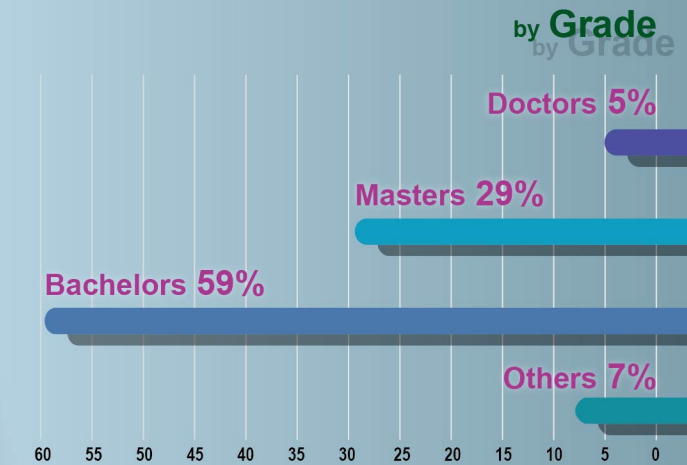
(Gyeongsangbuk-Do, Dec.10.09)



# Organization



Number of staffs : 350 persons





## Overseas Business

After obtaining the Overseas Construction Business License from Korean Government at 2006, Dongsung entered the Overseas business market in earnest. We have conducted various specific projects, especially Korean ODA (KOICA, KEDCF) and Multilateral Development Bank (IBRD, ADB, EBRD, AFDB etc) related projects. We have abundant experiences on those projects with Master Plan, Feasibility Study, Design, Supervision, Safety Audit in varied Civil Engineering field.



### CONSTRUCTION SUPERVISION

- 1 The Reconstruction and Rehabilitation of Faizabad-Eshkashim Road Project (108km), **Afghanistan** [ADB]
- 2 The Upgrading and Maintenance of Baucau to Lautem, Maubara to Karimbala and Atabae to Mota Ain Roads, **Timor-Leste** [ADB]
- 3 Malakand Tunnel Construction Project, **Pakistan** [EDCF]
- 4 CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project, **Kazakhstan** [ADB]
- 5 Almaty-Khorgos Road (0-171.1km, 214.3-304.33km), **Kazakhstan** [WB]
- 6 Reconstruction Works on Road Section km 1807-1917 of Western Europe - Western China International Transit Corridor, **Kazakhstan** [WB]

### DETAILED DESIGN

- 1 Samar Pacific Coastal Road Project, **Philippines** [EDCF]
- 2 Detailed Design for 169km of National Roads, **Timor-Leste** [ADB]
- 3 Temirlanovka Settlement Section of Russian Federation Border Road Construction, **Kazakhstan** [WB]
- 4 Road Border of the RF (Samara) - Shymkent km 2135-2183, **Kazakhstan** [WB]
- 5 Detailed Design for Road Border of the RF (Samara) - Shymkent km 1807-1837 (Kyzylorda Bypass), **Kazakhstan** [WB]
- 6 Detailed Design for Road Border of the RF (Samara) - Shymkent km 2183-2216+100, **Kazakhstan** [WB]

### FEASIBILITY STUDY & BASIC DESIGN

- 1 Upgrading National Road No. 8 on the Asian Highway (AH15) Network, **Lao PDR** [KOICA]
- 2 Improvement and Widening of N-45, **Pakistan** [K-EXIM Bank]
- 3 Rehabilitation of National Road No.2 and No.22, **Cambodia** [K-EXIM Bank]
- 4 Mamore Bridge and Access-way Construction Project, **Bolivia** [K-EXIM Bank]
- 5 Baku Bay Marine Bridge Construction, **Azerbaijan** [KOICA]
- 6 C-6 (Metro Manila) Expressway Project, **Philippines** [KOICA]





# Road

[ Work Area ]

Expressway	Rural Road
Highway	Urban Road
Arterial	Toll Road
Collector Road	Access Road
Local Road	Special Purpose Road

[ Main Services ]

Master Plan and Feasibility Study
Preliminary & Detailed Design
Design-Build Project (Turn-key, Design Contest, Alternative Design)
Public-Private-Partnership
Pavement Evaluation & Rehabilitation
Road Safety Audit
Value Engineering





## Structure & Bridge

### [ Work Area & Main Services ]

**Design for Bridges** : Rahmen, Girder, Arch, Truss, Cable-Stayed and Suspension Bridges

**Design for Structures** : Large Span Box Culvert, Underground Facilities, Retaining Walls, Weir, Spillway

Structural Safety Audit

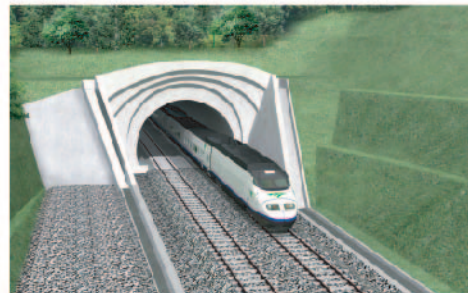


## Railroad

### [ Work Area & Main Services ]

Express Railway / Ordinary Railway / Metro Subway

Light Rail Transit (LRT) / Monorail / New Transit Mode





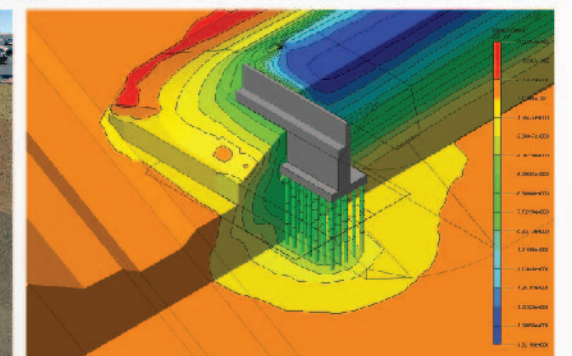
## Geotechnical & Tunnel

### [ Work Area ]

Tunnel (Road, Railway)  
 Structure Foundation and Restoration  
 Utility Tunnel (i.e. Power Cable, Water)  
 Underground Structure (Subway, Underground Road and Tunnel, etc)  
 Temporary Facilities and Supervisory Services

### [ Main Services ]

Geological Surveying, Site Investigation and Soil Test  
 Soft Ground Improvement & Settlement  
 Slope Stability and Protection  
 Seismic Risk and Geo-hazard Assessments





## Transportation Planning

### [ Work Area & Main Services ]

- Transportation Planning** : Basic Traffic Improvement Plan(Mid-term), Basic Road Improvement Plan, ITS Project
- Transportation Facilities** : (Pre)Feasibility Study, Mass Transportation Improvement Project, Traffic Impact Assessment/Improvement Plan, Broad Transportation Systems
- Traffic Operation** : Feasibility Study and Design of TSM(Transportation System Management), TIP(Transportation Improvement Program) and BRT(Bus Rapid Transit) Project
- Traffic Safety** : School Zone, Black Spot Improvement



## Project Development

### [ Work Area & Main Services ]

- MTC(Multi-modal Transit Center) in urbanized area
- Industrial Complex
- Housing and New Town
- Tourist Attraction Center







## Water Resources

### [ Work Area & Main Services ]

Water Resource Development and Management  
Comprehensive Plan for Flood Control of River Basin  
Development of Reservoirs, Dams and Canals  
Disaster Impact Assessment  
Agricultural Development and Irrigation  
Rainwater Recycling System



## Water Supply & Sewerage

### [ Work Area & Main Services ]

Water Quality Control Plan  
Master Plan for Water Supply System Management  
Water Treatment and Supply Facilities  
Water and Sewer Networking and Distribution Management  
Master Plan for Sewage System  
Wastewater and Sewage Treatment Facilities  
Water Recycling and Reuse System





## Environment

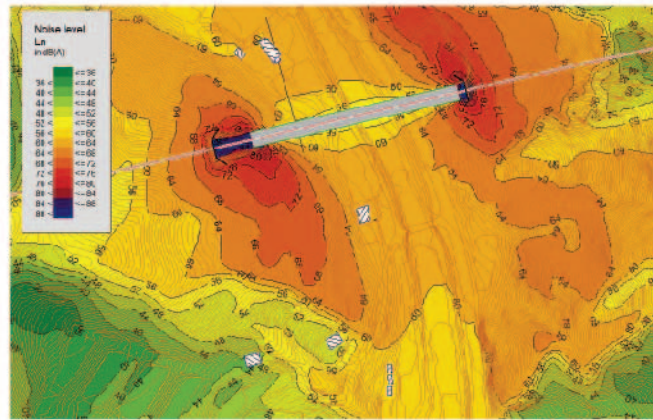
### [ Work Area & Main Services ]

Environmental and Ecological Surveys

Environmental Impact Assessment and Research

Post-Environmental Impact Assessment

Design for Noise barriers, Wastewater Treatment Facilities, Solid Waste Disposal,  
Air pollution Control, Sanitary Landfills, Food Waste Treatment and Water/Waste  
Recycling Plan, Resettlement Restoration



## Urban Planning and Land Development

### [ Work Area & Main Services ]

National / Regional Land Use Planning

Master Plan of Development for Rural Area

Urban Management and Planning

District Unit Planning

Industrial Complex Design and Execution Plan

Tour and Leisure Complex





# Construction Management & Supervision

## [ Work Area ]

Development Project for Commercial, Industrial Buildings, MTC (Multi-modal Transit Centre)  
Supervision for Roads, Railways, Tunnels, Underground Works, Water  
Water Supply and Sewerage System, Irrigation, Housing, New City and Industrial Complex,  
Harbor, Airport, Dam and Leisure Complex

## [ Main Services ]

Procurement and Bidding Services	Contract Management
Design Management and Maintenance	Environmental Management
Inspection on the Site	Land Acquisition & Resettlement Restoration
Quality Assurance and Quality Control	Claim Management and Dispute Resolution
Cost and Progress Control	On-the-Job Training (OJT) and Technology Transfer
Value Engineering	





## Technology Research Institute

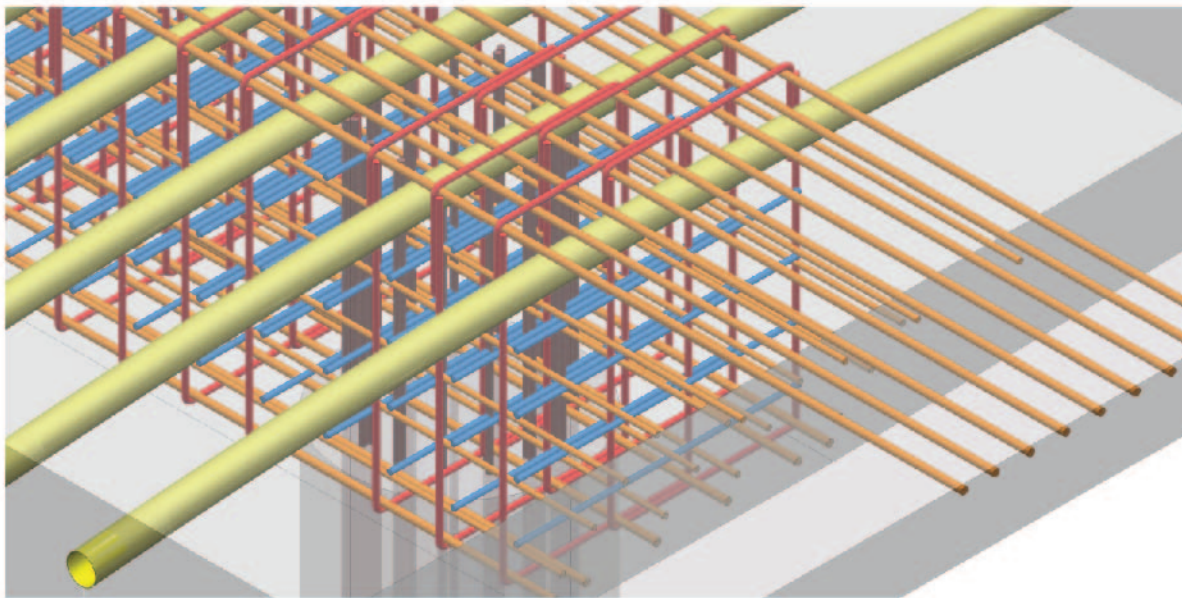
The technology research institute, comprised professional researchers from the various fields of civil engineering and the institute capability will contribute to establish the company's managerial philosophy targeting of "be the best qualified specialists". The technology research institute has been working on R&D projects for civil engineering and trying to facilitate and to improve construction technology through development of new techniques or methodologies. Also, it operates BIM(Building Information Modeling) & ICT(Information Communication Technology) center. It has taken a leading role in advancing technology by applying BIM to civil design. From those researches, we have applied and obtained 27 patents regarding Civil Works from the Korean Intellectual Property Office.



Settlement Gauge with Semiconductor Sensor



Integrated Bridge with Buried Girder Type



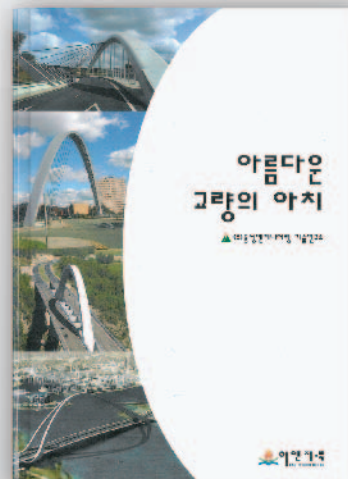
BIM analysis for Rebar assembly



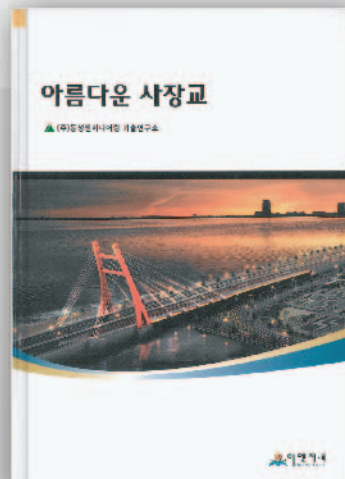
Pedestrian Overpass using Light Weight Material



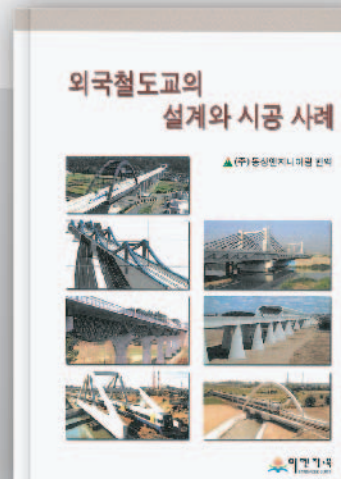
## Publications



BEAUTIFUL  
ARCH BRIDGES



BEAUTIFUL CABLE-  
STAYED BRIDGES



CASE STUDIES  
IN DESIGN &  
CONSTRUCTION OF  
RAILWAY BRIDGES



## Social Contributions

One of the company's goal is humanity and we persue it by social contributions every year by making sister village and help them various directions. We chose the one moutainous village as a sister relationship and try to find the way how to help them. We help them by giving our labor for the farming season and donate bicycles for their local transport also. And the village helps our staffs to use their organic foods frequently.

2017



2014



2016



2015



2013

