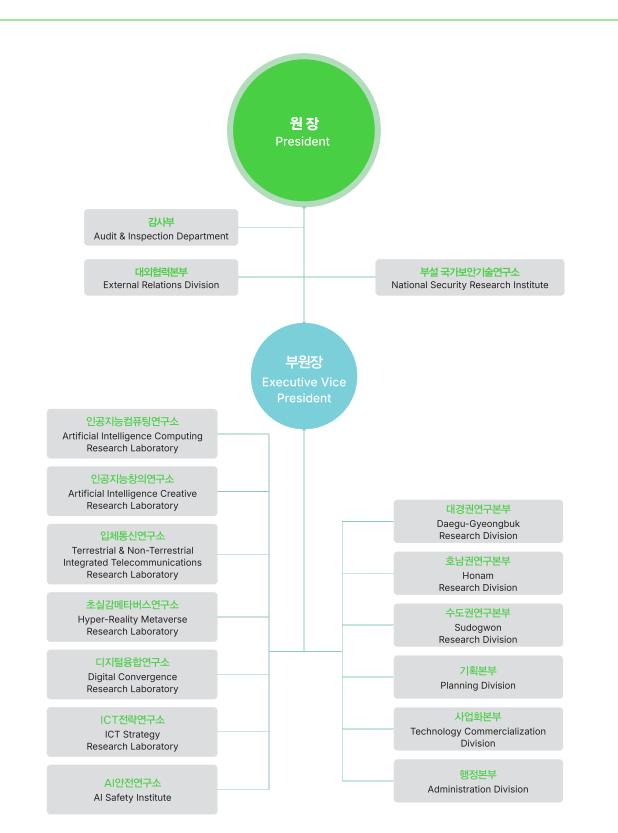
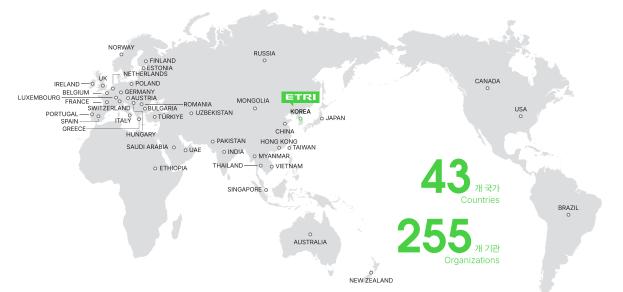
조직도

Organization



글로벌 R&D 협력 네트워크

Global R&D Cooperation Network



University of South Australia / University of Sydney / University of Wollongong and Telephone Corporation / RIKEN / ZMP Inc

ERTICO / IMEC / Katholieke Universiteit Leuven / Université libre de Bruxelles / VRT

IOMT-BAS

(Bromont) / MDA / QA Consultants / SkyForest Inc. / University of Calgary / University of University of Auckland Toronto / University of Western Ontario / UTIAS-SFL / Vector Institute / XANADU

Beijing Jiaotong University / CAS SIAT / HISENSE Group Holdings / Industrial Technology PAKISTAN Innovation Research Institute (ITIRI) / Jiangsu Provincial Department of Science and Technology / Junhe LLP / National Innovation Center-Yangtze Delta / Shanghai Jiao Tong POLAND University / Suzhou Industrial Park / TCL / Tongji University / WTOIP Poznan University / Scientific and Research Centre for Fire Protection - National

AUSTRALO ALPHA LAB MTÜ

AALTO / IQM Finland Ov / KC / Ministry of Economic Affairs and Employment / TAMPEREEN KORKEAKOULUSAATIO SR / University of Oulu / VTT

/ INRIA / Microlight 3D / Pasteur Research Institute / Southern Aerospace and Telecom JSC APEX / Wonder Technologie Consulting / Syntony SAS / Sysnav / THALES ALENIA SPACE FRANCE / Unovious Film SAUDI ARABIA

/ Fraunhofer IZM / Fraunhofer-Gesellschaft / Fraunhofer-HHI / IHP / Software AG / AMF / Aprisium Pte Ltd. / Singapore University of Technology and Design (SUTD) / TESATSPACE / The Federal Agency for Technical Relief / THW / Vanguard Automation Vales photonics

Rescue Team of Attica / Informatics and Telematics Institute at CERTH / WINGS ICT SOLUTIONS INFORMATION & COMMUNICATION TECHNOLOGIES IKE HONG KONG

Nreal Technology

Christ University IRELAND Tyndall National Institute

COMALLSPA / ENEA / EVERIS ITALIA S.P.A. / EONDAZIONE BRUNO KESSLER /

218 Gajeong-ro, Yuseong-gu, Daejeon, 34129, KOREA

Fondazione Guglielmo Marconi / ITER IDEA SRL / Thales Alenia Italia Research Institute / TSMC

34129 대전광역시 유성구 가정로 218 / TEL. 1466.38 / FAX. 042.861.1033 / www.etri.re.kr

Deakin University / Distinctive Edge Support Services Pty Ltd. / Griffith University / IP bridge / KDDI / National University Corporation Tohoku University / Nippon Telegraph KMITL

SISVEL INTERNATIONAL

NEMA (NATIONAL EMERGENCY MANAGEMENT AGENCY

NETHERLANDS

CORDIS / Gezamenliike Brandweer / Netherlands Organisation for Applied Scientific University / Queen's University Belfast / University of Oxford / University of Portsmouth / Research / NLR / SMART Photonics / TNO / Wageningen Livestock Research University of Southampton / University of Surrey

Kongsberg Maritime AS / Norwegian University of Science and Technology

Information Technology Universit

Research Institute / SIEC BADAWCZA LUKASIEWICZ - PRZEMYSLOWY INSTYTUT AUTOMATYKI I POMIAROW PIAP / The University of Gdarisk / VIGO PHOTONICS S.A. / Power America / pSemi Corporation / Purdue University / Qualcomm / R2 Network / Warsaw University of Technology Faculty of Sciences of University of Lisbon / VisionWare - Sistemas de Informação,

S.A. / WinTrust

AL-HALLOUL AL-MABTAKRA

ANDREU WORLD SA / ASOCIACION ESPANOLA DE NORMALIZACION / I2CAT Hanoi University of Science and Technology / Vietnam - Korea Institute of Science NTT DATA SPAIN SL / Panel Sistemas / Plus Ethics / ROBOTNIK AUTOMATION SLL / Semidynamics Technology Services, S.L. / Thales Alenia Space Espana UNIVERSITAT POLITECNICA VALENCIA / University of Madrid Carlos III / University of the Basque Country

KTH Royal Institute of Technology / RISE - Research institutes of Sweden / The Södertörn Fire Brigade Association / Uppsala University / ZnOrdic AB SWITZERLAND

CSEM SA / ID Quantique SA / The Robotic System Lab at ETH Zurich / University of Bern(UNIBE) / Wearin'

TEL +1-669-287-0114 National Yang Ming Chiao Tung University / Nuvoton / Taiwan Semiconductor

KoçSistem / Presify Analitik Yazılım A.Ş. / SILVERLINE ENDUSTRI VE TICARET A.S. / TEKNOPAR ENDLISTRIYEL OTOMASYON SANAYI VE TICARET ANONIM SIRKETI

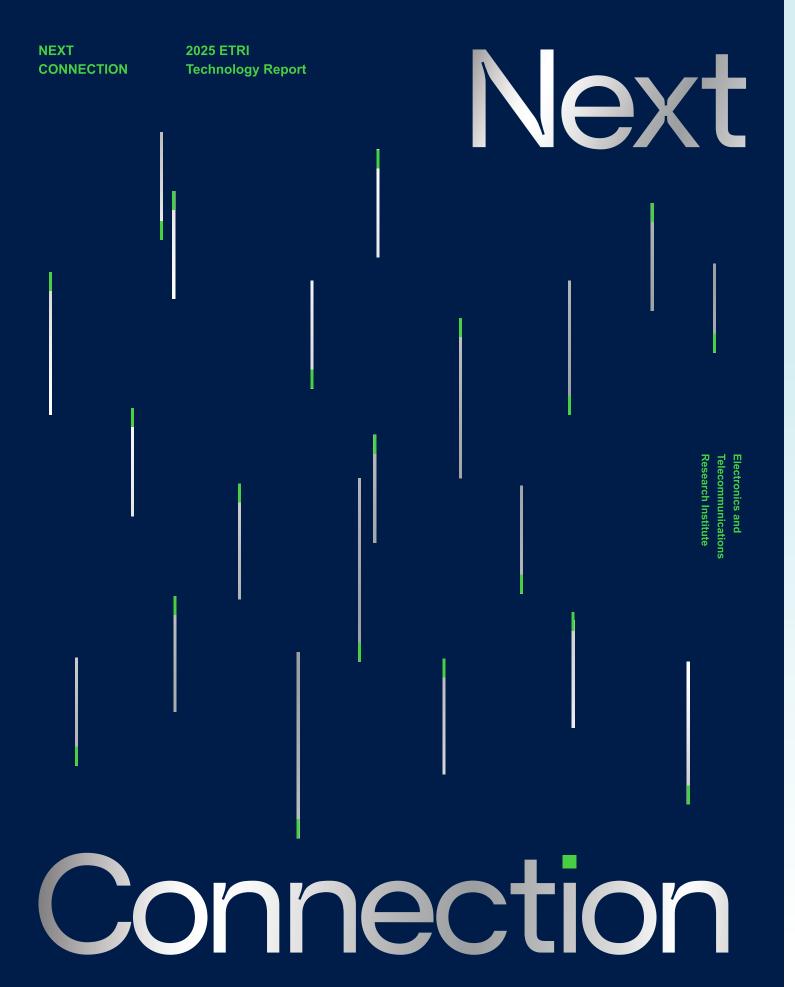
Airbus / CRANFIELD UNIVERSITY / Graphcore Limited / Liverpool John Moore

Foundation / CAST.ERA / Columbia University / Eagle Forest / GE Licensing / General Dynamics Mission Systems, Inc. / Georgia Institute of Technology / Georgia Tech. Research Corp. / Harris / Harvard University / II-VI Coherent / Indiana University / Ingine Inc. / Intel Corporation / Interdigital, INC. / KULICKE & SOFFA INDUSTRIES, INC / MIT (Massachusetts Institute of Technology) / NIST / Northeastern University / Northroip Grumman / Northwestern University / Optisys / Phoenix Technologies In Rambus / Rutgers University / San Diego State University / San Jose State University / SwRI (Southwest Research Institute) / The Ohio State University / The State University of New York / The University of Texas at Austin / TidalScale / University of California Riverside / University of California San Diego / University of Central Florida / University of Chicago / University of Colorado Boulder / University of Colorado Colorado Springs / University of Houston / University of Minnesota / University of Texas at Arlington / University of Texas at Dallas / University of Washington / University of Wisconsin-Madison / US Department of Defense / Via Licensing Corporation / VIAVLSOLUTIONS / Vimmerse / Virginia Polytechnic Institute and State University / William & Marry Coulage / XILINX, INC.

IUT (Inha University in Tashkent) / MDT (Ministry of Digital Technologies) / MITC / TUIT (Tashkent University of Information Technologies)

Room 2011, Air China Plaza, 36 Xiaoyunlu, Chaoyang District, Beijing 100027, CHINA TEL +86-186-1408-8551 3003 North 1st Street, Suite 338, San Jose, CA 95134, USA

한국전자통신연구원 Bectronics and Telecommunications Research Institute



비전 및 경영목표

Vision & Management Goal

Excellence

VISION MANAGEMENT GOAL 성장동력 기술혁신으로 디지털 주도권을 확보하고 ESG 경영혁신으로 지속가능성장 실현 **MANAGEMENT PRINCIPLE** 선제적 탁월성 조화로운 열정 Proactive World-class Harmonized

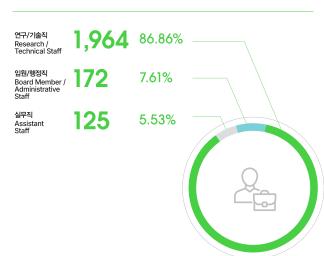
Passion

Impact

Personnel (2025. 4. 30. 기준 / As of Apr. 30. 2025)

총 인원수 (명) Total No. of Employees

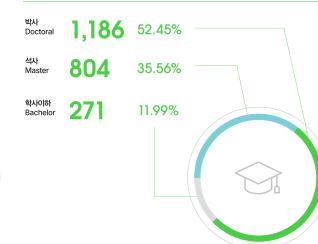
직종별 Type of Work



(2024. 12. 31. 기준 / As of Dec. 31. 2024)

연구비 (억 원)

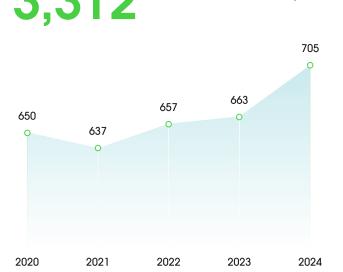
학위별 Status of Degree Holding



과제수행실적

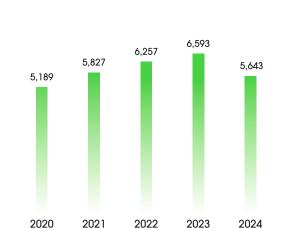
Project Status

총 과제 수 (건 / 5년 누적) No. of Projects (Cases / Total of Past 5yrs)



5년 평균 연구비 (억 원) Budgets (100 Million KRW / Avg. of Past 5yrs)





특허출원

Patent Application

2024년 특허출원 (건 No. of Patent Applications in 2024 (Cases)

국제출원

International



총 특허출원 수 (건 / 5년 누적) No. of Patent Applications (Cases / Total of Past 5yrs) (2020~2024)

(2024. 12. 31. 기준 / As of Dec. 31. 2024)

기술이전

Technology Transfer

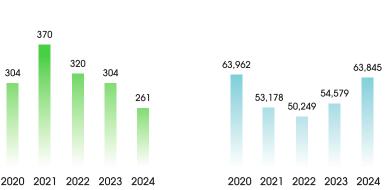
기술 수 (건 / 5년 누적) No. of Technology (Cases / Total of Past 5yrs)

5년 평균 (Avg. of Past 5yrs)

304

기술료 (백만 원 / 5년 누적) Royalty Income (Million KRW / Total of Past 5yrs)

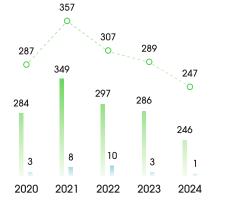
285,813 **5년 평균** (Avg. of Past 5yrs) 57,162



기술이전 기업 수 (건 / 5년 누적) No. of Technology Transfer Companies (Cases / Total of Past 5yrs)

(2024. 12. 31. 기준 / As of Dec. 31. 2024)





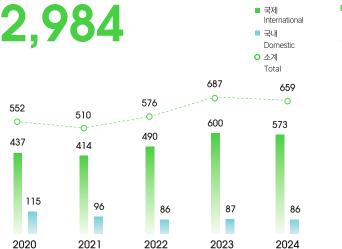
표준화

Standardization (2024. 12. 31. 기준 / As of Dec. 31. 2024)

International

■ 국내

총 표준기고서 수 (건 / 5년 누적) No. of Standards Contribution Adopted (Cases / Total of Past 5yrs)



국제표준화기구 의장단 (명 / 5년 평균) No. of Standard Leaders (Avg. of Past 5yrs)

2020

논문자료

Papers

(2024. 12. 31. 기준 / As of Dec. 31. 2024)

2022 2023 2024

총 논문자료 수 (건 / 5년 누적) No. of Papers (Cases / Total of Past 5yrs)



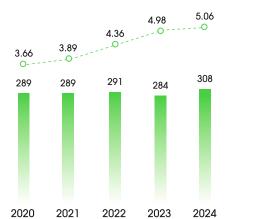
총 SCI급 논문자료 수 (건 / 5년 누적) No. of SCI Papers (Cases / Total of Past 5yrs)



2021

■ SCI논문건수 SCI Papers ○ 평균 F Average IF

평균 IF / Average IF : **4.39**



R&D 주요성과

R&D Major Achievements

* 10조 원 이상의 경제적 파급효과 또는 1) 분석시기: 2016. 11. ~ 2017. 4. 2) 분석기간: 1976년~2016년 (40년)

STP system prototype

Internet WiBro prototype

development solution * 지상파 DMB 서비스 개시

• 무선 홈 네트워크 (UWB) 개발

• 국산 임베디드 SW 개발 솔루션 첫 수출

Launched terrestrial DMB services

Exported first Korean embedded software

2000's

Developed a synchronized IMT-2000 (CDMA2000)

* 세계 최초 이동무선 광대역 인터넷 와이브로 (WiBro) 시제품 개발

Developed a wireless home network ultra-wideband (UWB)

Developed the world's first portable broadband

* 비동기식 IMT-2000 (WCDMA) 상용화 개발

nonsynchronized IMT-2000 (WCDMA)

Developed and commercialized

* Key Representative Core Technology Recognized for Economic Ripple 세계적으로 독자성 및 우수성을 인정받은 대표 핵심기술 Effects of Over 10 Trillion Won or Global Uniqueness and Excellence. 1) Analyzing Period: November 2016 to April 2017 2) Analysis Period: 1976 to 2016 (40 years)

KIST 부설 한국전자통신연구소 설립

• 1970's

Established KECRI affiliate, KIST • 한국전자기술연구소 설립 Established KIET • 한국전기기기시험연구소 설립 Established KERTI

• 한국통신기술연구소 설립 Established KTRI

• 우리나라 최초의 메모리 반도체 32K ROM 개발 Developed Korea's first memory semiconductor 32K ROM

• 8bit 교육용 컴퓨터 개발 Developed 8-bit educational computer

• 16bit UNIX 개발 컴퓨터 국산화 성공

Localized 16-bit UNIX computer

one-telephone" era

• 565Mbps 광통신 시스템 개발

of 16M, 64M, and 256M DRAM

* 1가구 1전화 시대를 연 '전전자교환기 (TDX)' 개발

Developed TDX which opened the "one-household,

Developed 565 Mbps optical communication system

* 4M DRAM 개발을 시작으로 16M, 64M, 256M DRAM 개발

Developed 4M DRAM, which led to the development

• 투명 AMOLED 세계 최초 개발 Developed the world's first transparent AMOLED

• 3.6Gbps 4세대 무선전송시스템 세계 최초 개발 Developed the world's first 3.6Gbps fourth generation

mobile communications technology (NoLA)

• SMMD 기반 실감체험 4D 시스템 기술 개발 Developed an SMMD-based realistic 4D system

* 세상을 밝혀주는 친환경 OLED 조명 기술 개발 Developed an eco-friendly OLED lighting technology that illuminated the world

2010's

• 스마트 선박 기술 개발

* 4세대 이동통신 LTE-Advanced 세계 최초 개발 Developed the world's first fourth generation LTE-

• TDX-10 개통

1990's

Launched TDX-10 • 주전산기॥ (TiCOM) 개발 Developed TiCOM II

• 32비트 마이크로프로세서 개발

Developed 32-bit microprocessors

• 디지털 위성방송 시스템 개발 Developed digital satellite broadcasting system

* CDMA 이동통신 시스템 세계 최초 상용화 성공 Commercialized the world's first CDMA mobile telecommunications system

• 차량탑재용 위성방송 능동안테나 개발 Developed a vehicle-mounted antenna for satellite

•동기식 IMT-2000 (CDMA2000) STP 시스템 시제품 개발

• DB-Call 기반 지능형 영어학습 시스템 (Genie Tutor) Developed a DB-call-based intelligent English learning system, GenieTutor

• 세계 최초 가입자당 10Gbps 속도 보장 오케스트라 (OCES+3.2 Tera) 광인터넷 기술 Developed the world's first 10Gbps OCES+3.2 Tera fiber-optic Internet

• RoF기반 모바일 프런트홀 기술 (High Five ESCoRT) Developed an RoF-based mobile fronthaul technology (High Five ESCoRT)

• 광-회선-패킷 통합 스위칭 시스템

Developed an optical-circuitpacket switching system

· 고성능 언어지능 SW '엑소브레인 (Exobrain)'

Developed a high-performance language intelligence

Developed a UHD mobile broadcasting technology

· UHD 모바일방송 기술

25Gbps급 촉각인터넷 기술 '틱톡 (TIC-TOC)' Developed a 25Gbps-class Tactile Internet

TIC-TOC

2020's

• 시각지능 원천기술 플랫폼 '딥뷰 (Deep View)' Developed a visual intelligence source technology

• 도로와 사물 , 사람을 이해하는 지능로보틱스 AI 핵심 기술 Developed core technologies for AI that understands roads, objects, and people

• 사람의 개입 없이 기계 간 임무수행을 위한 영상처리 및 부호화

for autonomous machine-to-machine operations

• 지상-위성 통합 네트워크 실현을 위한 6G 위성통신 기술 개발

Developed 6G satellite communication technology to

Developed key video processing and encoding technologies

platform, Deep View

•세계 최초 차세대 마이크로 LED 디스플레이 동시 전사 · 접합 기술

Developed the world's first next-generation Micro LED display simultaneous transfer and bonding technology (SITRAP) Developed a smart ship technology (SAN)

• 전기자동차용 차세대 리튬이차전지 핵심소재 및 공정기술 선도

• 투명도 조절 AMOLED 디스플레이 패널 개발 Developed core materials and process technologies for Developed an adjustable transparent AMOLED display panel next-generation lithium-ion batteries for electric vehicles • 패킷-광 통합 전달망 기술 개발

Developed a packet-optical integrated transport

• 100배 빠른 광 인터넷 기술 개발 Developed the 100 times faster fiber-optic Internet

network technology

* 휴대형 한 · 영 자동통역 '지니톡 (Genie Talk)' 기술 개발 interpretation app, GenieTalk

* 세계 최초 지상파 4K UHD방송시스템 상용화 The world's first terrestrial 4K UHD Broadcasting System Commercialization

realize a terrestrial-satellite integrated network