

IWMST 2012 Program

August 30, 2012

8:40	Registration (B-lobby) (~17:00)	
9:15	Opening Ceremony (B-202) Welcome Address by the UEC President, Makoto Kajitani	
9:30	Plenary Session(B-202) (PS) High Power Solid State Lasers and Their Application to Advanced Sciences and Technologies *Ken-ichi Ueda (Professor Emeritus, Institute for Laser Science, UEC)	
10:15	Group Photo (B-202)	
10:45	Regular Session 1 (B-101)	Regular Session 2 (B-102)
	Regular Session 1 (B-101) Materials Science and Bioscience 1 <u>Session Chair: Prof. Guifang Liu (HEU) and Prof. Takashi Hirano (UEC)</u> (119) Adsorption mechanisms of aqueous bisphenol A by two commercial activated carbons *Guifang Liu (HEU), Hairong Mi (HEU), Shufang Yu (HEU), Yaquan Sun (HEU) (62) Development of New Firefly Luciferin Analogs *Chihiro Miura (UEC), Kazuto Ito (UEC), Satoshi Iwano (UEC), Takashi Hirano (UEC), Shojiro Maki (UEC), Haruki Niwa (UEC) (15) Novel Enhanced Luminescence Technology on Firefly Bioluminescence System *Kazuto Ito (UEC), Satoshi Iwano (UEC), Satoshi Kojima (UEC), Takashi Hirano (UEC), Shojiro Maki (UEC), Haruki Niwa (UEC) (14) Evaluation of Bioluminescence Activity of Firefly Luciferin Nucleotide Derivatives *Satoshi Iwano (UEC), Satoshi Kojima (UEC), Takashi Hirano (UEC), Shojiro Maki (UEC), Haruki Niwa (UEC)	
	Regular Session 2 (B-102) Information Science and Engineering 1 <u>Session Chair: Prof. Tetsuo Kirimoto (UEC) and Prof. Keiji Yanai (UEC)</u> (63) Visual Analysis on Relations between Nouns and Adjectives Using a Large Number of Web Images *Yuuya Kohara (UEC), Keiji Yanai (UEC) (3) Personalized Clothing-Recommendation System based on a Modified Bayesian Network *Yu-Chu Lin (UEC), Yuusuke Kawakita (UEC), Etsuko Suzuki (UEC), Haruhisa Ichikawa (UEC) (5) AR1 model and the mean-reverting technical strategy *Kazuhei Yamagata (UEC), Koichi Miyazaki (UEC) (55) Efficient Signal Separation Method Using Independent Component Analysis with Data Length Optimization *Shunsuke Koumori (UEC), Shouhei Kidera (UEC), Tetsuo Kirimoto (UEC)	

12:05	Lunch Time	
13:10	Regular Session 3 (B-101)	Regular Session 4 (B-102)
	<p>Regular Session 3 (B-101)</p> <p style="text-align: center;">Communication Engineering 1</p> <p style="text-align: center;"><u>Session Chair: Prof. Wen-xiang Li (WUST) and Dr. Nattapong Kitsuwon (UEC)</u></p> <p>(116) Two-stage waveform conversion by using cross-gain-modulation of semiconductor optical amplifier *Yuuta Doi (UEC), Syouta Inoue (UEC), Motoharu Matsuura (UEC), Naoto Kishi (UEC)</p> <p>(118) A Token-based Fully Photonic Network-on-Chip with Dynamic Wavelength Allocation *Ping Qiu (UEC), Cisse Ahmadou Dit Adi (UEC), Hidetsugu Irie (UEC), Tsutomu Yoshinaga (UEC)</p> <p>(18) Mathematical Modeling for Optical Packet Switch Based on Dynamic Pump Wavelength Selection *Dwina Fitriyandini Siswanto (UEC), Nattapong Kitsuwon (UEC), Eiji Oki (UEC)</p> <p>(25) Property-based Packet Scheduling Strategy for Heterogeneous Network Traffics *Wen-xiang Li (WUST), Qian Chen (WUST)</p> <p>(29) Performance Evaluation of Smart Failure Insensitive Routing *Ihsen Aziz Ouedraogo (UEC), Islam Mohammad Kamrul (UEC), Eiji Oki (UEC)</p> <p>(77) Research on Rotation Modulation Technology for Optical Gyro SINS *Lin Zhao (HEU)</p>	
	<p>Regular Session 4 (B-102)</p> <p style="text-align: center;">Electrical Engineering and Electronics</p> <p style="text-align: center;"><u>Session Chair: Prof. Hongzhang Jin (HEU) and Prof. Yoshinao Mizugaki (UEC)</u></p> <p>(104) Positive and Negative Magneto Resistance Ratio in Ferromagnetic-Superconductor-Ferromagnetic Single-Electron Transistor *Masashi Takiguchi (UEC), Masataka Moriya (UEC), Hiroshi Shimada (UEC), Yoshinao Mizugaki (UEC)</p> <p>(100) Evaluation of Stacked Voltage Multiplier for Superconducting Josephson Digital-to-Analog Converter of Quantum Accuracy *Yusuke Sato (UEC), Hiroshi Shimada (UEC), Yoshinao Mizugaki (UEC)</p> <p>(45) Optimum Distribution of the Mooring Line Tension in Automatic Mooring Positioning System *Hongzhang Jin (HEU), Xiaoyu Su (HEU), Tao Sun (China Shipbuilding Industry), Xiaodong Hu (China Shipbuilding Industry)</p> <p>(28) Ship Fire-fighting System Cascading Failure Analysis Based on Complex Network Theory *HongZhang Jin (HEU), Aili Zou (HEU), Ran Cao (HEU)</p> <p>(21) Accurate Internal Imaging Method Using Extended RPM to Multi-static UWB Radar *Yoshihiro Niwa (UEC), Shouhei Kidera (UEC), Tetsuo Kirimoto (UEC)</p> <p>(26) Accurate Height Change Estimation Method Using Phase Interferometry of Band-divided SAR Images *Ryo Nakamata (UEC), Shouhei Kidera (UEC), Tetsuo Kirimoto (UEC)</p>	

15:10	Coffee Break (B-lobby)	
15:25	Regular Session 5 (B-101)	Regular Session 6 (B-102)
	<p>Regular Session 5 (B-101)</p> <p style="text-align: center;">Intelligent Systems and Control 1</p> <p><u>Session Chair: Prof. Hiroshi Yokoi (UEC) and Prof. Kazushi Nakano (UEC)</u></p> <p>(97) Leader - Following Formation Navigation with Extension by Virtual Trajectories *Manabu Suzuki (UEC), Ryo Kobayashi (UEC), Kazushi Nakano (UEC)</p> <p>(58) Model Predictive Control of Spacecraft Attitude with Regenerative Reaction Wheels *Ayaka Senoo (UEC), Takeya Asakawa (UEC), Tomoyuki Nagashio (Osaka Prefecture University), Takashi Kida (UEC)</p> <p>(43) An Improved PF for Underwater Target Tracking of Forward-looking Sonar *Lixin Liu (HEU), Hongyu Bian (HEU), Guofeng Shao (HEU)</p> <p>(71) Development of real-time muscle stiffness sensor and estimation algorithm for subtle EMG prosthetic hand control *Masahiro Kasuya (UEC), Masatoshi Seki (Waseda University), Kazuya Kawamura (Waseda University), Yo Kobayashi (Waseda University), Masakatsu G. Fujie (Waseda University), Hiroshi Yokoi (UEC)</p>	
	<p>Regular Session 6 (B-102)</p> <p style="text-align: center;">Information Science and Engineering 2 (~17:05)</p> <p><u>Session Chair: Prof. Hiroyuki Haniu (KIT) and Prof. Maki Sakamoto (UEC)</u></p> <p>(59) Evaluation System for Brand Name Image Based on The Sound Symbolic Effects *Ryuichi Doizaki (UEC), Yuichiro Shimizu (UEC), Maki Sakamoto (UEC)</p> <p>(96) A Method to Select Colors Appropriate for Tactile Onomatopoeia Based on Sound Symbolism *Saki Iiba (UEC), Yuichiro Shimizu (UEC), Maki Sakamoto (UEC)</p> <p>(106) System Construction Supporting Medical Interviews with Foreign Doctors Using Onomatopoeia Expressing Pains *Yuya Ueda (UEC), Yuichiro Shimizu (UEC), Maki Sakamoto (UEC)</p> <p>(9) Aerial Infrared Photography System for Harvest Improvement *Hiroyuki Haniu (KIT), Hirotsugu Minami (KIT), Kazunori Takai (KIT)</p> <p>(30) Application of SketchUp in coke oven three-dimensional digital modeling *Shuguang Ouyang (WUST), Jie Xu (WUST), Lele Fu (WUST), Zhi Wang (WUST)</p>	
16:45	Coffee Break (B-lobby)	
17:10	Poster Session (B-lobby) (~18:10)	
	<p>(1) Speech Enhancement by Subspace Approach Using Variable Sub-Band and Rayleigh Quotient Methods for Arbitrary Colored Noise *Suguru Imai (KIT), Kenji Taguchi (KIT), Tatsuya Kashiwa (KIT)</p> <p>(2) Three-Dimensional Propagation Analysis for 720MHz Band at Intersection Surrounded by Walls Using the FDTD Method *Ryosuke Aoyama (KIT), Kenji Taguchi (KIT), Suguru Imai (KIT), Tatsuya Kashiwa (KIT)</p> <p>(12) Digital Control for a PFC Boost Converter Using Approximate 2-Degree-Of-Freedom</p>	

	<p>Current Controller *Yuji Fukaishi (UEC), Kohji Higuchi (UEC), Tatsuyoshi Kajikawa (UEC), Kazushi Nakano (UEC)</p> <p>(16) A combination of pre-hydrothermal treatment and acid hydrolysis for production of L-arabinose from sugar beet pulp *Masahiro Miura (KIT), Shun Iwabuchi (KIT), Yasutaka Shimotori (KIT), Hisayuki Nakatani (KIT), Masakazu Aoyama (KIT)</p> <p>(24) A Novel Decision-Making Method Based on the Extension Theory for Selecting of PV Modules *Meng-Hui Wang (NCUT), Jen-Cheng Yang (NCUT)</p> <p>(32) Research on Embodied Carbon Issues of China's Export Commodity—Based on Industrial Analysis *Chun Chen(WUST)</p> <p>(36) Improved Parallel Combinatory Spread Spectrum Communication System *Mingduo Liu (HEU), Lili Guo (HEU), Xiangpu Liu (HEU)</p> <p>(44) Visual cryptography using interference color of birefringent material *Tomohiro Tsuchida (KIT), Takenobu Yamaguchi (KIT), Daisuke Sakai (KIT), Kenji Harada (KIT)</p> <p>(49) A Compact Notch Band Ultra-wideband Antenna With the Parasitic Element and Slot *Xiaodong Yang (Meisei University, HEU), Ming Li (HEU), Yu Bai (HEU), Qian Yang (HEU)</p> <p>(51) Microstructure and Precipitation of Ti-Nb Microalloyed Automobile Beam Steel *Guang Xu (WUST), Feng Liu (WUST), Conghua Bu (WUST), Hang Zou (WUST), Jing Yang (WUST)</p> <p>(60) Chinese-Chess Image Recognition Scheme Using Frequency Transform Techniques *Wen-Yuan Chen (NCUT), Yao-Te Huang (NCUT), Chiou-Kou Tung (NCUT)</p> <p>(76) Performance Improvement of Alternative Layouts for Air Distribution of an Energy-efficient Data Center *FJ Wang (NCUT), SC Yang (NCUT), YS Huang (NCUT)</p> <p>(91) Modulation of imidazopyrazinone chemiluminescence by systematic introduction of phenylethynyl groups *Makiko Sasa (UEC), Shojiro Maki (UEC), Haruki Niwa (UEC), Takashi Hirano (UEC)</p> <p>(92) Modulation of the chemiluminescence of 2,6-diphenylimidazopyrazinones by substituent effects *Yuki Ishii (UEC), Shojiro Maki (UEC), Haruki Niwa (UEC), Takashi Hirano (UEC)</p> <p>(122) Vehicle propulsion reliability test of the charge/discharge performance of lithium-powered products *Yu-Shu Chien (NCUT), Heng-Yung Lin (NCUT), Jhang-Han Chang (NCUT)</p> <p>(112) Microstructure and mechanical response of whisker reinforced Mg-8Li-6Al-8La Alloy Chunhuan Guo (HEU), Fengchun Jiang (HEU), *Milin Zhang (HEU)</p>
18:30	<p style="text-align: center;">Welcome Party (Banquet) at Chofu Creston Hotel 8F (~20:00)</p>

August 31, 2012

8:40	Registration (B-lobby) (~14:30)	
9:15	Regular Session 7 (B-101)	Regular Session 8 (B-102)
	<p>Regular Session 7 (B-101) Communication Engineering 2 <u>Session Chair: Dr. Nattapong Kitsuwon (UEC) and Prof. Shaobin Cai (HEU)</u></p> <p>(56) Performance of Smart-OSPF with Even Traffic Splitting *Masashi Honma (UEC), Shunichi Tsunoda (UEC), Eiji Oki (UEC)</p> <p>(69) An optimal scheduling scheme with simultaneous available bandwidth constraints in grid networks *Yuta Yano (UEC), Eiji Oki (UEC)</p> <p>(89) Performance of an IP Traceback based on Hop Count *Katsuhiko Amako (UEC), Eiji Oki (UEC)</p> <p>(101) Research of Multicast Performance of Wireless Mesh Network Based on a PSO-AFSO Hybrid Algorithm *Huiming Ju (HEU), Hong Xie (HEU)</p> <p>(110) Study on Load Division Medium Access Protocol for Low Earth Orbit Micro-satellite Formation Network *Bingcai Chen (HEU), Lan Yu(HEU), Zhimao Lu (HEU), Wei Xue (HEU), Xiaodong Yang (HEU)</p> <p>(114) Alternating Combination Trilateration Based on Sliding-Window *Shaobin Cai (HEU), Nianmin Yao (HEU), Zhiqiang Zhang (HEU), Haiwei Pan (HEU), Qilong Han (HEU)</p> <p>(120) BER Performance of SM-MIMO system with Time Reversal Pre-filter Sanjeeb Shrestha (HEU), Yu Han (HEU), Nannan Wu (HEU), *Zheng Dou (HEU)</p>	
	<p>Regular Session 8 (B-102) Engineering for Energy, Environment and Infrastructure <u>Session Chair: Prof. Tetsuo Yamada (UEC) and Prof. Haruo Ishikawa (UEC)</u></p> <p>(93) Queueing Modeling of Material Sorting Disassembly System Tetsuo Yamada (UEC), *Rizka Aisha Rahmi Hariadi (Bandung Institute of Technology), Yuji Matsuda (Tokyo City University)</p> <p>(84) Wind Tunnel Experiments on Turbulent Diffusion of Particles from a Continuous Point Source. (Variation of Mean Concentration Properties with Turbulent Reynolds Number.) *Atsushi Kosugi (KIT), Hiroyuki Haniu (KIT), Hideharu Makita (Toyohashi University of Technology)</p> <p>(40) Study on air conditioning system of load independent controlling *Qiuxin Liu (WUST), Kuo Bao (WUST), Mingqiang Bai (WUST)</p> <p>(38) Research on heat exchange intensity of the shallow underground *Qiuxin Liu (WUST), Liang Huang (WUST), Mingqiang Bai (WUST)</p> <p>(37) Discussion about Natural cold source energy use in an air-conditioning system *Qiuxin Liu (WUST), Yang Xi (WUST), Xiaoning Ye (WUST)</p>	

	<p>(70) Experimental Study on Structural Behavior of UHPFRC Segmental Box Girders *Qingyong Guo (HEU), Jize Mao (HEU), Sangmook Han (Kumoh National Institute of Technology)</p> <p>(64) Fluid Dynamic Response Characteristics of Wake Galloping between Two Circular Cylinders of Different Diameters to Their Relative Position and Flow Velocity *Kazunori Takai (KIT), Yoshihiro Obata (KIT), Hiroyuki Haniu (KIT)</p>	
11:40	Lunch Time	
12:45	Regular Session 9 (B-101)	Regular Session 10 (B-102)
	<p>Regular Session 9 (B-101) Materials Science and Bioscience 2 <u>Session Chair: Prof. Haruki Niwa (UEC) and Prof. Der Ming Lian (NCUT)</u></p> <p>(72) Sonochemical Preparation of Fuel Cell Catalysts and its Characterization based on Electrochemical and Electron Microscopic Methods *Ken-ichi Nakayama (UEC), Tomoharu Yoshii (UEC), Yukitaro Sakakibara (UEC), Shin-ichi Hatanaka (UEC), Shigeo Hayashi (UEC)</p> <p>(35) Innovation of high selective hydrogenation catalyst *Yoshinao Kobayashi (UEC), Yasuyuki Suzuki (UEC), Yuka Kawasaki (UEC), Syojiro Maki (UEC), Takashi Hirano (UEC), Haruki Niwa (UEC)</p> <p>(23) Preparation of Polyaniline/TiO₂ Composite Nanotubes for photodegradation of AZO dyes *Yang Cheng (WUST), Liang An (WUST), Zongshan Zhao (Ocean University of China), Guanghui Wang (WUST)</p> <p>(67) A Study on Heat Treated Helical Compression Spring in Vacuum Bake Hardening *Der Ming Lian (NCUT), Shih Hung Kao (NCUT), Wei Hung Yao (NCUT)</p> <p>(68) Analysis on Spring Constant and Loading Stress of Die Mould Spring *Der Ming Lian (NCUT), Shih Hung Kao (NCUT), Wei Hung Yao (NCUT)</p>	
	<p>Regular Session 10 (B-102) Information Science and Engineering 3 <u>Session Chair: Prof. Tetsuro Nishino (UEC) and Prof. Yoshihiro Oyama (UEC)</u></p> <p>(31) Protection against Misusing Malicious Browser Extensions in E-Voting *So Ito (UEC), Yoshihiro Oyama (UEC)</p> <p>(99) Augmentation of Acoustic Shadow for Presenting a Sense of Existence *Shuyang Zhao (UEC), Asuka Ishii (UEC), Yuuki Kuniyasu (UEC), Taku Hachisu (UEC), Michi Sato (UEC), Shogo Fukushima (UEC), Hiroyuki Kajimoto (UEC)</p> <p>(53) The UEC Software Repository - University-Launched Software Database - *Takaaki Goto (UEC), Kensei Tsuchida (Toyo University), Tetsuro Nishino (UEC)</p> <p>(61) Model Satisfiable Software Synthesis Method for Formal Development *Takehiro Nakamura (UEC), Takeshi Oda (UEC), Tetsuro Nishino (UEC)</p> <p>(66) Development of Learning Software for Science Experiments Using Microsoft Excel -application for an electronic textbook- *Hayato Omori (KIT), Keiichi Suzawa (KIT), Kenji Harada (KIT), Shun-ichi Kamemaru (KIT)</p>	

14:25	Coffee Break (B-lobby)	
14:40	Regular Session 11 (B-101)	Regular Session 12 (B-102)
	<p>Regular Session 11 (B-101) Intelligent Systems and Control 2 <u>Session Chair: Prof. Masafumi Uchida (UEC) and Prof. Kenji Sawada (UEC)</u></p> <p>(20) Analysis of Relationship between Process Variables of Selective Catalyst Reduction Control System *<u>Mai Duc Thong (UEC)</u>, <u>Kazushi Nakano (UEC)</u>, <u>Yukihido Toyoda (Niihama National College of Technology)</u></p> <p>(95) A Reward Allocation Method for Human Immunity - based Reinforcement Learning in a Stabilizing Control Problem *<u>Shu Hosokawa (UEC)</u>, <u>Kazushi Nakano (UEC)</u></p> <p>(41) Air-conditioner adaptation for indoor environmental change via constant-trace algorithm *<u>Ryo Yanagawa (UEC)</u>, <u>Kenji Sawada (UEC)</u>, <u>Seiichi Shin (UEC)</u></p> <p>(42) On the Charging and discharging cycle design for HV batteries evaluation *<u>Kouhei Komatsuzaki (UEC)</u>, <u>Seiichi Shin (UEC)</u>, <u>Kenji Sawada (UEC)</u></p> <p>(19) EMG Data Analysis Accompanied by Tactile Stimuli *<u>Ali Mokhtari (UEC)</u>, <u>Masafumi Uchida (UEC)</u></p>	
16:30	<p>Regular Session 12 (B-102) Information Science and Engineering 4 <u>Session Chair: Prof. Keiki Takadama (UEC) and Prof. Hiroyuki Sato (UEC)</u></p> <p>(90) Effects of Two-Stage Non-Dominated Sorting and Directed Mating in Constrained MOEAs *<u>Minami Miyakawa (UEC)</u>, <u>Hiroyuki Sato (UEC)</u></p> <p>(98) Optimizing Ship Routes by Evolutionary Computation in Competitive Ship Companies *<u>Eriko Azuma (UEC)</u>, <u>Keiji Sato (UEC)</u>, <u>Hiroyuki Sato (UEC)</u>, <u>Kiyohiko Hattori (UEC)</u>, <u>Keiki Takadama (UEC)</u></p> <p>(102) Layout Optimization of Advertisements on News Websites *<u>Noriyuki Muramatsu (UEC)</u>, <u>Keiki Takadama (UEC)</u>, <u>Hiroyuki Sato (UEC)</u>, <u>Maki Sakamoto (UEC)</u></p> <p>(108) Robust Bus Route Optimization by Connecting Routes *<u>Hiroto Kitagawa (UEC)</u>, <u>Keiji Sato (UEC)</u>, <u>Keiki Takadama (UEC)</u>, <u>Hiroyuki Sato (UEC)</u>, <u>Kiyohiko Hattori (UEC)</u></p> <p>(111) Local Recombination Controlling Bit Swap Probability in Evolutionary Many-Objective Optimization *<u>Masaharu Horino (UEC)</u>, <u>Hiroyuki Sato (UEC)</u></p>	
	Closing Ceremony (B-202) (~17:00)	

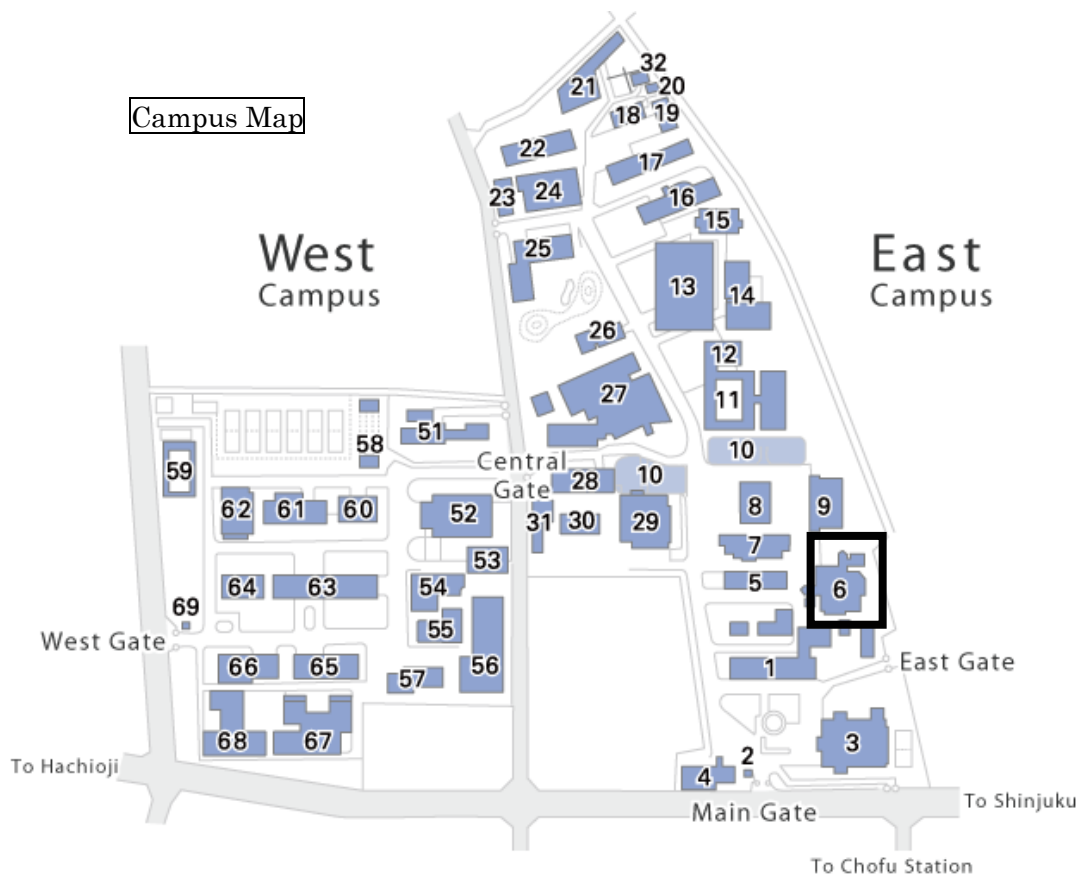
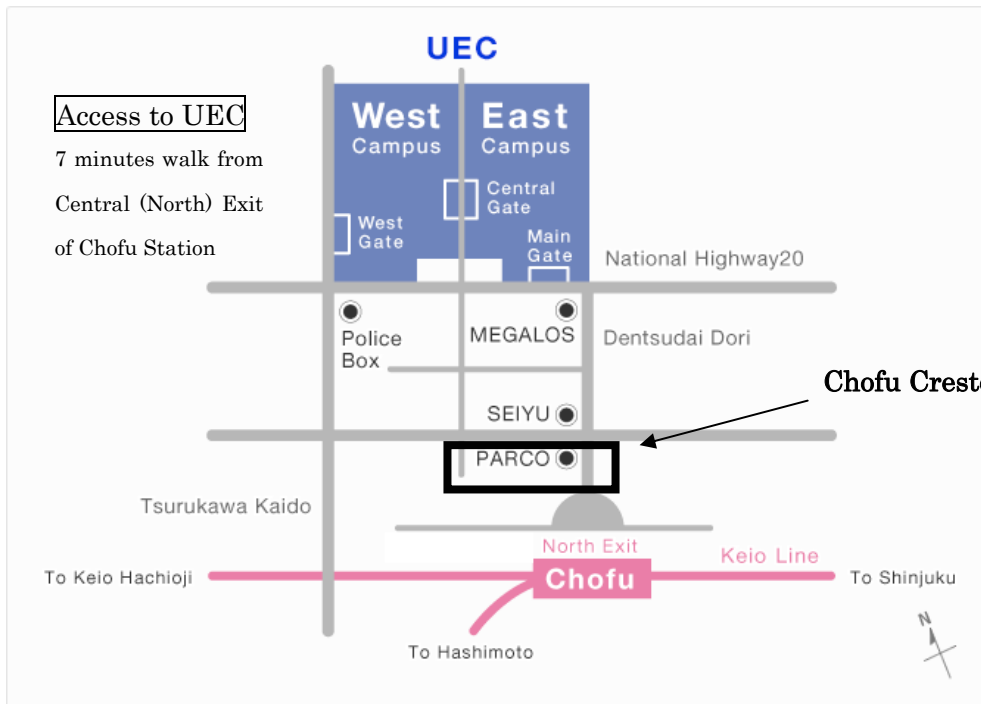
**Speaker*

Contact: IWMST Secretariat, The University of Electro-Communications

Email: iwmst2012@fedu.uec.ac.jp Tel: +81-42-443-5084

Fax: +81-42-443-5136 URL: <http://www.uec.ac.jp>

Address: 1-5-1 Chofugaoka Chofu-shi, Tokyo #182-8585, Japan



1 Main Building (Administrative Office)

5 Building A

6 Building B

29 University Center (Restaurant)

26 Health Care Center

17 UEC Museum of Communication