Device Solutions Division

of Samsung Electronics is the largest memory chip company in the world. We are leading the semiconductor industry based on the world's best technology competitiveness. Our leading technology includes preceding processes and devices R&D for DRAM, NAND Flash, solutions, system semiconductors and LED products, and even product design and mass production/test/shipment.
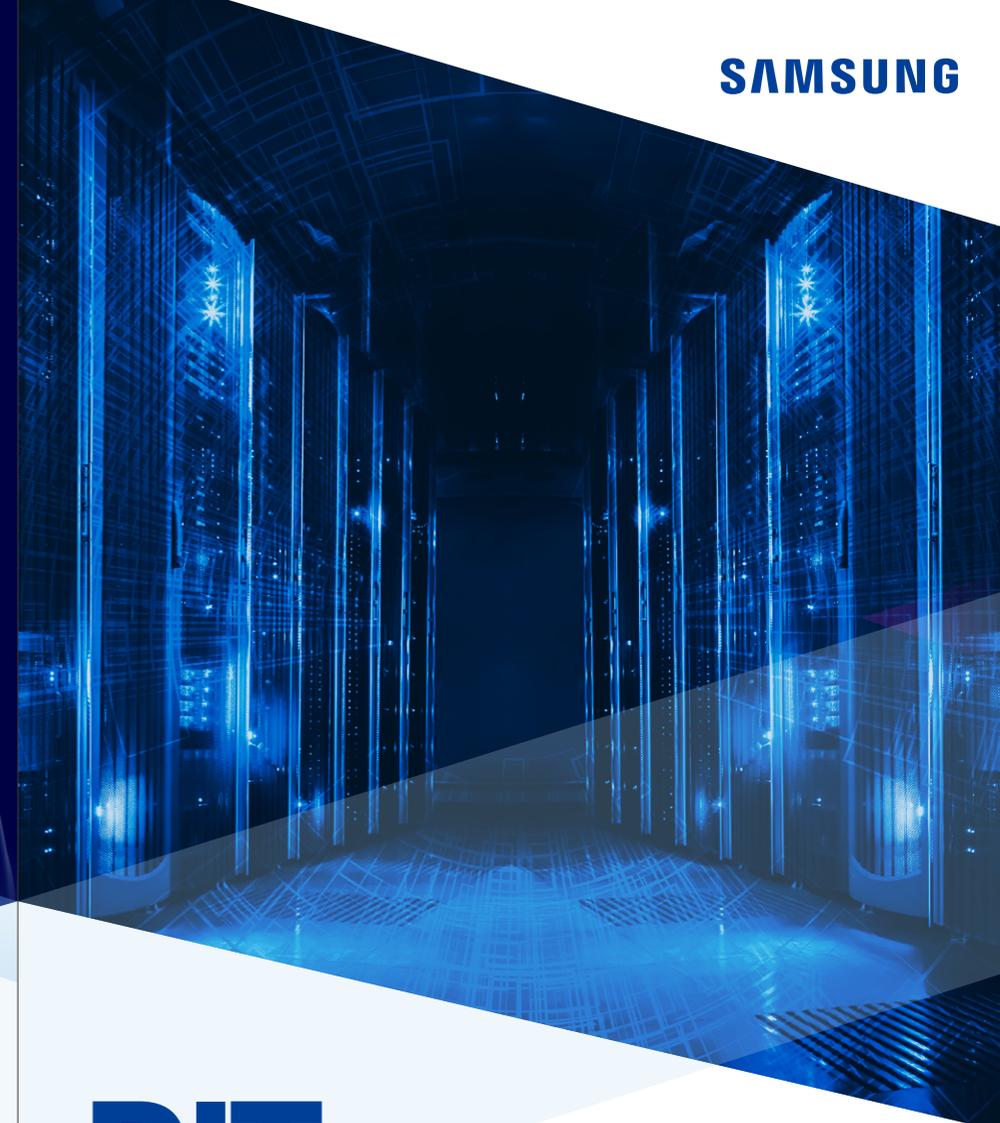
DIT Center Tasks

IT Governance
· IT Strategy
· Enterprise Architecture
· PMO & IT Quality
· Software Engineering
· IT Security

AI & Data Science
· Data Analytics Data Mining
· AI Machine Learning Deep Learning
· Computer Vision NLP Time Series Analysis Generative Models
· Learning/Analysis Acceleration

IT for Manufacturing
· Manufacturing Automation
· Equip./Logistics Control
· Infra. Systematization
· Smart Factory

IT for R&D
· R&D Platforms & Systems
· Product Quality Management
· Development Env.Innovation

IT for Management
· Biz. Process IT
· ERP
· SCM/CRM
· Business Intelligence

Computational Science & Engineering
· Physics Modeling of Material/Device/System/Process
· Simulation Acceleration

DIT Infra & Platform
· Application Platform : [PaaS] Dev. Tool, Analysis Tools, Application Components
· Data Platform : [DaaS] BigData, Data Lake, Data Catalog
· Computing & Networking Infra : [IaaS] Data Center, Cloud, Network, Computer Architecture

Organizational Culture

Provides plentiful opportunities for growth
· Study for graduate degrees
· Collaborations with global universities
· Attending global conferences and publishing papers
· Self-organized study groups

Promotes creative and flexible work culture
· Flexible working hours
· Opportunities for transfer between projects and teams

Supports employee's health
· Health insurance and regular medical check-ups
· On-site fitness centers
· On-site medical clinics and pharmacies

The nerve system for
Device Solutions Division of Samsung Electronics

DIT Center builds and runs the nerve system for Device Solutions Division

· Enable Information Collection & Flow

· Enable Autonomous Operation

· Enable Learning & Knowledge Accumulation

· Enable Conscience Thinking and Building Strategies

JOIN US!

DIT Center is looking for outstanding talents who want to grow with us and become the leaders of data based digital transformation and the 4th industrial revolution. If you have any question about opportunities with us, please contact us at ditrecruit@samsung.com

Please use QR code or URL below for online support.
http://bit.ly/DS_DIT

[Apply online]

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DIT Center
Data & Information Technology Center

WHO WE ARE

DIT Center is responsible for the data and information technology infrastructure and solutions for DS (Device Solutions) Division, Samsung Electronics. As the CIO organization of DS Division, DIT Center leads data driven digital transformation of DS Division through developing and implementing top notch data and information technologies ranging from HPC data center, data analytics, AI to smart factory and business intelligence.

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Smart Factory

Our factories are most advanced and automated, being a notable example of 4th industrial revolution. A vast amount of data is collected from a large number of equipment and facilities, stored, and analyzed in real-time and non-real time. We envision the ultimate level of smart factories requires automation or significant assistance by computers for normal operations of the factory and, recovery from deviation from the normal state, and furthermore optimization of the manufacturing.

[Autonomous Production Sys.]

[System Control Tower]

Artificial Intelligence

AI is one of the core technologies for our data driven digital transformation. A wide variety of the state-of-the-art AI technologies are required. Deep learning, reinforcement learning, Bayesian machine learning and their combinations are used. The relevant AI technologies include computer vision, classification, deep learning based image processing, natural language processing, regression, probability density estimation, graph learning, large scale high dimensional time series analysis, prediction, planning, AI based design of experiment, and so on.

· AI, machine learning, deep learning, reinforcement learning
· generative models, causality, unsupervised learning, NLP, computer vision
· operation research, decision making, scheduling, planning, control theory and systems
· optimization, signal processing, time series analysis, statistics
· mobile robot, storage apparatus design, system simulation

Business Intelligence

DIT Center is also responsible for management information systems such as ERP, CRM, SCM and manufacturing planning. We improve our MIS systems and incorporate automation and intelligence into our daily business operations and management. One of the most scalable and sophisticated business intelligence capabilities are being developed including market and demand forecast.

Enterprise Architecture

The starting point of the enterprise architecture is the business architecture of the company to enable its business strategies. Then the enterprise architecture includes the application, data, and technology architecture to support the business architecture. It is one of the core bases for IT roadmap and IT governance.

· business process analysis, management information systems, business intelligence
· enterprise architecture

Software Engineering & IT Security

Software is an essential technology for our products and business innovations. DS Division has a great number of software developers in the workforce. High quality software is developed through incorporating advanced software engineering principles and tools. DIT Center helps the company's software engineers have the best software engineering practices.
It is critical to protect the information, the data, the IT systems and the employees from continuous security threats. Given the high importance of security, we incorporate most advanced network and information security technologies and check our systems to identify any security vulnerabilities.

Computational Science & Engineering

We have one of the best semiconductor TCAD simulation and material physics modeling expert groups. As the semiconductor technologies advances and the requirements for various material including material for displays and batteries get tougher, the role of computational science and engineering is ever increasing.

· software engineering, network security, white hacking
· solid-state physics/device modeling, atomic material motion, property and heat analysis (DFT/MD/MC), mechanic analysis (Abaqus, ANSYS, etc.)
· process/equipment modeling with CFD, Plasma

Data Center & Cloud

Our huge factories and R&D activities in addition to the business operation activities of tens of thousand global employees generate an enormous amount of data and requires data center scale computing power and storage capability every day.
We operate cutting edge HPC data centers and develop public cloud-like infra and platform services(IaaS, PaaS) on our private cloud to meet the internal demand in a scalable and flexible manner.

[Data Center]

Any type of users · Rule & policy Measure & Monitor · Access control & High performance · On-demand or scheduled · Any type of usage · Any Data in Lake or DW · Data quality & Relationship

Data Science & BigData

Data science and big data technologies are most important pillars of data drive digital transformation. Our exa-scale data requires a scalable and efficient big data management and analytics platform. It requires most advanced data science technologies to realize our smart factory and business intelligence vision . There are ample opportunities to play with BIG real world industry data and to develop platforms for it.

Computer/Network Architecture

We design the network architecture for our global IT infra and data centers and experiment innovative computer architecture with our latest chip products.

· data science, data architecture, data storage/management/analytics platform
· real-time data processing, data streaming
· cloud SW stack, DevOps, IaaS, PaaS, SaaS
· data center design, high-performance computing
· computer architecture, computer networking