



**KORASS**

Your Ideal Partner  
**The Korea Railway Association**

**Korea Railway Association**

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**Korea Railway, Leader of the Global Railway Network  
with full devotion supported by rich experience,  
Korea Railway is bringing premium expertise  
to the world as a leader of Green Transportation.  
Come and meet your ideal partner!**

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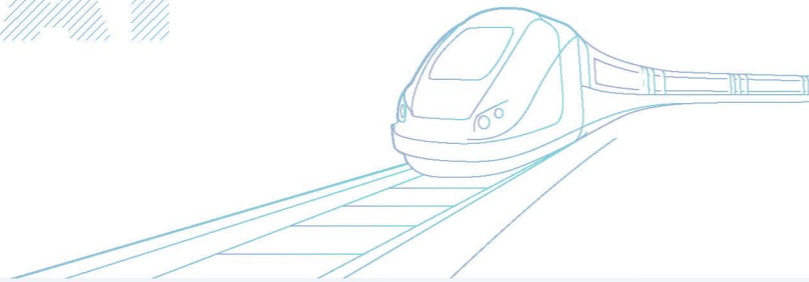
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# EVOLUTION OF

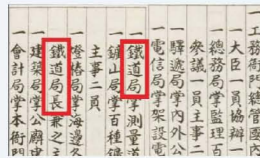
# KOREA RAILWAY



## HISTORY

**1894 06**

Establishment of The First Railway Department (Gong-Mu-A-Mun, 공무아문(工務衙門))



Gojong Sillok(高宗實錄)

**1897 03**

Gyeongin[Seoul-Incheon] Line Ground Breaking Ceremony



Incheon Ugakhyeon(牛角峴)

**1905 01**

Opening of the Gyeongbu [Seoul-Busan] Line



Sungnyemun Gate(崇禮門)

**1906 04**

Opening of the Gyeongui [Seoul-Sineuiju] Line



Gyeongui Line Building Site

**1914 01**

Opening of the Honam Line



Noryeong Tunnel

**1974 08**

Seoul Subway Line1 opened the service as the first urban railway system in Seoul



Seoul Subway Opening Ceremony

## INTRODUCTION OF KOREA RAILWAY

**Korea Railway Development changes the Korea Industry**

Korea has rapidly acquired railway technology of the finest degree, just as it has been able to accomplish in areas such as shipbuilding, electronics and convergence by information technology(CIT). The launch of Korea Train eXpress(KTX), Korea's high-speed rail service, has played an indispensable role in enhancing the nation's railway system.

Korea has operated the Korean HSR KTX-SanCheon (developed by Korea's own technology) since March 2010 and the HEMU-430X(maximum speed : 430km/h) has been in test operation since June 2012.

The new-generation vehicle HEMU-430X(maximum speed : 430km/h) aims to further provide a comfortable, safe, and business-friendly environment for customers by utilizing various CIT and IT technologies at a world-class level, for which Korea is renowned.

Attempting to find practical solutions to decrease the nation's dependency on oil and deal with climate change, Korea has also been significantly increasing its investment in the railway industry over the past years.

**2004 01**

Establishment of Korea Rail Network Authority(KR)



**2004 04**

Opening of the Seoul-Busan HSR



Opening Ceremony

**2005 01**

Establishment of Korea Railroad Corporation(KORAIL)



Korea Train eXpress

**2009 06**

Establishment of Korea Railway Association (KORASS)



KORASS Inaugural Assembly

**2015 04**

Opening of the Honam HSR



Gwangju Songjeong Station

**2016 12**

SR(Suseo High-Speed Railway Corporation) launched its service



KTX-Sancheon



SRT-Super Rapid Train

**2017 12**

Opening of the Wonju Gangneung HSR (For the 2018 Pyeong - Chang Winter Olympic Games)



Namdaecheon Bridge



Gangneung Station

# VISION OF

# KOREA RAILWAY

## VISION 2025 AS LEADERSHIP FOR NATIONAL RAIL NETWORK

### VISION

Railway on Mission of National Growth and Regional Development

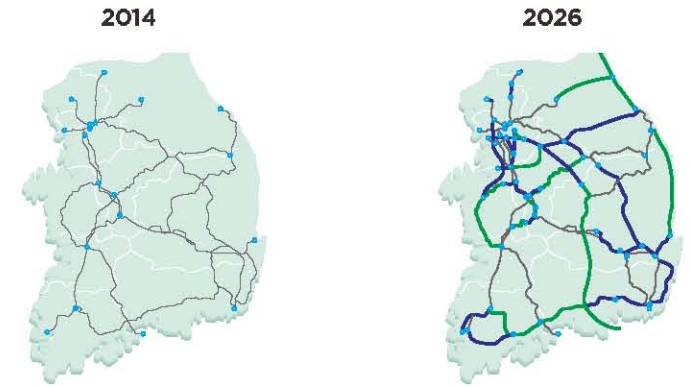
### GOALS



### STRATEGIES

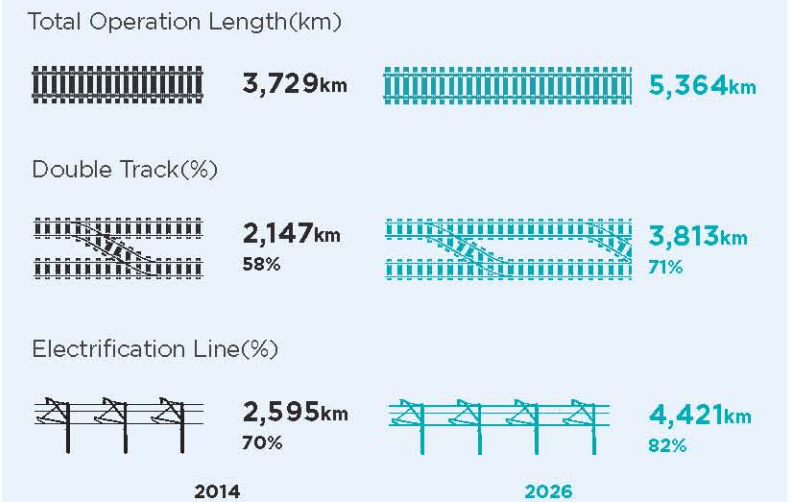
1. Elevation of Railway Operational Efficiency
2. Provision of High Speed Transport between Hub Cities
3. Reduction of Traffic Congestion in Metropolitan Area
4. Establishment of Safe and Convenient Railway Facility
5. Strengthening of Competitive Power in Logistics Railway
6. Construction of Consolidated Railway Network Preparing Unified Korea

## NOTICEABLE RAILWAY NETWORK TO 2025



### INFRA

#### "Railway Operation Length to 5,364km"



### OPERATION

#### "Increase the Railway Transport share to 26.6%"

	Total Lines	Volume
Passenger Lines	96	136,563million person - km
Freight Lines	36	9,564million ton - km

\*Source : The Third National Railway Network Plan(2016~2025)

# TECHNOLOGY OF

# KOREA RAILWAY

## WORKING AROUND THE WORLD WITH KOREAN TECHNOLOGIES

Korea is focusing its efforts on enhancing competitiveness of rail technologies of Korea to become a leader in the global railway market. We have been steering development of Korean rail technologies especially in key areas such as catenary, signaling, communications, and tracks to minimize dependence on foreign technologies. These key technologies are being proven through successful commercialization.



Installation and inspection of KR LTE-R antenna

## FIVE MAJOR INNOVATIONS



Rail welding undergoing ultrasonic test



Clamping of contact and messenger wires



Installing continuous welded rail



Hi-FIVE  
(Five Innovative Valuable Engineering Technologies)



Express Catenary System

**ECS**

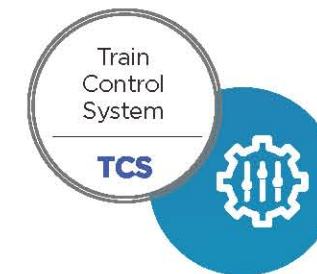
- System that supplies 25kV electricity for traction power
- 100% Korean technology used in design, manufacture, construction, and performance verification for all speed bands up to 400 km/h



Long Term Evolution -Railway

**LTE-R**

- Communications system specialized for railways and capable of high-speed train-to-ground, ground-to-ground and train-to-train transmissions of large data



Train Control System

**TCS**

- Identifies train locations and speeds in real time and prevents collisions
- Train control information sent in real time via LTE-R



Rail Fastening Device

**RFD**

- Securely fastens rails for safe train operations (Korean patent in 2015, designated New Transport Technology in 2016, Chinese and Japanese patents in 2018)



Line Allocation System

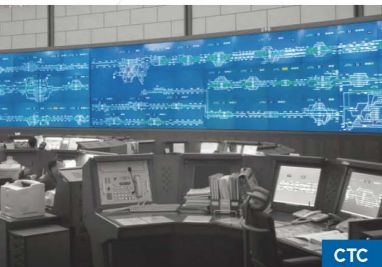
**LAS**

- Allocates track access rights for safe operation of trains running on the same track by adjusting operation frequencies and times (patented in 2018)



## SMART TECHNOLOGY FOR PERFECT OPERATION

### INTEGRATED RAILWAY TRAFFIC CONTROL CENTER



CTC



SCADA

### SYSTEMATIC MANAGEMENT AND ADVANCED MAINTENANCE SYSTEM



#### CTC(Centralized Traffic Control System)

It allows checking of the operational status of every train across the nation and adjusting the condition of train operations based on the schedule in the system.

#### SCADA(Supervisory Control And Data Acquisition)

It minimizes disturbances during train operation with real-time monitoring of the electric power supply to electric railroads and gives support for immediate maintenance.

#### Telecommunication Equipment

Integrated wireless system enables traffic controllers and stations to share information seamlessly and wide area telecommunication network enables provision of real-time image data and voice necessary for train operation.

#### Support Facilities for Safe Operation

CCTV, hot box sensor, meteorological sensor, rail temperature sensor, obstacle detection equipment and other state-of-the-art system that work together seamlessly.

#### Four rolling stock depots and 29 maintenance workshops with state-of-the-art railway technology

4,800 professional maintenance experts work hard to secure passenger safety using 6,080 advanced maintenance facilities such as the wheelset automation equipment and more.

#### SMART Factory based on advanced technology

SMART Factory is equipped with wheel scanners, robotic arms and 3D printing technology; 1,377 new models of rolling stock have been introduced over the last five years. By applying reliability-centered maintenance(RCM) strategies, maintenance efficiency was increased by 20% and the rolling stock failure rate was reduced by 35.7% compared to 2012.

## STATE-OF-THE-ART TECHNOLOGY FOR RAILWAY TRANSPORTATION OF NEXT GENERATION

### BUSINESS FIELD

#### HEMU-430X

#### High-speed Electric Multiple Unit-430km/h eXperiment

With maximum speed of 430km/h, the distributed traction high-speed system HEMU-430X was developed based on the 350km/h Korean high-speed train.

#### Wireless Low-Floor Tram

This tram uses a lithium polymer battery as its main power source and runs in hybrid mode. It can operate with and without an overhead contact wire. The tram is fully compatible with the railroad systems in current operation.

#### Ultra-speed Hyper-Tube Train with a top speed of 1,000km/h

- 1/1,000 low-pressure, near-vacuum aerodynamics and sealed tube technology
- Separate chiller-type superconducting electromagnetic levitation technology

#### Autonomous Railway System allowing direct communication between trains

- Next generation, wireless communication-based train control system that enables direct communication among trains for train control
- Minimum train headway at 60 seconds range, train coupling & decoupling within 60 seconds, reduction of unexpected delays in abnormal situations by 25%



Wireless Low-Floor Tram



Hyper-Tube Train



Autonomous Railway System



HEMU-430X

# LIST OF OVERSEAS

# RAILWAY PROJECT CONTRACTS



## ALGERIA

- 2015** • Construction Supervision for Expansion of Algeria Metro Line No.1 between Elharrach ~ Airport - Dong Myeong Engineering Consultants / 10036
- 2016** • Etude APD et DCE de la Nouvelle Ligne Electrifiée entre ZERALDA et GOURAYA(90 Km) pour une exploitation à 160 Km/h - Dongbu Engineering / 1225

## TANZANIA

- 2017** • Supervision for Standard Gauge Railway Construction along the Central Line - Korail / 14254

## SAUDI ARABIA

- 2015** • Detailed Design for Railway and Earthwork of Saudi Sulphur Railcar Loading Facilities in Saudi Arabia - Dohwa Engineering Co., Ltd. / 1604
- Feasibility Study for Yanbu-Jeddah Rail Road in Saudi Arabia - Dohwa Engineering Co., Ltd. / 453

## MYANMAR

- 2016** • Myanmar Mandalay-Myitkyina Railway Rehabilitation and Modernization Feasibility Study - Yooshin Engineering Corporation / 201
- Myanmar Mandalay-Myitkyina Railway Rehabilitation and Modernization Feasibility Study - Seoyoung Engineering(JV) / 152
- Mandalay Myitkyina Railway Renovation Work F/S Project - Cheil Engineering(JV) / 152
- 2017** • Railway Modernization Project - Korail / 620
- Feasibility Study for Rehabilitation and Modernization of Mandalay - Myitkyina Rail Line Project(Mawhan - Kadu Section) - Dong Myeong Engineering Consultants / 133
- Feasibility Study for Rehabilitation and Modernization of Mandalay-Myitkyina Rail Line Project : Mawhan-Kadu Section - Saman(JV) / 106
- Improvement of Railway Logistics Infrastructure in Myanmar by Developing Dry Ports - Yooshin Engineering Corporation / 95
- Mandalay - Michina Railway Renovation Project(Mohan-Kadu) F/S(Feasibility Study) Service - Korea Railroad Technical Corporation(JV) / 68

## BANGLADESH

- 2015** • Feasibility Study Report for "Construction of Railway Cum Road Br. Across River Kamaphuli in Bangladesh - Yooshin Engineering Corporation / 249
- Feasibility Study for Railway cum Road Bridge Construction in Kamaphuli - Dong Myeong Engineering Consultants / 71
- Kamaphuli Railway/Road Bridge Construction Project F/S Service - SUNJIN Engineering & Architecture / 36
- 2016** • Consulting Services Contract for Construction Supervision of Akhaura-Laksam Double Track Project in Bangladesh - Dohwa Engineering Co., Ltd. / 9142

## NEPAL

- 2015** • Feasibility Study of Electrified Railway Line from Nijgadha-Hetauda-Bharatpur Section of Mechi-Mahakali Railway - Yooshin Engineering Corporation / 363
- 2016** • Detailed Engineering Survey and Design of High Speed Electrified Railway Line for Bardibas-Inaruwa Section of Mechi-Mahakali Railway(package I) - Yooshin Engineering Corporation / 1678
- 2017** • Mechi-Mahakali Railway and Kohalpur-Nepalgunj Link Lamahi-Kohalpur Section electric railway and Design(Pkg 2) - Pyunghwa Engineering(JV) / 770
- Mechi-Mahakali Railway Sukkhad - Gaddachowki Section Electric railway research and Design(Pkg 4) - Pyunghwa Engineering(JV) / 695
- Detailed Engineering Survey and Design of Railway Line Sukkhad - Gaddachowki Section(95km) of Mechi-Mahakali Railway - Dong Myeong Engineering Consultants / 668
- Detailed Engineering Survey and Design of Railway Line Lamahi-Kohalpur Section of Mechi-Mahakali Railway and Kohalpur-Nepalgunj Link(116km) - Dong Myeong Engineering Consultants / 655

## SRI LANKA

- 2017** • Consulting Services for Conducting Pre-Feasibility and Feasibility Study of the Western Region Light Rail Transit Project - Seoyoung Engineering / 957
- Consulting Service for Conducting Pre-Feasibility Study(PFS) and Feasibility Study(FS) of the Western Region Light Rail Transit(LRT) Project - Saman(JV) / 354

## MALAYSIA

- 2017** • Reference Design Consultant O4 for the Kuala Lumpur - Singapore High Speed Rail - Yooshin Engineering Corporation / 501
- Reference Design Consultant O4 for the Kuala Lumpur-Singapore High Speed Rail - DONG IL Engineering Consultants(JV) / 230
- Kuala-Singapore High Speed Railway RDCO4 - SunKoo Engineering(JV) / 198
- Kuala-Singapore High Speed Railway RDCO4 - Sambo Engineering(JV) / 190
- Kuala-Singapore High Speed Railway RDCO4 - Pyunghwa Engineering Consultants(JV) / 125

## VIETNAM

- 2015** • Hanoi Metro 3Line -CP3 - Hyundai Engineering & Construction / 215477
- Ho Chi Minh City Urban Mass Rapid Transit Line 2 Investment Program(Package CS4 - Integrated sustainable urban transport) - Dowha ENG / 2312
- Enhancing Public Private Partnership(PPP) for urban metro projects in Ho Chi Minh City, Vietnam - Seoul Transportation Corporation / 77
- Feasibility Study for the Vietnam Ho Chi Minh MRT Line No. 5 - Phase 2 Project - Dowha ENG / 51
- 2016** • Feasibility Study for Keh Net Pass Railway Rehabilitation Project - Yooshin Engineering Corporation / 223
- 2017** • Technical Feasibility Study for PPP Modeling of Biennese-Bantau Railway Line - Teso Engineering / 299
- Feasibility Study for Hoa Duyet - Thanh Luyen Railway Rehabilitation Project - Yooshin Engineering Corporation / 200
- F/S service for Hoeryth-Tainglu Railway Improvement Project - Pyunghwa Engineering Consultants / 200

## INDONESIA

- 2016** • Indonesia, Soekarno Hatta International Airport APMS Railway Alignment and Track Design Service - Korea Engineering Consultants Corp., / 250
- 2017** • Jakarta LRT Project Phase 1 - Korea Rail Network Authority / 24022

# About Korea Railway Association

KORASS



Gwangmyeong Station



# ABOUT



## INTRODUCTION

The Korea Railway Association(KORASS) was established in 2009 with the ambition and intention to connect the railway community of Korea and lead the global railway market.

## OUR VISION

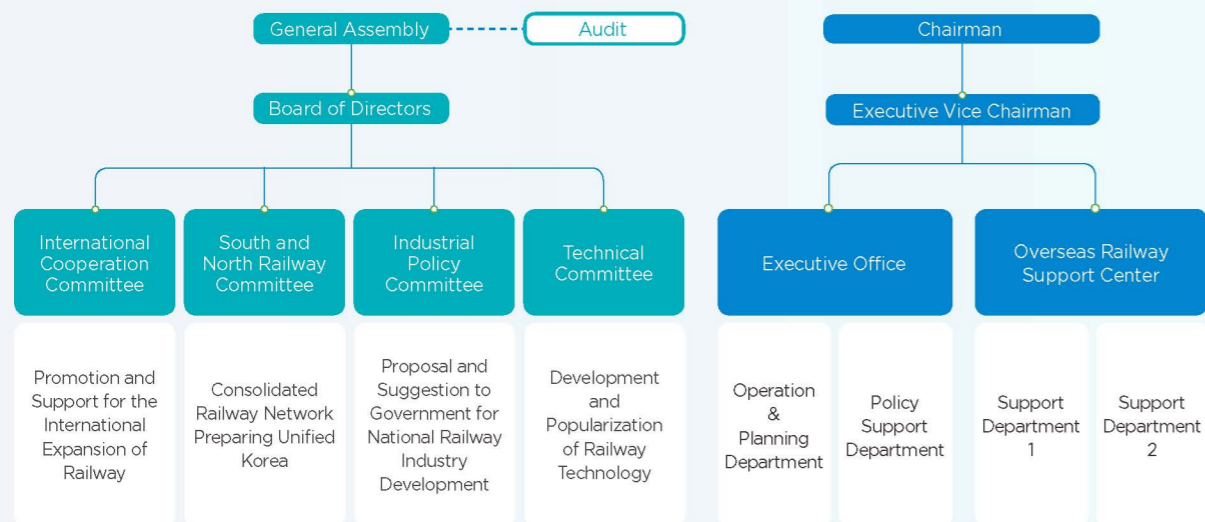
The Korea Railway Association(KORASS) aims at maintaining an overriding dynamic of constant green growth thereby laying the foundation for the realization of tomorrow's dream.

## OUR MISSION

KORASS tries to promote and facilitate the achievement of the national vision of 'Using Low Carbon and Building Green Growth' through the conception and utilization of public-private cooperative initiatives.

- To Improve Korea Railway Industry Value
- To Establish and Consolidate a United-Cooperative Railway Industry Association
- To Support All Policy and Technological Development Efforts
- To Promote and Support for the International Expansion of the Railway

## KORASS ORGANIZATION



## KORASS MAIN BUSINESS

### Support for Railway Sector Policy and Technical Development

- Recording and collecting opinions and submitting proposals to government via Technical Committees, Industrial Committees and Policy Planning Committees, etc.
- Enhancing the national competitiveness thereby supporting R&D and new technology

### Promotion and Support for the Expansion of the Korea Railway Industry into the Overseas Market

- Select the companies participating the overseas railway project
- Composing the International Cooperation Committee and managing the fund
- Supporting the Korean companies thereby hosting the international railway project seminar and conference

### Services for its members and Support of Internal & External Exchanges and Cooperation

- Holding "New Year Ceremony" for railway people annually
- Holding "The Day of Railroad" to celebrate the first establishment railway department of the Korea
- Participating in the big event such as the world's top 5 railways & logistics fair, "Raillog"

### Education and Training for Railway Sector Experts

- Support of the the universities that cultivate the railway people, graduate school and undergraduate school
- Designing and establishing training courses in international railway operations including international project order processes, project finance, legal aspects, risk management and rail terminology
- Starting the rolling stock key components testing certification business for establishment of foundation

### Support of marketing and Provision of the most up-to-date information and publication

- KORASS membership companies PR support and providing of railway industry information through regular publications
- Providing e-mails regarding overseas railway news and railway project tenders
- Providing KORASS member's news on website



# COMPOSITION OF KORASS



## GOVERNMENT OWNED

MOLIT, Korea Rail Network Authority(KR), Korea Railroad Corporation(KORAIL)

## STATE-OWNED

Seoul Metro, Busan Transportation Corporation and other state-owned railway operators

## PRIVATE COMPANIES

Hyundai, Daewoo, Samsung, POSCO, Daelim, SK, etc  
Construction, Signal, Electricity, Design, Consulting, Track, Rolling stock and Railway Operator

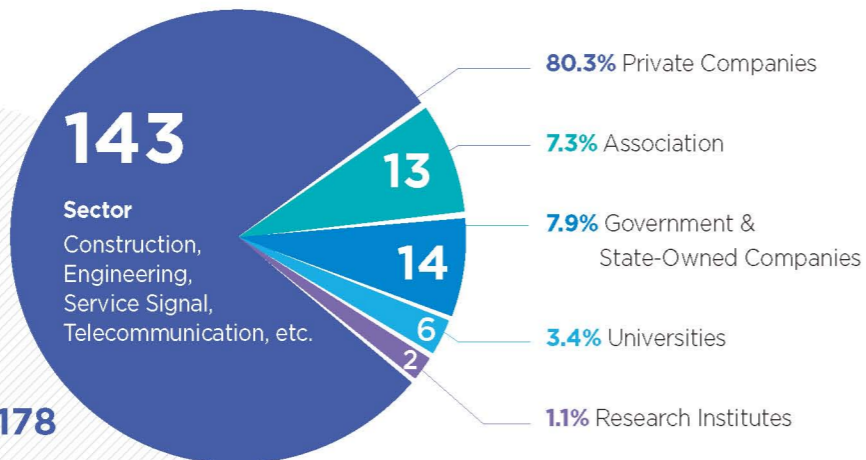
## RESEARCH INSTITUTES

Korea Railroad Research Institute(KRRI), Korea Transport Institute(KOTI)

## UNIVERSITIES

Korea Advanced Institute of Science and Technology(KAIST), Korea National University of Transportation, National University of Science and Technology, etc.

## ALL MEMBERS



# BOARD OF DIRECTORS



# INTERNATIONAL COOPERATION COMMITTEE

## INTRODUCTION

### ESTABLISHMENT PURPOSE

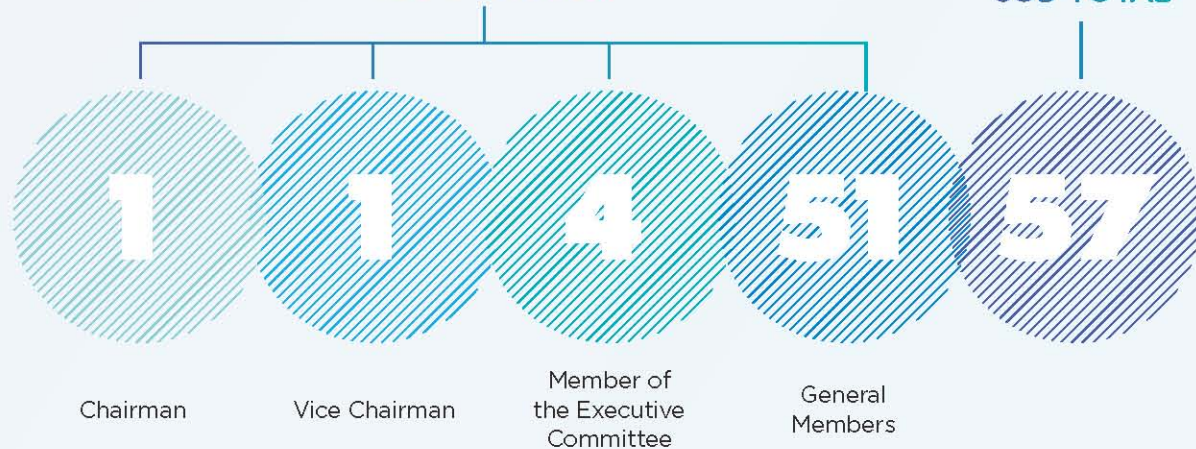
There are "International Cooperation Committee" in KORASS for overseas expansion and supporting, promoting international exchanges for global railway market.

### FUNCTION OF COMMITTEE

1. To set up the goal, direction and strategy of overseas railway market expansion
2. Cooperation and exchange with Foreign Government, Association, Organization and Companies
3. To obtain information and exchange of overseas railway projects
4. Composition of advancing companies, strategies as railway projects
5. Dispatching the Korea Railway professional and Invitation of foreign country experts for education, seminar
6. Publishing the Korea Railway Industries

### COMPOSITION

### SUB-TOTAL



# INTERNATIONAL COOPERATION COMMITTEE

## BOARD OF DIRECTORS

### CHAIRMAN

Korea Railway Association	www.korass.or.kr	T. 82-2-3487-7781
 KOREA RAILWAY ASSOCIATION	<ul style="list-style-type: none"> <li>• Introduction : KORASS was established in 2009 with the ambition and intention to connect the railway community of Korea and lead the global railway market.</li> <li>• Main Project : Promotion and Support for the Expansion of the Korea Railway Industry into the Overseas Market</li> </ul>	

### VICE CHAIRMAN

Korea Rail Network Authority	www.kr.or.kr	T. 82-1588-7270
 KOREA RAIL NETWORK AUTHORITY	<ul style="list-style-type: none"> <li>• Introduction : The Korea Rail Network Authority is a public agency under the Ministry of Land, Infrastructure, and Transport engaged in the construction and management of railway facilities and related business.</li> <li>• Main Project : Railway Construction, Railway Facilities Management, Railway Assets Management and Development Projects</li> </ul>	



## MEMBERS OF THE EXECUTIVE COMMITTEE

### Korea Railroad

www.korail.com

T. 82-1544-7788



•Introduction : KORAIL based on the know-how and expertise in railway operation accumulated more than 100 years of experience, strives to become the world's best railway operators. KORAIL always focuses on enhancing railway safety and providing quality services for passengers to travel safely, conveniently and enjoyably. As KORAIL is a responsible public railroad, placing its customer's safety and lives at the very center of its railway operation.

•Main Project : Passenger business with HSR/conventional train operation nationwide and metropolitan subway, Logistics, Property development, and Overseas business with consulting, training and education.

### Seoul Metro

www.seoulmetro.co.kr

T. 82-1577-1234



•Introduction : Seoulmetro Corporation is striving to achieve a vision of 'Happy Citizens, Trustworthy Enterprise and Global No.1 Seoul Transportation Corporation' under the mission of 'safe urban railway and convenient transportation service' as a world-class city railway management organization.

•Main Project : Seoulmetro Corporation is a world-class city railway operating agency that operates Seoul Subway Line 1 - 8, Line 2(277 station, 300km).

### Korea Railroad Research Institute

www.krri.re.kr

T. 82-31-460-5000



•Introduction : Korea Railroad Research Institute(KRRI) was founded in March 1996 financed by the Korean government. The nation's sole railway research body is committed to improving the overall railway systems built upon nationwide rail networks in order to maintain competitiveness in the global market.

•Main Project : R&D on Core Technology, Policy, Safety & Logistics etc.

### Lotte E&C

www.lottecon.co.kr

T. 82-2-3480-9114



•Introduction : As part of the national railway construction project, we participated in many sections including Busan #222 and #223, Seoul No. 3 Line 3-4 and 5-20 sections.

•Main Project : Civil Works

## INTERNATIONAL COOPERATION COMMITTEE

## GENERAL MEMBERS

### TOTAL CONSTRUCTION BUSINESS

#### GS E&C



www.gsenc.com

T. 82-2-2154-1114

•Introduction : GS E&C is construction company. Main business is Railway, Plant, etc.

•Main Project : Infra : Railways/Ports/Roads/Bridges etc.

#### Daelim Industrial



www.daelim.co.kr

T. 82-2-2011-7114

•Introduction : Daelim is leading global contractor in Korea, with track records of construction projects in 35 countries.

•Main Project : World's 4th longest suspension bridge built by its own technologies.

#### DAEWOO E&C



www.daewooenc.com

T. 82-2-2288-3114

•Introduction : Daewoo E&C has built more than three hundred overseas projects in over forty countries, including in Asia, the middle East, Africa, and Europe.

•Main Project : Thomson Line 216 in Singapore, Subway Line No.7 Extension(Section.703) in Korea, Yeongdong Railway Line in Korea.

#### Doosan E&C



www.doosanenc.com

T. 82-2-510-3073

•Introduction : Doosan E&C has accumulated remarkable achievements in the fields of architecture, housing, civil engineering and plant.

•Main Project : Private Investment Subway Project 'New Bundang Line', High-Speed Railway(Gyeongbu Line) etc.

#### SAMWHAN



www.samwhan.co.kr

T. 82-2-740-2114

•Introduction : Samwhan Corporation has led the Korean construction industry by providing high quality services with superb technology and reached out to over 20 countries.

#### SSANGYONG E&C



www.ssyenc.com

T. 82-2-3433-7114

•Introduction : In Civil Engineering, Ssangyong is leading the way in the construction of subways, railways, roads, bridges and tunnels.

•Main Project : Singapore Thomson-East Coast Line T308 to be completed in 2023(1.78km, 1 Station) / Downtown Line Stage 2 - Contract 92, completed in 2016(1.065km, 2 Stations)



**KOLON GLOBAL**

www.kolonglobal.com

T. 82-32-420-9111



- Introduction : KOLON GLOBAL CORPORATION has contributed to the balanced development of Korea, and economic growth of the nation by participating in a wide variety of civil engineering projects over the past five decades
- Main Project : Shinbundang subway Line

**POSCO E&C**

www.poscoenc.com

T. 82-32-748-2114



- Introduction : POSCO E & C is a comprehensive construction company established in December 1994, aiming to become a global E & C(Engineering & Construction) company based on plant engineering technology
- Main Project : Incheon International Airport Railway and Incheon Urban Railway

**Hanjin Heavy I&C**

www.hanjinsc.com

T. 82-2-450-8114



- Introduction : Hanjin Heavy Industries & Construction Co., Ltd. was established in 1937 as a Korean shipbuilder. Since its foundation, HHIC has grown to one of the most prominent shipbuilders and general construction contractors in and out of the country.
- Main Project : Gyeongbu Rapid Transit Railway(KTX), Seoul Subway Line No.7, Manila Light Rail Transit

**Hyundai E&C**

www.hdec.kr

T. 82-1577-7755



- Introduction : Since the foundation of Hyundai E&C, Based on our humanoriented corporate culture, we are ready to take another step into the world as a leading EPCM company with the capability of engineering, construction, management and planning in the new complex business that combines cutting-edge technology, knowledge and finance.
- Main Project : Pattani-Narathiwat Highway in Thailand, and continued with large projects such as Saudi Arabia's Jubail Industrial Harbor project

**ENGINEERING SERVICE - CIVIL****Korea E&C**

www.kecgroup.kr

T. 82-31-699-0400



- Introduction :KEC is a specialized in Civil area having multiple overseas experiences in Railway regardless of Railway types.
- Main Project : Feasibility Study for Seoul Metropolitan Subway, Extension of Line No. 5(Gimpo, Incheon)

**Dohwa Engineering**

www.dohwa.co.kr

T. 82-2-6323-3000



- Introduction : DOHWA's Railway Department is one of the most exclusive railway expert groups specializing in railway, urban, high-speed and light-rail transit systems and new transportation system including monorail, maglev train, and tram.
- Main Project : Pre-feasibility Study for Daejeon Northern Link of Gyeongbu High Speed Railway

**Dong Myeong E&C**

www.dmec.co.kr

T. 82-2-6211-7000



- Introduction : Dong Myeong Engineering Consultants Co.,Ltd is creating the future value with the 50-year tradition and the outstanding technical skills.
- Main Project : Basic design and execution design for the urban magnetic levitation train model route construction

**Dongsan Engineering**

www.dongsaneng.co.kr

T. 82-2-3400-9000



- Introduction : Dongsan Engineering in electrical related projects which including but not limited to electrical design, supervision, technical diagnosis service, consulting, R&D, construction/installation, project management, system engineering and etc.

**Dong Il E&C**

www.dongileng.co.kr

T. 82-2-3400-5655



- Introduction : The railroad engineering division of DONG IL Engineering Consultants Co., Ltd. reflects a new railway system which is suitable for high speed, safety, comfort and the minimum maintenance and repair of railways
- Main Project : Detailed Design of Double Tracking and Electrification at Wonju-Gangneung(section no.2)

**SINWOO ENG**

www.shinwooeng.co.kr

T. 82-2-2107-4000



- Introduction : Established in 1991, SHIN WOO ENG Co., Ltd. provides the design, manufacturing, construction, supervision and maintenance services in various railways such as high-speed railways, urban railways, subways and light rail transit.
- Main Project : Railway Plan, Technical Survey, Detailed Design, Audio Frequency Track Circuit Equipment, Track Circuit Level Detector System(TLDS), ATP-Balise/ Lineside Electronic Unit(LEU) etc.

**YOOSHIN**

www.yooshin.com

T. 82-2-6202-0114



- Introduction : Since its establishment in January 1966 when the Korean government mainly focused on the nationwide infrastructure establishment and expansion, YOOSHIN has gained a reputation for its excellent engineering consulting capabilities and performances at home and abroad.
- Main Project : Technical survey, detailed design and construction supervision of the 'Gyeongbu High-speed Railway' in the late 1980s



<b>ISAN Corp.</b> 	www.isg.kr	T. 82-31-389-0114	<ul style="list-style-type: none"> <li>•Introduction : ISAN have evolved from a local engineering firm serving a few clients into a global professional services organization serving thousand clients worldwide market.</li> </ul>
<b>Keunjeong Architects &amp; Engineers</b> 	www.kjaco.com	T. 82-2-540-4485	<ul style="list-style-type: none"> <li>•Introduction : Keunjeong's distinguished intermodal hubs, high-speed rail stations, commuter rail terminals and subway stations are unrivalled in their ability to express mobility and celebrate departure-arrival.</li> <li>•Main Project : Detailed design of Gangreung KTX Railway Station</li> </ul>
<b>KRTC(Korea Railroad Technical Corporation)</b> 	www.krtc.co.kr	T. 82-2-2186-1800	<ul style="list-style-type: none"> <li>•Introduction : KRTC has very focused on Railway and Track engineering since the establishment in 1965, then becomes the most specialized in it, gaining a supreme reputation for its capability.</li> <li>•Main Project : Detailed design and construction supervision of Honam High Speed Railway and Seoul Metropolitan Area High Speed Railway</li> </ul>
<b>TESO E&amp;C</b> 	www.teso.co.kr	T. 82-2-2140-9200	<ul style="list-style-type: none"> <li>•Introduction : TESO Engineering has experience which private investment project and LRT project etc.</li> <li>•Main Project : Honam High Speed Railway</li> </ul>
<b>Pyunghwa E&amp;C</b> 	www.pec.ne.kr	T. 82-31-420-7998	<ul style="list-style-type: none"> <li>•Introduction : Pyunghwa Engineering Consultants Ltd.(PEC) is realizing its dream of a global engineering consultancy with the Infrastructure section, comprising among others transportation infrastructure, tunnel, bridge/structures development and construction management.</li> <li>•Main Project : Basic &amp; Detailed Design for Railroad Improvement(2nd Stage) of Janghang Line(Lot No.1)</li> </ul>
<b>Korea Electric Research E&amp;C</b> 	www.kerec.co.kr	T. 82-2-2106-6900	<ul style="list-style-type: none"> <li>•Introduction : Established in 1987, Kerec is an engineering company with longest history, tradition, and advanced technology in Korean electric railway industry</li> <li>•Main Project : Research, Design, Supervision, and Construction for High Speed Railway(KTX), Metropolitan Railway, Great Train Express, Overseas Railway</li> </ul>
<b>Korea E&amp;C</b> 	www.kecc.co.kr	T. 82-2-2049-2801	<ul style="list-style-type: none"> <li>•Introduction : Korea Engineering Consultants Corporation has been providing professional engineering services for more than four decades to public and private clients.</li> <li>•Main Project : Detailed Design of Incheon-Chungju Railroad Section 3 Construction</li> </ul>

<b>HYUNDAI ENGINEERING</b> 	www.hec.co.kr	T. 82-2-2134-1114	<ul style="list-style-type: none"> <li>•Introduction : Hyundai Engineering work diligently to enhance quality of life for all by providing engineering solutions in a range of fields, including the process plant, power &amp; energy plant, infrastructure and environmental sectors.</li> <li>•Main Project : Establishment of Structure Standards for The Bimodal Tram System</li> </ul>
<b>SAMAN</b> 	www.samaneng.com	T. 82-2-6488-8005	<ul style="list-style-type: none"> <li>•Introduction : SAMAN has currently about 1000 construction professionals and 200 professional engineers in leading the creation in the engineering consultancy services with our outstanding quality control program to meet the client's expectation and needs.</li> <li>•Main Project : Kyungbu, Honam and Metropolitan High Speed Railway</li> </ul>
<b>Seoyoung Engineering</b> 	www.seoyoungeng.com	T. 82-2-6915-8928	<ul style="list-style-type: none"> <li>•Introduction : Seoyoung has advanced its railway technologies by participating in national R&amp;D projects. We have also contributed to railway networks at home and abroad by carrying out a large number of feasibilities studies, master plans, and preliminary and detailed designs for railway construction projects.</li> <li>•Main Project : Alternative trackbed design for Honam High-Speed Railway(HSR), Section 1-2</li> </ul>
<b>SunKoo Engineering</b> 	www.sunkoo.co.kr	T. 82-31-596-2100	<ul style="list-style-type: none"> <li>•Introduction : Accumulated experiences and technologies in the fields of railway construction engineering SunKoo Engineering makes various efforts to make a contribution to overseas railway projects including the Trans-Korean Railway and Trans-Asian Railway works</li> <li>•Main Project : Basic design for 3rd section on Honam High speed railway</li> </ul>
<b>SUNJIN Engineering &amp; Architecture</b> 	www.sunjin.co.kr	T. 82-2-6333-3000	<ul style="list-style-type: none"> <li>•Introduction : SUNJIN Engineering &amp; Architecture has devoted itself to building an information sharing system that's capable of integrating the expertise and knowledge the company has amassed over thirty some years and to providing logical and technology-based solutions to client needs.</li> <li>•Main Project : Supervision Consultant Service, in District 6 and District 7, for Wonju-Gangneung Railway</li> </ul>
<b>Soosung Engineering</b> 	www.soosungeng.com	T. 82-2-552-0111	<ul style="list-style-type: none"> <li>•Introduction : SOOSUNG Engineering is a multi-disciplinary engineering consulting firm. We have taken key roles in numerous local and international projects. Based on many completed accomplishments, we are striving to establish our prominence in global civil engineering market.</li> <li>•Main Project : Construction Supervision, Feasibility Study, Preliminary and Detailed Design(Philippines and Indonesia LRT, Malaysia-Singapore High-Speed Railway, Nepal High-Speed Railway, Vietnam and Myanmar Railway Project)</li> </ul>

## SERVICE(ELECTRIC, SIGNAL, TELECOMMUNICATION)

<b>LSIS</b>	www.lsis.com	T. 82-2-1544-2080
	<ul style="list-style-type: none"> <li>•Introduction : LSIS is a leading railway system provider, specializing in train control and traction power supply systems.</li> <li>•Main Project : Korean High Speed Rail(KTX), Korean Radio-based Train Control System(KRTCS), Incheon International Airport Shuttle Train, Major Metro Lines in Seoul, Incheon, Busan, Daegu, and Gwangju, Signaling Modernization including CBI and CTC in Asian countries, AC/DC Traction Power Supply in North American and Asian countries.</li> </ul>	
<b>D2 Engineering</b>	WWW.d2engineering.co.kr	T. 82-2-332-3329
	<ul style="list-style-type: none"> <li>•Introduction : D2 Engineering is playing a leading role in electrical engineering covering design and engineering, construction, field supervision and manufacturing.</li> <li>•Main Project : JKorean Train Express(KTX), electric railway, metro, etc.</li> </ul>	
<b>MIDONG E&amp;C</b>	www.midong.com	T. 82-2-587-6015
	<ul style="list-style-type: none"> <li>•Introduction : Ever since it's establishment in 1970, we, Midong E&amp;C executed successful projects in the electrical construction area domestic &amp; overseas with advanced technology and quality control results.</li> <li>•Main Project : Midong E&amp;C has carried out the power supply facility work in Dubai's LRT construction project, which constitutes the core of Dubai's transport system.</li> </ul>	
<b>Byucksan power</b>	www.bsppower.co.kr	T. 82-02-767-4007
	<ul style="list-style-type: none"> <li>•Introduction : Established in 1979, Byucksan power has made vigorous efforts to develop and promote Korea's engineering technology to the world.</li> <li>•Main Project : Afghanistan 500 / 200kV substation consulting, Construction of Wonju-Gangneung Railway Observation Service</li> </ul>	
<b>VITZROSYS</b>	www.vitzrosys.com	T. 82-2-460-2000
	<ul style="list-style-type: none"> <li>•Introduction : VITZROSYS is firmly established as a leading company in the field of railway(integrated control system, smart control device, preventive diagnosis system, etc.) and power surveillance control with constant research and development on system integration technology.</li> <li>•Main Project : Manufacturing and Supply of 'Power SCADA &amp; RTU, Preventive diagnosis system, PSD(Platform Screen Door), TDI(Train Destination Indicator)'</li> </ul>	
<b>Samjin Elex</b>	www.samjinelex.com	T. 82-2-2007-0114
	<ul style="list-style-type: none"> <li>•Introduction : SamjinElex are executing electricity construction in various railways such as high-speed railways, urban railways, subways and light rail transit.</li> <li>•Main Project : Power Supply System for Jakarta LRT Project(Oversea) Catenary System for Wonju-Jecheon Line, Daegok-Sosa Line Maintenance for Electric Facilities(Airport Railway, Sin Bun-dang line) Transmission and Transformation for Seoul Subway Line 9</li> </ul>	

<b>Sejong Engineering</b>	www.sejongeng.co.kr	T. 82-2-2621-2345
	<ul style="list-style-type: none"> <li>•Introduction : SEJONG ENGINEERING Co. is one of dominant engineering company in Korea, established 1985 which provides Planning, Feasibility Studies, Design, Construction supervision in the Electric fields of railway &amp; subway, road &amp; tunnel, transmission line &amp; substation, and also have the technology of manufacturing the roll type automatic tensioning device(ATD) which serve the task of maintaining the magnitude of the tensile forces in the contact line of electrification railway.</li> <li>•Main Project : Detail Design for Catenary System from Iksan to Kwangju on Honam High Speed Railway.</li> </ul>	
<b>Asia Railway Technology</b>	www.ar-tech.co.kr	T. 82-2083-5600
	<ul style="list-style-type: none"> <li>•Introduction : Asia Railway Technology Co., Ltd. provide the engineering and consulting services of railway signaling and train control systems for metros, conventional railways, high speed railways and Light Rail Transit, etc.</li> <li>•Main Project : Detail design of signaling facility of Almaty Metro line 1 in Kazakhstan</li> </ul>	
<b>Hyosung</b>	www.hyosung.co.kr	T. 82-2-707-6147
	<ul style="list-style-type: none"> <li>•Introduction : With its excellent technologies and services, Hyosung is growing as a global leader in different business sectors such as textile, industrial materials, chemicals, power &amp; industrial systems, construction, trading, and information &amp; communication.</li> <li>•Main Project : Transformer, circuit breaker, motors, generators</li> </ul>	
<b>MANUFACTURING(SIGNAL, TELECOMMUNICATION)</b>		
<b>LS Cable &amp; System</b>	www.lscns.co.kr	T. 82-2-2189-9114
	<ul style="list-style-type: none"> <li>•Introduction : LS Cable &amp; System provides power cables that stably supply power for efficient operations of the railroad and communication cables that make it possible to efficiently use information and communication service while in motion.</li> <li>•Main Project : Power Cable(High Voltage Cable, Overhead Line etc.), Telecommunication Cable, Special Wire&amp;Cable / Components manufacturing</li> </ul>	
<b>DAEATI</b>	www.daeati.co.kr	T. 82-32-680-0818
	<ul style="list-style-type: none"> <li>•Introduction : DAEATI has been one of the driving forces of Korea's railroad development, providing the state of the art railway signaling and control systems.</li> <li>•Main Project : CTC, ATC/ATO, ATP, CBTC, Driverless Operation Solution System Manufacturing and Purchasing</li> </ul>	

## TRACK

### Kuedo Railway Construction

www.kuedo.co.kr

T. 82-2-793-2291



- Introduction : We would like to extend our gratitude to all of our customers and partners who have helped Kuedo Kongyung grow into Korea's top railway construction, maintenance and solution company.
- Main Project : Korea High-speed Railway

### Sampyo Railway

www.sampyorailway.com

T. 82-2-6270-0092



- Introduction : Sampyo Railway has been manufacturing and supplying railway turnouts and railway related products for over three decades. The modern technology of Sampyo Railway ensures optimal applications on various railway tracks around the globe.
- Main Project : Construction of Gyeongbu High Speed railways 2nd phase

## TRADING

### GS Global

www.gsgcorp.com

T. 82-2-2005-5300



- Introduction : GS Global are engaged in import and export of industrial materials such as steel, metal, machinery and railway products, petroleum and petrochemical products.
- Main Project : Overseas railway project organizing/financing

## OPERATOR

### Neo Trans Co., Ltd.

www.neotrans.kr

T. 82-31-8018-7500



- Introduction : Neo Trans Co. Ltd. is a private railroad operation company in charge of operating Korea's first driverless Heavy Rail Transit(HRT), Shinbundang Line (DX Line) and also Yongin EverLine, the driverless light rail transit(LRT).
- Main Project : Operation of Shinbundang line phase 1,2 and Yongin LRT

### Busan Transportation Corporation

www.humetro.busan.kr

T. 82-1544-5005



- Introduction : Busan Transportation Corporation leads the future of the world's urban railway based on 30 years of experience in the construction and operation of urban railways. We provide optimal solutions over the entire range of urban rail development from construction and project management to operations and maintenance.
- Main Project : Construction, operation and maintenance of Busan urban railway No. 1 to No. 4(at home) and(Pre) Feasibility Study & Design(aborad)

### Incheon Transit Corporation

www.ictr.or.kr

T. 82-32-451-2171-5



- Introduction : Incheon Transit Corporation is operating Incheon Urban Railway Line No.1&2, Uijeongbu Light Rail Transit, Yellow Bus, Incheon Bus Terminal, Traffic Training Institute, call taxi for the disabled, and BRT from Cheongra(Incheon) to Gayang(Seoul), GRT, and Monorail is under construction to be opened in 2019.
- Main Project : Incheon Urban Railway Line No.1&2, Uijeongbu Light Rail Transit, Magnetic Levitation Train at Incheon Airport, Monorail(2019), BRT, GRT.

## EDUCATION·RESEARCH·ASSOCIATION

### Graduate School of Railway, Seoul National University of Science & Technology

gsrst.seoultech.ac.kr

T. 82-2-970-6873



- Introduction : The purpose, courses, and educational methods of the Graduate School of Railway are clearly differentiated from those of regular graduate schools which focus on academic objectives
- Main Project : Special Program of Railway Experts for Graduate School by Ministry of Land, Infrastructure and Transport.

### The Korea Transport Institute

www.koti.re.kr

T. 82-44-211-3114



- Introduction : The Korea Transport Institute(KOTI) is an official research agency for the government of the Republic of Korea.
- Main Project : Studies related to the establishment of a national rail transport system

### Korea Railway Electrification Technology Association

www.kreta.kr

T. 82-2-796-9566



- Introduction : Korea Rail Electrification Technology Association(KRETA) is founded for research and development of rail-electrification technology and training for the rail-electrification engineers and technicians and sharing technological information among members of KRETA.
- Main Project : A training institute for rail-electrification engineers

### Korea Railway Signal Engineering of Association

www.krsea.or.kr

T. 82-2-809-4819



- Introduction : This association is non-profit organization which is aiming at researching, developing, disseminating security of railway signal and improving quality of railway signal.
- Main Project : Railway Safety organization etc.





# TOTAL KORASS CORPORATES

## LIST OF MEMBERS

### CHART OF MEMBER STATUS

Member Status	Total	Board of Directors	General Members
	178	48	130

\*2018.8

### BOARD OF DIRECTOR

 MOLIT Ministry of Land, Infrastructure and Transport	 KRA KOREA RAIL NETWORK AUTHORITY	 KORAIL	 KRI Korea Railroad Research Institute
 THE KOREA TRANSPORT INSTITUTE	 SEULTECH SEOUL NATIONAL UNIVERSITY OF SCIENCE & TECHNOLOGY	 GS E&C	 SR
 AREX Airport Express	 DTR 대구도사철도공사	 DAELIM	 Busan Transportation Corporation
 Seoul Metro	 Incheon Transit Corporation	 HYUNDAI ENGINEERING & CONSTRUCTION	 HYUNDAI Rotem
 TS Tamsui Transportation Safety Authority	 한국교통대학교 KOREA NATIONAL UNIVERSITY OF TRANSPORTATION	 LSIS	 LS Cable & System
 SK E&C	 KUEDO RAILWAY CONSTRUCTION	 Namskwang	 DAEWOO E&C
 DOOSAN 두산건설	 saman Saman Corp.	 SAMPYO Railway	 SAMWHAN
 WOJIN Industrial System Co., Ltd.	 Yeosu ENGINEERING CORPORATION	 KRTC	 KOLON GLOBAL
 POSCO E&C	 POONG LIM	 HANJIN HEAVY INDUSTRIES & CONSTRUCTION CO., LTD.	 HDC Hyundai Development Company
 KOSCA Korea Railroad Construction Association	 OAE WOODS UNIVERSITY	 한국철도건설협회	 KRETA (사)한국철도건설기술협회
 한국철도건설협회	 Korea Railway Construction Technology Association	 한국철도건설협회	 KRSE 한국철도신호기술협회
 KROTC 한국철도운전기술협회	 Korea Railway Information and Communication Technology Association	 ROTECO Korea Railway Vehicle Engineering	

### GENERAL MEMBERS

 AMCA SMART SOLUTION	 GS Global	 KB Insurance	 KCC KCC E&C
 (주)K종합서비스 K Integrated Service(KIS)	 LG CNS	 LIG E&C	 GAYA Railroad Corporation
 Kunhwa Consulting & Engineering	 Gyeonggi Railway Corporation	 KYUNGWON Communication Construction	 KYERYONG
 KDC	 Green & Tech	 KUKDONG 대한철도유지공사	 KUMHO E&C
 KIJEON	 DX LINE	 DAEA TI	 대한철도주식회사 INCBIZ 기술혁신 선도기업
 KEC Korea Engineering & Construction	 DucSan Information Telecom Co., Ltd.	 DOHWA	 DMEC
 Dongbu Corporation	 Dongbu Engineering	 DONGSAN	 Dongsung Engineering
 DONGYANG WOOD	 동양주강주식회사 DONG YANG CAST IRON CO., LTD.	 Dongwon Electric Power Development	 Dong Il Engineering Consultants Co., Ltd.
 D2 ENGINEERING	 LOTTE E&C	 RITCO	 MOON ENGINEERING CO., LTD.
 MIDONG Engineering & Construction	 VIBLOCK VIBRO CONSTRUCTION	 BAEK LIM. Architects Engineers Consultants	 BYUCKSAN ENGINEERING
 BYUCKSAN POWER	 BSM Bullhorn Material	 VITZRO SYS 주식회사 비즈로시스	 SAMBO SABO ENGINEERING
 SAMSUNG SAMSUNG CAT	 SAMSUNG SAMSUNG ENGINEERING	 SAMSUNG SAMSUNG FIRE & MARINE INSURANCE	 SamWon Electric Power Co., Ltd.
 SamjinElex	 SKES	 SY Engineering	 SUWOO Construction Industry

GENERAL MEMBERS


GENERAL MEMBERS