# Advancing Technology for Humanity

## Student Symposium on Electron Devices and Solid-State Circuit (s-EDSSC)

Oct 25 2020 (Sunday)



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## **Morning Session**

9:30 – 9:40 am	Opening talk about EDSSC chapter and sEDSSC
9:40 – 9:45 am	Zoom group photo
9:45 – 10:00 am	A Flipped-Voltage-Follower-Based Low-Dropout Regulator with Signal- and Transient-Current Boosting
	Yajun Lin, Ka Nang Leung
10:00 – 10:15 am	Optimization of SiC Floating Island and Thick Bottom Oxide Trench MOSFET (FITMOS) via TCAD Simulation
	Yaliang Zheng, Ho Nam Lee, Wai Tien Chan, Tony Chau, Wing Man Tang, P. T. Lai
10:15 – 10:30 am	Compact Modeling of Current-Assisted Photonic Demodulator (CAPD) for Time-of-Flight CMOS Image Sensor
	Cristine Jin Estrada, Mansun Chan
10:30 – 10:45 am	Survey of temperature dependence of the damping parameter in the ferrimagnet Gd <sub>3</sub> Fe <sub>5</sub> O <sub>12</sub>
	Isaac Ng, Se Kwon Kim, Qiming Shao
10:45 – 11:00 am	Break and group discussion (any relevant topics, such as career Q&A)
11:00 – 11:15 am	Room-temperature valley transistor with Weyl semiconductor
	Jiewei Chen, Jingli Wang, Linfei Zhang, Cong Wang, Ziyuan Lin, Wenjing Zhang, Yang Chai
11:15 – 11:30 am	Facile Fabrication of Cu-Decorated Laser-induced Graphene for Wearable Glucose Monitoring
	Gaofei Lu, Guijun Li

#### **Afternoon Session**

2:00 – 2:15 pm	Designing Generic Cryogenic CMOS Models for Quantum Computing
	Applications
	Zewei Wang, Zhidong Tang, Yumeng Yuan, Xufeng Kou

Co-organizer: Department of Electronic and Computer Engineering, Hong Kong University of Science 香港科技大學 THE HONG KONG UNIVERSITY OF SCIENCE

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2:15 – 2:30 pm	Simulation on Efficient High Frequency Spin Wave Excitation with Undulating Ferromagnetic Film Yuchen Cai, Qiming Shao
2:30 – 2:45 pm	Highly Secured Graphene Physical Unclonable Function Tags Tsz Hin Choy, Bangjie Shao, Feichi Zhou, Jiewei Chen, Zichao Ma, Mansun Chan, Yang Chai
2:45 – 3:00 pm	Complementary Logic Inverter based on MoS <sub>2</sub> FET Technology Cristine Jin Estrada, Zichao Ma, Mansun Chan
3:00 – 3:15 pm	Break and group discussion (any relevant topics, such as career Q&A)
3:15 – 3:30 pm	High -performance tellurium FET with high-work-function metal contacts Ziyuan Lin, Cong Wang, Jingli Wang, LinFei Zhang, Wenjing Zhang, Yang Chai
3:30 – 3:45 pm	Ultralow-k interconnect by CNT-patterned porous dielectric and intralayer h-BN-capped air-gaps  Clarissa Prawoto, Ying Xiao, Zichao Ma, Salahuddin Raju, Changjian Zhou, Mansun Chan
3:45 – 4:00 pm	A Wearable Respiratory Monitor System Jing Lin, Gaofei Lu, Guijun Li
4:00 – 4:10 pm	Closing remarks (award notification methods, etc.)

#### **General Chair:**

Qiming Shao, Hong Kong University of Science and Technology

#### **Technical Program Committee:**

Stephen Sai Wing Tsang, City University of Hong Kong

Yang Chai, Hong Kong Polytechnic University

Alex Ka Nang Leung, Chinese University of Hong Kong

Mitch Guijun Li, Hong Kong Polytechnic University

Mansun Chan, Hong Kong University of Science and Technology

Co-organizer: Department of Electronic and Computer Engineering, Hong Kong University of Science and Technology

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