



제 29회 한국반도체학술대회

The 29th Korean Conference on Semiconductors

2022년 1월 24일(월)~ 26일(수) | 강원도 하이원 그랜드호텔(컨벤션타워)

2022년 1월 26일(수), 09:00-17:30

하이원 그랜드호텔(컨벤션타워), 로비 (5층)

[WP1] 포스터 세션 2

J. Nano-Science & Technology

심사위원: 이관형 교수(서울대학교), 왕건욱 교수(고려대학교)

WP1-001	<p>Comparative Study of SnSe₂ Exfoliation and the Photo-Thermal Current from the Products</p> <p>Sunghun Lee¹, Linh Truong¹, Myoung-Jae Lee², and Seung-Hyun Chun¹ ¹Department of Physics and Astronomy, Sejong University, ²Division of Nano and Energy Convergence Research Center, DGIST</p>
WP1-003	<p>Highly Sensitive Infrared Photodiode based on MoS₂/Graphene/p-Si Stack</p> <p>Woojin Park^{1,2}, Wondeok Seo¹, Seyoung Oh¹, Ojun Kwon^{1,2}, and Byungjin Cho^{1,2} ¹Department of Advanced Material Engineering, Chungbuk National University, ²Department of Urban, Energy, Environmental Engineering, Chungbuk National University</p>
WP1-004	<p>Organic Light-Emitting Transistors for Optoelectronic Neuromorphic Systems</p> <p>Dong-Yoon Kim, Kwan-Nyeong Kim, and Tae-Woo Lee Department of Materials Science and Engineering, Seoul National University</p>
WP1-005	<p>Electrical Correlations between Synaptic Parameters and Pattern Recognition Accuracy on Floating Gate IGZO Synaptic Transistor</p> <p>Ojun Kwon^{1,2} and Byungjin Cho^{1,2} ¹Department of Advanced Material Engineering, Chungbuk National University, ²Department of Urban, Energy, Environmental Engineering, Chungbuk National University</p>
WP1-006	<p>Capacitive-Coupled Ta₂O₅ Based Memristive Devices for Nonvolatile Memory Application</p> <p>Jehyeon Yang¹, Sanghyeon Choi¹, and Gunuk Wang^{1,2} ¹KU-KIST Graduate School of Converging Science and Technology, Korea University, ²Department of Integrative Energy Engineering, Korea University</p>
WP1-007	<p>Highly Efficient Double Gate Light Emitting Transistor based on Van Der Waals Hetero Structure</p> <p>June-Chul Shin¹, Junyoung Kwon², Yeon Ho Kim³, Chul-Ho Lee³, and Gwan-Hyoung Lee¹ ¹Department of Materials Science and Engineering, Seoul National University, ²Department of Materials Science and Engineering, Yonsei University, ³KU-KIST Graduate School of Converging Science and Technology, Korea University</p>
WP1-008	<p>Vertically Stacked hBN/QDs Monolayer/hBN Structured Transparent and Flexible WORM Memory Device</p> <p>Joo Song Lee, Jaehyeon Lee, and Dong Ick Son Institute of Advanced Composite Materials, KIST</p>



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WP1-009	Artificially Intelligent Photonic Synapse with Area Density-Tunable Perovskite Nanocones Kyuho Lee, Yeeun Kim, Yeonji Kim, and Cheolmin Park <i>Department of Materials Science and Engineering, Yonsei University</i>
WP1-010	High-Sensitivity Graphene Biosensor Using Surface Conductivity Change due to Mass Increase due to Material Adsorption Ji Hun Sim and Woo Jong Yu <i>Sungkyunkwan University</i>
WP1-011	Enhancing Long-Term Plasticity of Metal Halide Perovskite-Based Artificial Synapses with Ferroelectricity Dae-Han Kang ¹ , Hea-Lim Park ^{1,2} , Joo Sung Kim ¹ , In-Hyeok Park ³ , Jung-Min Heo ¹ , and Tae-Woo Lee ¹ <i>¹Department of Materials Science and Engineering, Seoul National University, ²Department of Materials Science and Engineering, Seoul National University of Science and Technology, ³Graduate School of Analytical Science and Technology, Chungnam National University</i>
WP1-012	Stable Dispersion of Hexagonal Boron Nitride Nanosheets via Dual Functionalization with Pyrene-Tethered Poly(4-vinyl-pyridine) Sohee Kim, Hyeokjung Lee, and Cheolmin Park <i>Yonsei University</i>
WP1-013	Controlling Synaptic Properties in Ion-Gel Gated Organic Synaptic Transistors (IGOSTs) by Tailoring Backbone Coplanarity of Isoindigo-Based Polymers Chunghee Kim ¹ , Dae-Gyo Seo ¹ , Changduk Yang ² , and Tae-Woo Lee ¹ <i>¹Department of Materials Science and Engineering, Seoul National University, ²Department of Energy Engineering, UNIST</i>
WP1-014	Deformable Carbon Atomic Film-Based Etching Mask Jiwoo Kim and Gwan-Hyoung Lee <i>Department of Materials Science and Engineering, Seoul National University</i>
WP1-015	High-Quality, Layer-Controlled Transition Metal Dichalcogenides (TMDs) Using Physical Vapor Deposition Yeonjoon Jung, Jaewoong Joo, Hangyel Kim, Huije Ryu, Seong Chul Hong, Ji-Hwan Baek, and Gwan-Hyoung Lee <i>Department of Materials Science and Engineering, Seoul National University</i>
WP1-016	Wafer Scale MoS₂ Synthesis Using Humidity Controlled Metal Organic Chemical Vapor Deposition Hyun-geun Oh and Gwan-Hyoung Lee <i>Department of Materials Science and Engineering, Seoul National University</i>
WP1-017	Interlayer Interaction between MoO₃-graphene van der Waals Heterostructure and inducing Anisotropy to Graphene Hangyel Kim ¹ , Jong-Hun Kim ² , Jungcheol Kim ³ , Kwanghee Park ⁴ , Ji-Hwan Paek ¹ , June-Chul Shin ¹ , Sumnin Ryu ⁴ , Hyeonsik Cheong ³ , and Gwan-Hyoung Lee ¹ <i>¹Department of Material Science and Engineering, Seoul National University, ²Department of Material Science and Engineering, Yonsei University, ³Department of Physics, Sogang University, ⁴Department of Chemistry, POSTECH</i>



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WP1-018	<p>Ultrathin Skin-attachable TiO_x Synaptic Array Integrated with an Organic Photodiode for Finger Gesture Recognition</p> <p>Haein Cho¹, In Ho Lee², Jingon Jang¹, Hanbee Lee², Sungjun Park², and Gunuk Wang^{1,3}</p> <p>¹KU-KIST Graduate School of Converging Science and Technology, Korea University, ²Electrical and Computer Engineering, Ajou University, ³Department of Integrative Energy Engineering, Korea University</p>
WP1-019	<p>Magneto-responsive Liquid Metal for 3D Pattern Encryption</p> <p>HoYeon Kim and Cheolmin Park</p> <p>Department of Materials Science and Engineering, Yonsei University</p>
WP1-020	<p>Development and Optimization of Cellulose Nanofiber Column Power Generator by Imitating Transpiration of Plant</p> <p>Jiyeon Youm^{1,2}, Seng-Hwan Lee³, Inhee Cho³, Da-Woon Jeong³, Hyung-Ho Park², and Min-Su Kim¹</p> <p>¹Advanced Joining & Additive Manufacturing R&D Department, KITECH, ²Department of Materials Science and Engineering, Yonsei University, ³Korea-Russia Innovation Center, KITECH</p>
WP1-021	<p>그래핀/n-well Si/p-Si 이중 접합 구조 기반의 고감도 광 검출기</p> <p>김시현¹, 권민규², 유태진¹, 황현준¹, 이병훈¹</p> <p>¹Department of Electrical Engineering, POSTECH, ²School of Materials Science and Engineering, GIST</p>
WP1-022	<p>Implantation Doping Profile에 따른 N-well Contact 그래핀 광검출기의 동작 메커니즘 및 반응 속도 향상에 관한 연구</p> <p>권민규¹, 김시현², 유태진², 황현준², 이병훈²</p> <p>¹School of Materials Science and Engineering, GIST, ²Department of Electrical Engineering, POSTECH</p>
WP1-023	<p>Wafer-Scale Fabrication of the Inkjet-Printed Carbon Nanotube Field-Effect Transistor Arrays for High-Throughput Bioassay</p> <p>Minhye Shin¹, Soohyun Park², Yoonhee Lee², and Hongki Kang¹</p> <p>¹Department of Information and Communication Engineering, DGIST, ²Division of Electronics and Information System Research, DGIST</p>
WP1-024	<p>Graphene via Contact Architecture for Vertical Integration of 2D Devices</p> <p>Yongjun Shin¹, Junyoung Kwon², and Gwan-Hyoung Lee¹</p> <p>¹Department of Materials Science and Engineering, Seoul National University, ²Department of Materials Science and Engineering, Yonsei University</p>
WP1-025	<p>Efficient Light Trapping in Near-infrared Regime Using Nano-rod Arrays for High-speed CMOS-Based Single Photon Avalanche Diodes</p> <p>Dong Su Park and Byoung Don Kong</p> <p>Department of Electrical Engineering, POSTECH</p>
WP1-026	<p>Ferroelectric Hf_{0.5}Zr_{0.5}O Synaptic Barrister for Energy-efficient Convolution Neural Network</p> <p>Seonghoon Jang¹, Seonggil Ham¹, Jingon Jang¹, S. Choi¹, Youngin Goh², Sanghun Jeon², and Gunuk Wang¹</p> <p>¹KU-KIST Graduate School of Converging Science and Technology, Korea University, ²School of Electrical Engineering, KAIST</p>



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WP1-027	Molecular Dynamic Simulation of Group IV Crystals and Alloy Oxidation Su Hyun Park and Byoung Don Kong <i>Department of Electrical Engineering, POSTECH</i>
WP1-028	P-N Junction-like Heterogeneous Interface of Turbostratic Mxenes Sung Gyeong Lee and Byoung Don Kong <i>Department of Electrical Engineering, POSTECH</i>
WP1-029	Interface Modulation for High Performance of MoS₂/p⁺-Si Junction Field-effect Transistors Yoonsok Kim, Taeyoung Kim, and Eun Kyu Kim <i>Department of Physics and Research Institute of Natural Science, Hanyang University</i>
WP1-030	Fabrication and Characterization of Three-terminal Vertical Molecular Transistor Takgyeong Jeon ¹ , Jaeho Shin ¹ , and Gunuk Wang ^{1,2} ¹ <i>KU-KIST Graduate School of Converging Science and Technology, Korea University,</i> ² <i>Department of Integrative Energy Engineering, Korea University</i>
WP1-031	Artificially Intelligent Ferroelectric Tactile Synapse Yeeun Kim, Kyuho Lee, and Cheolmin Park <i>Department of Materials Science and Engineering, Yonsei University</i>
WP1-032	Biologically Plausible Artificial Synaptic Array: Replicating Ebbinghaus' Memory Curve with Selective Attention Dong Gue Roe ¹ , Seongchan Kim ² , Yoon Young Choi ³ , Hwije Woo ² , Moon Sung Kang ⁴ , Young Jae Song ² , Jong-Hyun Ahn ¹ , Yoonmyung Lee ⁵ , and Jeong Ho Cho ³ ¹ <i>School of Electrical and Electronic Engineering, Yonsei University,</i> ² <i>SKKU Advanced Institute of Nanotechnology (SAINT), Sungkyunkwan University,</i> ³ <i>Department of Chemical and Biomolecular Engineering, Yonsei University,</i> ⁴ <i>Department of Chemical and Biomolecular Engineering, Institute of Emergent Materials, Sogang University,</i> ⁵ <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i>
WP1-033	Deterministic Multimodal Perturbation Enables Neuromorphic-Compatible Signal Multiplexing Ui Jin Kim ¹ , Dong Hae Ho ¹ , Yoon Young Choi ¹ , Yongsuk Choi ¹ , Dong Gue Roe ¹ , Yonghyun Albert Kwon ¹ , Seongchan Kim ² , Young Jin Choi ¹ , Yejin Heo ¹ , Sae Byeok Jo ² , Geun Yeol Bae ³ , Taeyoon Lee ¹ , and Jeong Ho Cho ¹ ¹ <i>Yonsei University,</i> ² <i>Sungkyunkwan University,</i> ³ <i>Korea Institute of Industrial Technology</i>
WP1-034	An Artificial Optoelectronic Synapse based on an Organic CuPc/p-6P Heterojunction Byeongchan Kim ¹ and Jin-Hong Park ^{1,2} ¹ <i>Department of Electrical and Computer Engineering, Sungkyunkwan University,</i> ² <i>SKKU Advanced Institute of Nanotechnology (SAINT), Sungkyunkwan University</i>
WP1-035	Appliance of Vertical Heterostructure of MoS₂ and Graphene in Biosensing Field Effect Transistor within Ultrahigh Controllability Yea Hyun Kim and Woo Jong Yu <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i>



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WP1-037	CVD-grown Graphene Oxidation Using KMnO_4/diluted H_2SO_4 Jinseok Choi ¹ , Ki-Sik Im ² , Yeo Jin Choi ¹ , Seung Mun Back ¹ , Chan Young Lee ¹ , Myung Hyun Song ¹ , Dohyeon Kim ¹ , and Sung Jin An ¹ ¹ Department of Advanced Materials Science and Engineering, Kumoh National Institute of Technology, ² Advanced Material Research Center, Kumoh National Institute of Technology
WP1-038	Crystallographic Dependence of Unidirectional Spin Hall Magnetoresistance in Epitaxial Cr/Fe Bilayer Thanh Huong Thi Nguyen ¹ , Van Quang Nguyen ² , Seyeop Jeong ² , Eunkang Park ² , Heechan Jang ² , Nyun Jong Lee ² , Soogil Lee ³ , Byong-Guk Park ³ , Sunglae Cho ² , Hyun-Woo Lee ⁴ , Jung-Il Hong ¹ , and Sanghoon Kim ² ¹ DGIST, ² University of Ulsan, ³ KAIST, ⁴ POSTECH
WP1-039	Modulation of Phase Transition Pathways in Vanadium Dioxide Nanobeams via Core-shell Heterostructure-enabled Stress Engineering Ki Hoon Shin ¹ , Ji Yong Bae ² , Su Yong Lee ³ , Docheon Ahn ³ , Jiung Cho ⁴ , Jongwon Yoon ⁵ , Woong-Ki Hong ² , and Jung Inn Sohn ¹ ¹ Division of Physics and Semiconductor Science, Dongguk University, ² Center for Scientific Instrumentation, KBSI, ³ Korea Beamline Research Division, Pohang Accelerator Laboratory, ⁴ Western Seoul Center, KBSI, ⁵ Jeonju Center, KBSI
WP1-040	Negative Differential Resistance Phenomenon Achieved via Potential Hill Derived from a Two-dimensional Ferroelectric Material Taeran Lee ¹ and Jin-Hong Park ^{2,3} ¹ Department of Physics, Sungkyunkwan University, ² Department of Electrical and Computer Engineering, Sungkyunkwan University, ³ SKKU Advanced Institute of Nanotechnology (SAINT), Sungkyunkwan University
WP1-041	Electrical Characterization of Oxide Semiconductor Connected to Hafnium Aluminum Oxide(HAO) Capacitance Dongyoung Lee and Jin Hong Park Department of Electrical and Computer Engineering, Sungkyunkwan University
WP1-042	High Performance Field-Effect Transistor based on Transition Metal Dichalcogenides Using a Doping Technique Jeong-Ick Cho and Jin-Hong Park Department of Electrical and Computer Engineering, Sungkyunkwan University
WP1-043	Assembly Molecule Buffer Layer 사용을 통한 ZnO ALD 박막 FET Array의 On/Off 비율 향상 Tae Hyeon Kim and Woo Jong Yu School of Electronic and Electrical Engineering, Sungkyunkwan University
WP1-044	High Performance Photodetector Manufactured by Photovoltaic Effect of MoS_2/WSe₂ Heterostructure Seong Hyun Kim and Woo Jong Yu Department of Electrical and Computer Engineering, Sungkyunkwan University
WP1-045	Growth of Amorphous BN by Controlling Growth Condition Using Chemical Vapor Deposition Do Kyeong Yun and Woo Jong Yu Department of Electrical and Computer Engineering, Sungkyunkwan University



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WP1-046	Observance of Random Telegraph Noise Signal in BP/ReS₂ Type-III Heterojunction Diodes Sooyeon Kim, Youkyung Seo, and Min-Kyu Joo <i>Department of Applied Physics, Sookmyung Women's University</i>
WP1-047	Low-Dielectric Constant of Amorphous Boron Nitride Film Minsu Kim, Hyeongjoon Kim, Kyung Yeol Ma, and Hyeon Suk Shin <i>Department of Chemistry, UNIST</i>
WP1-048	Generating Voltage Spike Array according to Optical Signal based on Graphene/Silicon Photodetector Sung Bum Park and Woo Jong Yu <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i>
WP1-049	Negative Differential Transconductance Device for Multi-Valued Logic based on the Tungsten Diselenide / Tungsten Ditelluride Heterojunction Hogeun Ahn ¹ and JinHong Park ^{1,2} <i>¹Department of Electrical and Computer Engineering, Sungkyunkwan University, ²SKKU Advanced Institute of Nanotechnology (SAINT), Sungkyunkwan University</i>
WP1-050	Simultaneous Extraction of the Grain Size, Single-crystalline Grain Sheet Resistance, and Grain Boundary Resistivity of Polycrystalline Monolayer Graphene Jiyeong Yun, Honghwi Park, and Hongsik Park <i>School of Electronic and Electrical Engineering, Kyungpook National University</i>
WP1-051	Tailoring Electrical Properties of MoS₂-FETs with Spatially Controlled Surface Charge Transfer Doping via Selective Inkjet Printing Inho Jeong ^{1,2} , Kyungjune Cho ¹ , Seobin Yun ¹ , Jiwon Shin ³ , Jaeyoung Kim ³ , Gyu-Tae Kim ² , Takhee Lee ³ , and Seungjun Chung ¹ <i>¹Soft Hybrid Materials Research Center, KIST, ²School of Electrical Engineering, Korea University, ³Department of Physics and Astronomy, Seoul National University,</i>
WP1-052	Observation of Interlayer Couplings in MoS₂, WS₂ Bilayers and MoS₂/WS₂ Heterostructures by Low-frequency Raman Spectroscopy Min-Kyu Seo ¹ , Ki Hoon Shin ¹ , Sumin Jung ¹ , A-Rang Jang ² , and Jung Inn Sohn ¹ <i>¹Division of Physics and Semiconductor Science, Dongguk University-Seoul, ²Department of Electrical Engineering, Semyung University</i>
WP1-053	In-Plane 1D-2D Metal-Semiconductor Mo₆Te₆-MoTe₂ Heterostructures Synthesized by Te-Flux-Controlled Chemical Vapor Deposition Hyeonkyeong Kim ¹ and Youngdong Yoo ² <i>¹Department of Energy Systems Research, Ajou University, ²Department of Chemistry, Ajou University</i>
WP1-054	Effective Synapse Characteristic of Li-Ag Intercalation Based TMD Memory for Neuromorphic Computing Ga Young Cho and Woo Jong Yu <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i>



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WP1-055	Monolayer and Few-Layer Spiral MoSe₂ Synthesized Selectively by Flux-Controlled Chemical Vapor Deposition Joohyeon Ahn ¹ , Seongju Ha, Dong-Il Yeom ² , and Youngdong Yoo ³ ¹ Department of Energy Systems Research, Ajou University, ² Department of Physics, Ajou University, ³ Department of Chemistry, Ajou University
WP1-056	Change of Ge Local Environment in GeTe/Sb₂Te₃ Superlattice Chang Woo Lee ¹ , Hyeon Wook Lim ¹ , Da Sol Kim ¹ , and Mann- Ho Cho ^{1,2} ¹ Department of Physics, Yonsei University, ² Department of System Semiconductor Engineering, Yonsei University
WP1-057	Study on Ferroelectric Field-effect-transistor Fabricated on Two-dimensional Van-der-Waals Layered Semiconductor/Ferroelectric Structure Jun Cheol Kang and Jin Hong Park Department of Electrical and Computer Engineering, Sungkyunkwan University
WP1-058	Large-Scale Growth of Single-Crystal Few-Layer Hexagonal Boron Nitride Film on a Ni(111) Kyung Yeol Ma and Hyeon Suk Shin Department of Chemistry, UNIST
WP1-059	고성능 그래핀 트랜지스터 제작을 위한 새로운 그래핀 전사법 장야무진, 박종환, 이인환, 박상덕, 구태준, 황동목 성균관대학교
WP1-060	Ferroelectric Polymer-Based Synaptic Device with SiZnSnO Oxide Semiconductor Je Jun Lee and Jin Hong Park ANSDL, Sungkyunkwan University
WP1-061	Vertical Transistor Synapse based on Schottky Barrier Height Modulation with Organic Ferroelectric Material Seonggil Ham, Jingon Jang, Dohyoung Koo, Seonghoon Jang, Chul-Ho Lee, and Gunuk Wang KU-KIST Graduate School of Converging Science and Technology, Korea University
WP1-062	Introducing Two Strategies: Doping and Additional Ligand for Improving Perovskites Light-Emitting Diodes Myeong Jin Seol and Soo Young Kim School of Materials Science and Engineering, Korea University
WP1-063	Temperature Gradient Modulation of MoTe₂ for Phase and Composition Engineering via van der Waals Encapsulation Huije Ryu ¹ , Yunah Lee ¹ , Jae Hwan Jung ² , Yangjin Lee ³ , Yeryun Cheon ⁴ , Kenji Watanabe ⁵ , Takashi Taniguchi ⁶ , Kwanpyo Kim ³ , Hyeonsik Cheong ⁴ , and Gwan-Hyoung Lee ¹ ¹ Department of Materials Science and Engineering, Seoul National University, ² Department of Materials Science and Engineering, Yonsei University, ³ Department of Physics, Yonsei University, ⁴ Department of Physics, Sogang University, ⁵ Research Center for Functional Materials, National Institute for Materials Science, ⁶ International Center for Materials Nanoarchitectonics, National Institute for Materials Science



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WP1-064	<p>Epitaxially Aligned hBN/Au{111} Structures by Solid-state Dewetting of Metal Thin Film Yunah Lee, Yunyeong Chang, Huije Ryu, Miyoung Kim, and Gwan-Hyoung Lee <i>Seoul National University</i></p>
WP1-065	<p>Enhanced Photoluminescence of Multiple Two-Dimensional van der Waals Heterostructures Fabricated by Layer-by-Layer Oxidation of MoS₂ Sojung Kang¹, Yoon Seok Kim², Jae Hwan Jeong³, Junyoung Kwon³, Jong Hun Kim¹, Yeonjoon Jung¹, Jong Chan Kim⁴, Bumho Kim⁵, Sang Hyun Bae⁶, Pinshane Y. Huang⁶, James C. Hone⁵, Hu Young Jeong⁷, Jin-Woo Park³, Chul-Ho Lee², and Gwan-Hyoung Lee¹ ¹<i>Department of Materials Science and Engineering, Seoul National University</i>, ²<i>KU-KIST Graduate School of Converging Science and Engineering, Korea University</i>, ³<i>Department of Materials Science and Engineering, Yonsei University</i>, ⁴<i>Department of Materials Science and Engineering, UNIST</i>, ⁵<i>Department of Mechanical Engineering, Columbia University</i>, ⁶<i>Department of Materials Science and Engineering, University of Illinois at Urbana-Champaign</i>, ⁷<i>UNIST Central Research Facilities and Department of Materials Science and Engineering, UNIST</i></p>
WP1-066	<p>Joule Heating Effect of RKKY Interaction in p-MTJ Structure Subin Im¹, Seyeop Jeong¹, Donghyeon Lee¹, Taekhyeon Lee², Jungmin Park², Kab-Jin Kim², and Sanghoon Kim¹ ¹<i>Department of Physics, University of Ulsan</i>, ²<i>Department of Physics, KAIST</i></p>
WP1-067	<p>가스 센싱을 위한 손쉬운 Nanoporous 금속 산화물 제조 권우미, 최대건, 유상우 <i>Department of Advanced Materials Engineering, Kyonggi University</i></p>
WP1-068	<p>은 나노 와이어 구조 위 환원 그래핀 산화물 슈퍼 커패시터 유연전극 정인기, 윤광석 <i>서강대학교 전자공학과</i></p>
WP1-069	<p>Photoluminescence Modulation of Monolayer MoS₂ via Functionalization of Substrate Kyungmin Yang¹, Eunji Ji², June-Chul Shin¹, and Gwan-Hyoung Lee¹ ¹<i>Department of Materials Science & Engineering, Seoul National University</i>, ²<i>Department of Materials Science & Engineering, Yonsei University</i></p>
WP1-070	<p>인체 적용 가능한 신축성 은 전극의 제작 및 응용 Gihak Kim, Jonghyun Jeong, and Jaewook Jeong <i>School of Information and Communication Engineering, Chungbuk National University</i></p>



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K. Memory (Design & Process Technology)

심사위원: 최신현 교수(KAIST), 정연주 박사(KIST)

WP1-071	<p>Logic Compatible Embedded Flash Memory Violating Minimum Gate Length Rule in 180nm CMOS Technology</p> <p>Youngseok Jeong^{1,3}, Jongwon Lee³, Sihwan Kim^{1,2}, Younghee Jeon¹, Seung-Hwan Song^{1,2}, and Myounggon Kang³</p> <p>¹SEMIBRAIN Inc., ²ANAFLASH Inc., ³Department of Electronic Engineering, Korea National University of Transportation</p>
WP1-072	<p>Threshold Switching Characteristics of CoOx-Based Memristor for Neuromorphic Computing System</p> <p>Dohyung Kim^{1,2}, Loc Truong³, Jongmin Lee^{1,2}, Bumho Jeong^{1,2}, Daeho Lee³, and Hui Joon Park^{1,2}</p> <p>¹Department of Organic and Nano Engineering, Hanyang University, ²Human-Tech Convergence Program, Hanyang University, ³Department of Mechanical Engineering, Gachon University</p>
WP1-073	<p>Threshold Switching – Phase Change Memory for Volatile-Nonvolatile Coexistence</p> <p>Sang Hyun Sung and Keon Jae Lee</p> <p>Department of Materials Sciences and Engineering, KAIST</p>
WP1-074	<p>Novel Synaptic Transistors Employing Dual Gate Dielectric Structure of Ferroelectric Layer and Charge Trapping Layer</p> <p>Su Jae Heo^{1,2}, Jung Wook Lim^{1,2}, Hee Chul Lee³, and Hak Gyeong Kim³</p> <p>¹ETRI, ²University of Science and Technology, ³Department of Advanced Materials Engineering, Korea Polytechnic University</p>
WP1-075	<p>Fabrication and Characterization of Ferroelectric Hafnium Oxide Thin Film</p> <p>Sang Hyun Sung, Yu Jin Jeong, and Keon Jae Lee</p> <p>Department of Materials Sciences and Engineering, KAIST</p>
WP1-076	<p>Threshold Switching Behaviors Observed in Ag/TaO_x/TiN Device by Controlling First Reset Process</p> <p>Juyeong Pyo and Sungjun Kim</p> <p>Division of Electronics and Electrical Engineering, Dongguk University</p>
WP1-077	<p>Pt/ZnO/TiN 에서의 Pulse 인가에 따른 Filament 변화</p> <p>Jongmin Park and Sungjun Kim</p> <p>Division of Electronics and Electrical Engineering, Dongguk University</p>
WP1-078	<p>Probabilistic Computing Using Diffusive Memristors</p> <p>Kyung Seok Woo, Jae Hyun Kim, Janguk Han, and Cheol Seong Hwang</p> <p>Department of Materials Science and Engineering and Inter-University Semiconductor Research Center, Seoul National University</p>



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WP1-079	Implementation of Lithography Process-Compatible Synaptic Transistors Using Milk Casein Electrical Double Layer Sung-Hun Kim and Won-Ju Cho <i>Department of Electronic Materials Engineering, Kwangwoon University</i>
WP1-080	Light-Sensitive Organic Semiconductor for Oxide Memristor-Based Artificial Photonic Synapse Jongmin Lee ^{1,2} , Dohyung Kim ^{1,2} , Bum Ho Jeong ^{1,2} , Sanghyuk Park ³ , and Hui Joon Park ^{1,2} ¹ <i>Department of Organic and Nano Engineering, Hanyang University</i> , ² <i>Human-Tech Convergence Program, Hanyang University</i> , ³ <i>Department of Chemistry, Kongju National University</i>
WP1-081	Resistive Switching Behavior of a Tantalum Amorphous Oxide for Nonvolatile Memory Jung-Hwa Cha and Myoung-Jae Lee <i>Research Institute, DGIST</i>
WP1-082	Implementation of Artificial Synaptic Properties in IGZO Transistors with Bovine Milk Casein Electrical Double Layers Hwi-Su Kim and Won-Ju Cho <i>Department of Electronic Materials Engineering, Kwangwoon University</i>
WP1-083	Analysis of the Role of the Al₂O₃ Layers in Self-Rectifying and Forming-Free Pt/Al₂O₃/HfO₂/Al₂O₃/TiN Memristor Jang Uk Han, Yoon Ho Jang, and Cheol Seong Hwang <i>Department of Materials Science and Engineering and Inter-University Semiconductor Research Center, Seoul National University</i>
WP1-084	Visual Perception via Artificial Photonic Synapses for Selective Light Detection Bum Ho Jeong ^{1,2} , Hyunwoo Park ³ , Hansam Lee ⁴ , Jongmin Lee ^{1,2} , Dohyung Kim ^{1,2} , Young-Beom Kim ⁴ , Hyeongtag Jeon ³ , and Hui Joon Park ^{1,2} ¹ <i>Department of Organic and Nano Engineering, Hanyang University</i> , ² <i>Human-Tech Convergence Program, Hanyang University</i> , ³ <i>Department of Materials Science and Engineering, Hanyang University</i> , ⁴ <i>Department of Mechanical Convergence Engineering, Hanyang University</i>
WP1-085	Improvement of Switching Performance of Memristive Memory Device via Conductive Filament Control Byoung Kuk You, Jung Won Oh, and Keon Jae Lee <i>Department of Material Science and Engineering, KAIST</i>
WP1-086	Milk-Ta₂O₅ Hybrid Memristors based on Crossbar Array Structure for Bio-Organic Neuromorphic Chip Applications Jin-Gi Min and Won-Ju Cho <i>Department of Electronic Materials Engineering, Kwangwoon University</i>
WP1-087	Conductance Quantization Characteristics of Pt/Al₂O₃/TaN RRAM Device Yunseok Lee and Sungjun Kim <i>Division of Electronics and Electrical Engineering, Dongguk University</i>



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WP1-088	<p>Resistive Switching and Synaptic Characteristics of WO_x-Based Memristor on ITO Glass Electrode</p> <p>Jihyung Kim and Sungjun Kim <i>Division of Electronics and Electrical Engineering, Dongguk University</i></p>
WP1-089	<p>Performance Improvement of SOI-Based Synaptic Transistors through Application of Ta_2O_5-Chitosan-Ta_2O_5 Hybrid Electric Double Layer</p> <p>Hyun-Sik Choi and Won-Ju Cho <i>Department of Electronic Materials Engineering, Kwangwoon University</i></p>
WP1-090	<p>Realization of CMOS-Compatible Artificial Synapse Based on IGZO Electric-Double-Layer Transistors Gated by Polyvinyl Alcohol Electrolytes</p> <p>Dong-hee Lee and Won-Ju Cho <i>Department of Electronic Materials Engineering, Kwangwoon University</i></p>
WP1-091	<p>Hafnia Based Ferroelectric Tunnel Junction Synaptic Device for Neuromorphic Computing Application</p> <p>Sungmun Song¹, Woori Ham¹, Gyuil Park², Wonwoo Kho², Hyunjoo Hwang², Jisoo Kim², Hyo-Bae Kim³, Ji-Hoon Ahn³, and Seung-Eon Ahn^{1,2} ¹Department of Nano & Semiconductor Eng, Korea Polytechnic University, ²Department of IT · Semiconductor Convergence Eng, Korea Polytechnic University, ³Department of Material Science and Chemical Eng, Hanyang University</p>
WP1-092	<p>ALD HfO_2 Based RRAM for 3D Vertical Synapse Device Application</p> <p>Osung Kwon, Jongmin Park, and Sungjun Kim <i>Division of Electronics and Electrical Engineering, Dongguk University</i></p>
WP1-093	<p>DRAM 동작 예측 Deep Learning Training을 위한 데이터 수집 시스템</p> <p>Jonghyun Cho, Jeonghun Son, Yeji Choi, and Young-Jae Min <i>Department of Electric and Electronic Engineering, Halla University</i></p>
WP1-094	<p>Improved Conductance Control by Introducing Nanoparticles in High-k Based RRAM Devices for Neuromorphic System Application</p> <p>Chandreswar Mahata, Beomki Jeon, and Sungjun Kim <i>Division of Electronics and Electrical Engineering, Dongguk University</i></p>
WP1-095	<p>Optically Controlled Memristor Devices for Neuromorphic System Application</p> <p>Chandreswar Mahata, Seyoung Yang, and Sungjun Kim <i>Division of Electronics and Electrical Engineering, Dongguk University</i></p>
WP1-096	<p>Synaptic characteristics of $Ag/SnO_x/TiN$ Resistive Switching Device</p> <p>Jiwoong Shin and Sungjun Kim <i>Electronic and Electrical Engineering, Dongguk University</i></p>



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WP1-097	<p>Short-term Memory 효과를 고려한 ZnO기반 멤리스터의 시냅스 특성 Seokyeon Yun¹, Min-Hwi Kim², and Sung Jun Kim¹ ¹<i>Division of Electronics and Electrical Engineering, Dongguk University,</i> ²<i>Electrical and Computer Engineering, Seoul National University</i></p>
WP1-098	<p>피드백 전계효과 트랜지스터의 1T DRAM 특성 연구 전주희, 우솔아, 손재민, 조경아, 김상식 <i>고려대학교 전기전자공학과</i></p>
WP1-099	<p>재구성이 가능한 피드백 전계효과 트랜지스터의 전기적 특성 연구 신연우, 손재민, 조경아, 김상식 <i>고려대학교 전기전자공학과</i></p>
WP1-100	<p>Ni/SiO_x/ITO 소자의 디지털스위칭과 아날로그스위칭이 양립가능한 Switching Mechanism 및 뉴로모픽 시스템에 적용 Minsu Park, Jongmin Park, and Sungjun Kim <i>Division of Electronics and Electrical Engineering, Dongguk University</i></p>
WP1-101	<p>Development of Basic Model for Cerium Oxide Based Interfacial Switching Memory Device Using Finite Element Method Sagar Khot, Dongmyung Jung, and Yongwoo Kwon <i>Hongik University</i></p>
WP1-102	<p>1T DRAM with a Protruded SiGe Quantum Well for Larger Sensing Margin Si Won Lee¹, Seongjae Cho², Il Hwan Cho¹, and Garam Kim¹ ¹<i>Myongji University,</i> ²<i>Gachon University</i></p>
WP1-103	<p>교차 결합 인버터를 활용한 난수 생성 회로 박준성¹, 김재성¹, 채동혁¹, 김윤¹, 구민석² ¹<i>서울시립대학교 전자전기컴퓨터공학부,</i> ²<i>인천대학교 컴퓨터공학과</i></p>
WP1-104	<p>Charge Trap Flash based on IGZO for a Synaptic Device Eunpyo Park^{1,2}, Gichang Noh¹, Min Jee Kim¹, Taehyun Kim¹, Yong Woo Sung¹, Dong Yeon Woo¹, In Soo Kim¹, Sang Bum Kim², Jiwon Chang³, Hyun-Cheol Song¹, and Joon Young Kwak¹ ¹<i>KIST,</i> ²<i>Seoul National University,</i> ³<i>Yonsei University</i></p>
WP1-105	<p>A Reliable MoS₂ Ion Synaptic Device for Long-term Plasticity with Tunable iCVD Organic-inorganic Hybrid Electrolyte Film Sanghun Lee¹, Seohak Park², Jeong yeop Oh³, and Sung-Yool Choi¹ ¹<i>School of Electrical Engineering, KAIST,</i> ²<i>Graphene²D Materials Research Center, KAIST,</i> ³<i>Center for Advanced Materials Discovery towards ³D Displays, KAIST</i></p>



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WP1-106	Low Voltage & High Reliability Polyfuse IP Liyan Jin, Jieon Kim, Eunsang Jo, Hyunsup Jung, and Joontae Jang <i>DB HiTek</i>
WP1-107	InGaAs-OI Ferroelectric FET on Si Using Direct Wafer Bonding Kyuil Ko ^{1,2} , Dae-Hwan Ahn ¹ , Byeong-Kwon Ju ² , and Jae-Hoon Han ¹ ¹ KIST, ² Korea University
WP1-108	Implementation of Dendritic Network Organic Neurofiber Transistor with Enhanced Memory Cycle Endurance Kwang-Hun Choi ^{1,2} , Soo Jin Kim ¹ , Jae-Seung Jeong ¹ , Ho Won Jang ² , Hyunsu Ju ¹ , and Jung Ah Lim ¹ ¹ Center for Opto-Electronic Materials and Devices, KIST, ² Department of Materials Science and Engineering, Seoul National University
WP1-109	Characteristic of TCAM based on Ferroelectric FET with 3nm Multi-Nanosheet Structure Hyungyeong Kim, Sugil Park, Gihong Kim, Changho Ra, and Jongwook Jeon <i>Department of Electrical and Electronic Engineering, Konkuk University</i>
WP1-110	Thermal Barrier Interfacial Phase Change Memory Hyeon-wook Lim ^{1,2} , Cho Kyu-jin ³ , Seok-Choi ⁴ , Da-sol Kim ^{1,2} , Chang-woo Lee ^{1,2} , Hoe-don Kwon ^{1,2} , Tae-hun Jang ^{1,2} , Yoen-woo Seong ^{1,2} , Byung-joon Choi ⁴ , Yang Cheol-woong ³ , and Mann-Ho Cho ^{1,2} ¹ Department of Physics, Yonsei University, ² Department of System Semiconductor Engineering, Yonsei University, ³ Department of Physics, Seonggyungwan University, ⁴ Department of Physics, Seoul National University of Science and Technology
WP1-111	Electrical Characteristics Analysis of Ferroelectric Field-Effect Transistor Using 2D TMD Channels Seojoo Lee and Jin-hong Park <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i>
WP1-112	수직 적층형 로직-인-메모리 소자 기반 전가산기 설계 Changhyun Im ¹ , Sueyeon Kim ¹ , Myounggon Kang ² , Seung Jae Baik ³ , and Jongwook Jeon ¹ ¹ 건국대학교 전기전자공학부, ² 한국교통대학교 전자전기공학부, ³ 한경대학교 전자전기공학부
WP1-113	Single SRAM Ternary Content Addressable Memory (TCAM) 김민재, 김영민 <i>홍익대학교 전자전기공학부</i>
WP1-114	Charge Trap Memory Transistor for Neuromorphic through Trap Time Control Eun Seo Jo and You Seung Rim <i>Department of Intelligent Mechatronics Engineering, and Convergence Engineering for Intelligent Drone, Sejong University</i>



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WP1-115	<p>주변 온도에 따른 상전이 소자 특성 묘사 회로 모델링</p> <p>오주영, 정향교, 이예지, 전종욱</p> <p>건국대학교 전기전자공학부</p>
WP1-116	<p>The Improved Ferroelectric Characteristics of Ferroelectric Memory Devices Using ALD SiO₂ and Al₂O₃ Interlayers</p> <p>Ji Yeon Lim, Ye Rim Shin, Boncheol Ku, and Changhwan Choi</p> <p><i>Division of Materials Science and Engineering, Hanyang University</i></p>
WP1-117	<p>The Effect of ptm Transition Delay Time on Hyperfet Based Circuit Characteristics</p> <p>Yeji Lee, Hang-gyo Jung, Jooyong Oh, Changhyun Yoo, and Jongwook Jeon</p> <p><i>Department of Electrical and Electronic Engineering, Konkuk University</i></p>
WP1-118	<p>A Finite Element and Phase-field Simulation of VCM-based Resistive Memory</p> <p>Dongmyung Jung and Yongwoo Kwon</p> <p><i>Department of Materials Science and Engineering, Hongik university</i></p>
WP1-119	<p>Optoelectronic Synaptic Device Using Copper-phthalocyanine (CuPc) and para-sexiphenyl (p-6P) Heterojunction and Its Operation Under Solar-stimulation</p> <p>Hyongsuk Choo and Jin-Hong Park</p> <p><i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i></p>
WP1-120	<p>싱글 레벨 셀 낸드 플래시 메모리 상에서의 로직 연산 구현</p> <p>안지훈¹, 방성진¹, 채동혁¹, 구민석², 김 윤¹</p> <p>¹서울시립대학교 전자전기컴퓨터공학과, ²인천대학교 컴퓨터공학부</p>
WP1-121	<p>3nm Multi-Nanosheet FET-Based Ferroelectric FET Device Full Adder Characteristics Analysis</p> <p>Sugil Park, Changho Ra, Gihong Kim, Hyungyeong Kim, and Jongwook Jeon</p> <p><i>Department of Electrical and Electronic Engineering, Konkuk University</i></p>
WP1-122	<p>HfO₂ 기반 RRAM 소자의 메모리 윈도우 확대 방안에 대한 연구</p> <p>이선정, 심건호, 백승재</p> <p><i>School of Electronic and Electrical Engineering, Hankyong National University</i></p>
WP1-123	<p>Outstanding Electrical and Thermal Characteristics of N-doped Si-Ge-Te Quaternary Ovonic Threshold Switching Devices for Neuromorphic Applications</p> <p>Chaebin Park^{1,2}, Sang-Heon Park^{1,2}, Yoongu Lee^{1,2}, and Jong-Souk Yeo^{1,2}</p> <p>¹School of Integrated Technology, Yonsei University, ²Yonsei Institute of Convergence Technology, Yonsei University</p>



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L. Analog Design

심사위원: 엄지용 교수(금오공과대학교), 정영호 교수(대구대학교)

WP1-124	A Cross-Coupled Self-Driving Charge-Pump Topology for Low Voltage Applications Myeong Woo Kim and Jae Joon Kim <i>Department of Electrical Engineering, UNIST</i>
WP1-125	A Fully Integrated Pulse-Skipping Controlled Charge Pump for Portable Stimulators Myeong Woo Kim and Jae Joon Kim <i>Department of Electrical Engineering, UNIST</i>
WP1-126	Ultrasound Receiver for CMUT-Based Endoscopic Ultrasound System Gichan Yun, Kyeongwon Jeong, Jaesuk Choi, Yechan Park, Seunggho Jhung, and Minkyu Je <i>School of Electrical Engineering, KAIST</i>
WP1-127	A Continuous-Time Sigma-Delta Analog-to-Digital Converter with 2-Step Operation Chan Sam Park and Jae Joon Kim <i>Department of Electrical Engineering, UNIST</i>
WP1-128	Noise-Shaping SAR ADC for EEG Signal Monitoring Yegeun Kim, Kyeongwon Jeong, Kim-Hoang Nguyen, and Minkyu Je <i>School of Electrical Engineering, KAIST</i>
WP1-129	Chopper Stabilized Low Noise Amplifier for EEG Analog Front-End Circuit Changhun Seok, Yegeun Kim, Woojin Ahn, Yoontae Jung, and Minkyu Je <i>School of Electronic Engineering, KAIST</i>
WP1-130	Front-End Transceiver Design for CMUT-Based Ultrasound Imaging Shinyong Shim, Maesoon Im, and Byung Chul Lee <i>Brain Science Institute, KIST</i>
WP1-131	A Low Power Low Noise Interface Circuit for Bio-Impedance Measurement Haidam Choi, Jihoon Suh, Sunghoon Choi, and Minkyu Je <i>School of Electrical Engineering, KAIST</i>



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WP1-132	Reference-Sampling Phase-locked Loop with an Auxiliary FLL Using a Dead-zone PFD Yujin Kyung, Goo-han Ko, Si Keuk Ryu, Zhenbo Jin, and Donghyun Baek <i>School of Electrical Engineering, Chung-Ang University</i>
WP1-133	Flying-Capacitor-Assisted Single Mode Buck-Boost Converter Sunghae Kim and Jaeduk Han <i>Department of Electronic Engineering, Hanyang University</i>
WP1-134	저전력 저전압의 에너지 하베스팅을 위한 인덕터 기반의 직류-직류 전력 컨버터 김영범, 조동희, 이연봉, 신흥석, Hung Phan Dang, 제민규 <i>한국과학기술원</i>
WP1-135	리셋 스위치를 제거한 저면적 단방향 써모미터 코드 래치 우기찬 ¹ , 김인태 ¹ , 김유신 ¹ , 박정주 ¹ , 윤대한 ¹ , 조미령 ¹ , 양병도 ² <i>¹광주과학기술원, ²충북대학교</i>
WP1-136	Multi-Mode Noise-Shaping SAR ADC Using Comparator Offset-Cancellation with Body-Voltage Trimming Technique Won-Jin Eom and Jaejoon Kim <i>School of Electrical Engineering, UNIST</i>
WP1-137	시간-인터리빙 축차비교형 ADC를 위한 타이밍-스큐 보상 기법 구현 Seong-Wook Choi, Kiho Seong, Yong Shim, and Kwang-Hyun Baek <i>Chung-Ang University</i>
WP1-138	축차비교형 ADC의 분절 이진 가중치 감쇠 커패시터를 사용한 DAC 레이아웃 기법 Keun Yong Chung ¹ , Bo Kyong Choi ² , Yong Shim ¹ , and Kwang-Hyun Baek ¹ <i>¹Chung-Ang University, ²LG Display Co., Ltd.</i>
WP1-139	Design of Negative Active Based Cascode Stage for High PSRR in Bandgap Voltage Reference Yeong-Hun Kim ¹ and Kang-Yoon Lee ² <i>¹Department of Electrical and Computer Engineering, Sungkyunkwan University</i>
WP1-140	Design of Real Time Zero Current Detector Using Adaptive-bias Comparator with Tunable Offset for DC-DC Converter Hyunjin Jeong, Byeong-Gi Jang, and Kang-Yoon Lee <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i>



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WP1-141	Design of Ultra Low Power Low-Dropout Regulator Dae-Geun Cho, Byeong Gi Jang, and Kang Yoon Lee <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i>
WP1-142	높은 홀딩전압을 갖는 ESD 보호회로에 관한 연구 Jang Han Jeong, Je Wook Woo, Jun Ho Gong, and Yong Seo Koo <i>Dankook University</i>
WP1-143	Design of Power on Reset Circuit Using Low Static Current Consumption and Input Power Supply Hyoung Jun Na and Kang Yoon Lee <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i>
WP1-144	Feedback Detection Circuit을 이용한 향상된 Transient 특성을 갖는 LDO 레귤레이터 권상욱, 도경일, 이병석, 구용서 <i>단국대학교 전기전자공학부</i>
WP1-145	심볼 인코더를 이용한 고속 C-PHY 인터페이스 송신기 Myeong Kyu Song and Jung-Hoon Chun <i>College of Information and Communication Engineering, Sungkyunkwan University</i>
WP1-146	커패시터 비와 이득에 둔감한 CMOS 이미지 센서용 12 bit 사이클릭 ADC Jaemin Hong, Hyunsun Mo, and Daejeong Kim <i>Department of Electronics Engineering, Kookmin University</i>
WP1-147	Design of Low Noise Sensor Interface Circuit for Bridge Sensors Jimin Koo, Song-I Cheon, Sein Oh, Seunga Park, and Minkyu Je <i>KAIST</i>
WP1-148	멀티페이즈 항 고속 전압 제어 링 발진기 박민수, 전정훈 <i>Sungkyunkwan University</i>
WP1-149	6-bit 28GS/s 시간 교차 아날로그-디지털 변환기 및 디지털 오프셋 부정합 보상 회로 Yun Kuk Park and Jung Hoon Chun <i>College of Information and Communication Engineering, Sungkyunkwan University</i>



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WP1-150	Compact IoT Harmful Gas Pattern Recognition Device for Low-Cost Gas Sensor Embedding A Sensor Adaptable Read Out Integrated Circuit Hee Young Chae, Jeonghoon Cho, Yunsik Lee, and Jae Joon Kim <i>Department of Electrical Engineering, UNIST</i>
WP1-151	Zoom ADC-assisted Noise Shaping SAR ADC Sein Oh, Yoontae Jung, Seunga Park, Jimin Koo, and Minkyu Je <i>School of Electrical Engineering, KAIST</i>
WP1-152	게이트 저항에 의한 전력변환기기의 효율 및 노이즈 최적화 장현규 ^{1,2} , 정동윤 ¹ , 권성규 ¹ , 조두형 ¹ , 원종일 ¹ , 박건식 ¹ , 임종원 ¹ , 윤익재 ² ¹ ETRI, ² Chungnam National University
WP1-153	개선된 디지털 디코더 로직을 사용한 고성능 저전력 직접 디지털 주파수 합성기 Keun-Yong Chung, Jae-Soub Han, and Kwang-Hyun Baek <i>Chung-Ang University</i>
WP1-154	디더링 형식의 비선형 DAC을 적용한 2GHz CMOS 기반 저전력 직접 디지털 주파수 합성기 Seong-Wook Choi ¹ , Ji-Min Choi ² , and Kwang-Hyun Baek ¹ ¹ Chung-Ang University, ² LG Electronics
WP1-155	A Low Power Analog SNN Neuron Circuit using Coarse-Fine Comparator Dong-won Lee, Chae-yeon Shin, and Byung-do Yang <i>Department of Electronics Engineering, Chungbuk National University</i>
WP1-156	Hybrid Type Phase-Interpolator를 사용한 2.4GHz Fractional-N 서브 샘플링 위상 고정 루프 Chung-Hee Jang, Yun-Sik Choi, and Kwang-Hyun Baek <i>Chung-Ang University</i>
WP1-157	사물인터넷 어플리케이션에 사용되는 Dynamic Element Matching 기법을 사용한 12-bit 전류조절 DAC Chung-Hee Jang, Bo-Yun Jung, and Kwang-Hyun Baek <i>Chung-Ang University</i>
WP1-158	전압 제어 발진기의 전류를 조절하는 기법을 활용한 문턱 전압 근처 (NTV) Chung-Hee Jang, Kitae-Yoo, and Kwang-Hyun Baek <i>Chung-Ang University</i>



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WP1-159	시간 교차 아날로그-디지털 변환기의 오프셋 부정합 보상 회로 Hwiwon Kim and Jung-Hoon Chun <i>College of Information and Communication Engineering, Sungkyunkwan University</i>
WP1-160	0도 위상으로 정렬한 1차 측파대 필터들을 이용한 저전력 고속 비동기식 BPSK 복조기 이론과 혼성신호 집적회로 설계 Benjamin P. Wilkerson ^{1,2} ¹ <i>Department of Electrical and Computer Engineering, Inha University, ²PW Semiconductor Labs, Inc.</i>
WP1-161	180도 위상으로 정렬한 1차 측파대 필터들을 이용한 저전력 고속 비동기식 BPSK 복조기 이론과 IC 수율증대를 위한 설계방법 Benjamin P. Wilkerson ^{1,2} ¹ <i>Department of Electrical and Computer Engineering, Inha University, ²PW Semiconductor Labs, Inc.</i>

M. RF and Wireless Design

심사위원: 권구덕 교수(강원대학교), 권익진 교수(아주대학교)

WP1-162	A Fully-Integrated Ka-Band CMOS Rectifier Using Large Signal Analysis for Wireless Power Transfer Junhyuk Yang, Seonhye Jang, and Changkun Park <i>Department of Electronic Engineering, Soongsil University</i>
WP1-163	37–40 GHz GaN Low-Noise Amplifier MMIC for 5G FR2 Application Se Joon Park ¹ , Woo Rin Kim ¹ , Hyun-Bae Ahn ¹ , Sanghun Lee ² , and Junghwan Han ¹ ¹ <i>Department of Radio Science Engineering, Chungnam National University, ²Wavepia Incorporated</i>
WP1-164	A V-Band Fully Differential 4-Channel Transmitter IC in TSMC 65 nm RF CMOS Seonghoon Kim, Gwang-Sub Kim, Kwang-Il Oh, Jun Young Park, and Donghyun Baek <i>School of Electrical Engineering, Chung-Ang University</i>
WP1-165	Harmonic Distortion Analysis Method Using Green Function Theory Nakwon Yu, Jongmin Kim, Youngchul Kim, and Juntae Jang <i>TEDS Team, DB HiTek</i>
WP1-166	Optically Transparent Display-Integrated Array Antennas for Bandwidth and Gain Enhancement Jin Myeong Heo and Gangil Byun <i>Department of Electrical Engineering, UNIST</i>



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WP1-167	Design of PLL based on Multi Clock Generation Ho Won Kim and Kan Yoon Lee <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i>
WP1-168	A Design of High Power SP8T and SP7T Using 90 nm SOI Process Technology David Kim and Kang Yoon Lee <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i>
WP1-169	A Design of Ultra-High Gain Low Noise Amplifier with Multi-input Cascode Structure Dong Min Kim and Kang Yoon Lee <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i>
WP1-170	Design of Power Amplifier for 5.8GHz DSRC Application with ASK Modulation Myeong Gwan Kim and Knag Yoon Lee <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i>

N. VLSI CAD

심사위원: 송대건 교수(경북대학교), 강석형 교수(POSTECH)

WP1-171	Machine Learning Based Path Delay Analysis Considering Crosstalk in 3D-Ics Seok-Byum Kim, Mu-Jun Choi, and Juho Kim <i>Sogang University</i>
WP1-172	Lowering the Power of Sobel Edge Detection by Fanout Modification Mincheorl Shin and Youngmin Kim <i>School of Electronic & Electrical Engineering, Hongik University</i>



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O. System LSI Design

심사위원: 이영주 교수(POSTECH), 공병용 교수(공주대학교)

WP1-173	A 3.5 GHz Fast-Locking All-Digital Quadrature Clock Corrector Sang-bum Park and Won-Young Lee <i>Seoul National University of Science and Technology</i>
WP1-174	Weather Prediction Device based on IoTs Iyapo Kamoru Olarewaju and Kyung Ki Kim <i>Department of Electronic Engineering, Daegu University</i>
WP1-175	모든 유사-FFT 알고리즘을 위한 최적의 데이터 재배열 회로 설계법 신예린, 최소연, 유호영 <i>충남대학교 전자공학과</i>
WP1-176	A Compact RISC-V Processor Specialized for Stress Measurement Se-eun Huh, Hyeoncheol Jang, Sangmin Jeon, Hyunjun Kang, Doyeop Kim, Wooyoung Lee, Juyoung Oh, and Woojoo Lee <i>School of Electrical and Electronics Engineering, Chung-Ang University</i>
WP1-177	FPGA LUT 입력에 따른 비트 출력 지연 시간 검증 이성룡, 김민수, 유호영 <i>충남대학교 전자공학과</i>
WP1-178	슈트라센 알고리즘을 활용한 효율적인 FPGA 행렬 곱셈기 배준휘, 김영민 <i>홍익대학교 전자전기공학부</i>
WP1-179	SQNR 기반 연산 복잡도를 고려한 자원 효율적인 레이어 별 Mixed Precision 방법론 김하나 ^{1,2} , 은현 ³ , 최정환 ³ , 김지훈 ^{1,2} <i>¹이화여자대학교 전자전기공학과, ²이화여자대학교 스마트팩토리 융합전공, ³오픈엠티테크놀로지</i>
WP1-180	Custom-Posit : 다양한 표현 범위 설정이 가능한 변형된 Posit Format 김하나 ^{1,2} , 김지훈 ^{1,2} <i>¹이화여자대학교 전자전기공학과, ²이화여자대학교 스마트팩토리 융합전공</i>



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P. Device for Energy (Solar Cell, Power Device, Battery, etc.)

심사위원: 박정웅 교수(가천대학교), 유상우 교수(경기대학교)

WP1-181	1.2kV SiC MOSFET의 내방사선 특성 분석 윤효원, 김채윤, 박영은, 박초이, 석오균 금오공과대학교 전자공학부
WP1-182	A Self-powered Photodetector in Vertical Architecture Using Mixed-halide Perovskite for Highly Sensitive UVC Detection Chung Wung Bark Gachon University
WP1-183	SiC MOSFET 소자의 Power Cycling Test 고장 분석 김미진 ¹ , 서재화 ² , 강인호 ² , 이호준 ¹ ¹ 부산대학교 전기공학과, ² 한국전기연구원 전력반도체 연구센터
WP1-184	Graphene on Peeled-off Ru for Anti-icing D. D. Megersa ^{1,2} and Hak Ki Yu ^{1,2} ¹ Department of Energy Systems Research, Ajou University, ² Department of Materials Science and Engineering, Ajou University
WP1-185	Effect of Sputtering Power on the Growth of MoO₃ Films Deposited by Magnetron Sputtering Gudena-Gutema Teshome ^{1,2} and Hak. Ki. Yu ^{1,2} ¹ Department of Energy Systems Research, Ajou University, ² Department of Materials Science and Engineering, Ajou University
WP1-186	Enhancing Thermal Stability of Copper Film Using Multi-Layer Graphene Barrier Hojun Shin ^{1,2} and Hak Ki Yu ^{1,2} ¹ Department of Energy Systems Research, Ajou University, ² Department of Materials Science and Engineering, Ajou University
WP1-187	Cracked Palladium Using Self-Cracked WO₃ Thin Film on Flexible Substrate for Use as H₂ Gas Sensors Noeul Kim ¹ and Hak Ki Yu ^{1,2} ¹ Department of Energy Systems Research, Ajou University, ² Department of Materials Science and Engineering, Ajou University
WP1-188	KOH Activation of the Back Electrodes for the Graphene Supercapacitors Gil Hwan Lim ¹ , Jaechang Seol ² , and Yung Ho Kahng ¹ ¹ Department of Physics Education, Chonnam National University, ² Department of Chemical Engineering, Chonnam National University



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WP1-189	Cu-Based Catalyst for Electrochemical CO₂ Reduction Reaction Seokwoo Choe and Youn Jeong Jang <i>Department of Chemical engineering, Hanyang University</i>
WP1-190	Iron Phthalocyanine Based Electrocatalyst for Electrochemical Nitrogen Reduction to Ammonia Yonghyun Moon and Youn Jeong Jang <i>Department of Chemical Engineering, Hanyang University</i>
WP1-191	Strategy to Enhance Photoelectrochemical Water Splitting: Cu₂O Photocathode on Three-Dimensional Mesostructured Epitaxial Ni Charge Collector Minjeong Kim ^{1,2} , In Soo Kim ¹ , and Jin Gu Kang ¹ <i>¹Nanophotonics Research Center, KIST, ²School of Electrical Engineering, Korea University</i>
WP1-192	Promoting Selective Nitrogen Reduction with a Fe-confined MoS₂ Catalyst Inspired by Nitrogenase Jae Hyung Shim ¹ , Gyu Seong Yi ² , Hyun S. Park ² , and Chul-Ho Lee ^{1,3} <i>¹KU-KIST Graduate School of Converging Science and Technology, Korea University, ²Center for Hydrogen, Fuel Cell Research, KIST, ³Department of Integrative Energy Engineering, Korea University</i>
WP1-193	Fast and Accurate Model to Estimate BV of SJ Ring Corner Using 3D TCAD Simulation Jieun Lee ¹ , Jong Min Kim ¹ , Jae Hyun Kim ¹ , Myeong Bum Pyun ² , Kwang Young Ko ² , Youngchul Kim ¹ , and Joontae Jang ¹ <i>¹Technology Enabling Design Support Team, DB HiTek, ²Device Development Team, DB HiTek</i>
WP1-194	Bandgap Engineering of Sb₂(S_{1-x}Se_x)₃ Alloys via r.f. Magnetron Sputtering for Photoelectrochemical Water Splitting Hyejun Kim ^{1,2} , Soong Ju Oh ² , and In Soo Kim ¹ <i>¹Nanophotonics Research Center, KIST, ²Korea University</i>
WP1-195	All Solution-Processed Van Der Waals Thin-Film Electronics With High Performance And Low-Power Operation Su-Yeon Joung ¹ , Haena Yim ² , Jaehyung Shim ¹ , Yeon Ho Kim ¹ , Yoon Seok Kim ¹ , Jin S. Kim ¹ , Ji-Won Choi ² , and Chul-Ho Lee ¹ <i>¹KU-KIST Graduate School of Converging Science and Technology, Korea University, ²Center for Electronic Materials, KIST</i>
WP1-196	A Snapback Suppressed Reverse Conducting IGBT by Using Ge on P-collector Seong Yun Kim, Ki Yeong Kim, Tae Young Yoon, and Jang Hyun Kim <i>Pukyong National University</i>
WP1-197	Self-Align Channel 공정 적용 여부에 따른 1.2kV SiC MOSFET의 전기적 특성 분석 윤효원, 최수아, 박영은, 박초이, 김채윤, 석오균 <i>금오공과대학교 전자공학부</i>



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WP1-198	Highly Efficient Solar Vapor Generation via a Simple Morphological Alteration of TiO₂ Films Grown on a Glassy Carbon Foam Sungdo Kim, Zeeshan Tahir, Mamoon Ur Rashid, and Yong Soo Kim <i>Department of Physics and Energy Harvest-Storage Research Center, University of Ulsan</i>
WP1-199	Ca-Ion Co-Intercalation on Pyrolytic Carbon Materials Jong Chan Hyun, Son Ha, Dong Hyuk Kang, Yeonhwa Choi, and Young Soo Yun <i>KU-KIST Graduate School of Converging Science and Technology, Korea University</i>
WP1-200	Catalytic Nanoporous Carbon Hosts for High-performance Li Metal Anode Juhee Yoon ¹ , Subin Oh ¹ , Young Soo Yun ^{2,3} , and Hyoung-Joon Jin ^{1,4} <i>¹Program in Environmental and Polymer Engineering, Inha University, ²KU-KIST Graduate School of Converging Science and Technology, Korea University, ³Department of Integrative Energy Engineering, Korea University, ⁴Department of Polymer Science and Engineering, Inha University</i>
WP1-201	High-voltage Electrolyte System for Mg-ion Supercapacitors Sungmin Cho ¹ , Geonhee Han ¹ , Young Soo Yun ^{2,3} , and Hyoung-Joon Jin ^{1,4} <i>¹Program in Environmental and Polymer Engineering, Inha University, ²KU-KIST Graduate School of Converging Science and Technology, Korea University, ³Department of Integrative Energy Engineering, Korea University, ⁴Department of Polymer Science and Engineering, Inha University</i>
WP1-202	Three-dimensional Protective SEI Layer for Lithium Metal Anode Dong Hyuk Kang, Jong Chan Hyun, Son Ha, Eunji Lee, and Young Soo Yun <i>KU-KIST Graduate School of Converging Science and Technology, Korea University</i>
WP1-203	Electromagnetic Interference Shielding Film Using Nano Structure of Iron Oxide Implemented by Physical Vapor Deposition or Spin Coating Mingi Lee ^{1,2} , Youngho Kim ^{1,2} , Yeongji Yu ¹ , and Hak Ki Yu ^{1,2} <i>¹Department of Materials Science and Engineering, Ajou University, ²Department of Energy Systems Research, Ajou University</i>
WP1-204	Controllable Crystal Structure and Oxygen Vacancies of a-moo3 for Enhancing Electrochemical Properties Geonho Kwak and Hakki Yu <i>Department of Energy System Research, Ajou University</i>
WP1-205	Mechanical Properties Study of VO₂ Micro-beam According to Metal-insulator Transition Ji Kwon Bae and Hak Ki Yu <i>Department of Energy Systems Research, Ajou University</i>
WP1-206	Design of Digital Feedback Loop DC-DC Converter with Low Power Soft-Start Tae Seob Oh ¹ and Kang Yoon Lee ² <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i>



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<p>WP1-207</p>	<p>Optimization of Si Pyramid Texturing for Light-Trapping Enhanced III-V/Si Tandem Photovoltaics Eungjeong Choi¹, Seokho Kim¹, Yeonhwa Kim^{1,2}, Seungwan Woo^{1,3}, In-Hwan Lee^{1,3}, Won Jun Choi¹, and Daehwan Jung^{1,2} ¹Center for Opto-electronic Materials and Devices, KIST, ²Division of Nano and Information Technology, KIST School at University of Science and Technology, ³Department of Materials Science and Engineering, Korea University</p>
<p>WP1-208</p>	<p>전기 도금 방식을 이용한 백금 단원자 촉매의 수소 발생 반응 메커니즘 연구 Mechanism Exploration of Hydrogen Evolution Reaction on Platinum Single Atom Catalyst using Electrodeposition technique 김소희, 배채림, 남규리, Junyi Wang, 황동목 성균관대학교</p>
<p>WP1-209</p>	<p>Defect Engineering on Photocatalysts for Effective Conversion of Nitrogen to Ammonia Cho Hee Lee and Youn Jeong Jang Department of Chemical Engineering, Hanyang University</p>
<p>WP1-210</p>	<p>진동 운동 수확 진자형 마찰전기 나노발전소자 제작 및 특성 장종범, Sonyana Adonijah Graham, 유재수 경희대학교 전자공학과</p>
<p>WP1-211</p>	<p>Mesoporous Carbonaceous-Transition Metal Oxide Nanostructures for Supercapacitor Applications Shaik Junied Arbaz¹, Bhimanaboina Ramulu¹, Eun-Bum Cho², and Jae Su Yu¹ ¹Department of Electronics and Information Convergence Engineering, Kyung Hee University, ²Department of Fine Chemistry, Seoul National University of Science and Technology</p>
<p>WP1-212</p>	<p>Synthesis of Ternary Metal-based Materials for High-performance Supercapacitors Anki Reddy Mule, Bhimanaboina Ramulu, and Jae Su Yu Department of Electronics and Information Convergence Engineering, Kyung Hee University</p>
<p>WP1-213</p>	<p>A Study Of Stable I-V Measurement Using Delay Time Considering Logic For Perovskite Solar Cells Jae Sun Lee^{1,2}, Sungeun Park¹, Sang Hee Lee¹, Hee-eun Song¹, Min-Gu Kang¹, Yimhyun Jo¹, Dong Suk Kim¹, Tae-Kyung Lee¹, and Jae-Min Myoung² ¹KIER, ²Yonsei University</p>
<p>WP1-214</p>	<p>n-type wafer 특성 한계 및 비저항에 따른 효율 영향분석 권철욱, 박성은, 이상희, 송희은, 강민구, 이태경 한국에너지기술연구원</p>
<p>WP1-215</p>	<p>P-type c-Si 태양전지의 Potential-induced Degradation 방지를 위한 Na+ 확산 방지막 곽경민, 장은진, 유상우 Department of Advanced Materials Engineering, Kyonggi University</p>



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WP1-216	Sr₃Al₂O₆ 수용성 희생층을 이용한 Si Membrane 제조 Semi Kang, Changhoon Jeong, and Sangwoo Ryu <i>Department of Advanced Materials Engineering, Kyonggi University</i>
WP1-217	Sol-gel 및 Electrochemical 합성에 의해 제조된 황 도핑 CuBi₂O₄의 특성 김은화, 유상우 <i>Department of Advanced Materials Engineering, Kyonggi University</i>
WP1-218	4H-SiC Lateral MOSFETs Implemented on HPSI Substrate with Double Implanted Current Path Layer Hyoung Woo Kim, Jeong Hyun Moon, Jae Hwa Seo, and Wook Bahng <i>Advanced Semiconductor Research Center, KERI</i>
WP1-219	결정질 Si 태양전지를 위한 유무기 하이브리드 투습 방지막 장은진, 곽경민, 유상우 <i>Department of advanced materials engineering, Kyonggi University</i>
WP1-220	Analysis of Passivation Characteristics of TOPCon Structure Inserted Intrinsic Poly-Si Hee Jun Yang ^{1,2} , Kwan Hong Min ¹ , Hee-eun Song ¹ , Min Gu Kang ¹ , Jae-Min Myoung ² , and Sungeun Park ¹ ¹ Photovoltaics Research Department, KIER, ² Department of Materials Science & Engineering, Yonsei University
WP1-221	Deep Learning-Assisted Image Characterizations in Composite Electrodes of Energy-Based Devices Heesu Hwang, Jiwon Oh, Na-Eui Kwak, Hyewon Song, Yoon-Mi Nam, and Jin-Ha Hwang <i>Department of Materials Science and Engineering, Hongik University</i>
WP1-222	High-Charge Density Triboelectric Nanogenerator based on 2D Material Jin-Kyeom Kim, Ji Young Park, and Jeong Min Baik <i>School of Advanced Materials Science and Engineering, Sungkyunkwan University</i>
WP1-223	Enhanced Thermoelectric Generator with Non-contact Mode Triboelectric Field Effect by Ion-Injection Sun-Woo Kim and Jeong Min Baik <i>School of Advanced Materials Science and Engineering, Sungkyunkwan University</i>



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Q. Metrology, Inspection, Analysis, and Yield Enhancement

심사위원: 강상우 소장(KRISS), 정용우 TL(SK하이닉스)

WP1-224	<p>Measurement Uncertainty Evaluation Procedure and Application for Real-Time Rotating-Element Spectroscopic Ellipsometers</p> <p>Yong Jai Cho and Won Chegal <i>Semiconductor Integrated Metrology Team, KRISS</i></p>
WP1-225	<p>Orifice Method 기반 터보분자펌프의 핵심 성능평가 플랫폼 개발</p> <p>민병현^{1,2}, 박재서^{1,3}, 문지훈¹, 임종연¹, 신재수², 강상우^{1,3}</p> <p>¹한국표준과학연구원 첨단측정장비연구소, ²대전대학교 신소재공학과, ³과학기술연합대학원대학교 측정과학전공</p>
WP1-226	<p>Detection of Low-Concentration NO₂ Gas from Flexible MoS₂ Nanoflower Gas Sensor</p> <p>Jeongin Song^{1,2}, Jihun Mun¹, Jinwook Baek¹, Hoyeon Park¹, Ha Sul Kim², and Sang-Woo Kang¹</p> <p>¹KRISS, ²Department of Physics, Chonnam National University</p>
WP1-227	<p>진공펌프의 배기성능 측정을 통한 도관의 컨덕턴스 효과 분석</p> <p>송선민^{1,2}, 김준오¹, 제갈원¹, 임종연¹, 신재수², 강상우¹</p> <p>¹한국표준과학연구원, ²대전대학교</p>
WP1-228	<p>Strain Characterization of Si_{1-x}Ge_x in Manufacturing Processes of Si Semiconductor Device</p> <p>Young Min Park¹, Hyun Don Jung¹, Dong Han Kim¹, Dong Hyun Jang¹, Yong Hee Jeon¹, Gyu Hyeong Cho¹, Sung-Jin Chang², Woo Sik Soun², Chil Seong Jeong², Jong-Bum You², Jin Su Kim², Jung Ho Yoo², and Jun-Mo Yang²</p> <p>¹Etamax Co., Ltd., ²NNFC</p>
WP1-229	<p>Contamination Particles and Plasma Corrosion Resistance of APS-Y₂O₃ Coated Parts According to the Various Type of Cleaning Solutions</p> <p>Minjoong Kim^{1,2}, Jongho So^{1,2}, Hyuksung Kwon³, Seon-Jeong Maeng⁴, Chin-Wook Chung¹, and Ju-Young Yun^{2,4}</p> <p>¹Department of Electrical Engineering, Hanyang University, ²Vacuum Materials Measurement Team, KRISS, ³Department of Advanced Materials Engineering, Daejeon University, ⁴Division of Nano & Information Technology, University of Science and Technology</p>
WP1-230	<p>In-situ and ex-situ Particle Measurements of Ceramic Coated Parts in Plasma Chamber</p> <p>Jongho So^{1,2}, Minjoong Kim^{1,2}, Hyuksung Kwon^{2,3}, Seon-Jeong Maeng¹, Chin-Wook Chung¹, and Ju-Young Yun^{2,4}</p> <p>¹Department of Electrical Engineering, Hanyang University, ²Vacuum Materials Measurement Team, KRISS, ³Department of Advanced Materials Engineering, Daejeon University, ⁴Division of Nano & Information Technology, University of Science and Technology</p>
WP1-231	<p>Comparison of Contact Resistance According to Metal Types</p> <p>Min Seong Kim¹, Eun Seong Yu¹, Chan Min Jeong¹, Hyuck Su Lee¹, Seoung Gyun Kim¹, Jong Mo Lee¹, Seo Jin Kang¹, Jae Geun Woo¹, Seung Bae An², and Byung Seong Bae¹</p> <p>¹School of Electronics and Display Engineering, Hoseo University, ²TSE Co., Ltd.</p>



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R. Semiconductor Software

심사위원: 권세진 교수(강원대학교), 이은지 교수(송실대학교)

WP1-232	머신 러닝을 이용한 SSD의 쓰기 버퍼 성능 개선 Hyejin Cha and Taeseok Kim <i>Kwangwoon University</i>
WP1-233	하이브리드 SSD에서 머신러닝을 활용한 SLC 캐시 관리 기법 조희성, 김태석 <i>광운대학교 컴퓨터공학과</i>
WP1-234	NAND Flash Memory를 위한 워크로드 변화에 적응하는 데이터 코드 변환 기법 정관일, 유수원, 현철승, 이동희 <i>서울시립대학교 컴퓨터과학부</i>

T. AI

심사위원: 이성호 센터장(KETI)

WP1-235	국산 NPU 기반 인공지능 추론 서버 시스템 ArtBrain-K 여준기, 신경선, 한진호, 권영수 <i>한국전자통신연구원 지능형반도체연구본부</i>
WP1-236	An Area-Efficient Unit-Computing Block and Dataflow Network Machine for Workload-Scalable Device Donghyeon Yi, Injun Choi, Jongyoon Choi, Hyunwoo Park, and Minkyu Je <i>KAIST</i>
WP1-237	Memory Efficient Neural Architecture Search for Image Classification Amrita Rana and Kyung Ki Kim <i>Department of Electronic Engineering, Daegu University</i>
WP1-238	A Lightweight Detector for Small Objects Akshay Kumar Sharma and Kyung Ki Kim <i>Department of Electronics Engineering, Deagu University</i>



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WP1-239	Solution to Solve Inference Accuracy Degradation Due to Stuck-at-Faults Seung Whan Kim, Ji Seong Im, Byung-Gook Park, and Jong-ho Lee <i>Inter-University Semiconductor Research Center, Seoul National University</i>
WP1-240	8*T 차등 SRAM 기반 인-메모리 컴퓨팅 전가산기 송순범, 김영민 <i>홍익대학교 전자전기공학부</i>
WP1-241	Design Strategy of Resource-Efficient Post-processing for CNN-Based Object Detection System Seong Bin Choi, Eunchong Lee, Sang-Seol Lee, Sung-Joon Jang, and Byung-Ho Choi <i>KETI</i>
WP1-242	NPU 환경에서 효율적인 모델 압축을 위한 통합 Pruning 시스템 연구 곽종훈, 박종희, 김경호, 성민용, 최병호 <i>한국전자기술연구원</i>
WP1-243	다중 센서를 활용한 다중 객체 추적 시스템을 위한 행동 트리 모델 연구 박창규, 민경원, 심영보 <i>Mobility Platform Research Center, KETI</i>
WP1-244	딥러닝 기반의 생성모델을 통한 영상 인페인팅 알고리즘 예해주, 손행선, 이선영 <i>한국전자기술연구원, 모빌리티플랫폼연구센터</i>
WP1-245	Level4 자율주행 대응 멀티에이전트 시뮬레이션 SW의 아키텍처 설계 민경원, 박창규, 성기호 <i>한국전자기술연구원, 모빌리티플랫폼연구센터</i>
WP1-246	A Study on Vehicle Control Data for Autonomous Vehicle Simulation Youngbo Shim, Se Haengseon Son, and Giho Sung <i>Mobility Platform Research Center, KETI</i>
WP1-247	VIL 검증을 지원하기 위한 현실-가상 정보 융합형 자율주행 시뮬레이션 SW의 구조 설계 이선영, 심영보, 박창규 <i>한국전자기술연구원, 모빌리티플랫폼연구센터</i>



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U. Bio-Medical

심사위원: 이문구 교수(아주대학교), 박성윤 교수(부산대학교)

WP1-248	<p>A Review of Non-Invasive Glucose Monitoring Devices Vincent Lukito, Donghyun Youn, Ho Yong Seong, and Minkyu Je <i>School of Electrical Engineering, KAIST</i></p>
WP1-249	<p>Current Sensing ROIC for Electrochemical Bio-Sensor with Current Mirror-Based Potentiostat Jun Yeong Yeom and Jae Joon Kim <i>Department of Electrical Engineering, UNIST</i></p>
WP1-250	<p>A Light-to-Digital Converter with 1-st order Noise Shaping Slope for PPG (photoplethysmogram) Application Min Seok Park and Jae Joon Kim <i>School of Electrical Engineering, UNIST</i></p>
WP1-251	<p>연속 혈당 측정 시스템을 위한 High-Q 다중 루프 자기 공진기 개발 연구 Sion You, Franklin Bien, and Gang-il Byun <i>UNIST</i></p>
WP1-252	<p>Deep Brain Stimulation for Treating Depression and Anxiety Disorder Dongyeob Ra, Hyungjoo Cho, Daehyeon Kwon, Taeju Lee, and Minkyu Je <i>School of Electrical Engineering, KAIST</i></p>
WP1-253	<p>A Chopper Stabilized Capacitive Coupled Instrumentation Amplifier with Auxiliary Path Impedance Boosting Technique for Bio-Signal Acquisition Hyunjoong Kim and Jae Joon Kim <i>Department of Electrical Engineering, UNIST</i></p>