

2021 International Workshop on New Frontiers in Convergence Science and Technology

November 5, 2021

□ **Program**

2021. 11. 05. (Friday)	
Time	Opening
13:30-13:45	<p style="text-align: center;">Greeting Speech</p> <p>Prof. Sung-Joon Ye, Dean of Graduate School of Convergence Science and Technology, Seoul National University</p> <p>Prof. Atsushi Konno, Associate Dean of Graduate School of Information Science and Technology, Hokkaido University</p>
13:45-16:15	Faculty Presentations
	<p>Session-I (Chair, Prof. Yuanzhe Piao)</p> <p>I-1 13:45-14:10 Assoc. Prof. Satoshi Hiura Division of Electronics for Informatics Title: Room-temperature spin-photon conversion using semiconductor quantum dot</p> <p>I-2 14:10-14:35 Assoc. Prof. Yoon-Kyu Song Department of Applied Bioengineering Title: DNA-Streptavidin Hybrid Nano-Carrier for Anti-Tumor Drug Delivery</p> <p>I-3 14:35-15:00 Assoc. Prof. Kanako Koyanagi Division of Bioengineering and Bioinformatics Title: Inferring cell differentiation processes based on phylogenetic analysis of epigenomes</p> <p>Session-II (Chair, Prof. Hiroshi Hirata)</p> <p>II-1 15:00-15:25 Assoc. Prof. Jae Kyoo Lee Department of Applied Bioengineering Title: Physics and Chemistry of Water at the Interface: Another</p>

	<p>Mystery of Water</p> <p>II-2 15:25-15:50 Asst. Prof. Jeongmin Kim Department of Applied Bioengineering Title: Super-resolution fluorescence microscopy for thick biological specimens</p> <p>II-3 15:50-16:15 Prof. Masaharu Yoshioka Division of Computer Science and Information Technology Title: Introduction of Collaborative Center for Big data and IoT</p>
<p>16:15-17:45</p>	<p>Graduate Student Presentations (7 min talk + 3 min Q & A)</p>
	<p>Session-III (Chair, Prof. Yuanzhe Piao)</p> <p>III-1 16:15-16:25 Authors: Jeonghun Oh, Chang Uk Koo, Jong In Park, Kwon Choi, Hiroshi Hirata, Sung-Joon Ye* Title: Development of automatically tunable digital EPR spectrometer for L-band in vivo tooth dosimetry</p> <p>III-2 16:25-16:35 Authors: Sangeetha Ratnayake, Luca Simonelli, Axel Martinelli, Toshinori Endo, Luca Varani, Naoki Osada Title: Computation Docking Scoring Function Tailored to Antibody-Antigen Docking</p> <p>III-3 16:35-16:45 Authors: Hyerim Kim, Yunji Joo, Yun-Min Kook, Na Ly Tran, Sang-Heon Kim, Kangwon Lee*, Seung Ja Oh* Title: Fabrication of an inflammation-responsive hydrogel for on-demand local immunomodulation in acute wound healing</p> <p>III-4 16:45-16:55 Authors: Kojiro Machi, Masaharu Yoshioka Title: Extraction of Chemical Reaction Information from Patent Documents</p>

	<p>Session-IV (Chair, Prof. Hiroshi Hirata)</p> <p>IV-1 16:55-17:05 Authors: Kwon Choi, ChangUk Koo, JeongHun Oh, Sung-Joon Ye Title: Development of EPR Magnet System for in vivo Tooth Dosimetry</p> <p>IV-2 17:05-17:15 Authors: Kohei Etou, Satoshi Hiura, Junichi Takayama, and Akihiro Murayama Title: Quantum dot spin-polarized light-emitting diodes operating at room temperature</p> <p>IV-3 17:15-17:25 Authors: Suyeong Seo, Seung-Yeol Nah, Kangwon Lee*, Nakwon Choi* and Hong Nam Kim* Title: Triculture model of in vitro BBB and its application to study BBB-associated chemosensitivity and drug delivery in glioblastoma</p> <p>IV-4 17:25-17:35 Authors: Naoki Yamato, Hirohiko Niioka, Jun Miyake, and Mamoru Hashimoto Title: Nerve visualization using coherent Raman scattering rigid endoscope with deep learning-based image processing</p> <p>IV-5 17:35-17:45 Authors: Hoonil Yang, Yoon-Kyu Song Title: Enhancement of optical gain of MAPbI₃ perovskite thin films passivated by 4-Fluorobenzylammonium iodide surface treatment</p>
<p>17:45-18:15</p>	<p>Discussion on International Collaboration</p>