

The 4th Asian Applied Physics Conference

Venue: Kumamoto University, Kumamoto, Japan

<http://super.ees.kyushu-u.ac.jp/4thAsian-APC/index.html>

Nov. 23, (Sat), 2019

Time		Room: A (214)	Room: B (211)	Room: C (212)	Room: D (224)	Room: E (221)	Room: F (222)	Room: G (223)
8:30	9:20	Registration						
9:20	9:30	Opening @ Room G						
9:30	10:15	Plenary Talk by Prof. Hyeonsik Cheong @ Room G (Chair: T. Kiss and T. Yoshitake, Kyushu Univ.)						
10:15	10:30	Break						
10:30	10:44				Interdis. Phys. and Related Areas & Optics and Photonics (Chair: K. Hara, Kyushu Univ.)	Plasma Electronics & Thin Films and Surfaces (Chair: M. Shiratani, Kyushu Univ.)	Semiconductors (Chair: T. Sadoh, Kyushu Univ.)	Appl. Mat. Sci. & Organic Molec. and Bioelectronics & Nanocarbon Technology (Chair: K. Hayashi, Kyushu Univ.)
10:44	10:58							
10:58	11:12							
11:12	11:26							
11:26	11:40							
11:40	11:54							
11:54	13:08	Lunch Break						
13:08	13:22	JSAP Kyushu Annual Meeting (Japanese)	JSAP Kyushu Annual Meeting (Japanese)	JSAP Kyushu Annual Meeting (Japanese)	Optics and Photonics (Chair: Y. Oki, Kyushu Univ.)	Thin Films and Surfaces (Chair: H. Cheong, Sogang Univ.)	Supercond. & Spintronics and Magnetics (Chair: A. Nishida, Fukuoka Univ.)	Nanocarbon Technology (Chair: T. Yoshitake, Kyushu Univ.)
13:22	13:36							
13:36	13:50							
13:50	14:04							
14:04	14:18							
14:18	14:32	Break						
14:32	14:53	Short Presentation for Poster (1 min/person) @ Room G (Chair: T. Kiss, Kyushu Univ.)						
14:53	15:10	Break						
15:10	16:30	Poster Session @ Room P (100th Anniversary Hall)						
16:30	16:45	Break						
16:45	17:30	Special Talk @ Room G						
17:30	18:00	Seminar for e-learning on English skills @ Room G						
18:00	18:30	Break						
18:30	20:30	Banquet (at FORICO @ Kumamoto Univ.)						

Note:

Plenary talk is 45 min, invited talk is 28 min and contributed oral talk is 14 min including questining, respectively.

Short presentation for poseter, 1 min per person, will be held at room G (223), which is followed by poster session 1h 20m at the 100th Anniversary Hall.

Nov. 24, (Sun), 2019

Time		Event
10:00	16:00	Excursion: Visit to Kumamot Castle and Mt. Aso.
		Bus will leave at 10:00 from Kumamoto Bus Center terminal , then return back to the Kumamoto Bus terminal at 16:00.

Note:

Those who would like to attend the excursion, please contact to Prof. Kiss by email, kiss@sc.kyushu-u.ac.jp

It will be closed when the capacity is reached.

The 4th Asian Applied Physics Conference
 Venue: Kumamoto University, Kumamoto, Japan
<http://super.ees.kyushu-u.ac.jp/4thAsian-APC/index.html>
 Nov. 23rd-24th, 2019

Date	Room	Number	Session	Style	Presentation Time From To		Title	Name	Affiliation	
23			Registration		8:30	9:20				
23	G		Opening		9:20	9:30				
23	G	23Ga-PL	Plenary	Invited	9:30	10:15	Raman Spectroscopy for 2-Dimensional Materials Studies	*Hyeonsik Cheong	Sogang University	
			Short Break		10:15	10:30				
△	23	D	23Da-1	Interdisciplinary Physics and Related Areas & Optics and Photonics (Chair: K. Hara, Kyushu Univ.)	Oral	10:30	10:44	*Ali Mohamed Ali1,2, Mohamed Egiza1,3, Koki Murasawa1,4, Yasuo Fukui4, Hidenobu Gonda4, Masatoshi Sakurai4, Tsuyoshi Yoshitake1	Dept. of Applied Science for Electronics and Materials, Kyushu University1, Dept. of Physics, Al-Azhar University2, Dept. of Mechanical Engineering, Kafrelsheikh	
	23	D	23Da-2		Oral	10:44	10:58	Measurement of Soil Impedance for Underground Water Survey	*Ronaldo Talapessy1,3, Tomoaki Ikegami1, Hiroaki Yoshida2	Kumamoto Univ.1, Taihei Sougou Plan, Co.Ltd.2, Pattimura Univ.3
	23	D	23Da-3		Oral	10:58	11:12	Computational studies on disordered structures of CsPbI3	*Mohammed Althaf HUSSAIN1,2, Manabu SUGIMOTO1,2, Ryota JON01, Hiroshi SEGAWA1	Univ. of Tokyo1, Kumamoto Univ.2
	23	D	23Da-4		Oral	11:12	11:26	Evaluation of original nano-artifact images obtained by a simplified optical equipment based on experimentally calculated FMR/FNMR	*Liu Yingchuan, Kohei Kobayashi, Naoya Tate, Yuji Oki	Kyushu Univ.
			Lunch		11:26	13:08				
23	D	23Dp-1	Optics and Photonics (Chair: Y. Oki, Kyushu Univ.)	Oral	13:08	13:22	Construction of approximate Rayleigh-Gans-Debye scattering model for UV spectroscopic filter using trace refractive index difference	*Chenxi Zhao1, Junfeng Zhu1, Hiroaki Yoshioka1, Kinichi Morita2, Lei Wan3, Yuji Oki1	Kyushu Univ.1, Ushio Inc.2, Jinan University Guangzhou China3	
23	D	23Dp-2		Oral	13:22	13:36	Localized surface plasmon resonance sensing characteristics of anisotropic gold nanostructure	*Bin Chen, Chuanjun Liu, Liang Shang, Kenshi Hayashi	Kyushu Univ.	
23	D	23Dp-3		Oral	13:36	13:50	Development of a Short Range Differential Absorption LIDAR for the Atmospheric Water Vapor	*Michihiro UCHIUMI	Ariake Col.	
23	D	23Dp-4		Invited	13:50	14:18	Nanophotonic devices using low-dimensional materials	*Hong-Gyu Park	Korea University	
23	E	23Ea-1	Plasma Electronics & Thin Films and Surfaces (Chair: M. Shiratani, Kyushu Univ.)	Oral	10:30	10:44	Simultaneous O2 plasma and thermal treatment for improved surface conductivity of Cu-Doped SnO2 films	*Natthawit1, Somjaijaroen1, Rachsak Sakdanuphab2, Narong Chanlek3, Prae Chirawatkul3, Aparporn Sakulkalavek2, Takanobu Kiss1	Kyushu Univ.1, King Mongkut's Institute of Technology Ladkrabang2, Synchrotron Light Research Institute (Public Organization).3	
23	E	23Ea-2		Oral	10:44	10:58	Ca2+ mobilization in an artificial cell exposed to a single pulsed electric field	*Masaharu Shimada, Gen Urabe, Takumi Ogata, Nobuaki Ohnishi, Sunao Katsuki	Kumamoto Univ.	
23	E	23Ea-4		Oral	10:58	11:12	Ultrafast pulsed laser irradiation on amorphous carbon and singlecrystalline diamond	*Abdelrahman Zkria1,2,3, Tsuyoshi Yoshitake1, Eslam Abubakr1,2, Jagdish Narayan3	Kyushu Univ.1, Aswan University, Egypt2, North Carolina State University, US3	
23	E	23Ea-5		Oral	11:12	11:26	Substrate position dependence of characteristics of a-C:H films fabricated by Ar+CH4 plasma	*SungHwa Hwang1, Kunihiro Kamataki1, Naho Itagaki1, Kazunori Koga1,2, Masaharu Shiratani1	Kyushu Univ.1, National Institutes of Natural Science2	

△	23	E	23Ea-6		Oral	11:26	11:40	Laser induced conductive layers on surface of singlecrystalline diamond	*Eslam Abubakr1,2, Abdelrahman Zkria1,2, Shinya Ohmagari3, Yūki Katamune4, Hiroshi Ikenoue1, Tsuyoshi Yoshitake1	Kyushu Univ.1, Aswan University, Egypt2, 産総研3, 九工大工4
				Lunch		11:40	13:08			
△	23	E	23Ep-1	Thin Films and Surfaces (Chair: H. Cheong, Sogang Univ.)	Oral	13:08	13:22	Influence of nitrogen doping on properties of Cu403 thin films fabricated by radio frequency magnetron sputtering for low-cost solar cells.	*Md Abdul Majed Patwary1, Katsuhiko Saito 1, Qixin Guo1, Tooru Tanaka 1, Kin Man Yu 2,3, Wladek Walukiewicz3,4	Saga Univ.1, City University of Hong Kong2, Lawrence Berkeley National Laboratory3, University of California4
	23	E	23Ep-2		Oral	13:22	13:36	Epitaxial growth of a-plane and m-plane ZnO films on ZnO buffer layers on sapphire substrates by mist chemical vapor deposition	*Yuki Nagao1, Yudai Tanaka1, Zenji Yatabe1,2, Koji Sue3, Shoji Nagaoka4,5, Yusui Nakamura1,5,6	Kumamoto Univ.1, 熊大工2, 熊大工3, Kumamoto Industrial Research Institute4, Kumamoto Institute for Photo-Electro Organics5, 熊大工6
	23	E	23Ep-3		Oral	13:36	13:50	Structural Investigation of SnO2 thin films formed on m-plane sapphire by mist chemical vapor deposition	*Yuki Kanetake, Thant Zin Win, Takumi Furukawa, Koji Sue, Zenji Yatabe, Yusui Nakamura	Kumamoto Univ.
	23	E	23Ep-4		Oral	13:50	14:04	Al2O3 thin films deposited by mist-CVD for gate insulator application in GaN-based devices	*Kenta Naito1, Kazuki Nishimura1, Zenji Yatabe1, Joel T. Asubar2, Yusui Nakamura1,3	Kumamoto Univ.1, Univ. of Fukui2, Kumamoto Phoenix3
△	23	E	23Ep-5		Oral	14:04	14:18	Influence of oxygen flow rate on properties of Al-doped ZnCdO thin films grown by radical-source molecular beam epitaxy	*HyoChang Jang, Katsuhiko Saito, Qixin Guo, Tooru Tanaka	Saga Univ.
	23	F	23Fa-1	Semiconductors (Chair: T. Sadoh, Kyushu Univ.)	Oral	10:30	10:44	Thermal conductivity by neural network potential constructed from first-principles molecular-dynamics	*Shogo Fukushima1, Masaaki Misawa2, Kohei Shimamura3, Akihide Koura1, Fuyuki Shimojo1	Kumamoto Univ.1, Kyushu Sangyo Univ.2, Kobe Univ.3
	23	F	23Fa-2		Oral	10:44	10:58	Epitaxial growth of α -Ga2O3 thin films on sapphire substrates by pulsed laser deposition	*Chen Zewei 1, Katsuhiko Saito1, Tooru Tanaka1, Qixin Guo1	Saga Univ.1, 佐大理工2, 佐大理工3, 佐大理工4
	23	F	23Fa-3		Oral	10:58	11:12	Photoluminescence of Eu doped (InGa)2O3 films deposited at various substrate temperatures	*Chengyu Pan1, Fabi Zhang1,2, Qixin Guo1, Katsuhiko Saito1, Tooru Tanaka1	Saga Univ.1, Guilin University of Electronic Technology2
	23	F	23Fa-4		Oral	11:12	11:26	Effect of assistant RF plasma on structure and properties of Ga2O3 related thin films prepared by pulsed laser deposition	*Fabi Zhang1,2, Congyu Hu1, Katsuhiko Saito1, Tooru Tanaka1, Qixin Guo1	Saga Univ.1, Guilin University of Electronic Technology2
	23	F	23Fa-5		Oral	11:26	11:40	Effect of bandgap on the luminescence properties of Er-doped (AlxGa1-x)2O3 films	*Gaofeng Deng1, Fabi Zhang 1,2, Katsuhiko Saito1, Tooru Tanaka1, Makoto Arita3, Qixin Guo1	Saga Univ.1, Guilin University of Electronic Technology2, Kyushu University3
				Lunch		11:40	13:08			
△	23	F	23Fp-1	Superconductivity & Spintronics and Magnetism (Chair: A. Nishida, Fukuoka Univ.)	Oral	13:08	13:22	Modeling of current transport properties in long length high Tc conductors	*Takanobu Kiss, Yudai Onitsuka, Taiki Mori, Yuhki Yamauchi, Lin Lyu, Takumi Suzuki, Kohei Higashikawa	Kyushu Univ.
	23	F	23Fp-2		Oral	13:22	13:36	Joint resistance properties of REBCO coated conductors using sound bonding process	*Takumi Suzuki1, Yudai Onitsuka1, Kohei Higashikawa1, Takahiro Ito2, Ryoichi Ishii2, Shigeru Sato2, Takanobu Kiss1	Kyushu Univ.1, ULTEX2
	23	F	23Fp-3		Oral	13:36	13:50	Evaluation of Local Critical Current Density Distribution in a NbTi-Bi2223 Superconducting Joint Impregnated with the PbSn Solder Based on Magnetic Microscopy	*Zeyu Wu1, Kohei Higashikawa1, Ryo Matsumoto2, Yoshihiko Takano2, Takanobu Kiss1	Kyushu Univ.1, 物材機構2
	23	F	23Fp-4		Oral	13:50	14:04	Charge-to-spin conversion in Ferromagnetic/perovskite Bilayers	*Se Yeob Jeong1, Jongmin Lee2, Nyun Jong Lee1, Sanghan Lee2, Tae Heon Kim1, Sanghoon Kim1	Univ. of Ulsan1, Gwangju Inst. of Sci. and Technol.2
	23	G	23Ga-1	Applied Materials Science & Organic Molecules and Bioelectroni	Invited	10:30	10:58	Inorganic neuromorphic devices based on cation migration through ultra-thin materials	*Bae Ho Park	Konkuk University
	23	G	23Ga-2		Oral	10:58	11:12	Visualization of odor chemicals by network graphs using their properties	*Rajendran Jeena, Tomo Chimura, Fumihiro. Sassa, Kenshi Hayashi	Kyushu Univ.

	23	G	23Ga-3	cs & Nanocarbon Technology (Chair: K. Hayashi, Kyushu Univ.)	Oral	11:12	11:26	Portable gas sensing probe using Localized Surface Plasmon Resonance reflectance	*Hao Guo1, Bin Chen1,2, Takaaki Soeda1, Fumihiro Sassa1, Kenshi Hayashi1	Kyushu Univ.1, Southwest University2
	23	G	23Ga-4		Invited	11:26	11:54	Exciton modulation in light-emitting devices based on van der Waals heterostructures	*Gwan-Hyoung Lee	Seoul National University
				Lunch		11:54	13:08			
	23	G	23Gp-1	Nanocarbon Technology (Chair: T. Yoshitake, Kyushu Univ.)	Invited	13:08	13:36	Synthesis of heterostructures of carbon nanomaterials and MoS2 and their optoelectronic properties	*Ji-Yong Park	Ajou University
	23	G	23Gp-2		Invited	13:36	14:04	TEM Imaging of Atomic Structures and Dynamics Enabled by Graphene Membrane	*Kwanpyo Kim	Yonsei Univ.
	23	G	23Gp-3		Oral	14:04	14:18	Gas sensing with cation-doped graphene oxide membranes fitted with oxide electrodes	*Aynul Sakinah Binti Ahmad Fauzi, Nur Laila Hamidah, Masataka Shintani, Tetsuya Kida	Kumamoto Univ.
				Short Break		14:18	14:32			
△	23	P	23Pp-1	Short Presentation (1 min each) @Room G & Poster Session @ 100th Anniversary Hall	Poster	14:32	16:30	Substitution effect of transition-metal elements on Nd4Ni3O10 as a cathode material for intermediate-temperature solid oxide fuel cell	*Moyuan Li, Syogo Yokoyama, Motohide Matsuda	Kumamoto Univ.
	23	P	23Pp-2		Poster	14:32	16:30	STT effect on SOT driven skyrmion motion	*Donghyeon Lee	University of Ulsan
	23	P	23Pp-3		Poster	14:32	16:30	Solid State Semiconductor Based CO2 and SO2 Gas Detectors for Ships and Offshore Platforms	*Byeong-moon Jeong, Yong Soo Kim	Univ. of Ulsan
	23	P	23Pp-4		Poster	14:32	16:30	Epitaxial growth of lead-free Bi1/2(Na0.82K0.18)1/2TiO3 thin films for flexible piezoelectric devices	*Yong Jin Jo, Muhammad Sheeraz, Ill Won Kim, Chang Won Ahn, Tae Heon Kim	University of Ulsan
	23	P	23Pp-5		Poster	14:32	16:30	Study on growth-temperature and surface-ordering dependence of crystalinities of Bi2Se3 and Bi2Te3 thin-film	*Jisu Kim	Univ. of Ulsan
△	23	P	23Pp-6		Poster	14:32	16:30	Mechanical and structural properties of Si doped nanodiamond composite films coatings deposited on cemented carbide	*H. Ohue, M. Egiza, A. M. Ali, K. Murasawa, Y. Fukui, H. Gonda, M. Sakurai, T. Yoshitake	Kyushu Univ.
△	23	P	23Pp-7		Poster	14:32	16:30	Sputter Epitaxy of (ZnO)x(InN)1-x films for Excitonic Transistors	*Ryota Narishige, Nanoka Miyahara, Kentaro Kaneshima, Daisuke Yamashita, Kunihiro Kamataki, Kazunori Koga, Masaharu Shiratani, Naho Itagaki	Kyushu Univ.
△	23	P	23Pp-8		Poster	14:32	16:30	B-doping effects on hardness of nanocomposite AlBN thin films deposited on high-speed steel	*Yuki Tanaka1, Tomohiro Yoshida2, Seiya Uchida1, Koki Murasawa3, Yasuo Hukui3, Masatoshi Sakurai3, Masaki Kudo4, Takaaki Toriyama4, Tsuyoshi Yoshitake1	Kyushu Univ.1, 福エセンター2, OSG Corp.3, Ultramicroscopy Res. Center, Kyushu Univ.4
△	23	P	23Pp-9		Poster	14:32	16:30	Machine Learning Analysis for Prediction of Key Plasma Process Parameters	*Ryosuke Iwamoto, Sakyo Okunaga, Kamataki Kunihiro, Hisayuki Hara, Kazunori Koga, Masaharu Shiratani	Kyushu Univ.
△	23	P	23Pp-10		Poster	14:32	16:30	Effects of Substrate temperature on Crystal Quality of (ZnO)x(InN)1-x Films Fabricated by Sputter Epitaxy	*Kaneshima Kenatro, Miyahara Nanoka, Yamashita Daisuke, Kamataki Kunihiro, Koga Kazunori, Shiratani Masaharu, Itagaki Naho	Kyushu Univ.
△	23	P	23Pp-11		Poster	14:32	16:30	Surface morphology of single-crystal ZnO films on sapphire substrates fabricated by sputter epitaxy	*Yuta Nakamura, Soichiro Muraoka, Kunihiro Kamataki, Kazunori Koga, Masaharu Shiratani, Naho Itagaki	Kyushu Univ.
	23	P	23Pp-12		Poster	14:32	16:30	Optimizing model potential based on first principles calculations for ferroelectric PbTiO3	*Seongboo Park, Minjin Hwang, Loan Doan, Hye Jung Kim, Young-Han Shin	Univ. of Ulsan

△	23	P	23Pp-13	(Chair: I. Kiss, Kyushu Univ.)	Poster	14:32	16:30	Development of Carbon Based Counter Electrodes for Dye Sensitized Solar Cells	*Chawarambwa Fadzai Lesley, Kamataki Kunihiro, Koga Kazunori, Shiratani Masaharu	Kyushu Univ.
△	23	P	23Pp-14		Poster	14:32	16:30	Sputter deposition of amorphous ZnAlON films with tunable bandgap	*Seiichi Urakawa, Nanoka Miyahara, Daisuke Yamashita, Kunihiro Kamataki, Kazunori Koga, Masaharu Shiratani, Naho Itagaki	Kyushu Univ.
	23	P	23Pp-15		Poster	14:32	16:30	Realization of 6H-Hexagonal Polymorph in SrMnO3 Ceramics by Al2O3 Doping	*H. J. Lee1, S. Ryu2, H. Jeon2, C. W. Ahn1, T. H. Kim1	University of Ulsan1, Pusan National University2
	23	P	23Pp-16		Poster	14:32	16:30	Magnetic and Elastic Properties of Mn4C: First-Principles Calculations	*Jun Gyu Lee, Moon Bong Hong, Jin Sik Park, Sung Hyon Rhim, Soon Cheol Hong	University of Ulsan
△	23	P	23Pp-17		Poster	14:32	16:30	Spin-valve effects in Fe/N-doped carbon/Fe3Si trilayered junctions	*Takuya Sakai1, Takeru Hamasaki1, Kazuki Kudo1, Ken-ichiro Sakai2, Tsuyoshi Yoshitake1	Kyushu Univ.1, 久留米高専2
△	23	P	23Pp-18		Poster	14:32	16:30	Development of a method for non-destructive detection of a local degradation in pancake-coils made of high-Tc coated conductors	*Yusuke Takarabe1, Kohei Higashikawa1, Shinji Fujita2, Yasuhiro Iijima2, Takanobu Kiss1	Kyushu Univ.1, Fujikura Ltd.2
△	23	P	23Pp-19		Poster	14:32	16:30	Development of a cable-core-position monitoring method for railway DC-feeding high-Tc superconducting cables	*T. Kaneshige1, K. Higashikawa1, M. Tomita2, T. Kiss1	Kyushu Univ.1, RTRI2
△	23	P	23Pp-20		Poster	14:32	16:30	Nondestructive evaluation of local critical current distribution in IMD processed multi-filamentary MgB2 wire	*A. Kunimasa1, D. Kato1, Z. Wu1, K. Higashikawa1, M. Inoue2, H. Kumakura3, T. Kiss1	Kyushu Univ.1, 福工大工2, 物材機構3
	23	P	23Pp-21		Poster	14:32	16:30	Converting waste heat to electricity using thermoelectric module	*Jung Eun Park, Yoon Hye Yoon, Sung Lae Cho	University of Ulsan
	23	P	23Pp-22		Poster	14:32	16:30	Properties of MAPbBr3&MAPbI3 Perovskite Crystal and Its Interfacial Properties with Contact Materials for Device	Yongsu Kim, *Park Jin Jae	Ulsan Univ.
				Short Break		16:30	16:45			
	23	G		Special Talk		16:45	17:30	"3D-Atomic Imaging of Functional Materials by X-ray Fluorescence Holography"	Prof. Shinya Hosokawa	Kumamoto Univ.
	23	G		Seminar		17:30	18:00	e-Learning accelerates your research capabilities – Introduction of Edanz Groups' "Edanz Learning Lab"	Takeshi Yamasaki	Edanz Group Japan
Short Break						18:00	18:15			
	23			Banquet		18:15	20:15	FORICO at Kumamoto Univ.		

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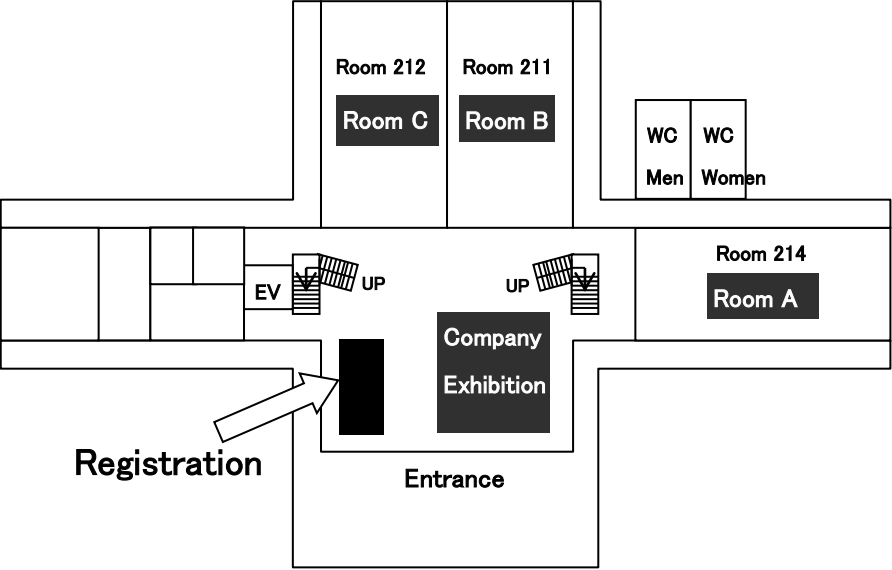
△ indicate applicants to the JSAP Kyushu Presentation Award.

Nov. 24, (Sun), 2019

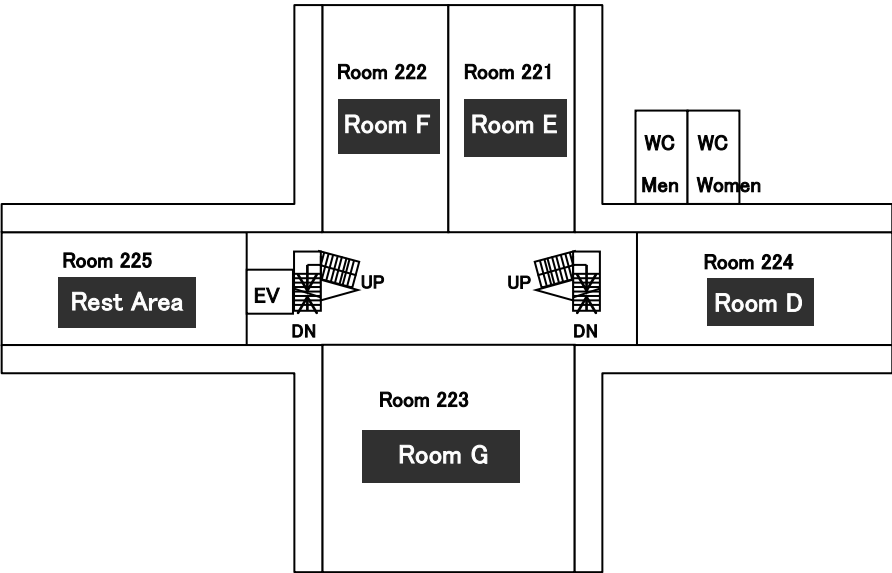
Time	Event
10:00~16:00	Excursion: Visit to Kumamot Castle and Mt. Aso.
	Bus will depart at 10:00 from Kumamoto Sakura-Machi Bus terminal , then return back to the Kumamoto Sakura-Machi Bus terminal at 16:00.

Conference Rooms

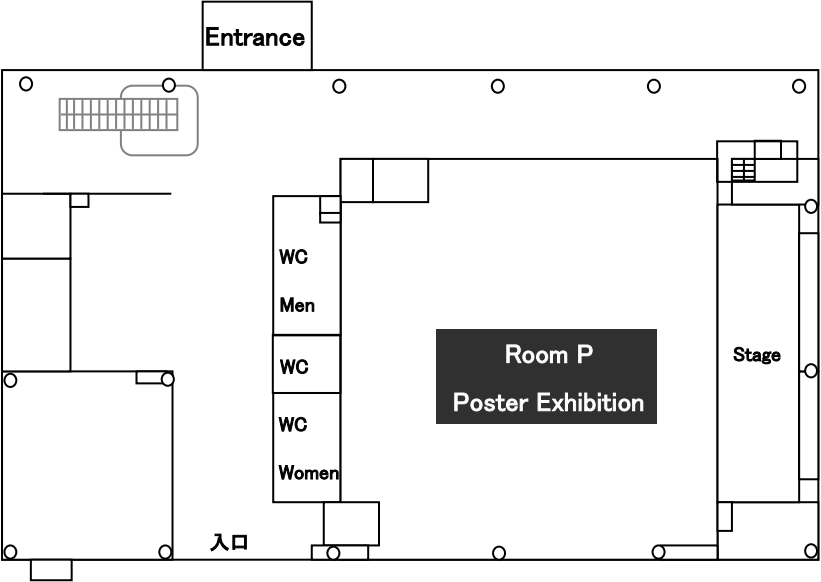
Faculty of Eng., Bldg. 2, 1st Floor



Faculty of Eng., Bldg. 2, 2nd Floor



100th Anniversary Hall



Kurokami South Campus of Kumamoto Univ.

