

## October 18 (Wednesday)

10:00-10:30
Opening Ceremony (Location: Halla Hall)
10:00 – 10:05 Bengt Stahl (The President of International Association of Institutes of Navigation, Sweden)
10:05 – 10:10 Sang Jeong Lee (The Chair of International Program Committee, Korea)
10:10 – 10:15 Doo-Chan Chang (The President of Korean Institute of Navigation and Port Research, Korea)
10:15 – 10:20 Gyu In Jee (The president of GNSS Technology Council, Korea)
10:20 – 10:30 Tae Hwan Kim (The Governor of Jeju Special Self-Governing Province, Korea)
10:30-10:40
Coffee Break
10:40-12:00
Keynote Speech Chair: Sang Hyun Suh (Korea Ocean Research & Development Institute, Korea) (Location: Halla Hall)
10:40 – 11:20 “The Evolving GNSS Panorama” (Vidal Ashkenazi, Nottingham Scientific Ltd., United Kingdom)
11:20 – 12:00 “The International GNSS Service IGS: Supporting New Developments in Satellite-based Navigation Systems” (J.M.Dow, ESA/European Space Operations Centre, Germany)
13:30-15:30
Special Talks on Current Status of GNSS Chair: Gyu In Jee (Konkuk University, Korea) (Location: Halla Hall)
13:30 – 14:00 “GPS policy and GPS status” (Ruth Neilan, NASA, USA)
14:00 – 14:30 “Galileo at the Horizon: Compliment or Competition to GPS?” (Guenter W. Hein, University FAF Munich, Germany)
14:30 – 15:00 “Chinese Activities in GNSS” (Liqing Shao, NRSCC, China)
15:00 - 15:30 “QZSS Status” (Susumu Yoshitomi, Japan Aerospace Exploration Agency, Japan)
15:30-17:30
A1: GNSS Augmentation & Modernization (1) Chair: *Sang Jeong Lee, **Jong-Uk Park (*Chungnam National University, **Korea Astronomy and Space Science Institute, Korea) (Location: Halla Hall)
15:30-15:50 Gate-to-Gate with Modernized GPS, GALILEO and GBAS Wolfgang Schuster, Washington Ochieng (Imperial College London, United Kingdom)
15:50-16:10 A Validated Solution for the Threat of Ionosphere Spatial Anomalies to Ground Based Augmentation System Users Sam Pullen, Jiyun Lee, Seebany Datta-Barua, Young Shin Park, Godwin Zhang, Per Enge (Stanford University, USA)

<p>16:10-16:30 Analysis of Pseudolite Augmentation for Vessel Berthing Deuk Jae Cho, Sang Hyun Park, Sang Hyun Suh (Korea Ocean Research &amp; Development Institute, Korea)</p>
<p>16:30-16:50 Modeling Differential Global Positioning System Pseudorange Correction *M. Mohasseb, **A. El-Rabbany, ***O. Abd El-Alim, ****R. Rashad (*Arab Institute of Navigation, **Ryerson University, ***Alexandria University, ****Arab Academy for Science and Technology and Maritime Transport, Egypt)</p>
<p>16:50-17:10 MAGIC: GALILEO and SBAS Services in a Nutshell N. Zarraoa, A. Tajdine, J. Caro, I. Alcantarilla, D. Porras (GMV S.A., Spain)</p>
<p><b>B1: Transportation Technology &amp; Safety (1)</b> Chair: *David Last, **Joong Woo Lee (*Royal Institute of Navigation, United Kingdom, **Korea Maritime University, Korea) (Location: Samda A Hall)</p>
<p>15:30-15:50 Review on the Application of Statistical Methods to Maritime Traffic Safety Assessment In-Young Gong (Korea Ocean Research &amp; Development Institute, Korea)</p>
<p>15:50-16:10 A Trial Toward Marine Watch System by Image Processing *Masatoshi Shimpou, **Masato Hirasawa, **Keiichi Ishida, **Masaki Oshima (*Mitsubishi Electric Corporation, **Tokyo University of Marine Science and Technology, Japan)</p>
<p>16:10-16:30 A Safety Evaluation of Moored Ship Motions by Observed Tsunami Profile *Ik-Soon Cho, **Masayoshi Kubo, *Gil-Young Kong, *Yun-Sok Lee, ***Choong-Ro Lee (*Korea Maritime University, Korea, **Kobe University, Japan, ***Korea Institute of Maritime and Fisheries Technology, Korea)</p>
<p>16:30-16:50 Variation of Harbor Oscillations in Yeongil Bay Min-Su Jeon, Joong-Woo Lee, Jae-Hyun Jeong, Sang-Yong Yang, Young-Hwan Jeong (Korea Maritime University, Korea)</p>
<p>16:50-17:10 Maritime Casualties Occurred Onboard Ships Registered under the Central American Region Flag States Oscar Porrás Rojas, Hayama Imazu, Takahiko Fujisaka (Tokyo University of Marine Science and Technology, Japan)</p>
<p><b>C1: General Navigation Applications (1)</b> Chair: *Dick Smith, **Jung-Sik Jeong (*International Association of Institutes of Navigation, United Kingdom, **Mokpo National Maritime University, Korea) (Location: Samda B Hall)</p>
<p>15:30-15:50 Performance Requirement of Ship's Speed in Docking/Anchoring Maneuvering *Kimio Tatsumi, **Hidenobu Fujii, **Takashi Kubota, ***Shigeyuki Okuda, ***Yasuo Arai, ****Nobuyoshi Kouguchi, *****Kozaburo Yamada (*Hiroshima National College of Maritime Technology, **Oshima National College of Maritime Technology, ***Marine Technical College, ****Kobe University, *****Hitachi Zosen Corporation, Japan)</p>

15:50-16:10 Support Systems for Pilotage, Past and Future Rein van Gooswilligen (Dutch Pilots' Corporation, Netherlands)
16:10-16:30 Enabling Vessel Collision-Avoidance Expert Systems to Negotiate *Qinyou Hu, *Chaojian Shi, *Haishan Chen, **Qiaoer Hu (*Shanghai Maritime University, **Jiangsu Maritime Institute, China)
16:30-16:50 A Modification of the Approach to the Evaluation of Collision Risk Using Sech Function Tae-Gweon Jeong, Chen Chao (Korea Maritime University, Korea)
16:50-17:10 The Assessment of Safe Navigation Regarding Hydrodynamic Forces between Ships in Restricted Waterways Chun-Ki Lee, Jeom-Dong Yoon (Korea Maritime University, Korea)
17:10-17:30 Ship Collision Avoidance System Considering Ship's Maneuverability *Seung-Keon Lee, **S. Surendran, ***Nam-Kyun Im, *Sung-Jun Hwang (*Pusan National University, Korea, **IIT, India, ***Mokpo National Maritime University, Korea)
<b>D1: Inertia Systems &amp; Integration (1)</b> Chair: *Chan Sik Park, **Dong-Hwan Hwang (*Chungbuk National University, **Chungnam National University, Korea) (Location: 301)
15:30-15:50 Solution and Estimate to the Angular Velocity of INS Formed only by Linear Accelerometers Wu Junwei, Liu Jinfeng, Zhang Yunan, Yuan Na (Harbin Engineering University, China)
15:50-16:10 In-Flight Alignment of Inertial Navigation System Using Line-Of-Sight Information *Seung-Jin Oh, *Dong-Bum Kim, *Woo-Hyun Kim, **Sang-Keun Jeong, ***Hyung-Keun Lee, *Jang-Gyu Lee (*Seoul National University, **Agency for Defense Development, ***Hankuk Aviation University, Korea)
16:10-16:30 Development of an Intelligent and Hybrid Scheme for Rapid INS Alignment Yun-Wen Huang, Kai-Wei Chiang (National Cheng Kung University, Taiwan)
16:30-16:50 A New GPS Receiver Correlator for the Deeply Coupled GPS/INS Integration System Jeong Won Kim, Dong-Hwan Hwang, Sang Jeong Lee (Chungnam National University, Korea)
16:50-17:10 Integrating GPS/INS/PL for Robust Positioning: The Challenging Issues Jinling Wang, Ravindra Babu, Di Li, Franics Chan, Jinho Choi (University of New South Wales, Australia)
17:10-17:30 Singular Value Decomposition Approach to Observability Analysis of GPS/INS Sinpyo Hong, Ho-Hwan Chun (Pusan National University, Korea)
<b>E1: Hand-held, On-board, and Radio Navigation (1)</b> Chair: *Young-Baek Kim, **Tony Liu (*Hanyang Navicom Co., Korea, **Dalian Maritime University, China) (Location: 302)
15:30-15:50 Preliminary Orbit Determination For A Small Satellite Mission Using GPS Receiver Data *Narayanaswamy Nagarajan, **Burhan Bavkir, ***Ong Chuan Fu John (*Nanyang Tech University, **Siemens, ***Walton International Pte Ltd, Singapore)
15:50-16:10 Integrated Navigation and Sense & Avoid Systems for Micro Aerial Vehicles P. Vörsmann, S. Winkler, J.-B. Park (TU Braunschweig, Germany)

16:10-16:30 Development of Remote Radar/AIS Network System for Observing and Analyzing Vessel Traffic in Tokyo Bay Hideki Hagiwara, Ruri Shoji, Hitoi Tamaru, Shun Liu, Tadashi Okano (Tokyo University of Marine Science and Technology, Japan)
16:30-16:50 A Study on Multi-Layered EM Wave Absorber Using Natural Lacquer as a Binder Dong-Han Choi, Dong-Il Kim, Chang-Mook Choi, Rui Li (Korea Maritime University, Korea)
15:30-16:20
F1 Tutorial 1 Chair: Hyung Keun Lee (Hankuk Aviation University, Korea) (Location: 401)
GPS Fundamentals Jin Seok Hong (Microinfinity Inc., Korea)
16:20-16:40
Coffee Break
16:40-17:30
F1 Tutorial 2 Chair: Hyung Keun Lee (Hankuk Aviation University, Korea) (Location: 401)
DGPS Jung Jo (Korea Astronomy and Space Science, Korea)

### October 19 (Thursday)

09:40-11:40
A2: GNSS Augmentation & Modernization (2) Chair: *Changdon Kee, ** Kwang Soob Ko (*Seoul National University, **Republic of Korea Naval Academy, Korea) (Location: Halla A Hall)
09:40-10:00 European Augmentation Service - a GNSS Monitoring in South Europe Region Salvatore Gaglione, Armando Pacifico, Mario Vultaggio (Università degli Studi di Napoli "Parthenope", Italy)
10:00-10:20 Federated Filter Approach for GNSS Network Processing Xiaoming Chen, Ulrich Vollath, Herbert Landau (Trimble Terrasat GmbH, Germany)
10:20-10:40 Evolution of Korean Maritime DGPS System to High Accuracy Nationwide DGPS Service *Jong Uk Park, *Byung-Kyu Choi, *Jung-Hyun Jo, **Hyun-Dong Kong (*Korea Astronomy and Space Science Institute, **Ministry of Maritime and Fisheries of Korea, Korea)
10:40-11:00 Fast Ambiguity Resolution using Galileo Multiple Frequency Carrier Phase Measurement *Shengyue Ji, *Wu Chen, **Chunmei Zhao, *Xiaoli Ding, *Yongqi Chen (*The Hong Kong Polytechnic University, **Chinese Academy of Surveying & Mapping, Hong Kong)

<p>11:00-11:20 The Data Processing Method for Small Samples and Multi-variates Series in GPS Deformation Monitoring</p> <p>*Liu Guo-lin, *Zheng Wen-Hua, *Wang Xin-zhou, **Zhang Lian-Peng (*Shandong University of Sci-Tech, ** Xuzhou Normal University, China)</p>
<p>11:20-11:40 GPS Satellite Orbit Prediction Based on Unscented Kalman Filter</p> <p>*,**Zuoya Zheng, *Yongqi Chen, **Lu Xiushan, **Du Zhixing (*The Hong Kong Polytechnic University, Hong Kong, **Shandong University of Science and Technology, China)</p>
<p><b>B2: Transportation Technology &amp; Safety (2)</b></p> <p>Chair: *Hideki Hagiwara, **Kuniaki Shoji (*Tokyo University of Marine Science and Technology, **Japan Institute Navigation, Japan) (Location: Samda A Hall)</p>
<p>09:40-10:00 A Design of Adaptive Controller for Transportation System with Dynamic Friction</p> <p>Jin Woo Lee, Jeon Hyun Seo, Seung Hoon Han, Kwon Soon Lee (Dong-A University, Korea)</p>
<p>10:00-10:20 A Design of Optimal Controller with Friction Reduction of Linear Motor-Based Transfer System via Lift-force Control</p> <p>Jung Hyun Seo, Jin Woo Lee, Kwon Soon Lee (Dong-A University, Korea)</p>
<p>10:20-10:40 Uruguay – Brazil Inland Waterway Transportation System Defining the Right Vessel</p> <p>Gastón L. Petrocelli, Yuji Hayashi, Koji Murai, Masayoshi Kubo (Kobe University, Japan)</p>
<p>10:40-11:00 AIS Land Infrastructure and Its Utilization</p> <p>Rolf Zetterberg (Swedish Maritime Administration, Sweden)</p>
<p>11:00-11:20 Charisma: Trimble's Modernized Differential GPS Reference Station and Integrity Monitor Software</p> <p>Benjamin W. Remondi (Trimble Navigation, Ltd., USA)</p>
<p><b>C2: General Navigation Applications (2)</b></p> <p>Chair: *Adam Weintrit, **Rein Van Gooswilligen (*Gdynia Maritime University, Poland, **Dutch Pilots' Corporation, Netherlands) (Location: Halla B Hall)</p>
<p>09:40-10:00 The Datum Design Study of High Precision GPS Height Monitoring Network---- with the Example of Monitoring Land Subsidence &amp; Ground Fissure in Xi'an City</p> <p>Zhang Qin, Wang Li, Liu Zhong, Huang Guan-Wen, Ding Xiao-Guang (Chang'an University, China)</p>
<p>10:00-10:20 Monitoring and Analysis of Galileo Services Performance using GalTeC</p> <p>*H. Su, *W. Ehret, *H. Blomenhofer, **E. Blomenhofer (*Thales Inc., **NavPos Systems GmbH, Germany)</p>
<p>10:20-10:40 Real Time Monitoring of Cars during European Rally Championships in Poland in 2005</p> <p>*Oszczak Bartlomiej, **Specht Cezary, *Oszczak Stanislaw, *Eliza Sitnik (*University of Warmia and Mazury in Olsztyn, **Naval University in Gdynia, Poland)</p>
<p>10:40-11:00 Real-Time Decision Support for Planning Concrete Plant Operation with an Integrated Vehicle Navigation System</p> <p>Wu Chen, Ming Lu, Fei Dai, Xuesong Shen (The Hong Kong Polytechnic University, Hong Kong)</p>

11:00-11:20 Test and Integration of Location Sensors for Position Determination in a Pedestrian Navigation System Guenther Retscher, Michael Thienelt (Vienna University of Technology, Austria)
D2: Inertia Systems & Integration (2) Chair: Heung Woon Park, Dong-Ho Shin (Agency for Defense Development, Korea) (Location: Samda B Hall)
09:40-10:00 Improving Covariance Based Adaptive Estimation for GPS/INS Integration Weidong Ding, Jinling Wang, Chris Rizos (University of New South Wales, Australia)
10:00-10:20 Improvement of a Low Cost MEMS-based GPS/INS, Micro-GAIA Takeshi Fujiwara, Toshiaki Tsujii, Hiroshi Tomita, Masatoshi Harigae (Japan Aerospace Exploration Agency, Japan)
10:20-10:40 Engineering Realization of Full Attitude System Based On GPS Carrier Phase and MEMS IMU Kanghua Tang, Meiping Wu, Xiaoping Hu (National University of Defense Technology, China)
10:40-11:00 A Neural Network and Kalman Filter Hybrid Approach for GPS/INS Integration *Jianguo Jack Wang, *Jinling Wang, **David Sinclair, **Leo Watts (*University of New South Wales, **QASCO Surveys Pty. Limited, Australia)
E2: Hand-held, On-board, and Radio Navigation (2) Chair: *Yun-Chul Jung, **Hyung Keun Lee (*Korea Maritime University, **Hankuk Aviation University, Korea) (Location: 301)
09:40-10:00 Design and Application of an Adaptive Neural Network to Dynamic Positioning Control of Ship Phung-Hung Nguyen, Yun-Chul Jung (Korea Maritime University, Korea)
10:00-10:20 Development of New Radar Beacon *Shogo Hayashi, **Tatsuo Sato, **Senji Tanaka, ***Tsutomu Suzuki (*Tokyo University of Marine Science and Technology, **Japan Aids to Navigation Association, ***University of Electro-Communications, Japan)
10:20-10:40 Development of Broad-Band Electromagnetic Wave Absorber for X-band Sensors in Double-layered Type Using Carbon Chang-Mook Choi, Dong-Il Kim, Dong-Han Choi, Rui Li (Korea Maritime University, Korea)
10:40-11:00 Intelligent Support System for Ship Steering Control System Based on Network *Ki-Yeol Seo, *Sang-Hyun Suh, **Gyei-Kark Park (*Korea Ocean Research & Development Institute, **Mokpo National Maritime University, Korea)
09:40-10:30
F2 Tutorial 3 Chair: Deuk Jae Cho (Korea Ocean Research & Development Institute, Korea) (Location: 302)
Receiver Technology Heung Seok Seo (Hanyang Navicom Co., Korea)
10:30-10:50
Coffee Break
10:50-11:40
F2 Tutorial 4 Chair: Deuk Jae Cho (Korea Ocean Research & Development Institute, Korea) (Location: 302)

Integration & Applications Seong Yun Cho (Electronics and Telecommunications Research Institute, Korea)
11:40-13:30
Poster Session   (Location: 3F Lobby)
(PS01) SBAS Signal Synchronization Gangho Kim, Doyoon Kim, Taikjin Lee, Changdon Kee (Seoul National University, Korea)
(PS02) Lad-Scale Sequencing Batch Reactor for the Optimum Treatment of Ship Sewage Sang-Ho Park, In-Soo Kim (Korea Maritime University, Korea)
(PS03) A Study on the Comparison of Wind Pressure on the Member of Container Crane using Wind Tunnel Test and CFD Tae-Won An, Seong-Wook Lee, Dong-Seop Han, Geun-Jo Han (Dong-A University, Korea)
(PS04) Using DGPS as An Acceleration Sensor for Airborne Gravimetry Kaidong Zhang, Lincheng Shen, Xiaoping Hu, Meiping Wu (National University of Defense Technology, China)
(PS05) Simulator of Underwater Navigation Mariusz Waz (Naval University of Gdynia, Poland)
(PS06) GPS Data Application of the KOMPSAT-2 *Dae-Won Chung, *Ki-Ho Kwon, **Sang-Jeong Lee (*Korea Aerospace Research Institute, **Chungnam National University, Korea)
(PS07) A Development of Integrated Operation System of Container Terminals in Ubiquitous Environment using RFID Doo-Jin Park, Ju-Young Yoo, Ki-Chan Nam (Korea Maritime University, Korea)
(PS08) Tightly Coupled INS/GPS Navigation System using the Multi-Filter Fusion Technique Seong Yun Cho, Byung Doo Kim, Young Su Cho, Wan Sik Choi (Electronics and Telecommunications Research Institute, Korea)
(PS09) A New Approach for SINS Stationary Self-alignment Based on IMU Measurement Jiangbin Zhou, Jianping Yuan, Xiaokui Yue (Northwestern Polytechnical University, China)
(PS10) Ionospheric Storm and Spatial Gradient Analysis for GBAS *Jeongrae Kim, *Tae Hyoung Yang, **Young Jae Lee, ***Hyang Sig Jun, ***Gi Wook Nam (*Hankuk Aviation University, **Konkuk University, ***Korea Aerospace Research Institute, Korea)
(PS11) LEO Satellite Time Synchronization Architecture *Ki-Ho Kwon, *Day-Young Kim, *Jong-In Lee, *Hak-Jung Kim, **Sang-Jeong Lee (*Korea Aerospace Research Institute, **Chungnam National University, Korea)
(PS12) An Intelligent Multi-agent System for Efficient Gate Operation in a Container Terminal Dong-Ho Yoo, Hyung-Rim Choi, Byung-Joo Park, Moo-Hong Kang (Dong-A University, Korea)
(PS13) Design of Multisensor Navigation System for Autonomous Precision Approach and Landing *Ben K.H. Soon, *Steve Scheduling, **Hyung-Keun Lee, ***Hung-Kyu Lee (*University of Sydney, Australia, **Hankuk Aviation University, Korea, ***Changwon National University, Korea)
(PS14) Safety Analysis to Derive Safety Requirement in the Railway System Eui-jin Joung, kyung-ho Shin, Yong-gyu Kim (Korea Railroad Research Institute, Korea)



(PS15) Treatment of Ballast Water by Complex Process of Advance Filtration System Sang-Ho Park, In-Soo Kim (Korea Maritime University, Korea)

13:30-15:50

A3: GNSS Augmentation & Modernization (3)

Chair: \*Mario Vultaggio, \*\*Gi Wook Nam (\*Università degli Studi di Napoli "Parthenope", Italy, \*\*Korea Aerospace Research Institute, Korea) (Location: Halla A Hall)

13:30-13:50 Assisted GNSS Positioning for Urban Navigation Based on Receiver Clock Bias Estimation and Prediction Using Improved ARMA Model

\*LinyuanXia, \*\*Esmond Mok (\*Wuhan University, China, \*\*The Hong Kong Polytechnics University, Hong Kong)

13:50-14:10 Inversion Research on the Shortening and Sliding of Drape Zones between Chinese Continent Blocks by GPS Data

Du zhixing, Yang fanlin, Wang xinzhou, Lu xiushan, Zhang huizhan (Shandong University of Science and Technology, China)

14:10-14:30 Study on the Application of GPS to Monitoring Land Subsidence

Cheng Shu, Wang Xinzhou (Shandong University of Science and Technology, China)

14:30-14:50 Field Research for Advanced GPS Network RTK Solution

\*Sang-Gu Kang, \*\*Joel van Cranenbroeck, \*\*\*SangHoon Oh (\*Korea Cadastral Survey Corp, Korea, \*\*Leica Geosystems AG, Belgium, \*\*\*Leica Geosystems Korea, Korea)

14:50-15:10 Regional Integrity Analysis using modernized GPS, Galileo and SBAS \*Sang Sul Han, \*\*Dae Sik Shin, \*\*Jong Chul Cho, \*\*\*Chansik Park, \*\*\*\*Hyang-Sik Jun, \*\*\*\*Gi-Wook Nam, \*\*Sang Jeong Lee (\*Agency for Defense Development, \*\*Chungnam National University, \*\*\*Chungbuk National University, \*\*\*\*Korea Aerospace Research Institute, Korea)

B3: Transportation Technology & Safety (3)

Chair: \*Carl Andren, \*\* Tae-Gweon Jeong (\*The Institute of Navigation, USA, \*\*Korea Maritime University, Korea) (Location: Samda A Hall)

13:30-13:50 Research on Transferring the National Height System to the Island

Yanxiong Liu, Xinghua Zhou, Lin Peng, Yongtong Wu (The First Institute of Oceanography, SOA, China)

13:50-14:10 Investigation of Stress on Seafarers by Biochemical Inspections and Heart Rate Measurements

Serng-Bae Moon, Seung-Hwan Jun (Korea Maritime University, Korea)

14:10-14:30 Airspace Safety Assessment for Implementation of the Japanese Domestic Reduced Vertical Separation Minimum

Osamu Amai, Sakae Nagaoka, (Electronic Navigation Research Institute, Japan)



<p>14:30-14:50 An Analysis on the Relationships between Port Selection Factors Myoun-Soo Lee, Tae-Won Kim, Woo-Jun Jang, Kyu-Seok Kwak, Ki-Chan Nam (Korea Maritime University, Korea)</p>
<p><b>C3: Inertia Systems &amp; Integration (3)</b> Chair: *Chaojian Shi, **Chris Rizos (*Shanghai Maritime University, China, **University of New South Wales, Australia) (Location: Halla B Hall)</p>
<p>13:30-13:50 Navitronics and Nautomatics - A New Challenges for Navigation Adam Weintrit (Gdynia Maritime University, Poland)</p>
<p>13:50-14:10 Inverted RTK System and Its Applications in Japan Masayuki Kanzaki (Nippon GPS Solutions Corporation, Japan)</p>
<p>14:10-14:30 Collaboration to Enhance Development and Application of Shiphandling Simulators *Chaojian Shi, *Jinbiao Chen, *Baojia Xiao, **Baocheng Ding (*Shanghai Maritime University, **China Institute of Navigation, China)</p>
<p>14:30-14:50 Driving Burj Dubai Core Walls with an Advanced Data Fusion System *Joël van Cranenbroeck, **Douglas McL Hayes, ***Ian R Sparks (*Leica Geosystems AG, Belgium, ** Burj Dubai Tower, United Arab Emirates, ***Connell Wagner, Australia)</p>
<p>14:50-15:10 A Study on the Revitalization of Intermodal Transport for Increasing Intra-trade at North-east Asia Sung-Soo Kim, Chan-Yong Jeon, Tae-Won Kim, Kyu-Seok Kwak, Ki-Chan Nam (Korea Maritime University, Korea)</p>
<p><b>D3: Algorithms &amp; Application (1)</b> Chair: *Tae-Kyung Sung, **Jung Jo (*Chungnam National University, **Korea Astronomy and Space Science Institute, Korea) (Location: Samda B Hall)</p>
<p>13:30-13:50 Error Analysis of Time-based and Angle-based Location Methods Dong-Hyoun Kim, Seung-Hun Song, Tae-Kyung Sung (Chungnam National University, Korea)</p>
<p>13:50-14:10 Development of an AOA Location Method Using Covariance Estimation Sung-Ho Lee, Gi-Hong Roh, Tae-Kyung Sung (Chungnam National University, Korea)</p>
<p>14:10-14:30 A Neural Network Aided Kalman Filtering Approach for SINS/RDSS Integrated Navigation He Xiao-Feng, Hu Xiao-Ping, Lu Liang-Qing, Tang Kang-Hua (National University of Defense Technology, China)</p>
<p>14:30-14:50 Interactive Navigational Structures *Krzysztof Czaplewski, *, **Zbigniew Wisniewski (*Naval University of Gdynia, **University of Warmia and Mazury, Poland)</p>
<p>14:50-15:10 The Development Plan of KASI GNSS Data Processing Software *Jung Hyun Jo, *Sungki Cho, *Hyungchul Lim, *Byungkyu Choi, *Jeong Ho Jo, *Woo-Kyoung Lee, *Jeongho Baek, **Nammi Jo Choe, *Jong-Uk Park (*Korea Astronomy and Space Science Institute, **Korea Ministry of Science and Technology, Korea )</p>

<p>15:10-15:30 On the Design of Geodetic SVLBI Satellite Orbit and Its Tracking Network  *Wei Erhu, *Liu Jingnan, **Kulkarni M. N, ***Frey Sándor (*Wuhan University, China,  **Indian Institute of Technology Bombay, India, ***FÖMI Satellite Geodetic Observatory, Hungary)</p>
<p>E3: GIS &amp; Survey  Chair: *Andrzej Felski, ** Jinling Wang (*Naval University of Gdynia, Poland,  **University of New South Wales, Australia) (Location: 301)</p>
<p>13:30-13:50 Precise Positioning of Autonomous Underwater Vehicle in Post-processing Mode  Andrzej Felski (Naval University of Gdynia, Poland)</p>
<p>13:50-14:10 The Application of Geography Markup Language(GML) to the Maritime Information  Se-Woong Oh, Jong-Min Park, Sang-Hyun Suh (Korea Ocean Research &amp; Development Institute, Korea)</p>
<p>14:10-14:30 Monitoring Activities of Permanent GPS Stations at Tide Gauge in South Korea  Jihye Won, Kwan-Dong Park, Sang-Ho Kim (Kookmin University, Korea)</p>
<p>14:30-14:50 Realization of New Korean Horizontal Geodetic Datum: GPS Observation and Network  Adjustment  *Young-Jin Lee, **Hung-Kyu Lee, *Gwang-Ho Jung (*Kyungil University, **Changwon National  University, Korea)</p>
<p>14:50-15:10 Simplified Noise Modeling of GPS Measurements for a Fast and Reliable Cycle Ambiguity  Resolution  Byungwoon Park, Changdon Kee (Seoul National University, Korea)</p>
<p>F3 Domestic Session 1: LBS &amp; Receiver Technology  Chair: Jin Seok Hong (Microinfinity Inc., Korea) (Location: 302)</p>
<p>13:30-13:50 A Technology on the GPS CRPA Beam Pattern Control using the I/Q Vector Modulator  Jun-O Kim, Jun-Seung Bae (Agency for Defense Development, Korea)</p>
<p>13:50-14:10 Performance Evaluation of The Adaptation Algorithm in The ATF for The GPS Receiver  *Jin Kyu Choi, **Geon Woo Lee, ***Chansik Park, ****Dae Yearl Lee, ****Ho keun Lee, **Dong-Hwan  Hwang, **Sang Jeong Lee (*Korea Ocean Research &amp; Development Institute, **Chungnam National  University, ***Chungbuk National University, ****Agency for Defense Development, Korea)</p>
<p>14:10-14:30 Operation Characteristics of the GPS Receiver under Vibration and Shock Environments  Byung-Moon Kown, Ji-Hyeon Moon, Hyung-Don Choi (Korea Aerospace Research Institute, Korea)</p>
<p>14:30-14:50 Design of GPS/WAAS Software Receiver  *Deon Won Lim, *Mi Young Shin, *Yong Hyun Kim, **Chansik Park, *Dong-Hwan Hwang, ***Moon Beom  Heo, *Sang Jeong Lee (*Chungnam National University, **Chungbuk National University, ***Korea  Aerospace Research Institute, Korea)</p>
<p>14:50-15:10 Development of High Performance GNSS Software Receiver  *Jong Chul Cho, *Deok Won Lim, **Tae Ho Kim, ***Chansik Park, *Sang Jeong Lee (*Chungnam National  University, **Research Institute of Ubiquitous Bio-Information Technology, ***Chungbuk National  University, Korea)</p>
<p>15:10-15:30 Performance Analysis of a GPS Tracking Module  Gi-Hong Roh, Tae-Kyung Sung (Chungnam National University, Korea)</p>

15:30-15:50 A Study on the Tracking Loop Design for Weak Signal in High Dynamic Environment Ki-Hoon Lee, Bok-Soo Paik (Agency for Defense Development, Korea)
15:50-16:10
Coffee Break
16:10-18:10
<b>A4: GNSS Augmentation &amp; Modernization (4)</b> <b>Chair: *Refaat Rashad, **Baojia Xiao</b> (*Arab Institute of Navigation, Egypt, **Shanghai Maritime University, China) (Location: Halla A Hall)
16:10-16:30 The Technical Benefits of Future GNSS for Taiwan Kai-Wei Chiang, Ming Yang, Meng-Lun Tsai, Yao-Yun Chang, Chi-Kuang Chu (National Cheng Kung University, Taiwan)
16:30-16:50 Integrity, Orbit Determination and Time Synchronisation Algorithms for Galileo M. M. Romay Merino, C. Hernández Medel, J. R. Martín Piedadelobo (GMV S.A., Spain)
16:50-17:10 A Maximum Likelihood Estimator Based Tracking Algorithm for GNSS Signals Jong-Hoon Won, Thomas Pany, Bernd Eissfeller (University FAF Munich, Germany)
17:10-17:30 The Benefit of Ambiguity Resolution Using Triple Frequency *Reiji Tominaga, *Yasuto Gomi, **Yun Zhang, *Nobuaki Kubo, *Akio Yasuda (*Tokyo University of Marine Science and Technology, **GEOSURF corporation, Japan)
17:30-17:50 GNSS: Resuscitated GLONASS, GPS Modernization, Galileo, and Beyond Tony Liu (Dalian Maritime University, China)
17:50-18:10 Virtual Ground Based Augmentation System Giuseppe Del Core, Salvatore Gaglione, Mario Vultaggio, Armando Pacifico (Università degli Studi di Napoli "Parthenope", Italy)
<b>B4: Atmospheric Effects on GNSS (1)</b> <b>Chair: *Kwan-Dong Park, **Jeong-Rae Kim</b> (*Kookmin University, **Hankuk Aviation University Korea) (Location: Samda A Hall)
16:10-16:30 Comparison of GPS Antenna Calibration Models and Their Effects in Determination of Precipitable Water Vapors Kwan-Dong Park, Jihye Won, Jihyun Ha (Kookmin University, Korea)
16:30-16:50 Effects of Geomagnetic Storms on the Middle Atmosphere and Troposphere by Ground-based GPS Observations *,**Shuanggen Jin, *Jong-Uk Park, *Pil-Ho Park, *Jung-Ho Cho (*Korea Astronomy and Space Science Institute, South Korea, **Chinese Academy of Science,China)
16:50-17:10 Atmospheric Profiles from KOMPSAT-5 Radio Occultation : A Simulation Study *,**Woo-Kyoung Lee, *Sungki Cho, *Jung Hyun Jo, *Jong-Uk Park, ***Jae-Cheol Yoon, ***Jin-Ho Lee, ***Yong-Sik Chun (*Korea Astronomy and Space Science Institute, **Korea University of Science and Technology, ***Korea Aerospace Research Institute, Korea)

<p>17:10-17:30 Evaluation of Ambiguity Estimator between Reference Stations Yasuto Gomi, Reiji Tominaga, Nobuaki Kubo, Akio Yasuda (Tokyo University of Marine Science and Technology, Japan)</p>
<p>C4: LBS &amp; Receiver Technology (1) Chair: * Frantisek Vejrazka, **Krzysztof Czaplewski (*The Czech Institute of Navigation, Czech Republic, ** Naval University of Gdynia, Poland) (Location: Halla B Hall)</p>
<p>16:10-16:30 Design and Implementation of Spread Spectrum Ultrasonic Location System Ju-Young Shim, Hyung Keun Lee (Hankuk Aviation University, Korea)</p>
<p>16:30-16:50 A-GPS (Assisted GPS), Is This the System We Need for Indoor Location &amp; Navigation? *Lars E Magnusson, **Oskar Grönqvist (*TeliaSonera, **University of Linköping, Sweden)</p>
<p>16:50-17:10 Development of a Simulation Tool to Evaluate GNSS Positioning Performance in Urban Area Falin Wu, Gang-Jun Liu, Kefei Zhang, Liam Densley (RMIT University, Australia)</p>
<p>17:10-17:30 Guaranteed GNSS-based Road Charging Applications through User-Level Integrity *Audrey Mark, **Joaquín Cosmen Schortmann, **Miguel Ángel Martínez Olagüe, *Miguel Romay Merino (*GMV, S.A., **Grupo GMV, Spain)</p>
<p>17:30-17:50 Investigation and Testing of Location Systems Using WiFi in Indoor Environments *Guenther Retscher, **Esmond Mok (*Vienna University of Technology, Austria, **The Hong Kong Polytechnic University, Hong Kong)</p>
<p>D4: Algorithms &amp; Application (2) (Chair: *Sang Hyun Park, **Moon-Beom Heo (*Korea Ocean Research &amp; Development Institute, **Korea Aerospace Research Institute, Korea) (Location: Samda B Hall)</p>
<p>16:10-16:30 GPS Phase Measurement Cycle-Slip Detection Based on a New Wavelet Function *,**Zheng Zuoya, *Lu Xiushan, *Wang Xinzhou, *Chen Chuanfa (*Shandong University of Science and Technology, China, **The Hong Kong Polytechnic University, Hong Kong)</p>
<p>16:30-16:50 Direct Calculation For Large Deformation *,**Wang Xin-zhou, *Qiu Lei (*Wuhan University, **Shandong University of Science and Technology, China)</p>
<p>16:50-17:10 Two Layer Multiquadric-Biharmonic Artificial Neural Network for Area Quasigeoid Surface Approximation with GPS-Levelling Data *Xingsheng Deng, *,**Xinzhou Wang (*Wuhan University, **Shandong University of Science and Technology, China)</p>
<p>17:10-17:30 Performance Analysis of Acquisition Methods for DGPS Reference Receiver under Noisy Environment Sang Hyun Park, Deuk Jae Cho, Sang Hyun Suh (Korea Ocean Research &amp; Development Institute, Korea)</p>
<p>17:30-17:50 Effects of Observation Parameters on Time Transfer Using GPS Seung Woo Lee, Chang Bok Lee, Sung Hoon Yang, Young Kyu Lee, Ji Ae Han (Korea Research Institute of Standards and Science, Korea)</p>

17:50-18:10 Experiments for Utilizing GNSS in a Shore Area Sensor Network

\*Harumasa Hojo, \*Akio Yasuda, \*Chunming Fan, \*\*\*Masashi Yoshida, \*\*Yoshikazu Koike, \*\*Masateru Minami (\*Tokyo University of Marine Science and Technology, \*\*Shibaura Institute of Technology, \*\*\*Salesian Politechnic, Japan)

E4 Domestic Session 2: Inertia System Integration

Chair: Dong-Ho Shin (Agency for Defense Development, Korea) (Location: 301)

16:10-16:30 Performance Improved INS/GPS with IIR/FIR Filter Fusion

Seong Yun Cho, Byung Doo Kim, Young Soo Cho, Wan Sik Choi (Electronics and Telecommunications Research Institute, Korea)

16:30-16:50 An Observability Analysis for the Calibration Technique among Operating Modes of INS/GPS Integration System

\*Young -Min Yoo, \*Kwangjin Kim, \*Chan Gook Park, \*\*Young Bum Park (\*Seoul National University, \*\*Agency for Defense Development, Korea)

16:50-17:10 Flight Test for Hybrid Navigation Module of GPS Guided Bomb

\*Sang Heon Oh, \*Seok Bo Son, \*\*Seung Bok Kwon, \*\*\*Don Ho Shin (\*Hanyang Navicom co., Ltd, \*\*NEX1 Future Co., Ltd., \*\*\*Agency for Defense Development, Korea)

17:10-17:30 Development of DGPS/INS Integrated Navigation Platform for Artificial Vision System of a Helicopter

\*Jeong Won Kim, \*Jong Chul Cho, \*Dae Sik Shin, \*Dong-Hwan Hwang, \*Sang Jeong Lee, \*\*Jae Hyung Kim, \*\*Hong Dae Kim, \*\*Myung Rae Ham (\*Chungnam National University, \*\*Korea Institute of Aerospace Technology, Korea)

17:30-17:50 Designing and Evaluating the Kalman Filter for the Baro-Inertial Vertical Channel

Hyun-Seok Kim, Youn-Seon Lee, Chang-He Je (Agency for Defense Development, Korea)

17:50-18:10 The Study on the Relation between Initial Alignment and Gyroscope Random Walk

Ki-Jeong Yoo, Cheon-Joong Kim, Hyun-Seok Kim, Heung-Won Park (Agency for Defense Development, Korea)

F4 Domestic Session 3: UAV Application

Chair: Dong-Hwan Hwang (Chungnam National University, Korea) (Location: 302)

16:10-16:30 Real-time Target Localization Using a Gimbaled Camera for a Single-antenna GPS-guided UAV

\*Subong Sohn, \*\*Bhoram Lee, \*\*Jihoon Kim, \*\*Changdon Kee (\*Samsung Electronics, \*\*Seoul National University, Korea)

16:30-16:50 Proposal of Navigation Message Format for UAV Pseudolite Navigation System

Doyoon Kim, Byungwoon Park, Sanghyo Lee, Am Cho, Jihoon Kim, Changdon Kee (Seoul National University, Korea)

16:50-17:10 Development of GPS/Pseudolite Simulator for UAV Landing

\*Dae Sik Shin, \*Jin Kyu Choi, \*Geon Woo Lee, \*\*Chansik Park, \*Sang Jeong Lee (\*Chungnam National University, \*\*Chungbuk National University, Korea)

17:10-17:30 Automatic Takeoff and Landing of a UAV Based on a Single-Antenna GPS Receiver

Sanghyo Lee, Am Cho, Jihoon Kim, Changdon Kee (Seoul National University, Korea)

17:30-17:50 Design and Performance Analysis of Close Range UAV Navigation System Using MEMS IMU  
Sung-Chul Kim, Seoung-Tae Kwon, Jin-Seok Hong, Jin-Woo Song (Microinfinity Inc., Korea)

18:30-20:00

Banquet (Location: Tamna Hall)

## October 20 (Friday)

09:40-12:00

A5: Multipath

Chair: \*Hyung Keun Lee, \*\*Deuk Jae Cho (\*Hankuk Aviation University, \*\*Korea Ocean Research & Development Institute, Korea) (Location: Halla A Hall)

09:40-10:00 Measuring Multipath Error of a Pseudo Quasi-Zenith Satellite

\*Toshiaki Tsujii, \*Hiroshi Tomita, \*Yoshinori Okuno, \*\*Ivan Petrovski, \*\*Masahiro Asako, \*\*Kazuki Okano (\*Japan Aerospace Exploration Agency, \*\*GNSS Technologies Inc., Japan)

10:00-10:20 How Multipath Error Influences Modernized GNSS Ambiguity Resolution in Urban Areas  
Nobuaki Kubo, Akio Yasuda (Tokyo University of Marine Science and Technology, Japan)

10:20-10:40 Filtered-based GPS Structural Vibration Monitoring Methods and Comparison of Their Performances

\*P. Zhong, \*X.L. Ding, \*\*D.W. Zheng, \*W. Chen (\*Hong Kong Polytechnic University, Hong Kong, \*\*Chinese Academy of Sciences, China)

10:40-11:00 Analysis of Spatial and Temporal Adaptive Processing for GNSS Interference Mitigation  
Chung-Liang Chang, Jyh-Ching Juang (National Cheng Kung University, Taiwan)

B5: Maritime Education, Policy, Economic Issue (1)

Chair: \*Sang-Hyun Suh, \*\*Chae-Uk Song (\*Korea Ocean Research & Development Institute, \*\*Korea Maritime University, Korea) (Location: Samda A Hall)

09:40-10:00 GPS Policy in India: The Implications

Bal Krishna (Coordinates, India)

10:00-10:20 GNSS Center of Excellence for Safety Critical Applications, Simulation, Test & Certifications – GAUSS

H. Evers (GZVB Braunschweig, Germany)

10:20-10:40 Constructing Container Shipping Networks with Empty Container Repositioning among Calling Ports - a Genetic Algorithm Approach

\*Koichi Shintani, \*\*Akio Imai, \*\*Etsuko Nishimura, \*\*\*Stratos Papadimitriou (\*Oshima National College of Maritime Technology, Japan, \*\*Kobe University, Japan \*\*\*University of Piraeus, Greece)

10:40-11:00 Effect of Terminal Layouts on the Performance of Marine Terminals for Mega-containerships

\*Akio Imai, \*Etsuko Nishimura, \*\*Stratos Papadimitriou (\*Kobe University, Japan \*\*University of Piraeus, Greece)

<p>11:00-11:20 Impacts of Sea-level Rise on Port Facilities  *Chang-Bae Son, *Chang-Je Kim, *Won-Yil Jang, **Yuhei Matsubara, **Hedeaki Noda, ***Mi-Kum Kim  University, Korea, **Tottori University, Japan, **Tottori University, Korea)</p>
<p>C5: Atmospheric Effects on GNSS (2)  Chair: *Jeongrae Kim, **Moon-Beom Heo (*Hankuk Aviation University,  **Korea Aerospace Research Institute, Korea) (Location: Halla B Hall)</p>
<p>10:00-10:20 Ionospheric Peak Parameter foF2 and Its Variation Trend Observed by GPS  *,**Shuanggen Jin, *Jong-Uk Park, *Pil-Ho Park, *Byung-Kyu Choi  (*Korea Astronomy and Space Science Institute, Korea, **Chinese Academy of Sciences, China)</p>
<p>10:20-10:40 Estimation of Ionospheric Delays in Dual Frequency Positioning – Future Possibility of  Using Pseudo Range Measurements –  Hiroshi Isshiki (Institute of Mathematical Analysis, Japan)</p>
<p>10:40-11:00 Study the Effect of Strong Magnetic Storm on the Ionosphere of August 2003 in the China Region  Wen Debao, Yuan Yunbin, Ou Jikun, Huo Xingliang (Chinese Academy of Sciences, China)</p>
<p>11:00-11:20 Ionospheric Modeling at North-East Asia using IGS sites  *Byung-Kyu Choi, *Jong-Uk Park, **Sang-Jeong Lee (*Korea Astronomy and Space Science Institute,  **Chungnam National University, Korea)</p>
<p>11:20-11:40 Inversion of the Equatorial Ionospheric Anomaly Using Ground- and Space- Based GPS Data  Huo Xingliang, Yuan Yunbin, Ou Jikun, Wen Debao (Chinese Academy of Sciences, China)</p>
<p>11:40-12:00 GPS-based Monitoring and Modeling of the Ionosphere and Its Applications for High Accuracy  Correction in China  Yuan Yunbin, Ou Jikun, Huo Xingliang, Wen Debao, Liu Genyou, Chai Yanji, Yang Renggui, Luo Xiaowen  (Chinese Academy of Sciences, China)</p>
<p>D5: LBS &amp; Receiver Technology (2)  (Chair: *Andrew G. Dempster, **Wan-Sik Choi (*University Of New South Wales, Australia,  ** Electronics and Telecommunications Research Institute, Korea) (Location: Samda B Hall)</p>
<p>09:40-10:00 Design and Applications of a Generalized Software-Based GNSS IF Signal Generator  *Deok Won Lim, **Chansik Park, *Sang Jeong Lee (*Chungnam National University, **Chungbuk National  University, Korea)</p>
<p>10:00-10:20 Positioning using ZigBee and Ultrasound  *Chansik Park, **Seung-Beom Kim, *Dong-Youn Kang, *Hee Hak Yun, *En Jong Cha, **Sang Jeong Lee  (*Chungbuk National University, **Chungnam National University, Korea)</p>
<p>10:20-10:40 The Effect of Masked Signal on the Performance of GNSS Code Tracking System  Chung-Liang Chang, Jyh-Ching Juang (National Cheng Kung University, Taiwan)</p>
<p>10:40-11:00 Analysis of GPS Signal Acquisition Performance  Xiaofan Li, Dinesh Manandhar, Ryosuke Shibasaki (The University of Tokyo, Japan)</p>
<p>11:00-11:20 Robustness Examination of Tracking Performance in the Presence of Ionospheric  Scintillation Using Software GPS/SBAS Receiver  Shun-Ichiro Kondo, Nobuaki Kubo, Akio Yasuda (Tokyo University of Marine Science and Technology, Japan)</p>



11:20-11:40 A Feasibility Study on the Regional Navigation Transceiver System Using a Transceiver Position Estimation Algorithm

\*Byungwoon Park, \*Doyoon Kim, \*Changdon Kee, \*\*Boksoo Bae, \*\*Kihoon Lee  
(\*Seoul National University, \*\*Agency for Defense Development, Korea)

E5: Algorithms & Application (3)

Chair: \*Byeong-Deok Yea, \*\*Sangzee Lee

(\*Korea Maritime University, \*\*GG21 Co., Ltd., Korea) (Location: 301)

09:40-10:00 The Improved Success Rate of Integer Ambiguity Resolution by Using Many Visible GPS/GNSS Satellites

Kentaro Kondo (Fujitsu Limited, Japan)

10:00-10:20 Kinematic GPS Positioning with Baseline Length Constraint Using the Maximum Possibility Estimation Method

\*,\*\*Wang Xinzhou, \*Xu Chengquan (\*Wuhan University, \*\*Shandong University of Science and Technology, China)

10:20-10:40 Study on the Real-Time Precise Orbit Biases Correction Technique for the GPS/VRS Network

Li Cheng-Gang, Huang Ding-Fa, Zhou Dong-Wei, Zhou Le-Tao, Xiong Yong-Liang, Xu Rui  
(Southwest Jiaotong University, China)

10:40-11:00 A Fault Detection and Exclusion Algorithm using Particle Filters for Non-Gaussian GNSS Measurement Noise

Youngsun Yun, Doyoon Kim, Changdon Kee (Seoul National University, Korea)

11:00-11:20 Delayed Parallel Interference Cancellation for GPS C/A Code Receivers

\*,\*\*Éamonn P. Glennon, \*Roderick C. Bryant, \*\*Andrew G. Dempster (\*SigNav Pty Ltd., \*\*University Of New South Wales, Australia)

11:20-11:40 Precise Orbit Determination of GPS Using Bernese GPS Software \*,\*\*Jeongho Baek, \*Sungki Cho, \*Jung Hyun Jo, \*Jong-Uk Park (\*Korea Astronomy and Space Science Institute, \*\*Korea University of Science and Technology, Korea)

F5 Domestic Session 4: LBS & Receiver Technology

Chair: Chang-Bok Lee (Korea Research Institute of Standards and Science, Korea) (Location: 302)

09:40-10:00 Calibration of TWSTFT between KRISS and AUS via PAS-8

Sung-Hoon Yang, Young-Kyu Lee, Seung-Woo Lee, Ji-Ae Hwan, Chang-Bok Lee (Korea Research Institute of Standards and Science, Korea)

10:00-10:20 Integration Monitoring of Time Transfer Data Using GNSS

\*June-Hwan Kim, \*\*Sung-Hoon Yang, \*\*Young-Kyu Lee, \*\*Seung-Woo Lee, \*\*Chang-Bok Lee, \*Ki-Doo Kim  
(\*Kookmin University, \*\*Korea Research Institute of Standards and Science, Korea)

10:20-10:40 A Utilization Method of NDGPS Signals for Broadcasting Radio Standard Time

\*Young-Kyu Lee, \*Sung-Hoon Yang, \*Seung-Woo Lee, \*\*June-Hwan Kim, \*\*\*Sung-Soo Choi, \*Chang-Bok Lee (\*Korea Research Institute of Standards and Science, \*\*Kookmin University, \*\*\*Korea Electrotechnology Research Institute, Korea)

10:40-11:00 Time Comparison between KRISS and NICT Using Communication Satellites Ji-Ae Han, Sung-Hoon Yang, Young-Kyu Lee, Seung-Woo Lee, Chang-Bok Lee (Korea Research Institute of Standards and Science, Korea)
11:00-11:20 Implementation of Monitoring Method of Satellite Clock Failure Using An Atomic Clock *Jeong Won Kim, **Chansik Park, *Dong-Hwan Hwang, ***Sung Hoon Yang, ***Chang Bok Lee (*Chungnam National University, **Chungbuk National University, ***Korea Research Institute Of Standard and Science, Korea)
12:00-13:30
Poster Session II (Location: 3F Lobby)
(PS01) Performance Analysis of the GPS Antenna for Satellite Launch Vehicles under the Hot -Temperature Environment Ji-Hyeon Moon, Byung-Moon Kwon, Hyung-Don Choi (Korea Aerospace Research Institute, Korea)
(PS02) Performance Analysis of the GPS Receiver under High Acceleration and Jerk Environments Byung-Moon Kwon, Ji-Hyeon Moon, Hyung-Don Choi (Korea Aerospace Research Institute, Korea)
(PS03) Galileo BOC(1,1) Signal Tracking using GPS/Galileo Software Receiver *Deok Won Lim, **Chansik Park, *Sang Jeong Lee (*Chungnam National University, **Chungbuk National University, Korea)
(PS04) Development of Internet Based GPS Data Processing Service Sang-Ho Kim, Kwan-Dong Park, Hye-In Kim (Kookmin University, Korea)
(PS05) Movement Behavior of the Continuous Recording GPS Stations after the 2003 MW 6.5 Chengkung Earthquake in Eastern Taiwan *Horng-Yue Chen, *Shui-Beih Yu, *Long-Chen Kuo, **Hsueh-Yen Hu (*Academia Sinica, **Kun San University of Technology, Taiwan)
(PS06) A Roll Rate Estimation Method using GPS Signals in a Spinning Vehicle Jong Chul Cho, Jeong Won Kim, Dong-Hwan Hwang, Sang Jeong Lee (Chungnam National University, Korea)
(PS07) Design of Safety Warning Notification Service at Crooked Roads Using Wireless Sensor Network in Telematics Environment JaeJun Yoo, KyoungBok Sung, JungDan Choi, ByoungTae Jang (Electronics and Telecommunications Research Institute, Korea)
(PS08) A Non-coherent UWB Direct Chaotic Ranging System for Precision Location and Positioning Wan-Cheol Yang, Sangyub Lee, Kwangdu Lee, Kihwan Kim, Changsoo Yang, Haksun Kim (Samsung Electro-Mechanics Co., Ltd., Korea)
(PS09) Safety Confirmation of Ship's Crew Using Cell-phone with GPS Receiver and Wireless LAN *Chie Umeno, **Hiromune Namie, ***Osamu Susuki, *Akio Yasuda (*Tokyo University of Marine Science and Technology, **National Defense Academy of Japan, ***Toba National College of Maritime Technology, Japan)
(PS10) Optimal Design of the Mover Considering the Electrical Characteristic of Linear Motor Jung-Myung Lee, Dong-Seop Han, Seong-Wook Lee, Tae-Won An, Geun-Jo Han (Dong-A University, Korea)

(PS11) The Analysis of a Wind Load on a Container Crane Using a Computation Fluid Dynamics Soon-Kyu Kwon, Seong-Wook Lee, Dong-Seop Han, Geun-Jo Han (Dong-A University, Korea)
(PS12) Structural Design for a Jaw Using Metamodels IL-Kwon Bang, Dong-Heon Kang, Dong-Seop Han, Geun-jo Han, Kwon-Hee Lee (Dong-A University, Korea)
(PS13) A National Monitoring System Supporting E-Navigation *Jung-Sik Jeong, *Seong-Hyun Park, **Kwang An (*Mokpo National Maritime University, **Ministry of Maritime Affairs and Fisheries, Korea)
13:30-15:50
<b>A6: Anti-Jamming &amp; Multipath</b> Chair: *Chan Sik Park, ** Deuk Jae Cho (*Chungbuk National University, **Korea Ocean Research & Development Institute, Korea) (Location: Halla A Hall)
13:30-13:50 An Analysis of GPS Anti-jamming Methods in Spatial and Temporal Domain Hun-Soo Cho, Sung-Hyuck Im, Gyu-In Jee (Konkuk University, Korea)
13:50-14:10 Exclusion Zones for GNSS Signals when Reconfiguring Receiver Hardware in the Presence of Narrowband RFI Asghar T. Balaei, Andrew G. Dempster, Joel Barnes, Beatrice Motella (University of New South Wales, Australia)
14:10-14:30 An Adaptive Transversal Filter for GNSS Receiver: Implementation and Performance Evaluation *Geon Woo Lee, **Jin Kyu Choi, ***Dongho Shin, ***Youngil Kim, ****Chansik Park, *Dong-Hwan Hwang (*Chungnam National University, **Korea Ocean Research & Development Institute, ***Agency for Defense Development, ****Chungbuk National University, Korea)
14:30-14:50 A Narrowband Interference Excision Algorithm in the Frequency Domain for GNSS Receivers *Mi Young Shin, **Chansik Park, ***Ho-Keun Lee, ***Dae-Yearl Lee, *Dong-Hwan Hwang, *Sang Jeong Lee (*Chungnam National University, **Chungbuk National University, ***Agency for Defense Development, Korea)
<b>B6: Maritime Education, Policy, Economic Issue (2)</b> Chair: *Chae-Uk Song, **Myung-Ou Yoon (*Korea Maritime University, **Mokpo National Maritime University, Korea) (Location: Samda A Hall)
13:30-13:50 New Model Course on Training in Operational Use of ECDIS Adam Weintrit (Gdynia Maritime University, Poland)
13:50-14:10 Shipboard Training for the Efficient Maritime Education Chung-Do Nam (Korea Maritime University, Korea)
14:10-14:30 Paradigm Shift in GNSS Education for Asia Pacific Nations Azmi Hassan, Mustafa Din Subari (Universiti Teknologi Malaysia, Malaysia)
<b>C6: LBS &amp; Receiver Technology (3)</b> Chair: *Tae-Kyung Sung, ** Pavel Kovář (*Chungnam National University, Korea, **Czech Technical University in Prague, Czech Republic) (Location: Halla B Hall)
13:30-13:50 GNSS Software Receivers: Sampling and Jitter Considerations for Multiple Signals Bilal Amin, Andrew G. Dempster (University of New South Wales, Australia)

<p>13:50-14:10 Software GNSS Receiver for Signal Experiments Pavel Kovář, Libor Seidl, Josef Špaček, František Vejražka (Czech Technical University in Prague, Czech Republic)</p>
<p>14:10-14:30 A Highly Efficient and Fast Algorithm for Implementing a Real-Time Software GNSS Receiver *Sung-Hyuck Im, *Gyu-In Jee, **Hak-Sun Kim, **Sang-Do Cho, **Sun-Jun Ko (*Konkuk University, **Samsung Electro-Mechanics, Korea)</p>
<p>14:30-14:50 Speedup Technique of FFT based Signal Acquisition at Software-based GNSS Receiver Jun-ichi Yuasa, Shun-ichiro Kondou, Nobuaki Kubo, Akio Yasuda (Tokyo University of Marine Science and Technology, Japan)</p>
<p>14:50-15:10 Implementation of BOC Signal Acquisition Using a DSP/FPGA Board Yu-Hsuan Chen, Jyh-Ching Juang, Tsai-Ling Kao (National Cheng Kung University, Taiwan)</p>
<p>D6 Domestic Session 5: General Navigation Application / LBS Chair: Wan Sik Choi (Electronics and Telecommunications Research Institute, Korea) (Location: 301)</p>
<p>13:30-13:50 The Strategy of Nationwide DGNSS Service for U-Korea Hyun-Dong Kong, Hae-Keun Kim (Ministry of Maritime and Fisheries of Korea, Korea)</p>
<p>13:50-14:10 Developing Modeling and Simulation Tool for Land Navigation System Chulbum Kwon, Sang-Soon Kim, Won Jang Park, Jin Seok Hong, Jin Woo Song (Microinfinity Corporation, Korea)</p>
<p>14:10-14:30 Location Method Using both RSSI and Ultrasound *Chansik Park, *Hee Hak Yun, **Seung Beom Kim, *Dong-Youn Kang, *En Jong Cha, **Sang Jeong Lee (*Chungbuk National University, **Chungnam National University, Korea)</p>
<p>14:30-14:50 Performance Analysis of a Positioning System Using Wibro Network Seung-Hun Song, Tae-Kyung Sung (Chungnam National University, Korea)</p>
<p>14:50-15:10 Attitude Determination Using Zigbee and Ultrasound *Chansik Park, *Dong-Youn Kang, *Hee Hak Yun, **Seung Beom Kim, *En Jong Cha, **Sang Jeong Lee (*Chungbuk National University, **Chungnam National University, Korea)</p>
<p>E6 Domestic Session 6: GNSS Augmentation &amp; Application Chair: Heong Sik Youn (Korea Aerospace Research Institute, Korea) (Location: 302)</p>
<p>13:30-13:50 Requirements Analysis of Galileo Remote Ground Station Tae-Hee Kim, In-One Joo, Sanguk-Lee, Jae-Hoon Kim (Electronics and Telecommunications Research Institute, Korea)</p>
<p>13:50-14:10 The Current Status and Progress of Korean DGPS Byung-Gu Hwang, Yeong-Jong Choe (MOMAF DGPS Central Office, Korea)</p>
<p>14:10-14:30 The Effect of 2D &amp; 3D Ionospheric Model in Interfrequency Bias Estimation *Kyoungsohn Sohn, *Changdon Kee, **Richard Langley, **Hyunho Rho (*Seoul National University, Korea, **University of New Brunswick, Canada)</p>
<p>14:30-14:50 The 4th Official IGS Global Data Center and the Redundancy for KASI GDC System Daekyu Lee, Junghyun Jo, Jonguk Park (Korea Astronomy Space Science Institute, Korea)</p>

14:50-15:10 Precise Coordinates of the Permanent GPS Stations' Network of KIGAM

Young-Cheol Lee, Mutaek Lim, Yeongsue Park, Hyoungrae Rim (Korea Institute of Geoscience & Mineral Resources, Korea)

15:10-15:30 Korean Participation Plan for SAR/Galileo Ground System Development

\*Inone Joo, \*Sanguk Lee, \*Jae-Hoon Kim, \*\*SangHyun Seo, \*\*\*Dongsu Han, \*\*\*\*Jongkeun Lim (\*Electronics and Telecommunications Research Institute, \*\* Korea Ocean Research & Development Institute, \*\*\*Korea Coast Guard, \*\*\*\*Saracom Inc., Korea)

15:30-15:50 A Multipath Mitigation Method Using Nonsymmetry of Correlation Function

\*Han-Jin Jang, \*\*Jeong Won Kim, \*\*Dong-Hwan Hwang, \*\*Sang Jeong Lee, \*Chul-Moon Yum (\*NEX1 Future Co. Ltd., \*\*Chungnam National University, Korea)

15:50-16:10

Coffee Break

16:10-16:40

Closing Session (Location: Samda Hall)