

TECHNICAL PROGRAM TIMETABLE

Day 2 (FRI, 22nd Nov)

| Time | Engineering I (Hae-Jin Choi, Suk Won Cha) | Engineering II (Tae Hyoung Kim) | Sciences I (Jong-Min Lee) | Sciences II (Nam-Joon Cho & Hyun Soo Je) |
|---------------|--|--|---|---|
| 13:30 - 14:00 | Keynote / Jung Hoon Han (Paper #100) | Keynote / Seok-Hee Hong (Paper #19) | Keynote / Jong-Min Lee (Paper #56) | Keynote / Hyunsoo Je (Paper #109) |
| 14:00 - 14:30 | Keynote / Tae-Hyun Bae (Paper #35) | Keynote / Duk-Yong Choi (Paper #39) | Thi Tuong An Tran, et al. (Paper #101) | Keynote / Sang Joon Cho (Paper #105) |
| 14:30 - 14:50 | Bing Wang, et al. (Paper #60) | Wonkeun Chang (Paper #22) | Ju Eon Kim, et al. (Paper #21) | Bo Kyeong Yoon (Paper #76) |
| 14:50 - 15:10 | Min Suk Kang (Paper # 75) | Jaehyun Park, et al. (Paper #63) | Kyungchan An, et al. (Paper #27) | Ferhan Abdul Rahim (Paper #107) |
| 15:10 - 15:40 | Coffee/Tea Break | | | |
| 15:40 - 16:00 | Keynote / Dong-Gyu Ahn (Paper #42) | Mira Park (Paper #9) | - | Ze Zhao (Paper #112) |
| 16:00 - 16:20 | Keynote / Sang Won Lee (Paper #58) | Hyun Kee Chang (Paper #65) | - | Sang Ho Choi, et al. (Paper #5) |
| 16:20 - 16:40 | Che Han Lim, et al. (Paper #59) | Jung Hoon Han (Paper #25) | - | Samsung Lim (Paper #23) |
| 16:40 - 17:00 | - | Jieun Shin (Paper #2) | - | Peter Choi, et al. (Paper #24) |

Day 3 (SAT, 23rd Nov)

| Time | Bio/Medical (Nam-Joon Cho & Hyun Soo Je) | Electrical/Electronics (Tae Hyoung Kim) | Chemical/Smart Materials (Jong-Min Lee) | Energy/Environment (Seok Woo Lee & Dong Jun Kim) | Smart Factory/Additive Manufacturing (Hae-Jin Choi, Suk Won Cha) | Special Session |
|---------------|---|--|--|---|---|--------------------------------|
| 9:00 - 9:20 | Ginnae Ahn, et al. (Paper #54) | Young Choon Lee (Paper #40) | Nguyen Ngoc Thinh (Paper #102) | Hyun-Wook Lee (Paper #51) | Seung Ki Moon. (Paper #110) | Next Generation Seminar |
| 9:20 - 9:40 | Sejin Lee, et al. (Paper #43) | Hyunjoon Kim, et al. (Paper #14) | Kye Chung Park (Paper #28) | Dong Jun Kim (Paper #18) | In Hwan Lee (Paper #66) | |
| 9:40 - 10:00 | Ginnae Ahn, et al. (Paper #55) | Dong-Kyu Jung, et al. (Paper #29) | Pallab Das (Paper #57) | Hyuk-Jun Kwon (Paper #26) | Hae-Jin Choi (Paper #64) | |
| 10:00 - 10:20 | Ginnae Ahn, et al. (Paper #53) | Riseul Ryu, et al (Paper #44) | Yeon Cho Joe Hong (Paper #8) | Im Doo Jung, et al. (Paper #20) | Seohang Lee, et al. (Paper #71) | |
| 10:20 - 10:40 | Youngkyu Hwang, et al. (Paper #111) | Yuhao Chen, et al. (Paper #6) | - | Sunmi Shin (Paper #72) | Joon Phil Choi, et al. (Paper #37) | |
| 10:40 - 11:10 | Coffee/Tea Break | | | | | |
| 11:10 - 11:30 | Mi-Hye Kim, et al. (Paper #67) | Sunhyung Yoo, et al. (Paper #32) | Tae-Hyun Bae (Paper #36) | Chul-Ho Lee (Paper #62) | Sumin Jeon (Paper #69) | AI Forum |
| 11:30 - 11:50 | Harin Jung, et al. (Paper #68) | Dong-Ho Kang, et al (Paper #41) | Michelle Ji Yeon Yoo, et al. (Paper #1) | Won Wan Sik (Paper #77) | Daeyong Seong (Paper #106) | |
| 11:50 - 12:10 | - | Yong-Jun Jo, et al. (Paper #13) | An. T.P. Tran, et al. (Paper #103) | Seok Woo Lee (Paper #34) | Hyun Kee Chang (Paper #65) | |
| 12:10 - 12:30 | - | Dong-Hyun Yoon, et al. (Paper #30) | Viet Phuong Nguyen (Paper #104) | - | Haining Zhang, et al. (Paper #61) | |

TECHNICAL PROGRAM – Friday

Day 2 (FRI, 22nd Nov)

Engineering I:

Chair/Co-Chair: Prof. Hae-Jin Choi, Prof. Suk Won Cha
Ballroom 3811, MBS, Level 3

- | | |
|---------------|---|
| 13:30 – 14:00 | <p>Open Data Innovation in Next-Generation Smart Cities Jung Hoon Han (The University of New South Wales)</p> |
| 14:00 - 14:30 | <p>Maximizing Biomethane Production in Waste-to-Energy Conversion System Using Membrane Technology Tae-Hyun Bae (Korea Advanced Institute of Science and Technology)</p> |
| 14:30 - 14:50 | <p>UAV Failure Analysis and Finite Element Structure Simulation Bing Wang (Nanyang Technological University) Poh Huat Ng (Nanyang Technological University) Seung Ki Moon (Nanyang Technological University)</p> |
| 14:40 - 15:10 | <p>A Stealthier Partitioning Attack against Bitcoin Peer-to-Peer Network Min Suk Kang (National University of Singapore)</p> |
| 15:10 - 15:40 | <p>Coffee/Tea Break</p> |
| 15:40 - 16:00 | <p>Design and Manufacturing Chains for Metal Forming Tools with the Enhanced Functionality Using a Metal Additive Manufacturing Process Dong-Gyu Ahn (Chosun University)</p> |
| 16:00 - 16:20 | <p>Recent Advances in Smart Factory Technology: Case Studies on Prognostics and Health Management (PHM) and Automation Jiwoong Lee (Sungkyunkwan University) Sang Won Lee (Sungkyunkwan University)</p> |
| 16:20 - 16:40 | <p>A Scheduling Framework via Decomposition: Application to Smart Manufacturing Che Han Lim (Nanyang Technological University) Seung Ki Moon (Nanyang Technological University)</p> |

TECHNICAL PROGRAM – Friday

Day 2 (FRI, 22nd Nov)

Engineering II:

Chair: Tae Hyoung Kim

Ballroom 3812, MBS, Level 3

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|---------------|---|
| 13:30 – 14:00 | Faithful Visual Analytics of Big Complex Data Seok-Hee Hong (University of Sydney) |
| 14:00 - 14:30 | Materials and Nanofabrication of Optical Meta-Surfaces Duk-Yong Choi (Australian National University) |
| 14:30 - 14:50 | Ultrafast Photonics in Gas-Filled Hollow-Core Fibers for New Frequency Generation Wonkeun Chang (Nanyang Technological University) |
| 14:40 - 15:10 | Development of Monitoring and Diagnosis System for LED Converter Jaehyun Park (Korea Institute of Industrial Technology) Cheol-Ho Kim (Korea Institute of Industrial Technology) Jungsoo Nam (Korea Institute of Industrial Technology) |
| 15:10 - 15:40 | Coffee/Tea Break |
| 15:40 - 16:00 | Marine Vertebrate Predator Detection and Recognition in Underwater Videos by Region Convolutional Neural Network Mira Park (The University of Tasmania) |
| 16:00 - 16:20 | Smart Productisation for Smart Sensors Hyun Kee Chang (A*STAR) |
| 16:20 - 16:40 | Real Estate Automated Valuation Model: Rapid Analytics Interactive Scenario Explorer (RAISE) Jung Hoon Han (The University of New South Wales) |
| 16:40 - 17:00 | AI Empowered Medical Opinion and Patients' Enhanced Trust Jieun Shin (National University of Singapore) |

TECHNICAL PROGRAM – Friday

Day 2 (FRI, 22nd Nov)

Sciences I

Chair: Jong-Min Lee

Ballroom 3911, MBS, Level 3

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|---------------|---|
| 13:30 – 14:00 | Recovery of Value Added Products from Contaminated Waste Plastics Jong-Min Lee (Nanyang Technological University) |
| 14:00 - 14:30 | Reuse and Utilization of Chemicals in Lignocellulose Alkaline Pre-treatment Thi Tuong An Tran, Long Hoang Nguyen, Hoang Phong Nguyen, Thao Hien Le, Nguyen Anh Kiet Vo, Thi Minh Anh Nguyen, and Dinh Quan Nguyen (Vietnam National University of Ho Chi Minh City) |
| 14:30 - 14:50 | A Balanced Sampling Switch for High Linearity and a Wide Temperature Range in Low Power SAR ADCs Ju Eon Kim, Taegeun Yoo, Tony Tae-Hyoung Kim (Nanyang Technological University) Kwang-Hyun Baek (Chung-Ang University) |
| 14:40 - 15:10 | DC Parametric Measurement Unit using Differential Difference Amplifier Kyungchan An (Nanyang Technological University) Shin-Il Lim (Seokyeong University) Tony Tae Hyoung (Nanyang Technological University) |
| 15:10 - 15:40 | Coffee/Tea Break |

TECHNICAL PROGRAM – Friday

Day 2 (FRI, 22nd Nov)

Sciences II:

Chair/Co-Chair: Prof. Nam-Joon Cho, Prof. Hyun Soo Je

Ballroom 3912, MBS, Level 3

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|---------------|--|
| 13:30 – 14:00 | Modeling Autism Using Human Neurons in a Dish Prof. Hyun Soo Je (Duke-NUS Medical School) |
| 14:00 - 14:30 | SICM and SICM based SECM Applications for Live Cell Research Sang Joon Cho (Parks Systems) |
| 14:30 - 14:50 | Artificial Cell Membrane Platform for Antimicrobial Lipid Characterization Bo Kyeong Yoon (Sungkyunkwan University) Joshua A. Jackman (Sungkyunkwan University) Nam Joon Cho (Nanyang Technology University) |
| 14:40 - 15:10 | Decoding Curvature-Dependent Biopolymer-Lipid Membrane Interactions via Nanoplasmonic Sensing Ferhan Abdul Rhim (Nanyang Technological University) |
| 15:10 - 15:40 | Coffee/Tea Break |
| 15:40 - 16:00 | Bioinspired Stripe-patterned Structural Color Ze Zhao (Nanyang Technological University) |
| 16:00 - 16:20 | Targeting Virulence rather than Growth of <i>Vibrio vulnificus</i>: A Strategy to Develop New Antibiotics without Inducing Resistance Sang Ho Choi (Seoul National University) Zee-Won Lee (Seoul National University) Byoung Sik Kim (Ewha Woman's University) |
| 16:20 - 16:40 | Spatiotemporal Modelling of Dengue Outbreaks: a Case Study in Sri Lanka Samsung Lim (The University of New South Wales) |
| 16:40 - 17:00 | Synthesis of Tumour Targeting Crizotinib-cyanine Dye Conjugate for the Treatment of Glioblastoma Peter Choi (University of Auckland) Elizabeth Cooper (University of Auckland) Patrick Schweder (University of Auckland) Edward Mee (University of Auckland) Richard Faull (University of Auckland) William Denny (University of Auckland) Mike Draganow (University of Auckland) Thomas Park (University of Auckland) Jiney Jose (University of Auckland) |

TECHNICAL PROGRAM – Saturday

Day 3 (SAT, 23rd Nov)

Bio/Medical

Chair/Co-Chair: Prof. Nam-Joon Cho / Prof. Hyun Soo Je

Ballroom 3912, MBS, Level 3

- Antioxidant Effects of an Alcalase Hydrosate from Batillus Cornutus Meat**
Ginnae Ahn, Hee-Jin Han, Eui Jeong Han, Eun-Ji Shin, Ihn-Sil Kwak, Min Ju Kim (Chonnam National University)
- 09:00 - 09:20 Kyungsook Jung (Korea Research Institute of Bioscience and Biotechnology)
Soo-Jin Heo, Eun-A Kim (Korea Institute of Ocean Science and Technology)
Kil-Nam Kim (Korea Basic Science Institute)
Sang-Cheol Kim, Min-Jeong Seo, Wonwoo Lee (Nakdonggang National Institute of Biological Resources)
- 09:20 - 09:40 **Aging Dependent Hyperexcitability of Pyramidal Neurons from Primary Motor Cortex Layer 2/3**
Sejin Lee, Hangyu Bae, Sangyong Jung (A*STAR)
- 09:40 - 10:00 **Sargassum Horneri Ethanol Extract Improves Type 1 Allergy Reaction by Suppressing Atopic Dermatitis-like Symptoms in House Dust Mite/DNCB-stimulated NC/Nga Mice Model**
Eui Jeong Han, Min Ju Kim, Disanayaka Mudiyansele Dinesh Madusanka, Mawalle Kankanamge Hasitha Madhawa Dias, Ginnae Ahn (Chonnam National University)
Hyun-Soo Kim, You-Jin Jeon, Youngheun Jee (Jeju National University)
Seo-Young Kim (Korea Basic Science Institute)
- 10:00 - 10:20 **An Aqueous Extract of Octopus Ocellatus Meat Protects Hepatocytes against H₂O₂-Induced Oxidative Stress via the Regulation of Bcl-2/Bax Signaling**
Ginnae Ahn, Eui Jeong Han, Su-Jin Oh, Eun-Ji Shin, Hee-Jin Han, Ihn-Sil Kwak, Min Ju Kim (Chonnam National University)
Wonwoo Lee (Nakdonggang National Institute of Biological Resources)
Kyungsook Jung (Korea Research Institute of Bioscience and Biotechnology)
Soo-Jin Heo, Eun-A Kim (Korea Institute of Ocean Science and Technology)
Kil-Nam Kim (Korea Basic Science Institute)
- 10:20 - 10:40 **Development of Polymer Substrate with Micro/Nano Cilia Structures for Random Accessibility**
Youngkyu Hwang (Nanyang Technological University)
Seonggwang Yoo (Gwangju Institute of Science and Technology)
Heung Cho Ko (Gwangju Institute of Science and Technology)
- 10:40 - 11:10 **Coffee/Tea Break**
- 11:10 - 11:30 **OrdinalEncoder based DNN for Natural Gas**
Mi-Hye Kim (Chungbuk National University)
Dashdondov Khongorzul (Chungbuk National University)
- 11:30 - 11:50 **Root-specific overexpression of OsERF48 causes regulation of OsCML16, a calmodulin-like protein gene that enhances root growth and drought tolerance**
Harin Jung (National University of Singapore)
Pil Joong Chung (National University of Singapore)
Matthew Wook Chang (National University of Singapore)

TECHNICAL PROGRAM – Saturday

Day 3 (SAT, 23rd Nov)

Electricity/Electronics

Chair: Prof. Tae Hyoung Kim
Ballroom 3812, MBS, Level 3

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|---------------|---|
| 09:00 - 09:20 | <p>Mobile Edge Computing Young Choon Lee (Macquarie University)</p> |
| 09:20 - 09:40 | <p>A 1-16b Precision Reconfigurable Digital In-Memory Computing Macro Featuring Column-MAC Architecture and Bit-Serial Computation Hyunjoo Kim, Qian Chen, Taegeun Yoo, Tony Tae-Hyoung Kim, Bongjin Kim (Nanyang Technological University)</p> |
| 09:40 - 10:00 | <p>A 12-bit Multi-Channel R-R DAC Using a Shared Resistor String Scheme for Area-Efficient Display Source Driver Dong-Kyu Jung, Woojoo Lee, Kwang-Hyun Baek (Chung-Ang University)</p> |
| 10:00 - 10:20 | <p>Wearable Assistive Device with Haptic Feedback for Visually Impaired People Riseul Ryu, Soonja Yeom (University of Tasmania)</p> |
| 10:20 - 10:40 | <p>Toward Eye-Safe High Energy Ultrashort Pulsed Lasers Through Specialty Optical Fiber Yuhao Chen, Shaoxiang Chen, Siddharthan Raghuraman, Dingyuan Tang and Seongwoo Yoo (Nanyang Technological University)</p> |
| 10:40 - 11:10 | <p>Coffee/Tea Break</p> |
| 11:10 - 11:30 | <p>Reinforcement Learning for Transit Network and Operation Planning Sunhyung Yoo, Brian Lee, Jung Hoon Han (The University of New South Wales)</p> |
| 11:30 - 11:50 | <p>Transition Metal Dichalcogenides (TMDs) Photodetector: Performance Enhancement by Chemical Doping Technique Dong-Ho Kang, Donguk Nam (Nanyang Technological University)</p> |
| 11:50 - 12:10 | <p>Low-Power Double Rail-To-Rail Input SAR ADC Yong-Jun Jo (Nanyang Technological University) Tae-Hyoung Kim (Nanyang Technological University)</p> |
| 12:10 - 12:30 | <p>12-bit Digital-to-Analog Converter with Low Power Dynamic Element Matching Technique for Wireless Sensor Network Dong-Hyun Yoon, Woojoo Lee, Kwang-Hyun Baek (Chung-Ang University)</p> |

TECHNICAL PROGRAM – Saturday

Day 3 (SAT, 23rd Nov)

Chemical / Smart Materials

Chair: Prof. Jong-Min Lee

Ballroom 3911, MBS, Level 3

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|---------------|---|
| 09:00 - 09:20 | <p>Synthesis, Characterization of Nano-sized ZnO Prepared by a Green Non Chemical Route Nhu Thanh Nguyen (Hanoi University of Science and Technology) Van Anh Nguyen (Hanoi University of Science and Technology) Ngoc Thinh Nguyen (Hanoi University of Science and Technology)</p> |
| 09:20 - 09:40 | <p>Invasive Crane Flies in Antarctica Kye Chung Park (New Zealand Institute for Plant and Food Research)</p> |
| 09:40 - 10:00 | <p>Conversion of Packaging Plastic Wastes into Fuel by Slow Pyrolysis Pallab Das (Nanyang Technological University)</p> |
| 10:00 - 10:20 | <p>Advancing Anatomy Education Resources Yeon Cho Joe Hong (Murdoch University)</p> |
| 10:40 - 11:10 | <p>Coffee/Tea Break</p> |
| 11:10 - 11:30 | <p>Harnessing Filler Materials for Enhancing Gas Separation Performance of Mixed-Matrix Membranes Tae-Hyun Bae (Korea Advanced Institute of Science and Technology)</p> |
| 11:30 - 11:50 | <p>Fortification of Lamb in Cookies to Complement Chinese Oolong Tea Michelle Ji Yeon Yoo (Auckland University of Technology) Sashtidaran Anpolakam (Auckland University of Technology) Frank Renyu Zhang (Auckland University of Technology) Mustafa Farouk (AgResearch Ltd.)</p> |
| 11:50 - 12:10 | <p>Effects of Xanthan Gum Hydrogel on Environmental Protection from the Geotechnical Engineer's Viewpoints An T. P Tran (Hue University of Sciences) Ilhan Chang (University of New South Wales) Gye-Chun Cho (Korea Advanced Institute of Science and Technology)</p> |
| 12:10 – 12:30 | <p>China's Planned Floating Nuclear Power Facilities in South China Sea: Technical and Political Challenges Viet Phuong Nguyen (Vingroup)</p> |

TECHNICAL PROGRAM – Saturday

Day 3 (SAT, 23rd Nov)

Energy / Environment

Chair/Co-Chair: Prof. Seok Woo Lee / Prof. Dong Jun Kim

Ballroom 3913, MBS, Level 3

- 09:00 - 09:20 **High Energy Density Batteries using Cohesive Forces of Interwoven Carbon Fibers**
Hyun-Wook Lee (Ulsan National Institute of Science and Technology)
- 09:20 - 09:40 **Rechargeable Aluminium Organic Batteries**
Dong Jun Kim (The University of New South Wales)
- 09:40 - 10:00 **Ultra-Short Pulsed Laser for Next Generation Fabrications and Devices**
Hyuk-Jun Kwon (Daegu Gyeongbuk Institute of Science and Technology)
- 10:00 - 10:20 **Self-Cognitive Metal Component via Additive Manufacturing**
Im Doo Jung (Korea Institute of Materials Science)
Seung Ki Moon (Nanyang Technological University)
Ji-Hun Yu (Korea Institute of Materials Science)
- 10:20 – 10:40 **Thermal Engineering using Photonic Structures: Probing of Coherent Thermal Emission in Single Nano-Object**
Sunmi Shin (National University of Singapore)
- 10:40 - 11:10 **Coffee/Tea Break**
- 11:10 - 11:30 **Optoelectronics and Photocatalysis based on 2D Semiconductor Heterostructures**
Chul-Ho Lee (Korea University)
- 11:30 - 11:50 **Application of machine learning for the prediction of hygroscopic properties of coarse and fine particulate matter in urban haze**
Won Wan Sik (Nanyang Technological University)
- 11:50 - 12:10 **Electrochemical Energy Harvesting**
Seok Wook Lee (Nanyang Technological University)

TECHNICAL PROGRAM – Saturday

Day 3 (SAT, 23rd Nov)

Smart Factory / Additive Manufacturing

Chair: Prof. Hae-Jin Choi, Prof. Suk Won Cha

Ballroom 3811, MBS, Level 3

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|---------------|--|
| 09:00 - 09:20 | Multidisciplinary Design Optimization for Customized Product Development and Additive Manufacturing Seung Ki Moon (Nanyang Technological University) |
| 09:20 - 09:40 | Development of a Flexible Tactile Sensor In Hwan Lee (Chungbuk National University) |
| 09:40 - 10:00 | Critical Information Map based Diagnosis of Mechanical System Health Hae-Jin Choi (Chung-Ang University) |
| 10:00 - 10:20 | Unmanned Target Robot Design for Active Safety Evaluation of Automated Vehicles Seohang Lee (Kookmin University) Insung Choi (Korean Authority of Transportation and Automobile Ins) Jayil Jeong (Kookmin University) |
| 10:20 - 10:40 | Microstructure and Mechanical Properties of BN Reinforced Inconel 718 Composites Processed by Laser Powder Bed Fusion Joon Phil Choi (Nanyang Technological University) Sangsun Yang (Korea Institute of Materials Science) Ji Hun Yu (Korea Institute of Materials Science) Seung Ki Moon (Nanyang Technological University) |
| 10:40 - 11:10 | Coffee/Tea Break |
| 11:10 - 11:30 | Smart Production Planning with Digital Twin Solution Sumin Jeon (Siemens) |
| 11:30 - 11:50 | Practical Applications of Strain-path Controlled Forming Technology Daeyong Seong (LG) |
| 11:50 - 12:10 | Smart Productisation for Smart Sensors Hyun Kee Chang (A*STAR) |
| 12:10 - 12:30 | Response Surface Methodology Based Multi-Objective Optimization of Aerosol Jet 3D Printing Haining Zhang (Nanyang Technological University) Seung Ki Moon (Nanyang Technological University) |

Next Generation Seminar / Artificial Intelligent Forum

Ballroom 3813, MBS, Level 3

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|---------------|--|
| 09:00 – 10:40 | Next Generation Seminar |
| 10:40 - 11:10 | Coffee/Tea Break |
| 11:10 – 12:30 | AI Forum Panel List: <ul style="list-style-type: none"> • Prof Mira Park, University of Tasmania • Prof Dongseong Kim, The University of Queensland • Dr Bong-Keun Yoo • Dr Hyunwoo Son |

POSTER SESSION

22nd Nov, 2019 / 12:20 - 13:30

Ballroom 3901B/3902, MBS, Level 3

| | | |
|------|--|---|
| P-1 | Role and Support Area of DGMIF(Daegu-Gyeongbuk Medical Innovation Foundation) Laboratory Animal Center | Dae-Yong Han, et al. |
| P-2 | Energy-Efficient Spread Second Capacitor Capacitive DAC for SAR ADC | Kiho Seong, et al. |
| P-3 | Orthotopic Tumor Mouse Models for Preclinical and Translational Research | Joon-Suk Park, et al. |
| P-4 | Highly Tensile Strained Germanium Nanowire with Heavy N-type Doping for Room-Temperature Lasing | Yongduck Jung, et al. |
| P-5 | Safe and flexible aqueous battery for smart contact lens | Jeonghun Yun, et al. |
| P-6 | Electrochromic Alarm System in Smart Contact Lens | Moobum Kim, et al. |
| P-7 | Characteristics of Lithiated Silicon at Various Temperatures | Yeongae Kim, et al. |
| P-8 | Tetracycline Removal in Water Using a Waste Microalgae-derived Biochar | Yong-Keun Choi, et al. |
| P-9 | Highly Stable Tin(II)-Based Two-Dimensional Hybrid Organic-Inorganic Perovskites | In-Hyeok Park, et al. |
| P-10 | Enhancing Water Treatment Efficiency by Graphene-P60 Composition Electrode | Trinh Ngoc Tuan |
| P-11 | Imaging of Electrical Behavior at Hydroxyapatite Surface via Piezoresponse Force Microscopy | Youngjoon Han, et al. |
| P-12 | Regioselective Synthesis of Indolopyrazines : Sequential Rh-Catalyzed Formal [3 + 3] Cycloaddition and Aromatization Reaction using Diazoindolinimines with Azirines | Jin Young Kim, et al. |
| P-13 | Rhodium(II)-Catalyzed Regioselective C3-Alkylation of 2-Arylimidazo[1,2-a]pyridines with Aryl Diazoesters | Kyungsup Lee, et al. |
| P-14 | Performance of Self-healing Cementitious Composites and 3D Printed Synthetic Fiber | Ah-Hyeon Eom, et al. |
| P-15 | A Research on Cyber Security Incident for Enhancement of Security Investment | Harang Yu, et al. |
| P-16 | Development PM2.5 Exposure Model Account for Changes of Time-activity Patterns of Urban Sub-populations Using Low-cost sensor | JinHyeon Park, et al. |
| P-17 | Improving Optoelectronic Performance of Molybdenum Disulfide based Phototransistor by Nitrocellulose Doping Method | Byung Ha Kang, et al. |
| P-18 | Synthesis and Cytotoxic Effects of 2-Thio-3,4-dihydroquinazoline Derivatives as Novel T-Type Calcium Channel Blockers | Changyoung Jang, et al. |
| P-19 | Monitoring the Blood Vessel-GBM Interaction | Ennu Seo |
| P-20 | Oligomeric β -amyloid Impairs Homeostatic Plasticity in Human Stem Cell-Derived Neurons | Xin Yi Yeo, et al. |
| P-21 | Mild β -amyloid Preconditioning has Neuroprotective Effect by Enhancing Cellular Tolerance via BDNF Pathway | Seung Hyun Baek, et al. |
| P-22 | Phytochemical Investigation and Bioactivities of <i>Parkia speciosa</i> Hassk. Extracts. | Yun Jin Kim, et al. |
| P-23 | An alcalase hydrolysate of <i>Cipangopaludina chinensis malleata</i> protects against LPS-induced inflammation via up-regulation of Nrf2/HO-1 signalling pathway in Raw 264.7 cells | Mawalle Kankanamge Hasi tha Madhawa Dias, et al. |
| P-24 | Newly Developed Inverse Agonist of ERR γ , DN200699, Enhance Radioactive Iodine Therapy in Poorly Differentiated Papillary Thyroid Cancer Cells via Up-regulation of NIS Function | Yong Hyun Jeon, et al. |

SPECIAL SESSION

AKC-2019 Korea-Vietnam Special Forum on Science & Technology

Chair/Co-Chair: Prof. Yoon Ho Sup/ Dr. Lee Su Sung

The 2019 Asia-Korea Conference on Science and Technology (AKC-2019) is an annual conference convened for the Korea-related scientific and engineering organizations to promote scientific and technological cooperation between respective Asian countries and Korea. At this AKC-2019, the Korea-Vietnam Special Forum on Science and Technology will be held for the alumni who have obtained their academic degrees in Korea, and cordially inviting scientists and engineers that currently work in the field of science and technology in Vietnam in order to discuss the various ways to promote scientific and technological exchanges and cooperation between Korea and Vietnam. We sincerely look forward to your ungrudging support and participation, which will serve as cornerstones of this event.

- ❑ **Date: November 22nd, 2019, 17:10 – 18:50**
- ❑ **Venue: Main Ballroom, Marina Bay Sands**
- ❑ **Topic: Promotion of Scientific and Technological Exchanges and Cooperation between Korea and Vietnam under the New Southern Policy**
- ❑ **Attendees: Approx. 80 attendees comprised of 10 Vietnamese as well as other Asian and Korean scientists and engineers**
- ❑ **Host: Korean Federation of Science and Technology Societies(KOFST), Korean Scientists and Engineers Association in Singapore(KSEASG)**

Timetable

| | |
|----------------------|--|
| 17:10 – 17:15 | Opening Speech / Myung Ja Kim, President of KOFST |
| 17:15 – 17:25 | Special Lecture / Dongwha Kum, President of V-KIST “The Role of V-KIST in Vietnam” |
| 17:25 – 18:35 | Presentation / Vietnamese alumni (about 8 mins for each person, 8 people in total) “Vietnamese alumni’s experiences in Korea and ways of cooperation between Korea and Vietnam” |
| 17:25-17:33 | Nguyen Thi Ngoc Anh Vietnam Academy of Science and Technology (VAST) |
| 17:33-17:41 | Bui Ba Chinh Vietnam National Barcode and Numbering Center |
| 17:41-17:49 | Nguyen Tri Quang Hung NONG LAM University |
| 17:49-17:57 | Van Anh Nguyen Hanoi Metropolitan University |
| 17:57-18:05 | Nguyen Dinh Quan Vietnam National University |
| 18:05-18:13 | Viet Phuong Nguyen VinTech City |
| 18:13-18:21 | Tran Thi Phuong An Korean Advanced Institute of Science and Technology |
| 18:21-18:29 | Trinh Ngoc Tuan Electric Power University |
| 18:29-18:35 | Q & A |
| 18:35 – 18:45 | Introducing Korean Scientists and Engineers Association in Singapore (KSEASG) and Australia-New Zealand (KASEA) |
| 18:50 | Closing |

SPECIAL SESSION

AKC-2019 Women in Science Forum

Chair/Co-Chair: Mi-Ra Park, Myeong-Hee Yu

- **Date:** November 23rd, 2019, 14:00 – 17:00
- **Venue:** Jasmine, 3811, Marina Bay Sands
- **Topic:** Women in S&T: Building a Better Future
- **Host:** Korean women scientists and engineers in Asia Pacific (Kowseap.com)
Korea Federation of Women's Science & Technology Association (Kofwst.org)
- **목적 :** 한·아태 여성과학기술인의 과학기술 교류활동을 통해 과학기술 분야 국제 경쟁력 제고, 글로벌 인적 네트워크 구축에 기여

Session I 재외융합협력사업

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| 14:00 – 14:10 | Opening Speech 유 명희 (Myung-Hee Yu), KIST 책임 연구원, South Korea 박 미라 (Mi-Ra Park), Tasmania Uni, Australia |
| 14:10 – 14:20 | 여성과학기술과 리더십 정 희선, 충남대학교 분석과학기술대학원, 교수 |
| 14:20 – 14:30 | 아태지역 여성리더 발표 전 수민, Advanced Remanufacturing and Technology Centre |
| 14:30 – 15:00 | 인식조사 · 토론 |
| 15:00 – 15:15 | 발표 |

Session II 여성과학자 안전관리사업

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| 15:30 – 15:45 | [중장기사업] 여과기인 육성을 위한 환경, 문화조성 김 미혜, 충북대학교, 교수 |
| 15:45 – 16:00 | 여성과학기술인을 위한 연구실 안전관리 김 영미 경희대학교 교수 |
| 16:00 – 16:15 | 해외지역 연구 환경 - 실험실 안전 환경 정 상용, Neuromodulation and Neurocircuitry group, SBIC & National University of Singapore |
| 16:10 – 16:45 | 토론 |