1962

SAHM SHIN

ENGINEERS INC.

Technology for
Humans and the Environment

1962

SAHM-SHIN ENGINEERS, INC.

We Build
Next Generation

About Us

SAHM-SHIN ENGINEERS INC

CEO Message

Established in 1962 to provide mechanical engineering services during South Korea's period of rapid urbanization, today Sahmshin retains a team of dedicated design and engineering professionals. Having withstood the test of time and market volatility, Sahmshin is proud to be the frontrunner in the industry. As South Korea's leading mechanical engineering consulting firm, Sahmshin boasts extensive project experience and a stellar track record that can ensure the satisfaction of any client.

At Sahmshin, engineers always bear in mind the challenges that Sahmshin's founders faced, including a distinct lack of resources, and over which their passion prevailed. Indeed, that same passion has guided our firm for more than five decades. Sahmshin's core mission is "To create value for clients and constantly renew ourselves to adapt to rapidly changing social and business environments."

By combining technology and innovation, Sahmshin embraces next-generation technologies that allow buildings to perform better and smarter. We actively pioneer knowledge of and practice in green technologies by offering unique knowledge-based simulations and creative solutions on different projects. Sahmshin's unparalleled combination of engineering expertise and innovation has won the trust of architects and owners of many of South Korea's award-winning buildings. Our portfolio includes nearly every type of project, from high-rise office buildings, hotels, retail and exhibition centers, health care facilities, and sports and leisure venues to education institutes, residential buildings, laboratories, and data centers.

Sahmshin's recent active expansion into international markets has included projects in Qatar and Cambodia, and we are proud to support and cooperate with clients anywhere in the world. Our team of experts is confident that it can provide solutions for the harshest climate and respond to project challenges in the most difficult of locations.

Jung, Jong-Rim, PE, Ph.D

Our Values

Customers
Customer Satisfaction

Excellence
Achieve high-efficiency at low-cost

Trust
Reliable company

Marketable
Supply the best product to reflect the needs of the market

Change
Actively respond to changes and Seek to challenge

About Us

The use of sustainable energy solutions,
providing a healthy earth and happiness of the human race.

Work Experience

- 55 years of experience
- HVAC system design
- Plumbing design
- Building information modeling (BIM)
- Certification (e.g., LEED, G-SEED)
- Consulting (e.g., building services, energy, and CFD)

Projects

- Projects in HVAC & plumbing (1,100+)
- Projects in energy consulting (300+)
- Certified projects (50+)
- Overseas projects completed in 6 continents & 8 countries
- Building service engineering (40+ million m^2, 1.7+ million m^2/yr)

Awards

- Projects in HVAC & plumbing (1,100+)
- Projects in energy consulting (300+)
- Certified projects (50+)
- Overseas projects completed in 6 continents & 8 countries
- Building service engineering (40+ million m^2)
- Building service engineering (1.7+ million m^2/yr)

Clients

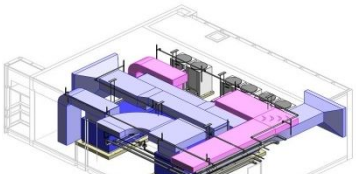
- 10+ Government agencies
- 40+ R & D institutes
- 20+ Construction companies (e.g., Samsung and Hyundai)
- 60+ Architectural firms (e.g., Samoo and Heerim)
- 100+ Partners

Industry Organizations

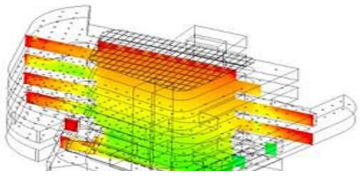
- ASHRAE
- KENCA (member states of FIDIC)
- SAREK (11 years)
- KARSE (15 years)

HVAC

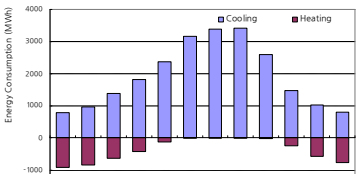
Plumbing



BIM



CFD



Energy analysis

Certification

Firm Profile

SAHM-SHIN ENGINEERS INC

- HVAC Design
- Heating and Cooling
- Remodeling
- Plumbing Design
- Renewalbe Energy Design
- Building Information Modeling (BIM)

Mechanical System Design

Customer Needs

- **Saving**
  Facilitates cost reduction.
- **Prestige**
  Confers value and differentiation.

SAHM SHIN

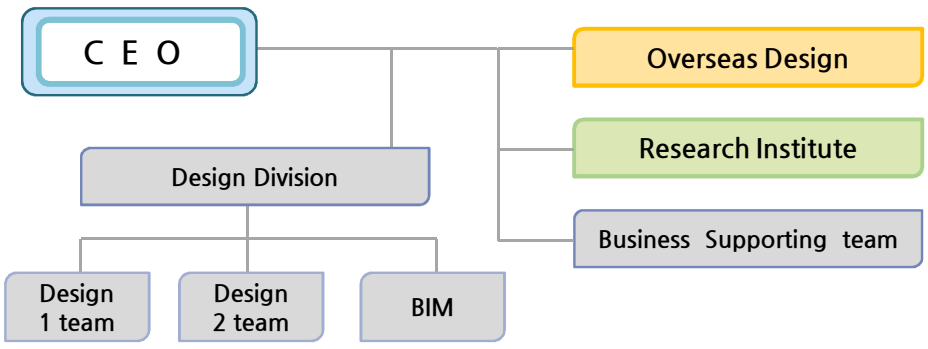
Customer Satisfaction

Lower cost and more value buildings and companies.

Benchmarking

- Database
  - 1,100+ HVAC & Plumbing Projects
  - 300+ Energy Consulting Projects
  - 50+ Certification Projects
- Standard & certificates
  - ICC, ASHRAE, IBC, etc
  - AIA Specification
  - Estidama Pearl Rating System
  - LEED
  - Green Star
  - HQE certificate
  - G SEEED

Corporate organization



Firm Profile

About Us

Specializing in building service engineering and ecofriendly consulting services, we remain dedicated to creating buildings of the highest quality and value, all with outstanding energy-efficiency for clients and their customers.

Mobilizing our originality, technology, and accumulated experience, we strive our utmost to achieve customer satisfaction. We provide comprehensive solutions for building service engineering, building system performance analysis, and ecofriendly engineering by analyzing and realizing elements of energy efficiency, water conservation, comfortable thermal environments, the optimum selection of material and equipment, and carbon emissions reduction.

Our top goal is to manage each project organically with all members of the company and to carefully analyze the requirements of all interested parties with quality engineering and consulting services that meet customer needs.

Benchmarking

Our database represents data on key technology and construction costs from thousands of diverse products created during the past 52 years. When beginning a project, we identify a matching project from the database and take advantage of various proven data regarding available technology and construction costs.

That process provides project owners and engineers with satisfactory information about project variables from the early stages of design in order to cultivate clients' trust throughout the design stage.

We have benchmarked the standards and AIA specifications adopted by the International Code Council, ASHRAE Standards, and British Standards to provide the best design documents for each country. We analyze and manage all processes related to certification for our customers in order to choose the most innovative ecofriendly elements.

Mechanical System Design

We provide technical solutions that consider both environmental and commercial aspects, engineers who have been awarded national licenses in South Korea, and an array of resources gathered from various projects. The engineering team reviews the exterior of the building, its elevation, its orientation, and its layout in the early stages in order to provide the best plan for energy savings and a comfortable indoor environment.

To identify more advanced engineering solutions for the benefit of customers, we work with highly experienced experts who study and develop the best possible engineering plans to provide special services for every process, from the basic stages of engineering to completion.

Energy Consulting

We perform energy analysis and modeling to provide solutions for major design issues, optimize building performance variables, and verify the impact on architectural and building mechanical system changes.

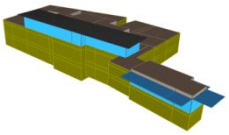
We analyze overall energy conditions to verify the standards and requirements of each country and apply highly advanced analytical tools for dynamic energy simulation and computational fluid dynamics.

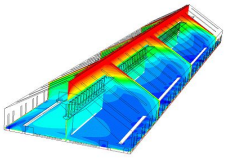
We interact with international energy organizations, including ASHRAE, CIBSE, and IBPSA, in developing the world's foremost energy analysis methods.

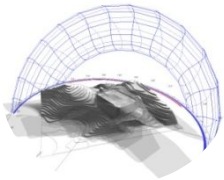
Mechanical System Design

Sahmshin has designed a range of buildings—government buildings, hospitals, schools, exhibition venues, sports centers, high-rise buildings, and data centers—all by paying close attention to building's classification by heat source, HVAC, and plumbing. To design a heat source, we take into account the building's heat load and energy demands and perform LCC analysis to select an economical and reasonable heat source plant. We plan HVAC design based on HVAC zoning, air flow rate balance, and the comfort of occupancy in the offices, open spaces, hospital rooms, or data centers, whatever the case may be. Our plumbing designs consider the stable supply of water and reduce the use of water resources by reusing rainwater and grey water. Sahmshin provides reasonable solutions to address various challenges, including user-centered indoor environment optimization technology for health and quality of life, the optimal use of renewable energy and alternative energy, zero energy buildings, smart buildings, high-rise building technology, energy-saving through remodeling, and 3-D design to assess process interference in order to save time.

Energy Consulting







To save on energy consumption, it is necessary to provide comprehensive consulting services in the planning stage based on expertise in various fields. Our services include the selection of an optimal orientation of buildings via climatic building mechanical data analysis, the optimization of exterior insulation, the choice of facility systems considering the use and operation of the building, the application of high-efficiency equipment and lighting fixtures, and the implementation of renewable energy system designs.

Currently, Sahmshin has provided consulting services on more than 300 projects and works with numerous experts who can apply various effective interpretation programs for reliability (e.g., Trace700, E-Quest, Trnsys16, EnergyPlus, Fluent, and Ecotect).

We also provide various services for LCC analysis regarding the economic value of systems, CFD analysis for the feasibility review of HVAC systems, sunlight analysis, and fire and evacuation analysis for fire safety.

Overseas activities

Since its establishment in 1962, Samshin has led the design of South Korean machinery facilities and completed several distinguished projects overseas. Since 1978, Samshin has completed more than 15 overseas projects, ranging from the reconstruction of an opera house in New York, NY, USA, to the recent national museum in Kinshasa, D. R. Congo. Recently, given the decline of South Korean construction and the global economy, Samshin has prepared to undertake overseas projects and successfully completed projects, including the abovementioned.

SAHM-SHIN ENGINEERS,INC

Commissioning

Commissioning refers to engineering services aimed at preventing the waste of time and financial resources due to additional construction by examining the function, performance, and operation requirements of building systems, as well as design intentions to identify problems with the systems.

Plan & Design

- **OPR preparation**
  (Owner's Project Requirements)
- **BOD preparation**
  (Desing Standard)
- **SOO preparation**
  (Equipment and system) operation manual)
- **PFC preparation**
  •(Equipment installation and possible checklist)
- **FTP preparation**
  •(System function and performance test procedure)

Construction & Completion

- **Site inspection**
- **Review of submitted documents**
- **PFC perfrom**
  (Equipment installation and functional checklist)
- **Test working**
- **TAB inspection and confirmation**
- **FTP perfrom**
  (System function and performance test procedure)
- **Driving manager training**

Education & Trasiton

- **Writing system manuals**
- **Final report preparation**
- **Seasonal test**

Commissioning has been promoted via efforts to apply ecofriendly ideas and materials and reduce energy use. Various complex functions have been added, and the importance of the indoor environment has been prioritized, so that only the function and performance now need confirmation. In response, specialist teams are participating in commissioning by collaborating on efforts that emphasize human communication and understanding.

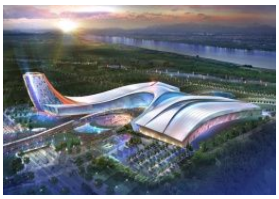
Project History



2001 –2014

- SK Chemical, Songdo I-Tower
- Sejong Center for the Performing Arts
- Sejong Lease Government Office Building
- Yangpyeong Rehabilitation Hospital

2006 –2010



- Korea International Exhibition Convention Center, Stage 2


2001 – 2005

- SK Telecom Euljiro Building,
- Kangwon Land (Casino, Hotel)

1996 – 2000


1991 – 1995

1986 – 1990

- Korea advanced institute for science and technology (KAIST)
- National Police Hospital, War Memorial of Korea

- Jamsil Lotte World and Hotel

1980 – 1985

- Gwacheon Government Complex


1970 – 1980

- The National Assembly
- The Bank Of Korea, Annex
- Korea Minting and Security Printing Corporation

1962

- SAHM-SHIN Engineering, Inc.

We Build
Next Generation

Project Experience

SAHM-SHIN ENGINEERS INC

For more than a half-century, Sahmshin has been dedicated to satisfying the needs of clients and to taking responsibility for the final products. To meet clients' preference for service providers who can identify solutions to various possible problems and develop outstanding ideas while listening to yours, our employees provide reliable services and guarantee to furnish design documents with the most appropriate design elements within budget.

Total Projects

+1450

As a reliable design and consulting expert,

we complete on-time solutions

based on technological excellence and responsibility.

Commercial

Office building is the type of building that SAHM-SHIN designed most and we designed about 350 national public institutions, offices, and high-rise buildings. Based on our accumulated know-how and experience, we considered the characteristics of workplaces and local conditions and reflected them on the design and applied various active technologies for greenhouse gas emission reduction and energy-efficient.

Projects
+350

1962–1969
- The National Assembly Building
- UNESCO House
- The Blue House Annex 2

1970–1979
- Prime Minister's Annex
- Kyobo Headquarters
- National Railroad Administration west building

1980–1989
- KEPCO Jeonju Branch
- Korea Energy Management Corporation
- Ansan City Hall

1990–1999
- Government Complex
- Daegu Metropolitan Police Agency
- The Korean Chamber of Commerce and Industry

2000–2014
- KEPCO Headquarters
- Songdo I-Tower
- Pangyo Techno Valley

▪ Song-do I-Tower

Location: In-cheon, Korea | G.F.A: 85,660.22㎡ | Floors: 33F_B2F | Design: 2010 | Architects: Haeahn

The VAV system was selected as a primary air distribution system to increase the use of workspaces and correspond to heating–cooling loads at specific bearings via a modular plan that considered variability. We reduced power for transportation by applying a large temperature difference and a primary–secondary pumping system, as well as reduced heating, cooling, and hot water energy through geothermal and solar heating.

We Build
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SAHM-SHIN ENGINEERS,INC.

Hotel and Resorts

We need building service system to respond to the changing urban culture; to reflect the needs of users and to increase efficiency and profitability. SAHM-SHIN reflected following plans as to respond to hotel's demand of service system. To save operating and maintenance costs of hotel, we suggested active utilization of renewable energy and optimal heat source through LCC analysis. Fire & Evacuation plan is performed for safety of guests and HVAC plan according to using time and purpose is performed for comfortable of occupants.

Projects
+30

1962–1969
- Hanil Hotel

1970–1979
- Lotte Hotel
- Busan Beach Hotel
- Hyatt Hotel

1980–1989
- Jeju Green Villa Hotel
- Gyeongju Tourism Hotel
- Icheon Miranda Hotel

1990–1999
- Second Lotte World and Hotel
- Asan Hot Spring Tourist Hotel
- Plaza Hotel

2000–2014
- Kangwon Land High 1 Resort
- Kangwon Land Casino Hotel
- Songdo SC Hotel

▪ Harbor park hotel

Location: In-cheon, Korea | G.F.A: 14,015.9㎡ | Floors: 15F_B2F | Design: 2006 | Architects: Mooyoung

We provided appropriate plan for hotel business that has complex accommodation characteristics. By considering the load of accommodation and complex building, we divided the number of equipment. We reduced heating and cooling energy consumption through renewable energy and efficient equipment. To improve the comfort of the room, we applied ceiling FCU which is easy to control and through CFD, we verified actual comfort.

Retail

Commercial buildings have large spaces and it is important to respond to the actual variability that happens around the building. Also, it needs to respond to the load change due to the inconsistent number of entering and exiting sellers and buyers. SAHM-SHIN accumulated know-how from designing more than 50 commercial buildings and we reflected following on our designs. We increased the convenience through HVAC plan for each operation time period and came up with a primary system plan to respond to the load changing and considered outdoor air flow rate control to improve the indoor air quality.

Projects
+50

1962–1969
- Cosmos Department Store
- Dongdaemun Market

1970–1979
- Yeongdeungpo Private station shopping center
- Mapo district 22 redevelopment
- Uijeongbu underground shopping center
- Jamsil underground shopping center
- Busan underground shopping center
- Koreana Department Store

1980–1989
- Lotte Department Store (Gangnam)
- Agricultural and Marine Products Wholesale market
- Shinsegae Department Store

1990–1999
- Garak Market Modernization Project
- Songdo Science Village
- Garden Five

2000–2014

▪ Song-do science village street mall

Location: In-cheon, Korea | G.F.A : 219,495.75㎡ | Floors: 13F_B3F | Design: 2009 | Architects: DA group

Existing multiplexes have excessive load of lightning and latent heat and large spaces had imbalanced vertical direction temperature and low thermal comfort. Therefore, to solve such problem, this design selected HVAC methods that are easy to process excessive latent heat and fresh outside air. By locating supply diffusers at the floor and return grills at the ceiling, we prevented temperature stratification and improved thermal comfort.

We Build
Next Generation

Exhibition

We designed the largest exhibition facility and museum in Korea and have experiences from more than 50 places; we've had technology and know-how. Unlike normal buildings, exhibition buildings are spacious so HVAC and safety is important. Therefore, we've designed the facilities as following. Through optimized HVAC planning, we've solved temperature stratification and imbalances and through performance-based safety design, we've prioritized on life safety. In addition, we've planned the heat source plant considering the operating cost.

Projects
+50

1962 –1969
- Ethnic Cultural Center

1970–1979
- Seoul National University of Education, Concert Hall
- The National Folk Museum of Korea
- Museum of the National Comprehensive

1980–1989
- Jeonju Museum
- Independence Hall
- National Museum of Korea

1990–1999
- Pocheon Culture and Arts Center
- Gongju National Museum
- Daejeon EXPO

2000–2014
- National Museum of Modern and Contemporary Art
- Gwangju Exhibition and Convention Center
- KINTEX

▪ BEXCO (Busan Exhibition & Convention Center)

Location: Busan, Korea | G.F.A : 41,966.95㎡ | Floors: 4F_B2F | Design: 2009 | Architects: Heerim

BEXCO, Asia's premier exhibition and convention hub, saves on heating and cooling energy by using an ice thermal storage system powered by nighttime electricity and renewable geothermal and solar energy. By considering the characteristics of the building with so many large spaces, safety was verified via fire and evacuation simulation and free cooling and a hybrid ventilation system applied for an optimized HVAC system.

Healthcare

Unlike other buildings, the energy consumption of hospitals can exceed 600 kWh/m²·y. At the same time, plans for heat sources and pollution-prevention systems are critical for spaces such as operating rooms. Sahmshin considered all of those needs, as reflected in the building's design. We actively applied methods that reserve nighttime electricity and renewable energy and supplied continuous heat through emergency and additional heat sources. To prevent secondary pollution, we also applied HVAC zoning with different pressure and high-performance filters.

Projects
+70

1962 –1969
- Daejeon General Hospital
- Chuncheon General Hospital
- Jeonju General Hospital

1970 –1979
- National Veterans Hospital
- Korea University Wooseok Hospital
- Chungju Hospital

1980 –1989
- National Police Hospital
- Seoul St. Mary's Hospital
- Yeouido St. Mary's Hospital

1990 –1999
- Gwangju Veterans Hospital
- Daegu Catholic University Medical Center
- Ajou University Hospital

2000–2014
- Pusan National University Yangsan Hospital
- Maritime Medical Center
- Seoul Medical Center

▪ Yang-pyeong Rehabilitation Hospital

Location: Yang-pyeong, Korea | G.F.A : 42,506.61㎡ | Floors: 6F_B1F | Design: 2011 | Architects: Baum

For the nation's first subacute rehabilitation hospital, we considered the type of patients and methods in identifying ways to save energy. We strengthened all of the sanitary fixtures and accommodated high noise standards, increased the amount of fresh air from outside, and actively applied solar and geothermal heating and exploited unused and natural energy.

We Build
Next Generation

Sports and Leisure

As large facilities, stadiums require not only detailed safety plans, but also optimal air control methods for the comfort of athletes and fans. In Sahmshin's experience with designing 70 sports-related buildings, we have accumulated extensive knowhow and technology. Based on building analyses, we have selected the best heat source systems and improved indoor air quality via innovative ventilation. We also established optimal emergency plans after fire and evacuation stimulations and even built fire extinguishing facilities.

Projects
+70

1962 – 1969
- Taeneung national training center
- Anyang Country Club

1970 – 1979
- Wonju Gymnasium
- Korea Racing Authority
- Olympic Stadium

1980 – 1989
- Pohang University of Science and Technology, Gymnasium
- Olympic Park
- Busan Ballpark

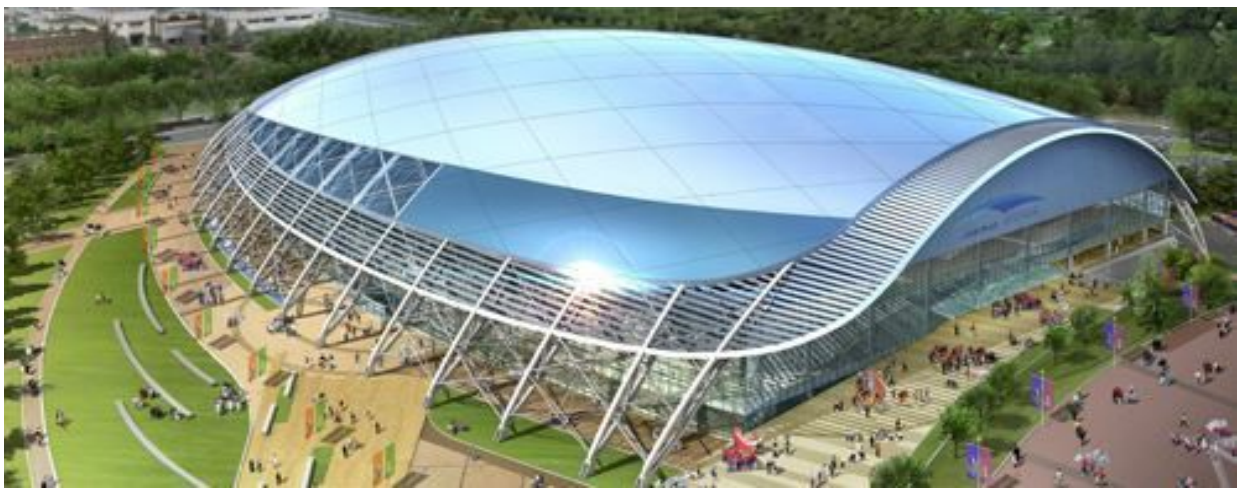
1990 – 1999
- Seoul World Cup Stadium
- Jamsil Gymnasium
- Lotte Sky Plaza

2000 – 2014
- Ulsan Ballpark
- Incheon Asian Game Stadium
- Cycle Racing dome stadium

▪ Go-yang gym

Location: Go-yang, Korea | G.F.A : 39,370.75㎡ | Floors: 3F_B1F | Design: 2009 | Architects: Mooyoung

Multipurpose indoor stadiums such as indoor sports centers and swimming pools are designed to enhance performance and ensure people's safety. To improve air circulation and thermal stratification, we applied a macro HVAC method and secured reliability by complying with fire extinguishing codes specific to the facilities' spatial characteristics.



Education

In designing 130 educational facilities, Sahmshin has developed robust technology and knowhow for ensuring ecofriendly green campuses. In those facilities, we actively save air-conditioning energy through a heat recovery system, save water resources by recycling storm water and grey water, and actively use renewable solar, photovoltaic, and geothermal energy.

Projects
+130

1962 –1969
- Yonsei University Assembly Hall

1970 –1979
- Ajou University Education school
- Pohang University of Science and Technology library
- Gyeongsang National University Agricultural college
- College of Engineering Seoul National University
- Korea University Science Library
- Yonsei University Library

1980 –1989
- College of Administration Ajou University
- College of Engineering Yonsei University
- Milyang Industrial University science school

1990 –1999
- Korea National College of Agriculture and Fisheries
- Daegu Gyeongbuk institute of science and Technology
- Ulsan National Institute of Science and Technology

2000 –2014

▪ UNIST (Ulsan National Institute of Science and Technology)

Location: Ulsan, Korea | G.F.A : 101,293㎡ | Floors: 15F_B3F | Design: 2013 | Architects: Samoo

UNIST considered the characteristics of the educational as well as research and laboratory facility to design a building service system. To reduce the operating cost of the school, we implemented renewable geothermal energy and recycled gray water for cleansing water. The research and laboratory facilities installed equipment for emergencies, and for seamless utility supply, we designed a central system.

We Build
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Residential

Sahmshin has designed more than 110 apartment buildings and applied innovative ideas to improve the quality of life. We installed hood exhaust systems to solve the problem of discomfort caused by air intoxication from the kitchen, and with hybrid ventilation, we reduced pollution in the parking area. To create a comfortable thermal environment, we also installed temperature control for individual rooms and radiant floor heating for bathrooms.

Projects
+110

1962 –1969

1970 –1979
- Daegu Foreign Apts.
- Banpo Complex 3 Apt.
- Yeouido Sibeom Apt.

1980 –1989
- Mokdong Employee Apt.
- Joonggyedong Apt.
- Kangwon National University Professor Apts.

1990 –1999
- Ministry of National Defense Bachelor accommodation
- Seoul Hwigyeong Apt.
- Wooseong Boramae Apt.

2000 –2014
- Bukmyeon Gamgae siyeong Apt.
- Ganggyo New Town Edu- Town
- Eunpyeong new town Apt.

▪ Gwang-gyo New City A-12B/L

Location: Gyeong-gi, Korea | G.F.A : 278,295.81㎡ | Floors: 35F_B2F | Design: 2009 | Architects: Mooyoung

To create ecofriendly apartments that unite nature and education, we used renewable energy to reduce air-conditioning and heated water system energy, and to save water resources, we applied a state-of-the-art storm water recycling system. For residents, we installed bidets and aluminum thermal pads for heating efficiency and improved maintenance and convenience through automatic telemetering.

Industrial, Laboratory

Sahmshin has designed approximately 50 research facilities, the key points for the design of which were as follows. To prevent cross-contamination, we applied pressure zoning according to clean class, separated air intake and exhaust, and used durable, corrosion-resistant equipment and material that can be used year-round. To provide the best research environment, we followed international guidelines such as AAALAG and GLP facility standards.

Projects
+50

1962 –1969
- Korea Institute of Science and Technology

1970 –1979
- Korea Research Institute of Standards and Science
- Kyungpook Rural Development Administration
- Agency for Defense Development

1980 –1989
- Korea Electric Power Research Institute
- National Forensic Service
- National Technical Testing Laboratory

1990 –1999
- POSEC Institute of Technology
- Institute of Industrial Science and Technology
- Ajou University Energy Laboratory

2000 –2014
- Pangyo R&D Center
- SK Chemicals
- Jungeup Korea Institute of Toxicology

▪ Jeong-eup Korea Institute of Toxicology

Location: Jeong-eup, Korea | G.F.A : 12,630㎡ | Floors: 2F_1F | Design: 2006 | Architects: Yooshin

For a chemical laboratory designed for toxicity tests, we established a world-class laboratory environment according to Good Laboratory Practice Standards. Given the installation of a high-performance filter, the lab prevents cross-contamination and creates a clean environment, while due to a heat source system that ensures reliability, safety, and preliminary device operation, it provides an around-the-clock experimental environment.

We Build
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Datacenter

Given the increased use of information technology, the energy consumption of datacenters has recently steadily risen. To meet demands for energy savings and sustainable technology in data centers, green technology is necessary. Sahmshin has designed more than 12 data centers with diverse energy-saving technologies such as economizers, variable flow control, and free cooling systems. We have also established an optimal environment of data centers via energy and CFD simulation.

Projects
+10

1962–1969
- Head Office of Korean Exchange Bank, Computer Room

1970 –1979
- Daewoo Securities Data Center
- Kookmin Bank Data Center
- Korea Advanced Institute of Sci-ence Data Center

1980 –1989

1990 –1999
- Agricultural Cooperatives Data Center
- Busan Bank Data Center
- Cheong Bank Data Center

2000 –2014
- LG CNS IT Center

▪ LG CNS IT Center

Location: Seoul, Korea | G.F.A: 44,200㎡ | Floors: 12F_B4F | Design: 2004 | Architects: Changjo

By considering patterns of energy consumption at data centers, we have planned economizer cycles and free cooling systems and verified energy-saving consumption via energy simulation. To evaluate the aisle partition system's thermal performance in data centers for superior cooling efficiency, we have additionally performed modeling and simulated CFD.

BIM/Overseas

Building information modeling (BIM) is a technology that produces and manages all the information that occurs in various fields throughout the life cycle of the building from the initial conceptual design to the maintenance stage. BIM has emerged as an indispensable technology as the social trend increasingly prefers non-standard, large, and complex buildings. Samshin has been steadfast in its efforts to achieve the best performances of 13 designers since 2008. In line with this trend, Samshin has been steadfast in its efforts to achieve the best performance with its 13 design leaders since 2008.
Since its establishment in 1962, Samshin has led the design of South Korean machinery facilities and completed several distinguished projects overseas. Recently, given the decline of South Korean construction and the global economy, Samshin has prepared to undertake overseas projects and successfully completed projects, including the abovementioned.

Projects
+ 10
+ 15

1962~1999
- Manhattan Center
- SS Cibil Work
- Samawa Building
- Park Plaza Victoria Amsterdam
- University of Hawaii

2000~2004

2005~2009
- Daehanpaper business facility
- Paju Unjeong LH APT
- Yeosu Jungnim APT
- Hudigm Business Center ,Cambodia

2010
- Ncsoft alternative design

2011~2015
- Korea Engineering Consultants company building
- Meritz Gangneung Training Facility
- Complex Education Center ,Anseong
- Qatar 000 mention
- Qatar 00 villa

▪ Meritz Gangneung Training Facility

Location: Gangneung, Korea | G.F.A: 16,932.13㎡ | Floors: 6F_B2F | Design: 2013 | Architects : Shinhan

The work was performed in four phases. In Phase 1, the model was completed with the collaboration of architecture and electricity units. In Phase 2, problems among each type of work were visually confirmed, and in Phase 3, as part of an interference check, facility spaces were completed via duct rerouting and level adjustments of piping. In the final phase, construction drawings for construction work were created, and BIM works were optimized and supplemented.

We Build
Next Generation

T.A.B

▪ TAB + 88

Testing, adjusting, and balancing (TAB) assesses whether all environmental systems in the building perform as intended in the design, makes appropriate adjustments, balances the air and water distribution, adjusts the entire system to uphold design values, gauges the performance of each piece of equipment and automatic control, and measures noise and vibration.
The effects of TAB are:

- prevention of energy loss;
- highly efficient operation of equipment;
- efficient and systematic management of mechanical systems installed in buildings;
- extended life of equipment;
- prevention of problems during construction and installation
- possibility of evaluating the suitability of equipment selection.

Yonsei University Health System ,Sinchon

Seoul, Korea
Medical Facilities
11,191 m²

Namseoul UniversitySeongnam Culture & Sports Center

Cheonan, Korea
Physical Training Facilities
20,034 m²

Korea Stock Exchange

Seoul, Korea
Office Building44,219 m²

2008
- Ospe ,Dongseon-dong
- Grand Department Store , Yeongtong
- Yonsei University Health System ,Sinchon

2007
- KTF Daejeon Company Building
- Yeongdong Branch of Cheongju District Prosecutor's Office
- Yongin Sungbok Apartment

2006
- The Bank of Korea Chungbuk Branch

2005
- Hwasung Dongtan 3-6 Block Apartment
- Introducing Incheon Metropolitan City Museum
- Dong-A Pharmaceutical
- Sports Science Town of Konkuk University
- Korea Meditech Industry

2004
- Ewha Shinsegae Building Room
- Yonsei Advanced Science & Technology Center

2003
- Kookmin Bank : Call Center in Daejeon
- Bucheon-si Sang-dong Summit Ville APT Heating System Diagnosis and TAB
- Heyri Movie Studio TAB Services

2002
- Namseoul UniversitySeongnam Culture & Sports Center
- Taeyoung Yongin Suji Desian APT
- Taeyoung Yongin Mabuk-ri Desian APT
- Daegu City Subway Line No. 2, Section 2
- Cheongju Underground Shopping Center Remodeling Diagnosis
- Ohu replacement construction in new Building of The Bank of Korea
- Daegu Underground Shopping Center Remodeling Diagnosis

2001
- Severance New Hospitals , Sinchon
- Ssangyong Global Building
- Seoul High Court
- New Core Department Store , Bundang
- Hyundai Apartments in Daesang Town ,Banghak-dong
- The Bank of Korea Incheon Branch
- Hanhyo Building
- Samsung Life Company Building, Nampo Port
- KAL Training Institute
- Print Combination Building
- SKC Building
- Taihan Texile Yeouido Company Building

2000
- Hanwha General Insurance Company Building
- MBC Yeouido Company Building
- Busan National University Hospital
- The Bank of Korea Jeonju Branch
- Dongseo Securities Yeouido Company Building - Prime Minister's Secretariat Conservation Diagnosis
- Gwanjeo-dong Korea National Housing , Daejeon

1999
- Korea Stock Exchange
- Nonghyup Company Building
- Lotte Shoppin, Gangnam Branch
- Sejong Center for the Performing Arts
- Korea Electric Power Corporation Company Building
- local administration hall
- Yeungnam University Cesntal Library

1998
- The Maeil Shinmun Company Building

1986
Daewoo Corporation

Mechanical design

Since 1962

Creative

R&D Center

Sustainable

Solution

Low Energy

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