

ASPP

서울대학교 아세안스마트시티전문가과정

ASEAN Smart City Professional Program (ASPP)
Seoul National University



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Welcome Message



Welcome to the ASEAN Smart City Professional Program,
Seoul National University!

We are pleased to introduce you to ASEAN Smart City Professional Program (ASPP) which is supported by the Government of Korea through ASEAN-Korea Cooperation Fund (AKCF) to Smart City professionals working for various public organizations. SNU ASPP is an international scholarship and education program within one of the transdisciplinary programs of the College of Engineering, the Technology Management, Economics and Policy Program (TEMEP) of Seoul National University.

Big data technologies have become essential to the functioning of cities. Consequently, urban processes and practices are becoming highly responsive to a form of data-driven urbanism that is the key mode of production for smart cities. Such form is increasingly being directed towards tackling the challenges of sustainability in the light of the escalating urbanization trend. It is important to understand how the emerging data-driven smart city is being practiced and justified in terms of the development and implementation of its innovative applied solutions for sustainability.

In the light of the opportunities and challenges posed by rapid urbanization and digitalisation, ASEAN Member States have the common goal of smart and sustainable urban development in order to improve the lives of ASEAN citizens, using technology as an enabler. Big data technology is part of the Smart City Ecosystem where data is collected from Smart City components and analyzed for informed decision making in city planning and city management.

Proposed capacity building program includes two tracks: a short-term training program for ASEAN Smart Cities Network member cities and a long-term training program, regular master's course for ASEAN Member States. Considering different conditions and target areas of ASEAN, customized seminar and project building activities will be designed. The program is open to government officials or professionals who specialize in Smart City from different countries around the world.

This project is not only cultivating smart city experts for ASEAN Member States, but also building the ASEAN smart city knowledge sharing platform contributing to enhance better mutual understanding across cultures so that it can support the implementation of Master Plan on ASEAN Connectivity (MPAC) 2025.

Prof. Jun-Seok Hwang

Director, ASEAN Smart City Professional Program (ASPP)

Director, SNU Global R&DB Center

Professor, Technology Management, Economics and Policy Program (TEMEP) College of Engineering

Seoul National University

Congratulatory Message

INTRODUCTION

A Tradition of Excellence Honoring Public Service Pioneering Knowledge

Welcome to Seoul National University,
Korea's first national university and global
leader of higher education.



About SNU

Seoul National University honors the ideals of liberal education and aims to teach students a lifelong love of learning that will form the basis for continuous personal growth.

At the same time, it is committed to preparing students to work and live in an increasingly competitive global environment. As South Korea's first national university, Seoul National University has a tradition of standing up for democracy and peace on the Korean peninsula. The graduates have long served as public servants in key positions of the Korean government. In teaching, research, and public service, Seoul National University continues to set the standard of excellence. The mission of Seoul National University in the twenty-first century is to create a vibrant intellectual community where students and scholars join in building the future. As Korea's leading research university, Seoul National University is committed to diversifying its student body and faculty, fostering global exchange, and promoting innovative research in all fields of knowledge.

General Information

HISTORY	Founded in 1946 as the first national university of Korea
CAMPUS	The largest campus in Seoul
COLLEGES	15 Colleges, 1 Graduate School, and 11 Professional Schools
FACULTY	2,609 full-time faculty members
STUDENTS	16,511 undergraduate students and 11,591 graduate students
RESEARCH	Globally 15th in terms of SCI Paper Publications

29th Position in the 2023 QS World University Ranking

- SNU took the 29th place in the World University Rankings in 2023
- The QS World University Rankings, published annually by a British company called Quacquarelli Symonds, has been recognized as one of the most influential rankings of the world's top universities since its first publication in 2004

About ASPP

The Chairman's Statement of the 20th ASEAN-ROK Summit in November 2018 captured affirmation by ASEAN Leaders and President of Republic of Korea on the need to improve quality of living in cities in response to rapid urbanization, and pursue cooperation in sustainable urbanization and smart cities. In ASEAN, smart cities and sustainable urbanization are pursued through two key Initiatives, namely the ASCN and ASUS under MPAC 2025.

As a follow-up, on 25 November 2019, the Ministry of Land, Infrastructure and Transport of the Republic of Korea (ROK MOLIT) hosted the ASEAN-ROK Ministerial Meeting on Smart City in Busan. The Meeting agreed to pursue cooperation on sustainable urban development and smart city, and jointly consider ways to integrate technological advancement made in areas such as smart urban development, smart housing, smart safety, smart mobility and smart water.

Hence, this proposed project seeks to further operationalize the commitments expressed in the above-mentioned occasions. ASEAN Smart City Professional Program (ASPP) which is funded by ASEAN-Korea Cooperation Fund (AKCF) to Smart City professionals working for various public organizations.



About ASEAN

The Association of Southeast Asian Nations, or ASEAN, was established on 8 August 1967 in Bangkok, Thailand, with the signing of the ASEAN Declaration (Bangkok Declaration) by the Founding Fathers of ASEAN: Indonesia, Malaysia, Philippines, Singapore and Thailand. Brunei Darussalam joined ASEAN on 7 January 1984, followed by Viet Nam on 28 July 1995, Lao PDR and Myanmar on 23 July 1997, and Cambodia on 30 April 1999, making up what is today the ten Member States of ASEAN.

<https://asean.org/>

About ASCN

At the 32nd ASEAN Summit on 28 April 2018, the ASEAN Leaders established the ASEAN Smart Cities Network (ASCN). The ASCN is a collaborative platform where cities from the ten ASEAN Member States (AMS) work towards the common goal of smart and sustainable urban development. The 26 ASCN Pilot Cities are: Bandar Seri Begawan, Battambang, Phnom Penh, Siem Reap, Makassar, Banyuwangi, DKI Jakarta, Luang Prabang, Vientiane, Johor Bahru, Kuala Lumpur, Kota Kinabalu, Kuching, Nay Pyi Taw, Mandalay, Yangon, Cebu City, Davao City, Manila, Singapore, Bangkok, Chonburi, Phuket, Da Nang, Hanoi, and Ho Chi Minh City. The Concept Note for the ASCN can be downloaded [here](#)

In the light of the opportunities and challenges posed by rapid urbanisation and digitalisation, the primary goal of the ASCN is to improve the lives of ASEAN citizens, using technology as an enabler. By focusing on our people, it adopts an inclusive approach to smart city development that is respectful of human rights and fundamental freedoms as inscribed in the ASEAN Charter. The networking of Smart Cities across ASEAN also contributes to enhancing mutual understanding across cultures.

The ASCN aims to facilitate cooperation on smart cities development, catalyse bankable projects with the private sector, and secure funding and support from ASEAN's external partners. To this end, 33 partnerships have been established thus far.

The first ASCN Governance Workshop was held from 22 to 25 May 2018 in Singapore, and was attended by delegates from the AMS, including the ASCN National Representatives (NRs), Chief Smart City Officers (CSCOs), and accompanying officials, the ASEAN Secretariat, as well as various government and private-sector agencies from ASEAN's external partners. The Workshop provided a venue for the ASCN members to draft their Smart City Action Plans (SCAPs) with guidance from experts, discuss the ASEAN Smart Cities Framework (ASCF), and network with external partners. The Information Paper on the Workshop can be downloaded [here](#).

The Inaugural Meeting of the ASCN was held on 8 July 2018 in Singapore, and the opening ceremony was graced by Dr. Vivian Balakrishnan, Minister of Foreign Affairs of Singapore. At the Meeting, the ASCN endorsed the ASCF and the SCAPs for the 26 pilot cities. The consolidated SCAPs can be downloaded [here](#) (The updated contact list is [here](#)). The ASCF was adopted by the Leaders at the 33rd ASEAN Summit on 13 November 2018 in Singapore, and can be downloaded [here](#). Moving forward, the ASCN is looking to develop more partnerships to improve initiatives for smart cities development in the region.

<https://asean.org/>

About AKCF

The Association of Southeast Asian Nations (ASEAN) is an intergovernmental body established in 1967 to promote collaboration and cooperation among member states, as well as advance the interests of the region as a whole.

In 1989, ASEAN and the Republic of Korea (ROK) established their sectoral dialogue partnership, which was followed by the launch of ASEAN-ROK Cooperation Fund (AKCF) in 1990 to further strengthen the ASEAN-ROK relations. AKCF has supported more than 400 projects agreed by both parties, including technology transfer, economic development, human resource development, and people-to-people exchanges.

Mission

Collaborate : Bridge people to collaborate for the realization of ASEAN-Korea community.

Communicate : Communicate knowledge and expertise for the prosperity of people in ASEAN and Korea.

Coexist : Facilitate the identities of ASEAN and Korea to coexist peacefully

<https://www.aseanrofund.com/>

ASPP Network

ASEAN Smart City Professional Program (ASPP) Network

Participating ASEAN Member States: All (10 countries), ASCN (26 Cities)

- Total 52 participants (2 Smart City officials per each city) for short-term training per year
- Total 20 participants (2 Smart City officials per each member country) for long-term training (Master's course) per batch (2 years)
- Number of Participants can be increased or adjusted after the consultations with the ASEAN Secretariat and ASCN members

In Total, 260 participants for short-term and 40 participants for long-term training for 5 years.



Program Overview

ASPP (ASEAN Smart City Professional Program)

- Project Periods : January 1, 2023 ~ December 31, 2027 (5 Years)
- ASEAN Smart City Network (ASCN) - specific program - master's and short-term training courses - for students from ASEAN member states
- Funded by ASEAN-KOREA COOPERATION FUND
- Sponsoring Organization : ASEAN SECRETARIAT
- Implementing Organization : SNU GRC (Seoul National University Global R&DB Center)
 - ※ ASPP offers cutting-edge transdisciplinary graduate course of Smart City Global Convergence program which is one of the interdisciplinary programs at SNU.

Project Objective

- Capacity building for ASEAN Member States and ASEAN smart city knowledge sharing platform
- Through this project ASEAN Member States will enhance leadership development and knowledge networking which enables countries to change, flourish and grow. ASEAN Member States and ASCN member cities will achieve their competence through this project.
- Building the ASEAN smart city knowledge sharing platform contributing to enhance better mutual understanding across cultures so that it can support the implementation of Master Plan on ASEAN Connectivity (MPAC) 2025.
- DB establishment by platforming trainee-centered community, composition and operation of expert network

Mission/Vision

- Synergizing the efforts of the ASEAN Smart Cities Network (ASCN) and ASEAN Sustainable Urbanization Strategy (ASUS)
- Advancing cooperation on smart cities and sustainable urbanization development between ASEAN and ROK towards a more connected ASEAN region
- Establishing the basis of interchange among smart cities
- Educating International Technology Policy and Management Specialists as a global innovation leader
- Constructing an International R&DB Human Network based on the industrial, academic, and governmental sectors of each country
- Promoting the Global Technology Commercialization as a Digital Bridge by globalization
- Establishing R&DB global platform to strengthen leadership development and knowledge networking and international cooperation

Activities

Short-term training : Two weeks in May every year (online two days)

- Training Program design/plan
- Training/Project proposals/ Workshop
- Summary of the training

Long-term training Master's course

- Master's course plan
- 1st and 2nd batch operation
- Action plan from master's course participants

ASEAN-ASCN Smart city knowledge sharing platform building

- Smart City International Conference (every year)
- Webinar (twice a year)

Scholarship

SNU ASPP Scholarship includes the following:

[Admissions Guide]

Short-term Training Course

- Course Name :

- ASEAN Smart City Professional Program (ASPP) : Data-driven Smart City Planning Training

- Eligibility :

- Working-level officials and mid-level managers in charge at smart city-related organizations overseas

- Scholarship:

- A round-trip airfare: Two way fare (economy class based on GTS system)
- Per-diem and accommodation expenses
- Travel insurance

Master Degree Course

- Course Name :

- ASEAN Smart City Professional Program (ASPP) : Executive Master Program

- Eligibility :

- Mid-level managers who have experience in devising nationwide or citywide smart city action plans or are capable of playing a leading role in planning
- A bachelor's degree (for a master applicant)
- Nationality: applicant and parents both have Nationals of ASEAN member states

- Scholarship:

- Tuition fee: full tuition exemption (up to 2 years)
- Living expenses: 1,500,000 KRW per month for 2 years
- A round-trip airfare: Two way fare (economy class based on GTS system)
- National Health Insurance

- Selection Procedure

- Applicants submit applications (apply via e-mail grc@snu.ac.kr) and other documents to SNU GRC office
- 1st Document Screening
- 2nd Interview Screening
- Decision noticed

Contact

Administration Office of SNU ASPP

82-2-880-8855, 82-2-880-9141, grc@snu.ac.kr

Bldg.39, Room#133, Seoul National University, 1 Gwanak-ro, Gwanak-gu, Seoul 08826

Faculty



Junseok Hwang Professor

Director, ASPP, Global R&DB Center

Ph.D., Information Science and Telecommunications, University of Pittsburgh

- Technology Convergence Theory & Practice
- Knowledge Management
- Smart City Development



Jongsu Lee Professor

Ph.D., Engineering, Seoul National University

- Market Analysis
- Demand Forecasting for New Products
- Discrete Choice Analysis
- Evaluation of Market Structure and Regulation



Jorn Altmann Professor

Ph.D., Computer Science, University of Erlangen-Nuremberg, Germany

- IT Service Economics
- System and Network Management
- Economics of Grid Computing and Cloud Computing
- Network Science and Social Network Analysis



Yeonbae Kim Professor

Ph.D., Engineering, Seoul National University

- Technology Economics
- Energy and Environmental Economics
- Commercialization of Technology
- Statistical Analysis



Yoonmo Koo Assistant Professor

Ph.D., Engineering, Seoul National University

- Energy & Environment Policy
- Climate Change Policy
- Economic valuation & Feasibility Analysis
- Technology Diffusion & Adoption



Jina Kang Professor

- Strategic Management
- Entrepreneurship and start-up



Jeong Dong Lee Professor

- Technology-based new industry innovation policy theory and urban development case study in Smart City



Seongwoo Kim Assistant Professor

- Self-driving car
- Robot AI
- Digital manufacturing



Eunsuk Suh Assistant Professor

- System Engineering
- Product and Platform Architecture Design
- System Cost Analysis



Junsuk Kang Assistant Professor

- Smart Landscape Systems Development
- Analysis, Design and Optimization of Landscape Structures



Youngryel Ryu Professor

- Land-atmosphere interactions
- Exponential technologies
- Urban ecology



Heeyun Yoon Associate Professor

- Landscape planning
- Smart care and welfare



Dongkun Lee Professor

- Climate change
- Environment impact assessment
- Environmental restoration



Saehoon Kim Associate Professor

- Resource and Energy Economics



Jaeseung Lee Associate Professor

- Urban Design
- Traffic behavior
- GIS



Youngkeun Song Associate Professor

- Landscape ecological planning
- Environmental remote exploration
- Geographic information systems (GIS)



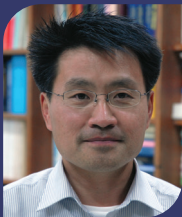
Yumi Lee Associate Professor

- Landscape Design



Wonwoo Lee Professor

- Smart City Administrative Law System



Ki-Bok Min Professor

Ph.D., Engineering, Royal Institute of Technology (KTH), Sweden

- Energy and Environmental Geomechanics
- Enhanced Geothermal Systems (EGS)
- Geological Disposal of Nuclear Waste
- CO₂ Geosequestration Geomechanics



Hyeok Jeong Professor

- Smart City Regional International Development
- Economic Growth
- Development Economy

EDUCATION

The objective of this project is to support capacity building of participants from ASEAN Member States. Participants will understand the background, necessity, and knowledge of data-driven Smart City, including the application of data analytics, social media and internet of things, through the courses, project development, workshop, and technical visit, and knowledge sharing platform including international conference, webinar, workshop and seminars.

To build ASEAN smart city knowledge sharing platform, an international smart city conference will be held annually, and webinars, workshops and seminars will be held several times. Through the knowledge sharing platform, project proposals and cooperation plans for cooperation between Korea-ASCN cities will be presented and shared.

Project Objective :

Capacity building for ASEAN Member States and ASEAN smart city knowledge sharing platform

Through this project ASEAN Member States will enhance leadership development and knowledge networking which enables countries to change, flourish and grow. ASEAN Member States and ASCN member cities will achieve their competence through this project.

Activities

output 1	Short-term Training : Two weeks in May every year(Online two days)
output 2	Long-term Capacity Building (Master's course) (2Years + 2Years): - The First Batch : September 1, 2023 ~ August 31, 2025 (2Years) - The Second Batch : September 1, 2025 ~ August 31, 2027 (2Years)
output 3	ASEAN-ASCN Smart city knowledge sharing platform building

Participating ASEAN Member States : All (10 countries), ASCN (26 Cities)

- In Total, 260 participants for short-term and 40 participants for long-term training for 5 years.

Operation :

- ASPP offers cutting-edge transdisciplinary graduate course of Smart City Global Convergence program (<http://ismartcity.snu.ac.kr>) which is one of the interdisciplinary programs at SNU
- The program focused on data-driven smart city offers in-class lectures and seminars, internships at companies, field trips, and participation in international smart city projects.

ASEAN-ASCN Smart city knowledge sharing platform building

- Composition: Conference for once a year, webinars for twice a year
- Smart City International Conference (Once a year)
 - Conference program planning / Conference promotion
 - Participation of global smart city experts
 - Hybrid conferences for once a year which will take place in-person, online and metaverse.
- ASEAN-ASCN Webinar
 - Webinar program planning / Participation of ASEAN-ASCN smart city experts
 - Co-hosted by ASPP and 10 countries, 10 times over 5 years
 - Online Webinars for twice a year

Establishment and operation of trainee expert database

- Establishment of trainee-oriented community platform and database
- Organization and operation of expert network

Degree Program

SNU ASEAN Smart City Professional Program (ASPP) offers cutting-edge graduate courses of Technology Management Economics and Policy Program (TEMPEP, <http://temep.snu.ac.kr>) which is one of the interdisciplinary programs at SNU. SNU TEMPEP offers a wide range of courses including engineering, economics, and administration-related areas. The unique educational program of SNU TEMPEP is designed to educate and train technology management policy professionals from various fields. The program offers in-class lectures and seminars, internships at companies, language training, workshops, and participation in international conferences. All lectures are taught in English for the international students.

[Master's Course Operation]

- (1) Long-term training program offers cutting-edge transdisciplinary graduate course of Smart City Global Convergence program (<http://ismartcity.snu.ac.kr>) which is one of the interdisciplinary programs at SNU
- (2) For the ASEAN specific smart city program, ASEAN smart city track will be operated within the Smart City Global Convergence Program
- (3) Master's course focused on data-driven smart city offers in-class lectures and seminars, internships at companies, field trips, and participation in international smart city projects.
- (4) During the academic year, annual workshop will be conducted in order for Smart City knowledge sharing among ASEAN Member States and international experts (For the details of the Master's course, an additional material is submitted)

[Alumni management]

- To build Alumni network by Social Network Program
- To participate in ASEAN smart city knowledge sharing platform

Proposed Long-term Capacity Building (Master's course) (2 Years + 2 Years):

The First Batch : September 1, 2023 ~ August 31, 2025 (2Years)

The Second Batch : September 1, 2025 ~ August 31, 2027 (2Years)

The following table gives simple information concerning the courses.

Curriculum



Short-term Training Program

The short-term training course is based on the blended learning method combination of on-line and offline program and it includes 4 parts: (1) lectures focused on the data-driven smart city in general but also covers practical issues including technologies, solutions, city planning and real cases via on-line platform; (2) smart city problem solving practices consulted by Korean experts; (3) wrap-up workshop for knowledge sharing between trainees after the lectures and project works; (4) site visit Smart city test-bed in Korea. The regular master's course is operated in conjunction with the Transdisciplinary Graduate Program in Smart City Global Convergence and International Technology Professional Program in Seoul National University. For this capacity building program, ASEAN specific track will be operated.

[Operation]

- Online/offline training
- Technical trip (site visit Smart city test-bed in Korea)
- Project building (Smart city problem solving practices consulted by Korean experts in both private and public sector)
- Wrap-up workshop for knowledge sharing between trainees after the lectures and project works
- Farewell

[Summary of the training]

* Lectures focused on the data-driven smart city in general but also covers practical issues including technologies, solutions, city planning and real cases as well as gender aspects;

- Module 1: Smart City Fundamentals
- Module 2: Smart City Solutions and Technologies
- Module 3: Korean and Global Cases and Practices of Smart Cities
- Module 4: Smart City Planning
- Module 5: Smart City Financing
- Module 6: Smart City Implementation

(For the details of the Short-term Training Course, an additional material is submitted)

Proposed Short-term Capacity Building Training Date (2 Weeks and 2 days(online):

1. Year 2023 Schedule

- Online: May 11, 2023 ~ May 12, 2023 (2 Days)
- Offline: May 15, 2023 ~ May 26, 2023 (2 Weeks)
- Onsite Training: May 15, 2023 ~ May 19, 2023 (5Days)
- Onsite Technical Trip: May 22, 2023 ~ May 24, 2023 (3Days)
- Onsite Project Building: May 25, 2023 (1Day)
- Onsite Workshop: May 26, 2023 (1Day)

2. Year 2024 Schedule

- Online: May 16, 2024 ~ May 17, 2024 (2 Days)
- Offline: May 20, 2024 ~ May 31, 2024 (2 Weeks)
- Onsite Training: May 20, 2024 ~ May 25, 2024 (5Days)
- Onsite Technical Trip: May 27, 2024 ~ May 29, 2024 (3Days)
- Onsite Project Building: May 30, 2024 (1Day)
- Onsite Workshop: May 31, 2024 (1Day)

3. Year 2025 Schedule

- Online: May 15, 2025 ~ May 16, 2025 (2 Days)
- Offline: May 19, 2025 ~ May 23, 2025 (2 Weeks)
- Onsite Training: May 19, 2025 ~ May 23, 2025 (5Days)
- Onsite Technical Trip: May 26, 2025 ~ May 28, 2025 (3Days)
- Onsite Project Building: May 29, 2025 (1Day)
- Onsite Workshop: May 30, 2025 (1Day)

4. Year 2026 Schedule

- Online: May 14, 2026 ~ May 15, 2026 (2 Days)
- Offline: May 18, 2026 ~ May 22, 2026 (2 Weeks)
- Onsite Training: May 18, 2026 ~ May 22, 2026 (5Days)
- Onsite Technical Trip: May 25, 2026 ~ May 27, 2026 (3Days)
- Onsite Project Building: May 28, 2026 (1Day)
- Onsite Workshop: May 29, 2026 (1Day)

5. Year 2027 Schedule

- Online: May 11, 2027 ~ May 12, 2027 (2 Days)
- Offline: May 17, 2027 ~ May 28, 2027 (2 Weeks)
- Onsite Training: May 17, 2027 ~ May 21, 2027 (5Days)
- Onsite Technical Trip: May 24, 2027 ~ May 26, 2027 (3Days)
- Onsite Project Building: May 27, 2027 (1Day)
- Onsite Workshop: May 28, 2027 (1Day)

(Short-term training schedule is tentative and subject to change.)

Research & Project

The research performed by the students is oriented at the development of novel technology-related policy, especially the cutting-edge ones, such as AI, Big Data, 5G and Smart City Technologies. In designing such policies, the students are required to demonstrate their ability to combine their knowledge of the above technologies with the understanding of economic, managerial and administrative principles. We aim at policies that, if applied, would result in increased industrial competitiveness.

Those of our students who come from the Government background provide us with an expert's insights, the students who have experience working in the industry share their practical business knowhow, while the purely academic students provide strong theoretical and logical support.

Upon finishing the basic coursework our students start doing research on a project of his or her particular interest. For this purpose, various project teams are formed. Such project teams consist of a professor who acts as the team supervisor of students. Each team regularly holds its own seminar in order to discuss research progress and address associated difficulties.

Smart City Theory and Strategy Research

- Research on diverse phenomena relating to the process of innovation, from knowledge
- A broad spectrum of studies on the professional perspectives on smart cities
- Practical know-hows and tips to build successful smart cities
- Real global examples of building smart cities
- Sharing its experiences with regional, national and global level smart city projects with experts in diverse areas

Smart City for Urban Sustainability

- Research on the future metro culture by planning and designing the smart city, by planning the innovative factors plugged into the big data, AI, and the smart city
- Analysis of changes in the future city and problems of the existing cities
- Research on the future urban life such as information communication, autonomous driving, artificial intelligence, big data, drones, etc.
- Main research fields: Urban planning, transportation planning, self-driving, information and communication technology, big data and AI

Organize Smart City International Conference

- Conference program design / Promote the conference
- Invite Global Smart City Experts
- Conference preparation
- Holding the conference

Organize ASEAN-ASCN Webinar (Online)

- Organize program and Invite ASEAN-ASCN smart city experts
- Holding the webinar

Artificial Intelligence and Knowledge Management

- Research on Connection between Artificial Intelligence and Knowledge Management in corporation and government
- Research on Cognitive computing to extracting knowledge from data and information
- Main research fields: Knowledge management, artificial intelligence, cognitive computing

Big Data Analysis for Decision Making Support System

- Research on Government strategy relating to Big Data analysis which support decision making support for solving public's problems
- Research on value creation cycle in data driven innovation environment for private and public sector using Big data
- Main research fields: Public data governance policy, data driven innovation

Mobile Communications Technology and Policy

- Studies regulations and policies on the management of telecommunication spectrum allocation
- Studies policies for business related to future technologies, and activation strategies for mobile carriers
- Research on regulation and business strategy related to the Internet industry
- Draws policy implications relating to the balanced development of the Internet service market by combining empirical data and model studies
- Analysis of various economic/social effects of new technologies related to the Internet
- Main research fields: Policies on telecommunication spectrum allocation, activation policies for the mobile telecommunications industry, fair competition, standardization policy, communications broadcasting regulation and policy, webonomics

Technical Commercialization

- Research on corporate strategy related to technology acquisition, patenting, and technology transfer
- Research on public policy and systems related to technical commercialization, such as the activation of technical commercialization, transfer of public knowledge, and intellectual property rights
- Main research fields: Technology transfer, technology financing, intellectual property rights

Converged Industries Direction Prediction

- Research on interactions between industries and regulation policy related to converging industries
- Analysis of trends in the changing relationships between organizations in competitive isomorphism, based on organizational ecology, changes in competitive composition, and in relation to regulation policy and changes in industrial environment
- Main research fields: Regulation policy, industrial structure, service predication

Converged Industries Research

- Research on the medium- and long-term policy implications of convergence, through systematic theoretical study and empirical analysis of converged industries
- Main research fields: Communication broadcasting services (cable Tv, IPTv, voIP), communication services, broadcast service-related fair trade regulation policy, media services price policy

Demand Forecasting for New Products and Marketing

- Research on consumer preferences, demand forecasting, and market strategy regarding high-tech products
- Research on new product development strategy and marketing for successful market diffusion of new products
- Main research fields: Demand forecasting for new products, analysis of consumer preferences, high-tech marketing

Knowledge and Network Theory

- Research on company results focusing on characteristics of knowledge and on cooperation networks
- Research on the application of network theory and methodology
- Research on the results of technological alliances focusing on institutions' ability to assimilate knowledge
- Main research fields: Technological innovation, network theory, alliance strategy, strategic alliance, technology alliance, absorptive capacity, networks of companies

Energy and Environment

- Research on corporate strategy relating to environmental management, the Climatic Change Convention, high oil prices, and the new age of the environment
- Research on national energy environmental strategies for sustainable economic development
- Main research fields: Energy environmental management, energy environmental policy

Appropriate Technology and Sharing Economics

- Research on Appropriate Technology (Water, Power, Education) for sustainable development of developing countries
- Research on ODA Policy for convergence of between Appropriate Technology and Sharing economics like Crowdfunding, Car-sharing, research cooperates
- Main research fields: Appropriate Technology, sharing economics

Dynamic Industry Analysis

- Research on productivity indices, examining firms and industries from a dynamic perspective
- Study of policies that affect overall industrial growth, enterprise decision factors, and competitive power and survival
- Main research fields: Research on business survival and productivity, research on the dynamics of manufacturing/services/venture industries, comparative dynamic analysis among developing countries



Industry-Academic Program

About Global R&DB Center (GRC)

- GRC has a global R&DB cooperation platform based on a global Science & ICT Innovation professionals' network which has been firmly & actively established through ITPP since its start in 2003.
- As of 2019, GRC's international ICT professionals network consists of more than 300 Science & ICT policy professionals from over 70 countries (KAIST alumni included).
- GRC is to reinforce the future of Science & ICT innovation on a global level with its experience & resources.
- GRC is actively and continuously building strategic national, regional and global partnerships with various stakeholders in the development of value-added Science and ICT innovation.

Global R&DB Professionals Network (enrolled & graduated)

Domestic Network for Business Corporations

- R&D institutions, university research institutions, etc.
- Domestic business corporations & associations

Global Professionals Network

- Local professionals network
- Partner institutions including corporations, universities, governments, research institutes, etc.

Related Domestic Institutions Network

- NIPA, KOTRA, NIA, KISDI, STEPI
- Other government institutions

Multilateral International Organizations

- World Bank, IDB (Inter-American Development Bank), AfDB (African Development Bank)
- To conduct various global projects on ICT R&DB

What GRC Offers



Education & Professional Training Programs

- Educate global Science & Smart City professionals
- Provide master's and doctoral degree programs for global R&DB professionals from newly industrial countries
- Strengthen Science and Smart City capacity of training programs for global Science and Smart City leaders



R&DB Partnership

- Establish global R&DB platform for Seoul National University
- Build strategic national, regional and global partnerships with various stakeholders
- Support global R&DB research through partnerships with domestic corporations & research institutions



Global Cooperation

- Global R&DB cooperation with international organizations specialized in Science and Smart City
- Provide advisory services on global technology commercialization
- Contribute to achieve UN SDGs through global cooperation activities in Science & Smart City



Research & Global Consulting

- Research on emerging technology economy & industry policy
- Conduct global R&DB consulting projects
- Collect up-to-date data on global technology market trends and related issues
- Publish policy reports on global Science & Smart City



International Conference (<http://igsdv.org/>)

- Global Innovation Seoul Forum (GISF)
- Green, Smart, Development and vision (GSDv)
- World Innovation Network of IT (WINIT)

Special Activities

Field Study & Internship Opportunity

Field trips provide an opportunity to see and get a feeling of Dynamic Science and Smart City Korea by visiting various leading Science and Smart City enterprises, industries, exhibitions, and laboratories. Furthermore, the opportunities for short-term internships are offered at renowned Technology businesses for practical on-the-job education

Academic Activities

Aside from the regular curriculum, special lectures will be given by Science and Smart City specialists, policy makers, and renowned scholars in order to keep up with practical know-how and vivid knowledge. Also, ASPP students will have opportunities for the master classes of distinguished CEO/CTO of multinational enterprises or prominent scholars in the field of Science and Smart City policy and other related areas.

Cultural Activities

Different cultural programs will be organized/participated in, so as to introduce the Korean traditions, culture, development, and lifestyle to international students and to help them understand Korea to a greater extent.





Global Initiatives

Korea is the most innovative country in the world and nurtures talented individuals in emerging technologies such as Artificial Intelligence (AI) and Big Data in the 4th industrial revolution. SNU ASPP fosters global innovation leaders to open the new Smart City and has expanded the future based on the global human network and partnership. In order to develop international cooperation and to share up-to-date information between Korea and other prospective countries with regard to the development of smart cities and sustainable urbanization, SNU ASPP has organized academic conferences, alumni union events, and workshops with international partners and such events have been taking the role of an open ground for bilateral understanding and cooperation on smart cities and sustainable urbanization.

SNU LIFE



Housing

SNU offers on-campus housing and currently accommodates over 5,500 students. The residence buildings are available to all students registered. Among the dormitories on SNU campus, Most SNU ASPP students stay in Gwanak-sa Global Student Residence Halls.

<http://dorm.snu.ac.kr/eng>

Students who live in dorms have their own governing body and engage in various activities such as open houses, sports events, and culture programs. Housing for graduate students with families accommodates 200 graduate students and researchers. Gwanak campus is equipped with various facilities for students including cafeterias and state-of-the art gym.

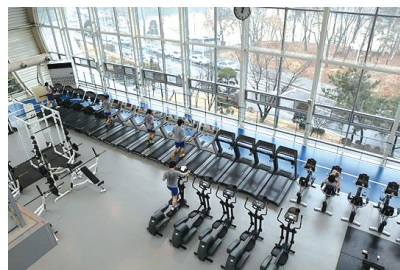
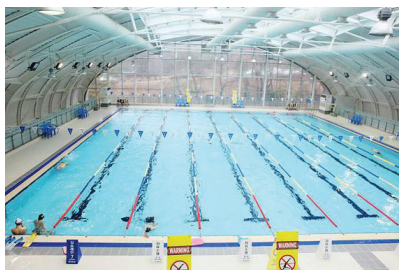
Facilities

The University has various facilities including the Cultural Center, Amphitheater, and Student Art Center, consisting of auditoriums, exhibition hall, and international conference rooms.

In the indoor gymnasium, SNU members can play basketball, volleyball, table tennis, and badminton. The nearby POSCO Sports center has an indoor swimming pool, a fitness center, squash/racquetball courts, and a golf range. The University also has basketball and soccer fields and tennis courts.

SNU Community Life

To create long-lasting bonds with fellow members and colleagues, SNU holds festivals, athletic events, and workshop trips regularly. These activity programs provide ASPP international students with opportunities to get a better understanding about Korean culture and life.



ADMISSIONS

Qualifications

- (Experience related to smart city) about 10 years or more
- Mid-level managers who have experience in devising nationwide or citywide smart city action plans or are capable of playing a leading role in planning
- Level of Education: Those with a bachelor's degree or higher
- Nationality Requirements: nationals of ASEAN member states (Both the applicant and his/her parents)
- A person who can propose an institutional-level data-driven smart city project proposal in the country and city represented by the applicant in relation to ASEAN and Korea

Admissions Timeline

Master's degree program :

	Admission	Notes
Application Due Date	Early February	Download application forms at GRC website
Screening	March	After the first document screening, a limited number of applicants are invited for the interview.
Admission Result	May	Admission results will be announced via email.
Term of Entrance	September 1	

- Dates are subject to change with notice
- SNU ASPP accepts applications all year round at grc@snu.ac.kr



Application Procedures

Please notify the application to the ASPP Administration Office by completing the necessary form downloadable at the GRC(ASPP) website.

Step 1 > Check the admissions guideline and schedule.

Step 2 > Submit the required application documents to SNU ASPP via email and post.

Required Documents

1. Form 1 : Completed Application Form
2. Form 2 : Personal Statement and Policy Proposal
3. Form 3 : Two letters of Recommendation from the head of your organization/institution
(Recommendations must be sealed in an official envelope and signed on the back by the recommenders.)
4. Form 4 : Data Driven Smart City project proposal related to ASEAN and Korea
5. Certified/official Transcripts and Notarized Certificate of Bachelor's Degree
Long term (master's degrees) training program :
 - Official transcripts of academic records for Undergraduate Studies
 - Certificate of the Bachelor's degree
6. Proof of Employments (indicate a title and an employment period)
7. A copy of the applicant's passport (or other official documents indicating your nationality)
8. Copies of both parents' passport (or other official documents indicating parents' nationality)
9. Official document indicating parent-child relationship between the applicant and parents
(Applicant's birth certificate or household register proving the parent-child relationship)
10. A passport size photo
11. Curriculum vitae (A4 size paper, 1-2 pages, in English)
12. Optional document: English Proficiency Test Certificates such as TOEFL, TOEIC, TEPS, IELTS, etc.

Contact

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GRC PROJECTS

Global R&DB Center

Global R&DB Center (GRC) is actively and continuously building strategic national, regional, and global partnerships with various stakeholders in development of value-added Science and ICT innovation. The program offers Education & Professional Training Programs, R&DB Partnership, Global Cooperation, Research & Global Consulting, International Conference

International Technology Professional Program (ITPP)

SNU ITPP offers a cutting-edge graduate course of Technology Management Economics and Policy Program (TEMEP) which is one of the best interdisciplinary programs at SNU. SNU TEMEP offers a wide range of courses including engineering, economics, and administration related areas. The unique educational program of SNU TEMEP is designed to educate and train technology management policy professionals from various fields. The program offers in-class lectures and seminars, internships at companies, language training, workshops, and participation in international conferences. All lectures are taught in English for the international students. Courses are divided into ITPP CORE and ITPP ELECTIVES. The following table gives simple information concerning the courses.

International Energy Policy Program (IEPP)

IEPP-SNU is a government-sponsored graduate degree program for government officials from abroad in the field of energy and resources. IEPP-SNU offers a full scholarship sponsored by the Ministry of Trade, Industry and Energy (MOTIE), the Republic of Korea. IEPP-SNU was launched in 2009. Since then, we have awarded full scholarships to a group of 85 government officials who were selected out of more than 220 applicants from all over the world. IEPP-SNU is open to all government officials as long as they are qualified and willing to share the vision of IEPP-SNU

BK21 Seoul National University Innovative Human Resource Development Education and Research Group for Smart City Global Convergence

Brain Korea 21, also known as BK21, is a representative university support project initiated by the ministry to offer scholarships and research expenses to outstanding scholars attending master's and doctoral degree courses. The long-term human resources development program was announced by the ministry and the National Research Foundation of Korea as part of Phase Four of the Brain Korea 21 project. 5 faculties are participating in the BK21 Education and Research Group (Graduate School of Engineering Practice, College of Agriculture and Life Sciences, Graduate school of Environment Studies, School of Law, Graduate school of International Studies).

The Integrated Major in Smart City Global Convergence(SCGC)

SCGC aims to lead the future of smart city challenges and innovations. The graduate major provides various opportunities, including interdisciplinary convergence studies in various fields such as engineering, international studies, law, and landscape architecture, intensive practical training with field experts, and industry-academic cooperation activities with domestic and international companies. In particular, "Introduction to SCGC", a compulsory introductory course, which is a series of collaborative lectures provided by field experts and professors in the field of Smart City Global Convergence research or related areas, is established in order to provide a holistic view and enable students to explore their main research interests

World Bank Group Virtual Knowledge Exchange (WBG VKE)

WBG VKE, co-hosted by Seoul National University Global R&D Center and World Bank Group Open Learning Campus (WBG OLC), was conducted on the WBG OLC online platform to promote knowledge sharing and foster a community of practice for smart city development through a global open innovation partnership under the theme of 'Smart Cities for Sustainable Development' from April to May in 2021 and 'Smart Cities for Global Frontier Infrastructure' from April to May in 2022.

ESADE (Global Innovation Ecosystems International Week at SNU)

The primary goal of ESADE program by Seoul National University (SNU) for Global Innovation International Week for ESADE Executive Master's program is to provide the students with visionary understanding of the concepts, approaches, and frameworks of implementation of smart cities through focused lecture and inspirational visits to business sites and actual fields to experience actual cases of smart city development. The week will be focused on topics as (A) Mapping opportunity areas of business and technological innovation related to smart city development, (B) Understanding the holistic framework of smart city development, (C) Developing vision for resilience and sustainability for cities.

Climate Technology Centre and Network(CTCN): Capacity Building Program

The CTCN Partnership and Liaison Office (PALO) and Seoul National University Global R&D Center will offer 'Capacity Building Program: Digital Technology Applications in the Agriculture Sector Program' challenging the status quo of current agriculture practice and enhancing national capabilities of resolving the sector-specific climate crisis. Through 2 days of in-person workshops and a 1-day field trip, this program will provide an opportunity to share current agricultural technologies targeted at increasing the overall efficiency of agriculture and the food system; share available cutting-edge digital technologies that could substitute the existing technologies and/or redesign the country's agricultural sector; learn most economy-, policy-, and social-disruptive digital technologies that could substitute the existing technologies and/or redesign the country's agricultural sector to invited 30 NDEs worldwide.

Green Climate Fund(GCF) Project

Seoul National University Global R&D Center, as Delivery Partner for Green Climate Fund (GCF), the largest global climate fund under UN Framework Convention for Climate Change (UNFCCC), calls for proposals to implement a Readiness & Preparatory Support project for Post COVID-19 Green Recovery for Food, Health, and Water Security Strengthened by Financial and Technological Innovations for Cuba. This project is focused on COVID-19 Green Recovery for the Republic of Cuba through designing green, resilient recovery efforts for Food, Water and Health Security. This project complements the regional readiness project: Post COVID-19 Green Recovery for Food, Health, and Water Security Strengthened by Financial and Technological Innovations in Latin-American Countries and will produce outcomes that can contribute to the completeness of integrated regional responses to COVID-19 and to foster collaborative action between countries jointly participating.

Neocity Project in Osceola County, Florida, USA

NeoCity is a smart city initiative driven by the Osceola County government with the focus on the industries with cutting edge technology such as semiconductors, automobile & aviation manufacturing, etc. Seoul National University Global R&D Center with the experience in developing the Siheung Smart City Master Plan will work with the Osceola County's Economic Development Center on developing the digital smart city plan for NeoCity, and expect to collaborate on establishing an educational program, matching fund opportunities for semiconductor and advanced manufacturing, and operating GRC innovation center for future industry-academia R&D cooperation.

EDCF Consulting Consortium for the Establishment of the Centers of Excellence for Adama Science and Technology University

The Establishment of the Centers of Excellence for Adama Science and Technology University project to build a research center at Adama Science and Technology University in Ethiopia (PM Professor Hwang Junseok) was ordered by the Export-Import Bank of Korea (EDCF). The project, funded by the Export-Import Bank of Korea (EDCF), aims to contribute to Ethiopia's industrial development, expansion of science and technology transfer, and capacity improvement by providing equipment and education systems necessary for operation within the research complex of Adama Science and Technology University, and builds five research centers by strengthening human resources, including faculty and staff. Seoul National University was selected as a consultant along with Haeahn Architecture, and provides consulting, management, and supervision on education, research, industry-academic, and infrastructure design for 54 months to help Adama Science and Technology University establish a Korean-style innovation model.

UNPOG Session Series

'Governance Capacity Development Session Series on Strengthening Public Governance and Accelerating Innovation to Achieve Agenda 2030' sessions were held from April to June in 2021, co-hosted by Global R&DB Center and UN Project Office on Governance (UNPOG). The sessions introduced the framework of the 2030 Agenda and the integrated nature of SDGs in terms of capacity building of public governance for SDG implementation.

Introduction to Smart City Global Convergence

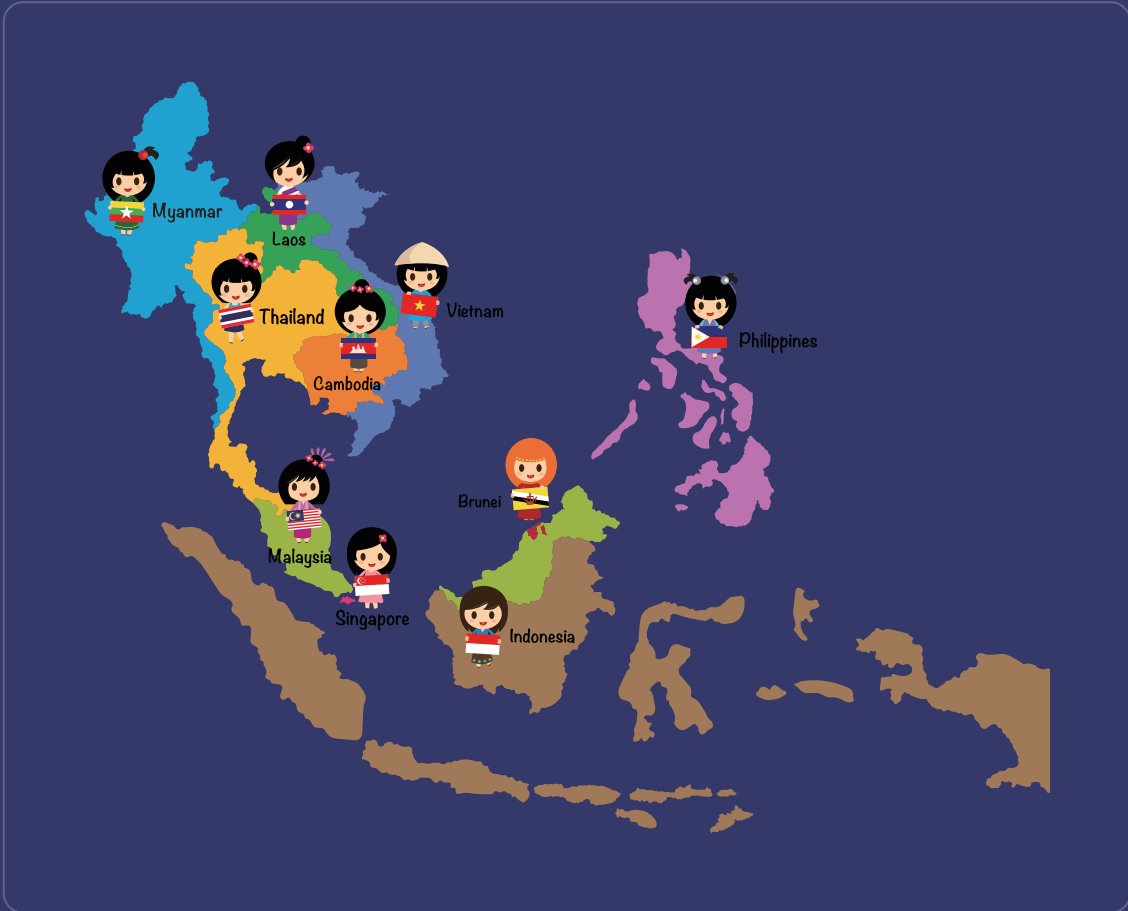
This course will make an overall introduction to global smart city development. The goal is to inform future leaders in smart cities and communities on how to develop an open, collaborative, citizen-centric and digitally enabled operating model for their city. This will help students of the course to realize their vision of smart cities toward a sustainable, resilient, and prosperous future. The former part of the course on smart cities provides 1) a broad spectrum of studies on the professional perspectives on smart cities, 2) practical know-hows and tips to build successful smart cities, and 3) real global examples of building smart cities. We will cover relevant topics and issues in various phases of implementing smart cities, and highlight effective methods to develop smart cities. Also, experts in diverse areas will share their experiences with regional, national and global level smart city projects. Meanwhile, the latter part of the course will focus on the tangible implementation and examples of smart cities by offering the opportunities to participate in group projects. Students from multi-disciplinary areas will join together to reach a productive sustainable goal suggested in the project with regard to the development of smart cities.

CityNet Urban SDG Knowledge Project

CityNet is the largest association of urban stakeholders committed to sustainable development in the Asia Pacific region. Established in 1987 with the support of UNESCAP, UNDP and UN-Habitat, the Network of cities has grown to include over 173 municipalities, NGOs, private companies and research centers. Seoul National University Global R&D Center has cooperated with CityNet to exchange knowledge and build commitment to establish more sustainable and resilient cities. Through capacity building, city-to-city cooperation and tangible projects, members will be able to respond to Climate Change, Disaster, the Sustainable Development Goals and rising Infrastructure demands.

Indonesia Lombok Project : S-Cube center establishment & Capacity-Building for Tourism with SNUSR]

The Indonesia Lombok Project is a ground-breaking project in cooperation with SNUSR, the SNU center for social responsibility. This project will serve as the initial stage in SNUSR's development of a new model for university social contribution program, which is anticipated to be more sustainably managed locally and actively include the local participation. An innovation center called the S-Cube center will be established and run by the University of Mataram. S-Cube center aims to provide integrated solutions for local problems and to leverage the community economically through capacity building. S-Cube center plans to initiate programs in various fields such as providing technological solutions for socio-economic problems, enhancing regional innovation ecosystems, and fostering strong entrepreneurs and talents. This ambitious project will present a new sustainable social contribution framework through continuous collaboration.



ASEAN Smart City Professional Program (ASPP)

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