

# 2017 Waseda-UKM-UMS-Hanyang IT Workshop

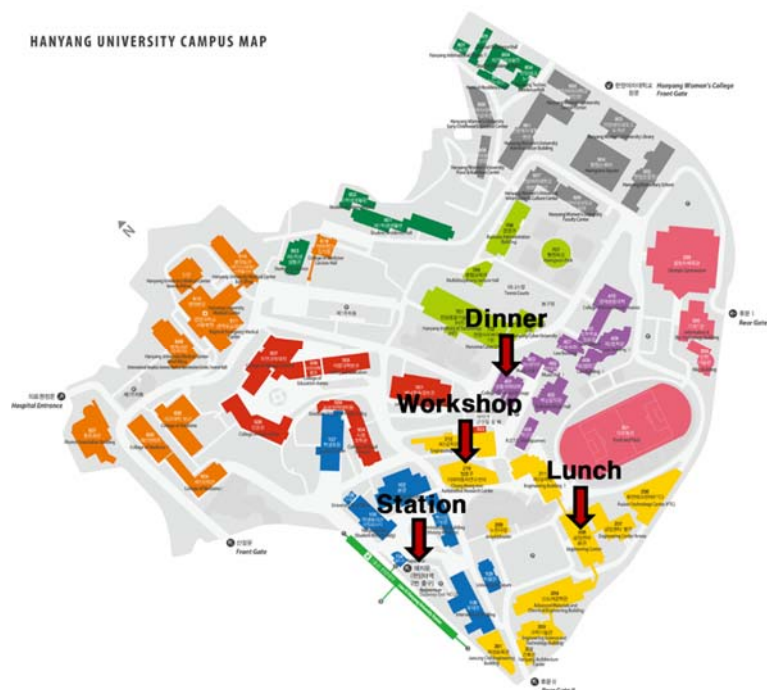
## (Joint Workshop Japan, Malaysia & Korea)

Organized by College of Engineering, Hanyang University, Seoul, Korea,  
Information Science & Technology, University Kebangsaan Malaysia (UKM), Computing and  
Informatics, University Malaysia Sabah (UMS) and Computer Science & Communication  
Engineering, Waseda University, Tokyo, Japan

Dec. 1 & 2, 2017

(Local arrangements made by Department of Computer Science, Hanyang University)

This annual Workshop has been held since 2008. Following the successful workshops, this workshop will be held at Hanyang University, Seoul, Korea, Dec. 2, 2017. This workshop has been provided opportunities for both of the universities to share their knowledge and experiences. On top of that, the faculty members can exchange academic information and foster international joint projects by meeting each other in person.



## CALL FOR PRESENTATION

The objective of this workshop is to give graduate students opportunity to present their achievement in English and help develop their global mind. Please any kinds of academic achievements or proposals what you want.

## SUBMISSION GUIDELINE

- **Call for Title & Authors: Nov. 11**
- **Call for Presentation file: Nov. 25**
- **Presentation time: 12 minutes**
- **"Please upload the presentation file using USB at the workshop."**

<https://doodle.com/poll/7fwp9fa5xi6ipv8r>

## IMPORTANT DATES

Call for paper: Nov. 11, 2017

Submission deadline of final presentation slides:  
will loaded in the room

Workshop: Dec. 2, 2017

## Final Program

Date: Dec. 1,

Dec. 1	Topic	Location
18:00 – 20:00	Researchers' Networking Session	(President Hotel near Seoul City Hall)

Date: Dec. 2

Opening Ceremony (Conference Hall, Chung-Mong-koo Research center, Chair:)

Time	Topic	Speaker(s)
9:00 – 9:30	Registration	Jin Seek Choi
9:30 – 9:40	Opening Ceremony	Jong-il Park, Takuro Sato. Yong jin Park & Rosilah Hassan
9:40 – 10:10	Introduction to each University	Euisun Jang, Hidenori Nakazato . Ag Asri Bin Ag Ibrahim & Rosilah Hassan
10:10 - 10:55	Industry Revolution 4.0: issues and challenges	Prof. Ag Asri Bin Ag Ibrahim

Time	Topic	Topics
11:00 – 12:30	Session A-1 Room: Conference Hall,	Session B-1 Room No.103 Session C-1 Room No.104
12:30-2:00	Lunch	Lunch Lunch
2:00 – 3:30	Session A-2 Room No.	Session B-2 Room No. Session C-2 Room No.
4:00 – 5:30	Session A-3 Room No.	Session B-3 Room No. Session C-3 Room No.

Dec. 2	Topic	Location
17:50 – 18:00	Introduction to each University	Hanyang University
18:00 – 20:00	Researchers' Networking Session	Hanyang University
Panel: Eunok Paek, Hidenori Nakazato, Yong-Jin Park & Rosilah Hassan		

## Final Program

Opening Ceremony (Conference Hall, Chung Mong-Koo Automotive **Research Center** Chair:)

Time	Topic	Speaker(s)
9:00 – 9:30	Registration	Jin Seek Choi
9:30 – 9:40	Opening Ceremony	Jong-Il Park
9:40 – 10:10	(Introduction to each University)	
10:10 - 10:55	Industry Revolution 4.0: Issues and Challenges	Prof. Ag Asri Bin Ag Ibrahim

Track A: Computer Science and Engineering (Conference Hall)

Session A-1: Chairs (Nakazato / HIDENORI (Waseda) & Jechang Jeong (HYU)

Conference Hall, Chung Mong-Koo Automotive **Research Center**

Time	Presentation Title	Speaker(s)
11:00 – 11:12	Information-centric oriented network service	WEN / ZHENG
11:12 – 11:24	A Framework for Estimating Execution Times of IO Traces on SSDs	Yoonsuk Kang, Yong-Yeon Jo, Jaehyuk Cha, Wan D. Bae and Sang-Wook Kim,
11:24 – 11:36	A game-theory based Green Information Centric Networking model for Future Internet	NGUYEN / NGOC QUANG
11:36 – 11:48	Enhanced Data Transmission for Big Data Analytics	<b>Asrul</b> Asat
11:48 – 12:00	Congestion Control in Information-Centric Networking	SUKJAIMUK / RUNGROT
12:00 – 12:12	Region based extent mapping technique for reducing the mapping table in eMMC	Seungsu Baik , Jaehyuk Cha
12:12 – 12:24	Named-Node Networking (3N) Design and Implementation Approach	QI / XIN

Lunch (12:30 – 14:00, Lunch Box): Rooms 416 & 701 at Engineering Center Building

Session A-2: Chairs (Rosilah Hassan (UKM) & Hyungsoo Jung)

Conference Hall, Chung Mong-Koo Automotive **Research Center**

Time	Presentation Title	Speaker(s)
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<b>14:00 – 14:12</b>	Demonstrating name data networking with dynamic CDN	SAPKOTA / MAHENDRA
<b>14:12 – 14:24</b>	Accelerating Concurrent, Durable File I/O via a Non-Volatile Buffer	Hyeongwon Jang and Hyungsoo Jung
<b>14:24 – 14:36</b>	Push-based Node Name Network of Things for Healthcare	HUMRAZ / OMID JAN
<b>14:36 – 14:48</b>	Evaluation of the data transmission by using CCN	MURATA / KAZUNORI
<b>14:48 – 15:00</b>	Naming Scheme of Disaster Monitoring System Based on ICN Network Using NLP Machine Learning	NOZAKI / DAICHI
<b>15:00 – 15:12</b>	Systematic Comparison of False-Discovery-Rate-Controlling Strategies for Proteogenomic Search Using Spike-in Experiments,	Jonghun Park and Eunok Paek
<b>15:12 – 15:24</b>	Naming Scheme Using Machine Learning Method for Disaster Monitoring System Based on ICN	MOCHIDA / TORU

Coffee Break (15:30 – 16:00, Hallway 5F)

Session A-3: Chairs (Sato / Takuro (Waseda) & Heejin Park (HYU)

Conference Hall, Chung Mong-Koo Automotive **Research Center**

<b>Time</b>	<b>Presentation Title</b>	<b>Speaker(s)</b>
<b>16:00 – 16:12</b>	Contents download on car and portable terminal by using 3N	SANADA / KENTA
<b>16:12– 16:24</b>	Efficient GPU multitasking with latency minimization and cache boosting	(Yongseung Yu), Jiho Kim, Minsung Chu, and Yongjun Park
<b>16:24 – 16:36</b>	WI-SUN communication with plural devices	AIZAWA / RYOTA
<b>16:36 – 16:48</b>	3D Positioning Algorithm Based on Multiple Quasi-Monostatic IR-UWB Radar Sensors	Jeong Woo Choi, Sung Ho Cho
<b>16:48 – 17:00</b>	CDN-ICN combined content delivery service	KAMACHI / RIO
<b>17:00 – 17:12</b>	Integrating Face and Motion Recognition for Real-time People Counting System based on ICN	DU / YING SHUANG .MS
<b>17:12 – 17:24</b>	HRC: Hybrid Reference Counting for Manycore Scalable Paging	Yeonjin Noh, Seongbae Son, Youjip Won, Jongmu Choi

Track B: Information and Communications (Room 103, Chung Mong-Koo Automotive **Research**

Center )

Session B-1: Chairs (Mori / Tatsuya (Waseda) & Jongwoo Lim (HYU)

Room 103, Chung Mong-Koo Automotive **Research Center**

Time	Presentation Title	Speaker(s)
11:00 – 11:12	A New Smartphone Authentication Scheme Using Handwriting Recognition	JING / PEI QING .MS
11:12 – 11:24	Color Correction for Uniform Illumination using Multispectral Relighting	Kyudong Sim and Jong-II Park
11:24 – 11:36	How cultural differences affect the habits of password creation?	MORI / KEIKA .MS
11:36 – 11:48	An Analysis on Correspondence of User Emotion Classification by Bio-signals with Questionnaire Response while Video Watching	FU / YING
11:48 – 12:00	Empirical Study of Abandoned Internet Resource Inside Android Applications	PARIWONO / ELKANA GETALOID
12:00 – 12:12	Cybersickness and full body motion capture technologies	Changyeol Choi, Joohee Jun, Mingyu Kim, Kwanguk (Kenny) Kim
12:12 – 12:24	Understanding the Vulnerability Responses by Mobile App Developers	YASUMATSU / TATSUHIKO

Lunch (12:30 – 14:00, Lunch Box ) Rooms 416 & 701 at Engineering Center Building

Session B-2: Chairs (Kameyama / Wataru (Waseda) & Taesoo Kwon (HYU)

Room 103, Chung Mong-Koo Automotive **Research Center**

Time	Presentation Title	Speaker(s)
14:00 – 14:12	Improvement of mobility communication in ICN	ISE / FUMITAKA
14:12 – 14:24	Performance Analysis and the Future of VANETs: A Review	Minjin Baek, Usman Ali Khan , Sang Sun Lee
14:24 – 14:36	Analysis of smart phone strategy	ICHISE / SHOICHIRO
14:36 – 14:48	A Framework of Adaptive Multimodal Input for Location Based Augmented Reality Application	Rimaniza Zainal Abidin
14:48 – 15:00	Momentum-Mapped Inverted Pendulum Models for Controlling Dynamic Human Motions	Seung-uk Ko, Taesoo Kwon, Jessica Hodgins
15:00 – 15:12	An Analysis on Correspondence of Music with Background Activity of Listener	MASATAKA / YOSHIDA

<b>15:12 – 15:24</b>	A Consideration on Classification of Video Viewer's Emotion Using Sparse Coding of Bio-signals and Facial Feature Points	TAGAMI / YUI
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Coffee Break (15:30 – 16:00, Hallway 5F)

Session B-3: Chairs (Arshad/Haslina (UKM) & Euisun Jang (HYU)

Room 103, Chung Mong-Koo Automotive **Research Center**

<b>Time</b>	<b>Presentation Title</b>	<b>Speaker(s)</b>
<b>16:00 – 16:12</b>	Study on Autonomous Drawing Scheme employing Image Processing with Drones	TAKASHIMA / FUMI MS
<b>16:12– 16:24</b>	Real-time Automatic Generation of Sports Ontology Instance and Artificial Intelligence Sportscasting	Yonggi Shin, Yongsuk Choi
<b>16:24 – 16:36</b>	Disaster image recognition and automatic labeling using AI	OKAMOTO / KOKI
<b>16:36 – 16:48</b>	Densely Connected Auto-Encode	DANG / HOANG ANH
<b>16:48 – 17:00</b>	Registration method for correction of intensity inhomogeneity in mri for Prostate Cancer	<b>Yasmin</b> Mumtaz Anma
<b>17:00 – 17:12</b>	Diffusion-Type Congestion Control in Named Data Network	KAIHORI / KOTA

Track B: Computer Science and Engineering (Room 502)

Session C-1: Chairs (Sahran/Shanorbanun (UKM) & Ag Asri Bin Ag Ibrahim (UMS)

Room 104, Chung Mong-Koo Automotive **Research Center**

<b>Time</b>	<b>Presentation Title</b>	<b>Speaker(s)</b>
<b>11:00 – 11:12</b>	Performance Evaluation of 16-QAM 4 Single Sideband Modulation By OFDM	ALHASANI / MOHAMMED MUSTAFAA
<b>11:12 – 11:24</b>	An Experimental Demonstration of Hierarchical Distributed Topology Discovery Protocol using an extended BGP-LS	Yang Li, Haojun Zhao,Se Joon Chun, *Jin Seek Choi
<b>11:24 – 11:36</b>	mmWave In-Band Backhaul for 5G Small Cell Networks	OKOTH / PHONFRED JAOKO
<b>11:36 – 11:48</b>	Adaptive Beamforming for 5G Communications	DHAKAL / DHRUBA RAJ
<b>11:48 – 12:00</b>	Design and Analysis of Push mechanism based on CoAP Observe for Demand Response in Energy IoT Environment	Hyunjin Park, Heonil Park, Sung Hwan Lee , *Jin Seek Choi
<b>12:00 – 12:12</b>	Beam forming for 5G communication systems	SHAHPOOR / SERAJ AHMAD

<b>12:12 – 12:24</b>	Contention-Based SCMA for NB-IoT Uplink Communication	MULATU / BAYISA TAYE
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Lunch (12:30 – 14:00, Lunch Box ) Rooms 416 & 701 at Engineering Center Building

Session C-2: Chairs (Shimamoto / Shigeru (Waseda) & Yongjun Park (HYU)

Room 104, Chung Mong-Koo Automotive **Research Center**

Time	Presentation Title	Speaker(s)
<b>14:00 – 14:12</b>	Utilization Efficient Game-Theoretical Handover Scheme for Macro-Femtocell Networks	HUA / QIAO ZHI
<b>14:12 – 14:24</b>	A Scheme for train integrity of grouped virtual train	Juhyun Maeng , Inwhee Joe
<b>14:24 – 14:36</b>	Mobility management in 5G based on IEEE 802.21	ANOSHA / MOHAMMADI .MS
<b>14:36 – 14:48</b>	Design and Implementation of Malicious Code Analysis System Using Docker.	Gyeong Min Kim and Yong su Park
<b>14:48 – 15:00</b>	Experimental study on Energy Saving Transmission Using D2D for Cellular Network	SAITO / MEGUMI MS
<b>15:00 – 15:12</b>	Power control algorithm in user centric network using Game theory	MEGHALEE / GOSWAMI MS
<b>15:12 – 15:24</b>	Graph kernel image classification	<b>Shahnorbanun</b> Sahran

Coffee Break (15:30 – 16:00, Hallway 5F)

Session C-3: Chairs (Nisar/Kashif Dr. (UMS) & Sang-Wook Kim (HYU)

Room 104, Chung Mong-Koo Automotive **Research Center**

Time	Presentation Title	Speaker(s)
<b>16:00 – 16:12</b>	Disaster information sharing system using Drone with CCN	TAZAWA / RYOICHIRO
<b>16:12– 16:24</b>	Function Chaining in NDN Pt. 1 (Overview)	SHIRAIWA / YOSHIKI
<b>16:24 – 16:36</b>	Fast reference frame selection for Joint Exploration Model of future video coding with QTBT structure	Dong Tianyu, Sang-hyo Park, Euee S. Jang
<b>16:36 – 16:48</b>	Function Chaining in NDN Pt. 2 (Details)	YOSHII / HIROKI
<b>16:48 – 17:00</b>	An adaptive and efficient WBAN MAC Protocol in IoT Devices	<b>Faisal</b> Mohd Amin



<b>17:00 – 17:12</b>	Multilayered Metamaterial based Magnetic Induction communication	RAKOTOARITINA / TOJOARISOA
<b>17:12 – 17:24</b>	Data Packet Consolidation for IoT applications in Named Data Networking	Sho Harada, Zhiwei Yan, Yong-Jin Park, Kashif Nisar, Ag Asri Ag Ibrahim

Dinner (18:30 – 20:30, Human Ecology building 7F Faculty Club )

## Workshop Chairs

Prof. Jong-il Park, Hanyang University, Seoul, Korea

Prof. Takuro Sato, Waseda University, Tokyo, Japan

Prof. Ag Asri Bin Ag Ibrahim, University Malaysia Sabah, Kota Kinabalu, Malaysia

Prof. Rosilah Hassan, University Kebangsaan Malaysia, Bangi, Malaysia

## Organization Chairs

Prof. Jin Seek Choi, Hanyang University, Seoul, Korea

Prof. Tatsuya Mori, Waseda University, Tokyo, Japan

Prof. Yong Jin Park, University Malaysia Sabah , Kota Kinabalu, Malaysia

Prof. Rosilah Hassan, University Kebangsaan Malaysia, Bangi, Malaysia

## Program Chairs

Prof. Eunok Paek, Hanyang University, Seoul, Korea

Prof. Hidenori Nakazato, Waseda University, Tokyo, Japan

Prof Kashif Nisar, University Malaysia Sabah, Kota Kinabalu, Malaysia

Prof. Rosilah Hassan, University Kebangsaan Malaysia, Bangi, Malaysia

## Program Committee (in alphabetical order)

Prof. HASLINA Arshad, University Kebangsaan Malaysia, Bangi, Malaysia

Prof. Sung Ho Cho, Hanyang University, Seoul, Korea

Prof. Jaehyuk Cha, Hanyang University, Seoul, Korea

Prof. Jaehoon Choi, Hanyang University, Seoul, Korea

Prof. Jin Seek Choi, Hanyang University, Seoul, Korea

Prof. Yongsuk Choi, Hanyang University, Seoul, Korea

Prof. Rosilah Hassan, University Kebangsaan Malaysia, Bangi, Malaysia

Prof. Eul Gyu Im, Hanyang University, Seoul, Korea

Prof. Euee S. Jang, Hanyang University, Seoul, Korea

Prof. Hyungsoo Jung, Hanyang University, Seoul, Korea

Prof. Sooyoung Kang, Hanyang University, Seoul, Korea

Prof. Wataru Kameyama, Waseda University, Tokyo, Japan

Prof. Taesoo Kwon, Hanyang University, Seoul, Korea

Prof. Inwhee Joe, Hanyang University, Seoul, Korea

Prof. Sooyong Kang, Hanyang University, Seoul, Korea

Prof. Jiro Katto, Waseda University, Tokyo, Japan

Prof. Kwanguk Kim, Hanyang University, Seoul, Korea

Prof. Sang-Wook Kim, Hanyang University, Seoul, Korea

Prof. Sunwoo Kim, Hanyang University, Seoul, Korea

Prof. Choonhwa Lee, Hanyang University, Seoul, Korea

Prof. Jongwoo Lim, Hanyang University, Seoul, Korea

Prof. Inhwan Lee, Hanyang University, Seoul, Korea

Prof. Mitsuji Matsumoto, Waseda University, Tokyo, Japan

Prof. Yasuo Matsuyama, Waseda University, Tokyo, Japan

Prof. Hidenori Nakazato, Waseda University, Tokyo, Japan

Prof. Eunok Paek, Hanyang University, Seoul, Korea

Prof. Heejin Park, Hanyang University, Seoul, Korea

Prof. Jong-Il Park, Hanyang University, Seoul, Korea

Prof. Sang Kyu Park, Hanyang University, Seoul, Korea

Prof. Yong Jin Park, University Malaysia Sabah, Kota Kinabalu, Malaysia

Prof. Youngjun Park, Hanyang University, Seoul, Korea

Prof. Byungho Rhee, Hanyang University, Seoul, Korea

Prof. Mina Rho, Hanyang University, Seoul, Korea

Prof. Minsoo Ryu, Hanyang University, Seoul, Korea

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Prof. Jiwon Seo, Hanyang University, Seoul, Korea

Prof. Shigeru Shimamoto, Waseda University, Tokyo, Japan

Prof. Dong-Joon Shin, Hanyang University, Seoul Korea

Prof. Pao Sriprasertsuk, Waseda University, Tokyo, Japan

Prof. Il Hong Suh, Hanyang University, Seoul, Korea

Prof. Yoshiyori Urano, Waseda University, Tokyo, Japan

Prof. Hiroshi Watanabe, Waseda University, Tokyo, Japan

Prof. Youjip Won, Hanyang University, Seoul, Korea

Prof. Dongweon Yoon, Hanyang University, Seoul, Korea

Prof. Yong su Park, Hanyang University, Seoul, Korea

Prof. Ag Asri Bin Ag Ibrahim, University Malaysia Sabah, Kota Kinabalu, Malaysia

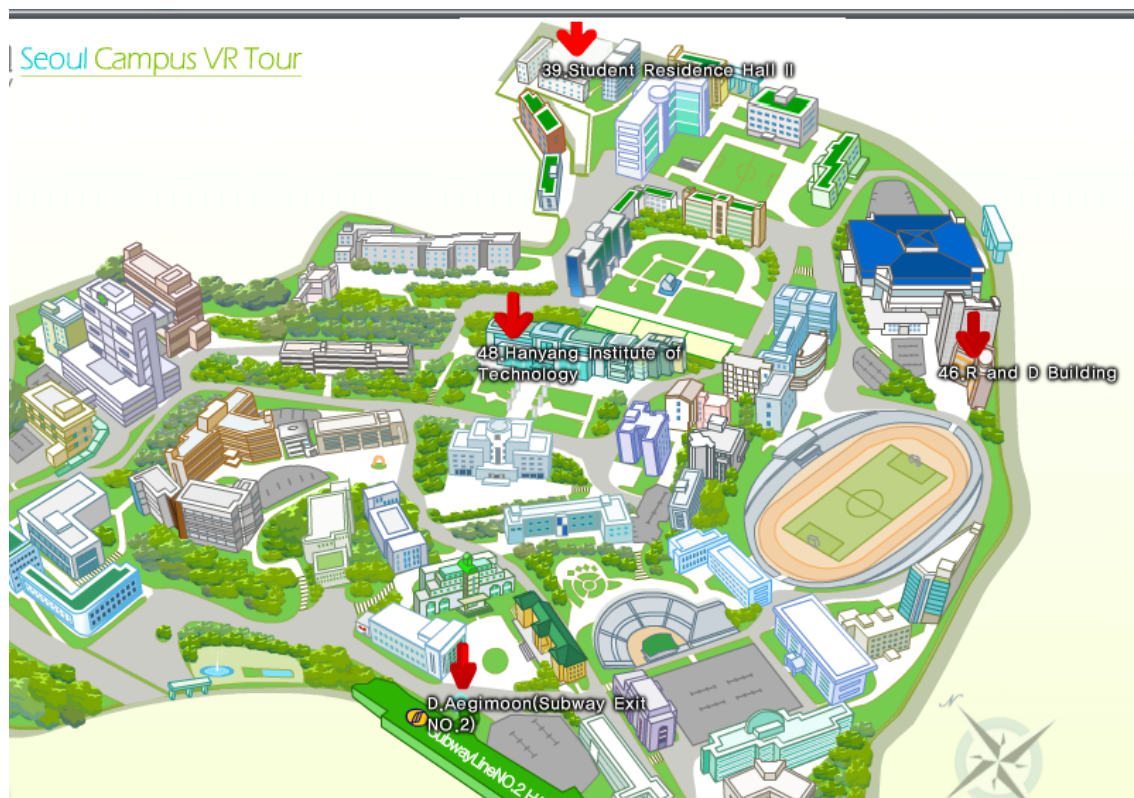
Prof Kashif Nisar, University Malaysia Sabah, Kota Kinabalu, Malaysia

## Logistics

Internet connection

will be open during the workshop hours for internet connections.

Coffee breaks (in Hallways 5F)



By Subway, Green Line No. 2

Reception for Faculty Members

Date: Dec. 1, 6:00PM

Location: Korean Restaurant Jumbo in President Hotel

<http://www.hotelpresident.co.kr/dining/jumbo.php>

Welcome Dinner for All Members (Dinner for All Faculty and student members)

Date: Dec. 2, 6:00PM

Location: to be announced

## Hotel information

Hotel President (Near Seoul City Hall)

Tel : +82 02-753-3131

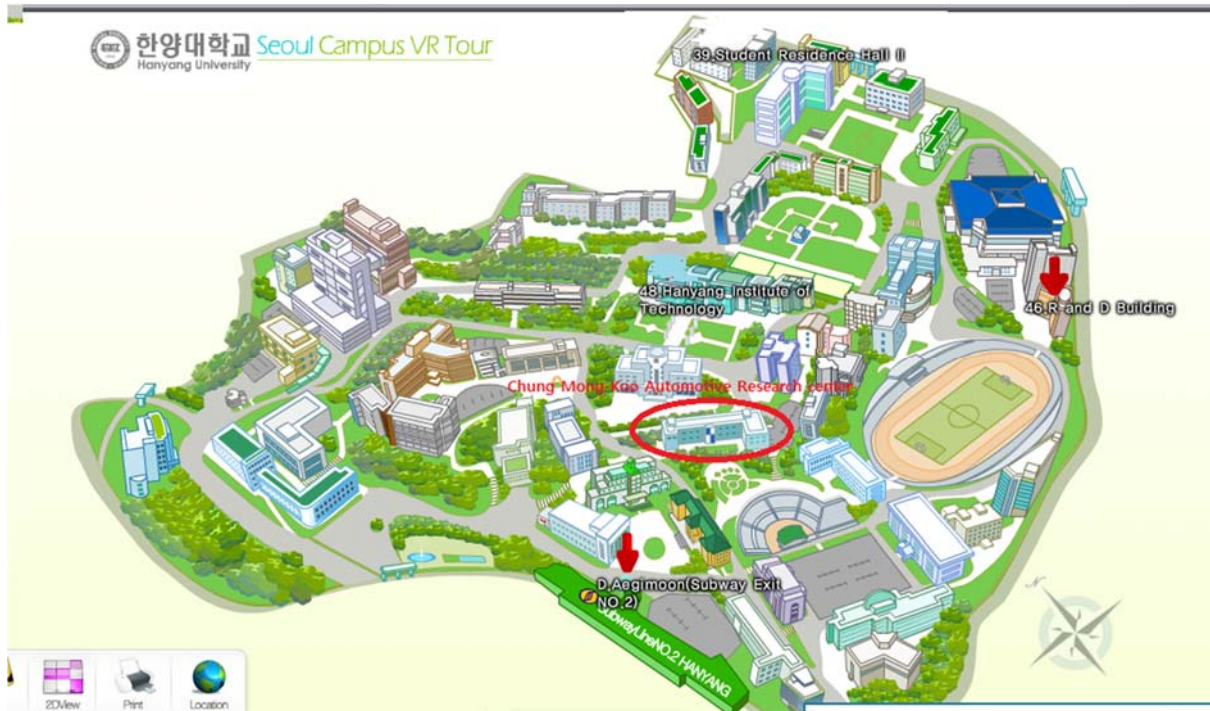
## Directions to Hanyang University

### BY SUBWAY

- 100M from No. 6 Exit of Myeongdong Station, Subway Line 4
- No. 2 Exit of Hanyang University Station, Subway Line 2 (Green line)

### BY CAR

- Incheon Airport : Take Limousine Bus No. 6015 at bus stop 5B or 12A on ground floor
- Gimpo Airport : Take Bus No. 6001 at No. 4 bus stop of Domestic Terminal or No. 6 bus stop at International Terminal
- Urban Bus : No. 470, 471, 472, 0013, 0211, 7014, 7011, 02(Cycle Route)
- Parking : Hi-Parking Lot (charge)



## Guest House (for Students)

### BY SUBWAY

- 100M from No. 6 Exit of Myeongdong Station, Subway Line 4

### BY CAR

- Incheon Airport : Take Limousine Bus No. 6015 at bus stop 5B or 12A on ground floor
- Gimpo Airport : Take Bus No. 6001 at No. 4 bus stop of Domestic Terminal or No. 6 bus stop at International Terminal
- Urban Bus : No. 470, 471, 472, 0013, 0211, 7014, 7011, 02(Cycle Route)
- Parking : Hi-Parking Lot (charge)

- 1) Get off at Hanyang University Station Exit No.2
- 2) Find your way to Residence Hall II located next to Hanyang Women's College – 15 minutes of walk.





## Information for Check-in and Check-out

	Time	Process
Check-in	10:00 ~ 22:00	① When you arrive at the International House III, Ring the bell at the front door on the 1 <sup>st</sup> floor. ② Check-in at the office on the 2 <sup>nd</sup> floor. ③ In the absence of the Resident Assistant (R.A), please make a phone call to the R.A on duty. The number will be attached to the door.
Check-out	Before 11:30(a.m)	① All guests must check out before 11:30 a.m ② Return the entrance cards to the office or drop it in the cardbox in elevator when you check out. ※ If you lose your entrance cards, you should pay 10,000 won for a card to the invitation department.