



CSIN Tech Co., Ltd. is a leading electric & electronic assembly supplier for railway vehicles with security as its top priority

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Since established in Sept. 1, 1994, **CSIN Tech Co., Ltd.** has exerted a great effort to develop electric / electronic assembly for railway vehicles. As a result, the company has taken a market leading position with great contributions to innovating railway industries both in local and global markets.

Key products that **CSIN Tech Co., Ltd.** manufactures include ATS / ATC on board signaling system, ATP and MMI system as electric / electronic assemblies for railway vehicles. In addition, **CSIN Tech Co., Ltd.** has developed, manufactured and supplied train information transmission system, fire detection system and air-conditioning system.

Most **CSIN Tech Co., Ltd.** employees are engaged in R&D and quality management with technical licenses and know-how in embedded hardware, software and machine design fields.

Major Customers & Record of Supplies

CSIN Tech Co., Ltd. has solidified its leading position in the local railway vehicle market along with its major customers including KORAIL, Seoul Metro, Busan Transportation Corporation, Daegu Metropolitan Transit Corporation and Gwang Ju Metropolitan Transit Corporation.

CSIN Tech Co., Ltd. is also aggressive in penetrating into foreign markets supplying signal, fire detector and train information transmission system to Ireland, Canada, USA, Iran, Tunisia, Almaty, Turkey, India, Greece, Hong Kong and Egypt.

Company History

- 1994 09** Established Cheonsu Engineering Co., Ltd.
- 2005 07** Changed company name as CSIN Tech Co., Ltd.
- 2007 02** Obtained type approval for portable & mixed receiver from Korea Fire Equipment Inspection Corporation
- 03** Developed ATC on-board system for Seoul Metro Subway
- 11** Awarded Innovative mid-to-small enterprise certificate from Kyonggi Regional Office Small & Medium Business Administration
- 2008 04** Won a contract for ATS system for Kyungeui-line EMU, Korail. (on-going)
- 05** Certified for ISO 9001 (by DAS CERTIFICATION)
- 2009 02** Established R&D center at CSIN Tech Co., Ltd.
- 08** Certified for ISO 14001 (by Environment Management System)
- 10** Certified for CE (Europe Standard)
- 11** Won a contract for R&D of on-board Train Operation Control System of Next Generation HST, Korail
- 2010 01** Fire Detecting / Alarming System for Marmarai EMU, Turkey
- 2011 05** ATP and MMI system for ITX-Cheongchun EMU, Korail
- 09** VOBC and ADU system for Line-2 EMU, Incheon Metro
- 2012 07** ATS and ATC system
- 2013 06** Train Information Transmitting system for Hyderabad, India
- 09** Korail Diesel Electric Locomotive Air-Conditioning System(HVAC)
- 2014 07** ATC system for Cairo Metro, Egypt

Technic Possession

- Technic of Imbedded S/W (ARM7, ARM9, AVR)
- Technic of Imbedded H/W (PCB artwork technic, VME-Bus, MVB communication, FPGA, CPLD design)
- Technic of Application S/W
- Mechanism design technic
- System design
- Technic of Wireless communication

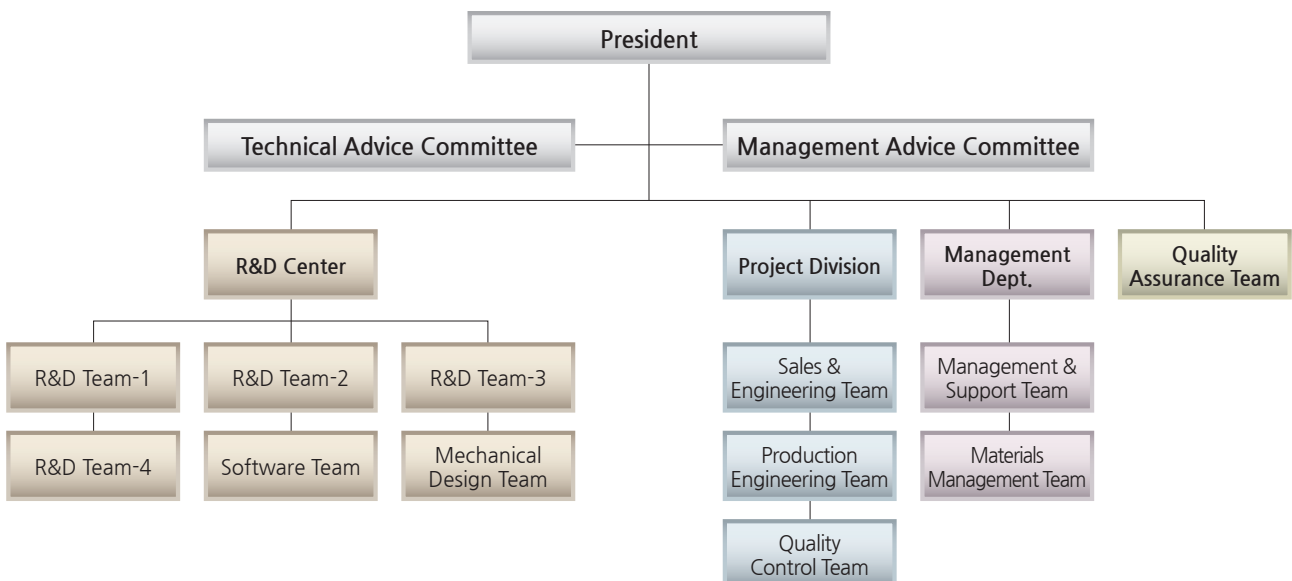
Quality Management Field

- RAMS technic
- SIL technic
- FMEA technic
- ISO 90003 Uses (Software part)

Manufacturing Field

- Rolling stock testing devices
- Cable assembly work technic
- PCB and system assembly technic

Organization



1994~2009

- ▶ **1994. 12** : Wayside/on-board signal system of subway Line-1, Daegu city
- ▶ **1995. 02** : Signal equipment design service for Dae-gu subway Line-1
- ▶ **1995. 04** : Signal equipment Wiring & installation for Dae-gu subway Line-1
- ▶ **1995. 08** : Development and mass production of ATS system for 20 units diesel electric locomotives, Korail
- ▶ **1996. 06** : Signal equipment machine room installation for Dae-gu subway Line-1
- ▶ **1996. 07** : Signal equipment construction for Dae-gu subway Line-1
- ▶ **1996. 11** : On-board system ATC/ATO/ATS for 60 cars of subway Line-1, Busan city
- ▶ **1996. 12** : ATC/ATO tester manufacture for EMU Dae-gu subway Line-1, Daegu
- ▶ **1997. 03** : Signal equipment installation for Bu-san subway Line-2
- ▶ **1997. 06** : Signal equipment manufacture for Bu-san subway Line-2
- ▶ **1997. 07** : Signal equipment construction materials for Bu-san subway Line-2
- ▶ **1997. 10** : ATC/ATO Signal equipment construction for Dae-gu subway Line-1
- ▶ **1997. 10** : ATS On-board signalling system remodeling for Line-1, Korail
- ▶ **1997. 12** : Signal equipment construction materials for Bu-san subway Line-2
- ▶ **1998. 05** : Dead section device and seven equipment manufacture, Korail
- ▶ **1998. 08** : Speedmeter manufacture for Bu-san subway Line-1
- ▶ **1998. 10** : ATS On-board signalling system remodeling for Seoul subway Line-1
- ▶ **1998. 12** : ATC system development & manufacture of standard EMU, Ministry of construction&transportation
- ▶ **1999. 05** : Research and development of ATS On-board device
- ▶ **2000. 05** : ATC/ATO performance test of standard EMU, Ministry of construction&transportation
- ▶ **2000. 09** : ATS On-board signalling system remodeling for EMU Line-1, Korail
- ▶ **2000. 11** : ATS switchover switch manufacture for EMU An-san Line, Korail
- ▶ **2001. 06** : ATS device(mitsuswbishi) remodeling for EMU Line-1, Korail
- ▶ **2002. 07** : ATS device(hitachi) remodeling for EMU Line-1, Korail
- ▶ **2002. 11** : ATS device OSC board manufacture for EMU Line-1, Korail
- ▶ **2002. 12** : ATS device(mitsuswbishi) remodeling for EMU Line-1, Korail
- ▶ **2003. 03** : DSD devices for 36 cars of Bundang Line, Korail
- ▶ **2003. 12** : ATS device(toshiba) remodeling for EMU Line-1, Korail
- ▶ **2004. 08** : ATC test equipments for HST, Korail
- ▶ **2004. 10** : ATS on-board system(Receiver part) ofr HST, Korail
- ▶ **2004. 11** : Function supplementation of ATS device for EMU Line-1, Korail
- ▶ **2004. 12** : Electric alarm repair for EMU Bun-dang Line, Korail
- ▶ **2006. 01** : Fire Detection system for EMU 140 cars Kyeong-Bu Line, Korail
- ▶ **2006. 03** : Train Operational Information Transmitting for EMU 140 cars Kyeong-Bu Line, Korail
- ▶ **2006. 03** : Train Operational Information Transmitting for EMU 70 cars Jungang Line, Korail
- ▶ **2006. 03** : Wayside system of Train Operational Information Transmitting for EMU 140 cars Kyeong-Bu Line, Korail
- ▶ **2006. 03** : Wayside system of Train Operational Information Transmitting for EMU 70 cars Jungang Line, Korail
- ▶ **2006. 05** : Fire Detection system for EMU 70 cars Jungang Line, Korail
- ▶ **2006. 06** : Fire Detection system for EMU 40 cars Kwang-Ju Line-1, Kwangju
- ▶ **2006. 06** : Fire Detection system for EMU 96 cars, Ireland
- ▶ **2006. 11** : Fire Detection system for EMU 40 cars, Canada
- ▶ **2007. 01** : Fire Detection system for EMU 96 cars Seoul Line-9
- ▶ **2007. 01** : Train Operational Information Transmitting for EMU 96 cars Seoul Line-9
- ▶ **2007. 02** : Fire Detection system for EMU 280 cars Seoul Line-2, Seoulmetro
- ▶ **2007. 02** : Fire Detector replacement for EMU 140 cars Kyeong-Bu Line, Korail
- ▶ **2007. 03** : Fire Detector replacement for EMU 70 cars Kyeong-Bu Line, Korail
- ▶ **2007. 03** : Developed ATC On-board system for Seoul Line-3, Seoulmetro
- ▶ **2007. 07** : Supplied ATP RACK system for Electric locomotives, Korail
- ▶ **2007. 08** : Supplied On-board signalling system for Busan subway Line-1
- ▶ **2007. 08** : Fire Detection system for EMU 254 cars Seoul Line-2, Seoulmetro
- ▶ **2007. 09** : Fire Detection system for 100 cars of High speed Train KTX-II, Korail
- ▶ **2007. 10** : Fire Detection system for EMU 120 cars SEPTA, USA
- ▶ **2007. 10** : Fire Detection system for EMU 109 cars SCRRRA, USA
- ▶ **2007. 11** : Fire Detection system for EMU 120 cars, Iran
- ▶ **2008. 04** : Fire Detection system for EMU 104 cars Kyeong-eui Line, Korail
- ▶ **2008. 05** : Train Operational Information Transmitting for EMU 104 cars Kyeong-eui Line, Korail
- ▶ **2008. 06** : Train Operational Information Transmitting for LRV 50 cars, BGL
- ▶ **2008. 06** : Wayside system of Train Operational Information Transmitting for EMU 2 cars Jungang Line, Korail
- ▶ **2008. 07** : Repaired ATS On-board system for Seoul Line-2, Seoulmetro
- ▶ **2008. 07** : Fire Detection system for EMU 120 cars, Iran
- ▶ **2008. 07** : Fire Detection system for EMU 104 cars Kyeong-eui Line, Korail
- ▶ **2008. 07** : Fire Detection system for LRV 50 cars, BGL
- ▶ **2008. 07** : Fire Detection system for EMU 72 cars Sinbndang Line, Sinbundang
- ▶ **2008. 08** : Fire Detection system for EMU 340 cars Seoul Line-3, Seoulmetro
- ▶ **2008. 09** : On-board Mechanism Rack for EMU 340 cars Seoul Line-3, Seoulmetro
- ▶ **2008. 09** : ATC Antenna for EMU 340 cars Seoul Line-3, Seoulmetro
- ▶ **2009. 02** : ATC Factory Inspection Line facilities for EMU 340 cars Seoul Line-3
- ▶ **2009. 03** : Fire Detection system for Diesel 150 cars, Iran
- ▶ **2009. 04** : ATC Antenna of STM for EMU 72 cars Sinbndang Line, Sinbundang
- ▶ **2009. 04** : ATS On-board signalling system for EMU 24 cars Jungang-Line, Korail
- ▶ **2009. 05** : Train Operational Information Transmitting for EMU 24 cars Jungang-Line, Korail
- ▶ **2009. 05** : Fire Detection system for EMU 76 cars, Tunisia
- ▶ **2009. 05** : Train Operational Information Transmitting Antenna for EMU 186 cars, Korail
- ▶ **2009. 05** : Fire Detection system for EMU 24 cars Jungang-Line, Korail
- ▶ **2009. 05** : Fire Detection system for EMU 28 cars, Almati
- ▶ **2009. 08** : ATO/ATC On-board system replacement for EMU Seoul Line-2, Seoulmetro
- ▶ **2009. 08** : Train Operational Information Transmitting for EMU 186 cars, Korail
- ▶ **2009. 08** : Fire Detection system for HEMU-340 6 cars, Korail
- ▶ **2009. 09** : Fire Detection system for EMU 186 cars, Korail
- ▶ **2009. 10** : Fire Detection system for 90 cars of High speed Train KTX-II, Korail
- ▶ **2009. 10** : Fire Detection system for 6 cars of Magnetic levitation train
- ▶ **2009. 11** : On-board train control system of next generation Development project
- ▶ **2009. 11** : ATS On-board signalling system for EMU 186 cars Jungang-Line, Korail

2010~2017

- ▶ **2010, 04** : Fire Detection system for EMU 440 cars Marmaria, Turkey
- ▶ **2010, 04** : ATP On-board signalling system for ITX-chyeong chun 64 cars, Korail
- ▶ **2010, 07** : Fire Detection system for 50 cars of High speed train KTX-II, Korail
- ▶ **2010, 09** : Train Operational Information Transmitting for EMU 48 cars Su-in Line, Korail
- ▶ **2010, 10** : Fire Detection system for EMU 102 cars Athene, Greece
- ▶ **2010, 10** : Train Operational Information Transmitting for ITX-chyeong chun 64 cars, Korail
- ▶ **2010, 10** : ATS On-board signalling system for EMU 48 cars Su-in Line, Korail
- ▶ **2010, 10** : Fire Detection system for EMU 48 cars Seoul Line-9
- ▶ **2010, 11** : Train Operational Information Transmitting for EMU 48 cars Seoul Line-9
- ▶ **2010, 11** : Train Operational Information Transmitting Antenna for EMU 48 cars Su-in Line, Korail
- ▶ **2010, 11** : Dead section Device for EMU 30 cars Bun-dang Line, Korail
- ▶ **2010, 11** : Train Operational Information Transmitting for freight electric locomotive 56 cars, Korail
- ▶ **2010, 11** : Improvement of performance of ATS system for EMU 120 cars Kyeong-chun Line, Korail
- ▶ **2010, 12** : Fire Detection system for ITX-chyeongchun 64 cars, Korail
- ▶ **2010, 12** : ATC Antenna&Mechanism Rack for EMU 30 cars Bundaing Line, Korail
- ▶ **2011, 01** : Train Operational Information Transmitting for EMU 102 cars Athene, Greece
- ▶ **2011, 01** : MMI(Man Machine Interface) for ITX-chyeong chun 64 cars, Korail
- ▶ **2011, 02** : Motor car modification for Sinbundang
- ▶ **2011, 03** : Fire Detection system for 100 cars of High speed train KTX-II, Korail
- ▶ **2011, 03** : Train Operational Information Transmitting for EMU 30 cars Bun-dang Line, Korail
- ▶ **2011, 03** : ATP/ATO system modification for Seoul Line-2, 3, Seoulmetro
- ▶ **2011, 05** : Fire Detection system for Wireless Low floor train
- ▶ **2011, 06** : Improvement of performance of BTM Antenna& DMI for 190 cars of High speed train KTX-II, Korail
- ▶ **2011, 06** : ATP On-board signalling system for freight electric locomotive 31 cars, Korail
- ▶ **2011, 07** : Fire Detectin system for EMU 42 cars Bun-dang Line, Korail
- ▶ **2011, 07** : Dead section Device for EMU 42 cars Bun-dang Line, Korail
- ▶ **2011, 08** : ATC RACK & Antenna for EMU 42cars Bun-dang Line, Korail
- ▶ **2011, 08** : Fire Detection system for SCRRRA METROLINK COMMUTER RAIL CAR 30 cars, USA
- ▶ **2011, 08** : Train Operational Information Transmitting for EMU 42 cars Bun-dang Line, Korail
- ▶ **2011, 09** : Fire Detection system for HEMU-340 6 cars
- ▶ **2011, 09** : VOB Cabinet & ADU for EMU 74 cars, In-cheon Line-2, In cheon
- ▶ **2011, 10** : Power supply unit for EMU 74 cars, In-cheon Line-2, In cheon
- ▶ **2011, 11** : Train Operational Information Transmitting for EMU 84 cars Kyeong-eui Line, Korail
- ▶ **2011, 11** : Fire Detection system for EMU 74 cars, In-cheon Line-2, In cheon
- ▶ **2011, 11** : Train Operational Information Transmitting for freight electric locomotive 31 cars, Korail
- ▶ **2011, 11** : ATS On-board signalling system for EMU 70 cars Line-1, Korail
- ▶ **2011, 12** : Fire Detection system for EMU 70 cars Line-1, Korail
- ▶ **2011, 12** : Fire Detection system for EMU 84 cars Kyeong-eui Line, Korail
- ▶ **2011, 12** : ATS On-board signalling system for EMU 84 cars Kyeong-eui Line, Korail
- ▶ **2012, 03** : Train Operational Information Transmitting for Diesel freight electric locomotive 25 cars, Korail
- ▶ **2012, 03** : Fire Detection system for 220 cars of High speed train KTX-II, Korail
- ▶ **2012, 04** : Cab HVAC for Diesel locomotive 10EA, Korail
- ▶ **2012, 05** : Fire Detection system for EMU 75 cars Denver, USA
- ▶ **2012, 05** : Screen door(PSD) electric locking device for In-cheon Line-1
- ▶ **2012, 05** : ATP On-board signalling system for ITX-saemaeul EMU 138 cars, Korail
- ▶ **2012, 05** : ATP On-board signalling system for Diesel freight electric locomotive 25 cars, Korail
- ▶ **2012, 07** : ATS/ATC On-board signalling system for EMU 18cars Bun-dang Line, Korail
- ▶ **2012, 07** : ATS/ATC On-board signalling system for EMU 24cars Su-in Line, Korail
- ▶ **2012, 08** : Fire Detection system for electric locomotive 80 cars TCDD, Turkey
- ▶ **2012, 08** : Train Operational Information Transmitting for ITX-saemaeul EMU 138cars, Korail
- ▶ **2012, 10** : Train Operational Information Transmitting for EMU 24cars Su-in Line, Korail
- ▶ **2012, 10** : Train Operational Information Transmitting for EMU 34cars Line-1, Korail
- ▶ **2012, 10** : Train Operational Information Transmitting for EMU 24car Bun-dang Line, Korail
- ▶ **2012, 10** : Fire Detection system for ITX-saemaeul EMU 138cars, Korail
- ▶ **2012, 12** : ATS On-board signalling system for EMU 34cars Line-1, Korail
- ▶ **2012, 12** : Fire Detection system for EMU 34cars Line-1, Korail
- ▶ **2012, 12** : Fire Detection system for EMU 24cars Su-in Line, Korail
- ▶ **2013, 01** : HVAC for Diesel electric locomotive 25 cars, Korail
- ▶ **2013, 03** : Establish of information server for freight electric locomotive 56 cars, Korail
- ▶ **2013, 04** : Fire Detector for Diesel electric locomotive 25 cars, Korail
- ▶ **2013, 05** : On-board signalling system for EMU 180 cars Cairo Line-1, Egypt
- ▶ **2013, 05** : Fire Detection system for EMU 120 cars IZMIR, Turkey
- ▶ **2013, 06** : Train Operational Information Transmitting for EMU 171 cars Hyderabad, India
- ▶ **2013, 07** : Fire Detection system for EMU 36cars Line-1, Korail
- ▶ **2013, 07** : Fire Detection system for EMU 18 cars Kyeong-eui Line, Korail
- ▶ **2013, 07** : Fire Detection system for EMU 28 cars Bun-dang Line, Korail
- ▶ **2013, 08** : HVAC for electric locomotive 8EA, Korail
- ▶ **2013, 08** : Fire Detection system for EMU 32 cars SNCFT, Tunisia
- ▶ **2013, 09** : Fire Detection system for EMU 48 cars Sinbundang Line, Sinbundang
- ▶ **2014, 02** : Fire Detection system for EMU 50 cars Line-1, Korail
- ▶ **2014, 03** : Fire Detection system for LRV 36 cars Ui-sinseol Line, Uitrans
- ▶ **2014, 05** : Fire Detection system for EMU 486 cars RS10, India
- ▶ **2014, 06** : ATC/ATO On-board signalling system for EMU 48 cars Bu-san Line-1, Busan
- ▶ **2014, 07** : Fire Detection system for EMU 333 cars SCL, Hongkong
- ▶ **2014, 08** : HVAC for electric locomotive 5 car, Korail
- ▶ **2014, 09** : Fire Detection system for EMU 52 cars Kwang-ju Line-1, Kwangju
- ▶ **2014, 09** : Local manufacturing of On-board signalling system for Bu-san Line-2, Busan
- ▶ **2014, 10** : Fire Detection system for 100 cars of Su-seo High speed train, Suseo
- ▶ **2014, 12** : ATS On-board signalling system for EMU 90 cars Line-1, Korail
- ▶ **2015, 01** : Train Operational Information Transmitting for EMU 48 cars Bu-san Line-1, Busan
- ▶ **2015, 01** : Train Operational Information Transmitting for EMU 90 cars Line-1, Korail
- ▶ **2015, 03** : Fire Detection system for EMU 48 cars Bu-san Line-1, Busan
- ▶ **2015, 03** : ATS On-board signalling system for Maintenance&Inspection 5 cars, Korail
- ▶ **2015, 03** : Fire Detection system for EMU 120 cars Izmir, Turkey
- ▶ **2015, 04** : Fire Detection system for 150 cars of won-kang High speed train, Korail
- ▶ **2015, 05** : Fire Detection System for EMU 90 cars Line-1, Korail
- ▶ **2015, 05** : AC/DC neutral section automatic switching system development for train of RFID based
- ▶ **2015, 05** : ATP On-board signalling system for EMU 48 cars Seong-nam/Yeo-ju Line, Korail
- ▶ **2015, 05** : ATS/ATC On-board signalling system for EMU 48 cars Seong-nam/Yeo-ju Line, Korail
- ▶ **2015, 05** : ATS On-board signalling system for EMU 40 cars Dong-hae/Nam-bu Line, Korail
- ▶ **2015, 06** : ATS On-board signalling system for Overhead Line Maintenance&Inspection 7 Car, Korail
- ▶ **2015, 07** : Train Operational Information Transmitting for EMU 48 cars Seong-nam/Yeo-ju Line, Korail
- ▶ **2015, 07** : Train Operational Information Transmitting for EMU 40 cars Dong-hae/Nam-bu Line, Korail
- ▶ **2015, 07** : Train Operational Information Transmitting replacement for Electric locomotive cars, Korail
- ▶ **2015, 09** : Fire Detection System for EMU 48 cars Seong-nam/Yeo-ju Line, Korail
- ▶ **2015, 09** : Fire Detection System for EMU 40 cars Dong-hae/Nam-bu Line, Korail
- ▶ **2015, 09** : Fire Detection System for LRV 46 cars Kim-po Line, KRNA
- ▶ **2015, 12** : Train Operational Information Transmitting for EMU 48 cars Seoul Line-9
- ▶ **2015, 12** : Fire Detection system for EMU 48 cars Seoul Line-9
- ▶ **2015, 12** : ATS On-board signalling system for EMU 28 cars So-sa/Won-si Line, Korail
- ▶ **2015, 12** : ATS/ATC On-board signalling system replacement for EMU Line, Korail
- ▶ **2016, 07** : ATS/ATC On-board signalling system for EMU 36 cars Su-in Line, Korail
- ▶ **2016, 07** : ATC/ATO On-board signalling system for EMU 40 cars Bu-san Line-1, Busan
- ▶ **2016, 08** : ATC On-board signalling system replacement for EMU 47 cars Seoulmetro 4 Line, Seoulmetro
- ▶ **2016, 12** : Train Operational Information Transmitting for EMU 40 cars Bu-san Line-1, Busan
- ▶ **2017, 01** : Fire Detection System for EMU 36 cars Su-in Line, Korail
- ▶ **2017, 01** : Train Operational Information Transmitting for EMU 28 cars So-sa/Won-si Line, Korail
- ▶ **2017, 01** : Train Operational Information Transmitting for EMU 36 cars Su-in Line, Korail
- ▶ **2017, 01** : Fire Detection System for EMU 40 cars Bu-san Line-1, Busan
- ▶ **2017, 02** : ATP On-board signalling system for EMU 108 cars MRT-7 Line, Manila