

January 2023

# ISUS Newsletter

*International School of Urban Sciences, University of Seoul*

## What's inside?

### <ISUS Completion Ceremony>

On December 16, 2022, was held the ISUS completion ceremony at the Natural Science building. The ceremony was for MURD 5, MGLEP 7, and MIPD 4 which resulted in a magnificent event. Over 100 guests were invited including ISUS students' family and friends.

### <Interview 1>

For January's first interview, let us read about Bezawit Berhanu Balcha (MUAP 11) who is working as a socio-economic expert in the spatial plan preparation department of the Addis Ababa City Plan and Development Commission.

### <Interview 2>

For January's second interview, let us read about Chanthavong Bounsombath (MIPD 2), who is working as a senior officer under the Department of Planning and Finance, at the Ministry of Public Works and Transport (MPWT) of Lao PDR.

### <ISUS 77th Urban Infra Forum>

The ISUS 77th Urban Infra Forum (UIF) was held on December 8, from 6:00 to 7:00 PM as both an offline lecture and webinar via Zoom. This edition's topic was "Climate Change & infrastructure", delivered by: Young-Il Song, Chief Research Fellow, of the Korea Adaptation Center for Climate Change. The next 78th UIF will be held on March, 2023.

# ISUS Completion Ceremony

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The ceremony started with the opening remarks from Prof. Hyeon PARK, Dean of ISUS. Meanwhile, Young Tae KIM, the vice president of ICAK, and Youngjun LEE, the Director of KEITI, gave congratulatory remarks. After the conferment of the certificate of completion for 61 students, 12 students got the special award including the academic excellence award, distinguished thesis award, and certificate of merit. These are the names of the awardees.

The individual awards given during the ceremony are as follows:

Academic Excellence Award – Annielyn COSTINIANO(MURD5), Dwi Novria AMBARWATI(MURD5), Ye WANG(MGLEP7), Riska MUSLIMAH(MIPD4), Devayana TARISSA(MIPD4)

Distinguished Thesis Award – Edouard BENGONO ESSOLA(MURD5), Jonathan MEGAN(MGLEP7), Devayana TARISSA(MIPD4)

Certificate of distinction from Korea Ministry of Environment – Karla Patricia MANDUJANO GARCIA(MGLEP7), Aissa KOUIDRI(MGLEP7)

ICAK's Award – Sovanrotanak CHIN(MIPD4)

Certificate of Merit by the Dean of ISUS – Panhaseth KIM(MURD5)

Three students from each program gave the valedictory speech. They shared their feelings and plans in front of the many guests. The valedictorians were:

MURD5 – Annielyn COSTINIANO

MGLEP7 – Ekhsanudin

MIPD4 – Sovanrotanak CHIN



Later, videos from each program's memories were screened. After the watching videos, Prof. Shin LEE, the Vice Dean of ISUS gave the closing remarks and finished the ceremony.

ISUS congratulates all students and wishes for their outstanding future career paths!

# MIPD 4 Graduation Busan Field Trip



From December 12 to 13, MIPD 4 had their Graduation Field Trip to Busan. Busan, the second largest city in Korea with a population of 3.46 million and the gateway to the world, has grown into a central city of marine logistics with a world-class superport and a gateway city to the Eurasian continent.

From the marine industry, logistics, and high-tech video industries to the international financial center, Busan is the best city where culture, industry, tourism, and IT industries are specialized and all industries coexist ideally.



### <North Port Redevelopment Promotion Center>



MIPD visited the North Port Redevelopment Promotion Center, which was designed to give a glimpse of the past, present, and future of Busan Port. There, promotional videos related to Busan Port, including the North Port redevelopment project, were also screened.

### < Busan X the Sky>



Later that day, students had the chance to visit Busan X the Sky. Where they could overlook Busan as a whole at once.



## <Haeundae>



On the way, MIPD 4 Students stopped by Haeundae, Busan's most representative beach, and walked along the seacoast while looking at the beautiful natural scenery. At the Blue line park, they took the famous Busan Sea train. They went to the Cheongsapo Bridge Stone Observatory, the Gwangam Bridge, and the Bukhang Bridge too.

## <Busan Port Authority>



The next day, MIPD 4 Students visited the Busan Port Authority, which is a company that developed Busan Port and fostered it as a competitive shipping and logistics hub in Northeast Asia. While traveling around Busan Port by boat, MIPD 4 had a lively experience at the development areas watching the site in the development area by their eyes.

We hope that this last field trip has helped further enhance their insights and has become a meaningful memory to conclude the journey of the MIPD process over the past one and a half years. We hope to meet MIPD 4 again soon by cooperating for future business development.

# MIPD 5 Ulsan and Gyeongju Field Trip

From December 28 to 30, MIPD 5 had their Field Trip to Ulsan. Ulsan, a representative industrial city in Korea, has three major industries: shipbuilding, automobiles, and chemistry, forming the largest industrial cluster in Korea. It has world-class logistics infrastructure such as large industrial locations, ports, airports, KTX, and abundant industrial utilities.

## <Ulsan Hyundai Heavy Industries>



First, MIPD 5 Students had an opportunity to experience Hyundai Heavy Industries by visiting the Hyundai factory. In real-time on-site, they had time to find out how engineers collaborate to make cars and how to classify to export them. It was a very valuable experience to see the entire production process at once, including how cars are assembled, and how employees cooperate and work safely.

After that MIPD 5 students went to Bangeojin Daewangam Park(Climbing Bridge) and watched the beautiful scenery.



## <Ulsan Urban Regeneration Support Center>



The next day, MIPD 5 Students visited the Ulsan Urban Regeneration Support Center, which plays a role in revitalizing declining cities economically, socially, physically, and environmentally by strengthening regional capabilities, introducing and creating new functions, and utilizing local resources.

There they visited the area directly and saw the old town of Ulsan reformed. Through this experience, it was a time for them to refer to how they could reform their home country's old town areas.

## < Gyeongju City>

Later, MIPD 5 Students moved to Gyeongju City for cultural insight. Gyeongju is a repository of Korea's representative traditional cultural heritage, it is also an optimal marine tourism resort city and a world-class historical and cultural city, including the clean sea area of the East Sea and the beautiful natural scenery of the coastline. They visited various places such as Bulguksa, Donggung Palace and Wolji Pond, Gyeongju National Museum, etc., and experienced the beautiful temples and sceneries.



Through these various activities, we hope it was an opportunity to gain deeper and more vivid knowledge and broaden cultural knowledge.

# MUAP Eunpyeong-Gu Field Trip

MUAP 15 students participated in the Eunpyeong-gu field trip on December 2nd (Fri.). There they visited two places in the Eunpyeong-gu district. One was the Seoul Metropolitan Archives and the other was the Eunpyeong History & Hanok Museum in Hanok Village.



‘Seoul Metropolitan Archives’ is a public archive that collects and maintains the records of the Seoul Metropolitan Government and the memories and records of Seoul citizens and provides information services for citizens of the city.

Especially, there were some historical pictures and official documents about urban planning written in the past, which was helpful to students to understand the history of this city.

Next, they moved to ‘Eunpyeong Hanok Village’. This Hanok (Korean traditional house) Village was newly built when ‘Eunpyeong New Town’ was developed.



In the ‘Eunpyeong History and Hanok museum’ located in Hanok village, even students could learn how to build a model of Hanok by playing with blocks.

After that, they enjoyed the view of Hanok village by having a short teatime together.

Regardless of the cold weather, MUAP participated very actively, making it a very informative time to know about Seoul city.



# Publication in the Scopus Journal

Edouard Bengono Essola (MURD 5) and Professor Chunho Yeom published the article entitled "Population vs. Intersection Densities: An Assessment of a Correlation Using Spatial Comparison and Regression Analysis in Yaoundé, Cameroon" in the Open Transportation Journal.

<https://opentransportationjournal.com/VOLUME/16/ELOCATOR/e187444782211180/FULLTEXT/>



## [Abstract]

Intersection density is associated with block size and positively affects pedestrian volume. This study aimed to show that intersection density and population match across Yaoundé using spatial comparison and regression analysis. For spatial comparison, the mean values of the variables (intersection and population densities) were computed for each administrative subdivision in Yaoundé. The results are reported in a table representing

Yaoundé and how the subdivisions share boundaries. For comparison, a table was created for each variable. Simple linear regression with a confidence level of 95% was used for regression analysis. Spatial analysis revealed that the pattern of population density was similar to that of intersection density. However, this was disturbed by the proximity to the central business district (CBD). Regression analysis demonstrated that both variables moderately covariate with the influence of CBD. When assuming a weak influence of CBD, they are strong covariates. Statistically, in both cases, the correlation between population and intersection densities did not occur randomly (small p-values). The results imply that intersection density is a strong lever that influences citizen behavior. Future planning policies in Yaoundé should consider increasing intersection density in the most crowded areas. It will contribute to the better management of high pedestrian flows in these areas.



# Publication in the KCI Journal

Kwon, Bareum (Global Construction 9), and Professor Chunho Yeom published the article entitled "Development of Dynamo Algorithm Based on BIM for Direct Sunlight Impact Analysis of Tunnel Outlet" in the Journal of KIBIM.

DOI: <https://doi.org/10.13161/kibim.2022.12.4.041>

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## BIM 기반 터널 출구부 직광영향검토 Dynamo 알고리즘 개발

Development of Dynamo Algorithm Based on BIM for Direct Sunlight Impact Analysis of Tunnel Outlet

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**ABSTRACT:** BIM was introduced under the leadership of public institutions, and projects such as road, railway, and site creation, including BIM tasks, are currently being ordered. In addition, as the Ministry of Land, Infrastructure and Transport(MOLIT) is pushing for the full design of BIM, public institutions under its jurisdiction are also pushing for the full design of BIM. Full design of BIM means that all designs are done with BIM. Public institutions' BIM guidelines only require BIM deliverables, and there is a limited direction for the BIM design process to respond to traditional design approaches. Therefore, it is necessary to develop a BIM-based design process corresponding to the full design of BIM.

**KEYWORDS:** BIM, Direct Sunlight Impact Analysis, Dynamo, Tunnel

**키 워 드:** BIM, 직광영향검토, Dynamo, 터널

### [Abstract]

BIM was introduced under the leadership of public institutions, and projects such as road, railway, and site creation, including BIM tasks, are currently being ordered. In addition, as the Ministry of Land, Infrastructure and Transport(MOLIT) is pushing for the full design of BIM, public institutions under its jurisdiction are also pushing for the full design of BIM. Full design of BIM means that all designs are done with BIM. Public institutions' BIM guidelines only require BIM deliverables, and there is a limited direction for the BIM design process to respond to traditional design approaches. Therefore, it is necessary to develop a BIM-based design process corresponding to the full design of BIM.

# Newsletter Interview Article: MUAP Alumni, Bezawit Berhanu Balcha

ISUS presents a special series of interviews to share stories of ISUS members. For January's interview, let us read about Bezawit Berhanu Balcha (MUAP 11) who is working as a socio-economic expert in the spatial plan preparation department of the Addis Ababa City Plan and Development Commission. She has been working on many urban planning projects such as Neighborhood Design, Inner city center redevelopment planning, High-density transport corridor development, and Riverside development studies. Especially, she suggested the design concept of Cheonggyecheon (Korea) in the Riverside Development Project and it was adopted.



**Q1.**What is the main purport of the Riverside Development Project?

**Bezawit Balcha:** The Riverside development project is one of the mega projects launched by Dr. Abiy Ahimed, the Prime Minister of Ethiopia, as part of the “Sheger Beautification Project” to redevelop the river and riverside of Addis Ababa. Considering all the available resources, two inner-city river

stretches – Kechene and Kebena Rivers– were selected as pilot projects. These rivers used to be green, with a continuous flow of clean water all year round providing a variety of opportunities to the residents. However, due to poor planning intervention and governance over the past 30 years, the rivers have become polluted. Currently, these rivers are inaccessible due to informal settlements and serve as the city’s main sewage spillways, posing a variety of threats to residents due to their poor water quality and vulnerability to flooding during the rainy season. In light of this situation, restoring and enhancing these rivers has become one of the main focuses of the project.

The project introduces a new concept to the urban “linear turquoise development corridor” by integrating rivers, green buffers, and adjacent redevelopment areas to provide better living conditions for residents, create additional jobs and achieve the required minimum level. Aims to introduce green space accessible to the metropolitan area (7m<sup>2</sup>/person) is set in the city’s structural plan, river and riverside development is used as an opportunity to improve the city’s image and be one of the major tourist destinations.

**Q2. Why did you suggest the design concept of Cheonnggyecheon?**

**Bezawit Balcha:** Finding comparable projects with best practices in riverside development was thus necessary to provide a clear picture to the various stakeholders.

When I was in Seoul, South Korea, I had the opportunity to visit the Cheonnggyecheon rehabilitation project and gain a better understanding of how the mayor of Seoul City initiated the project to restore the polluted river covered by motorways into an accessible riverside project to address issues with the environment, mobility, public space, and economic development. The implementation of Cheonnggyecheon alone sparks inner-city rehabilitation projects in Seoul. As a result, based on the goals of Addis Ababa’s riverside development initiatives, implementing the Cheonnggyecheon design concept



is deemed advantageous, and this project was identified as an applicable case study.

**Q3. How would you say that your experience in ISUS helped you to do this project or others?**

**Bezawit Balcha:** My studies at ISUS have greatly helped me in gaining a deeper understanding of urban development theories, facts, and case studies such as from both a theoretical and practical perspective, broadening my horizons to comprehend urban development problems and challenges in various parts of the world. In line with this, developing countries can learn a lot from Seoul's development trajectory and Korea's overall experience while benefiting from being latecomers. During my time at ISUS, I also learned about some of Seoul's best urban development practices, such as integrated spatial and socioeconomic development, integrated transportation planning, climate change and environmental protection challenges across all sectors, and efficient project evaluation prior to project implementation.

Global Network Seminar (GNS) class allows me to work on projects with other experts from all over the world. Since I am a practitioner and government officer who is required to develop implementable projects and studies, my internship with the Seoul Metropolitan Government also helped me to advance my career and strengthen my abilities in project planning and assessment processes.

**Q4. Do you have any other words to share with ISUS?**

**Bezawit Balcha:** My stay in ISUS has given me a chance to share an experience with students from diverse cultural and professional backgrounds that have truly changed my life, especially with my fellow MUAP 11. Additionally, all the field trips we made in Seoul and Korea, as well as the combination of academic and practical projects like GNS to watch how various projects were carried out, provided me the chance to shape the quality of life in urban environments, which I believe can be used as practical experiences for developing countries.

As previously said, ISUS provides a range of learning opportunities (academic, practical, and networking); I encourage ISUS students to take advantage of every opportunity while studying in Korea.

# Newsletter Interview Article: MIPD Alumni, Chanthavong Bounsombath

ISUS presents a special series of interviews to share stories of ISUS members. For January's interview, let us read about Chanthavong Bounsombath (MIPD 2), who is working as a senior officer under the Department of Planning and Finance, at the Ministry of Public Works and Transport (MPWT) of Lao PDR. Especially, these days, he is working on the establishment of the Logistic Master Plan in Champasak Province. Also, he participated at the 'Global Infrastructure Cooperation Conference (GICC)' in August 2022 in Seoul and at the 'ASEAN and Korea Connectivity Forum' in December 2022.



**Q1.** Please tell us about the Establishment of the Master Plan in Champasak Province, Lao PDR.

**Chanthavong Bounsombath:** The Master Plan aims to:

- 1) Build logistics systems based on the local environment of Champasak Province.
- 2) Activate investments in railroad and port sectors to accomplish GMS Transport Sector Strategy 2030.
- 3) Develop logistics facilities and systems and arrange measures for improved transport logistics connections.

Also, I am the project coordinator and responsible for MPWT and Korea cooperation. Thanks to this I met Prof. Han of ISUS on November 2022.





Q2. Please share about the Global Infrastructure Cooperation Conference (GICC), 2022 Seoul. Why did you attend the conference and how was the conference?

Chanthavong Bounsombath: I had the chance to present on the ODA project ‘Self-Reliance Project of Road Construction and Management in Laos’ on behalf of the recipient country. The objectives of this Project are to support the Lao PDR’s self-reliance in sustainable road construction and management, particularly the construction and management of non-paved roads by the Ministry of Public Works and Transport (MPWT), and to advance bilateral cooperation in the area.



**Q3. Please share about ASEAN and the Korea Connectivity Forum. How did you attend the forum and how was the forum, especially, what was the main issue of it?**

**Chanthavong Bounsombath:** Since adopting the Master Plan on ASEAN Connectivity (MPAC) 2010 and MPAC 2025, various initiatives and projects have been launched “to achieve a seamlessly and comprehensively connected and integrated ASEAN.” Meaningful progress has been made in the past decade and until now. Today, the ASEAN region, as a community, is linked with a web of free trade agreements, including the Regional Comprehensive Economic Partnership (RCEP), a network of roads, rail, airlines, and telecommunications systems that facilitate the movement of goods, people, and information across borders.

The main objectives are:

- To review the current status and identify the opportunities and concerning ASEAN Connectivity, to support the MPAC 2025 and ASEAN’s recovery efforts in a better way.
- To promote cooperation and coordination among ASEAN’s Dialogue Partners’ connectivity initiatives for greater synergy.

I participated on behalf of the ASEAN Member State, we also made a presentation to update the project progress and the priority project, to attach more investment from the Korean private sector.

**Q4. How would you say that your experience in ISUS helped you to do this project or others?**

**Chanthavong Bounsombath:** I believe that my experience from ISUS has helped me a lot with this project such as project preparation, implementation as well as project report too. Furthermore, being ISUS alumni is very good for networking especially for Korean and Lao. ISUS is the best place for studying and learning new experiences.

# ISUS 77th Urban Infra Forum



The ISUS 77th Urban Infra Forum (UIF), marked the fourth UIF of the 2022 Fall Semester, it was held on Thursday, December 8th, from 06:00 to 7:00 PM as both an offline lecture and webinar via Zoom. This edition's topic was "Climate Change & infrastructure", delivered by: Young-Il Song, Chief Research Fellow, of the Korea Adaptation Center for Climate Change.

Through the 77th UIF, participants were granted the valuable opportunity to learn about the "Progress of the climate change and the damages caused by it, and contents and application cases of climate change adaptation as important means of climate change response."



UIF is a discussion forum on Infrastructure, Sustainable Urban Development, Construction, Environment, or related issues with invited speakers. Participants are mainly ISUS members who consist of Foreign Public Officials and Domestic Practitioners with a combination of their expertise, the forum has served as a platform for international networking and mutual learning.

You can find the lecture materials of UIF on the website below.

[http://isus.uos.ac.kr/freeTC/list.do?list\\_id=50018C7](http://isus.uos.ac.kr/freeTC/list.do?list_id=50018C7)

ISUS homepage > community > Urban Infra Forum



# UOS Campus in January



# New days of 2023 start!



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