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MEMS 2020 PROGRAM SCHEDULE

Saturday, January 18

13:00
- 17:00 MEMS Industry Workshop

17:00 Wine & Cheese Welcome Reception
- 19:00

Sunday, January 19

Welcome Address Ballroom A

08:00 MEMS 2020 Conference Chairs
Karen Cheung, *University of British Columbia, CANADA*
David Horsley, *University of California, Davis, USA*

- IEEE Fellows Recognition in the Field of MEMS/NEMS
 - IEEE Electron Devices Society Robert Bosch Micro and Nano Electro Mechanical Systems Award
- Ballroom A

08:20 IEEE Electron Devices Society Robert Bosch
Micro and Nano Electro Mechanical Systems Award Recipient
Ming C. Wu
University of California, Berkeley, USA

Plenary Presentation I Ballroom A

08:35 DNA FOR DIGITAL DATA STORAGE N/A
Bill Peck
Twist Bioscience, USA

Session I - Biomedical MEMS

Ballroom A

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Sungwoong Jeon¹, Sun Hwa Park², Sung Won Kim²,
Jin-young Kim¹, and Hongsoo Choi¹
¹Daegu Gyeongbuk Institute of Science and Technology (DGIST), KOREA and
²Catholic University of Korea, KOREA
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¹Peking University, CHINA and ²Beijing Institute of Technology, CHINA
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Mikael Sandell^{1,2}, Rikard Grankvist², Stefan Jonsson¹,
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¹KTH Royal Institute of Technology, SWEDEN and ²Karolinska Institutet, SWEDEN
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Long Sun^{1,2}, Chi Gu¹, Tiger H. Tao^{1,2}, and Zhitao Zhou¹
¹Chinese Academy of Sciences (CAS), CHINA and
²University of Chinese Academy of Sciences (UCAS), CHINA
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Minglu Zhu¹, Zhongda Sun¹, Zixuan Zhang¹, Qiongfeng Shi¹,
Tao Chen², Huicong Liu², and Chengkuo Lee¹
¹National University of Singapore, SINGAPORE and ²Soochow University, CHINA
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Korea Advanced Institute of Science and Technology (KAIST), KOREA

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¹*Keio University, JAPAN*, ²*Tokyo Institute of Technology, JAPAN*, and ³*Kyung Hee University, KOREA*

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¹INSERM, FRANCE, ²CNRS, FRANCE, ³LIMMS/CNRS-IIS, FRANCE,
⁴University of Lille, FRANCE, and ⁵Centre Oscar Lambert, FRANCE

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¹University of Tokyo, JAPAN and ²RIKEN, JAPAN

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¹Chinese Academy of Sciences (CAS), CHINA, ²Shanghai Normal University, CHINA, and
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¹Kanagawa Institute of Industrial Science and Technology, JAPAN and
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¹North University of China, CHINA, ²Chinese Academy of Sciences (CAS), CHINA,
³Wuxi Internet of Things Innovation Center Co. Ltd., and
⁴Foshan Chuandong Magnetic Electronic Co., Ltd.
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Daniel Widerker^{1,2}, Federico Paratore^{1,2}, Govind Kaigala², and Moran Bercovici¹
¹Technion, ISRAEL and ²IBM Research-Zurich, SWITZERLAND

**MEMS 2021 Announcement
Ballroom A**

- 11:30 MEMS 2021 Announcement**
Núria Barniol, *Universidad Autonoma Barcelona, SPAIN*
Franz Lärmer, *Bosch, GmbH, GERMANY*
- 11:45 Lunch on Own & Exhibit Inspection**

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Ballroom B/C

13:45 **Poster/Oral Session II** (Refreshments will be served at 15:15)
Poster presentations are listed by topic category with their assigned number starting on page 18.

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*¹National Tsing Hua University, TAIWAN, ²IMORE ShenZhen Acoustic Technology Co.,
Ltd, CHINA, and ³Gettop Acoustic Co., Ltd, CHINA*

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¹*Keio University, JAPAN and*
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Tuesday, January 21

Plenary Speaker III Ballroom A

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Catherine Klapperich
Boston University, USA

Invited Speaker I Ballroom A

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Stanford University, USA

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Hong Kong University of Science and Technology, HONG KONG

Panel Discussion Ballroom A

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Panel Moderator: Ellis Meng, *University of Southern California, USA*
- 10:05** **Break and Exhibit Inspection**

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Middle East Technical University, TURKEY
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¹*National University of Singapore, SINGAPORE and*
²*NUS Suzhou Research Institute (NUSRI), CHINA*
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¹*National Tsing Hua University, TAIWAN,* ²*Taiwan Semiconductor Manufacturing*
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Amjed Abdullah¹, Tao Liu², Edward Kinzel², and Mahmoud Almasri¹
¹*University of Missouri, Columbia, USA and* ²*University of Notre Dame, USA*

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SMART MATERIALS FOR BIOELECTRONICS PLATFORMS
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Italian Institute of Technology, ITALY
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¹*Chinese Academy of Sciences (CAS), CHINA and*
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¹Zhejiang University, CHINA, ²University of Cambridge, UK, and ³National University of Defense Technology, CHINA
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Northwestern Polytechnical University, CHINA

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¹*Shenzhen University, CHINA and*
²*Hong Kong University of Science and Technology, CHINA*
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¹*University of Electro-Communications, JAPAN and*
²*Aisin Cosmos R&D Co., Ltd., JAPAN*
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¹*Chinese Academy of Sciences (CAS), CHINA and*
²*University of Chinese Academy of Sciences (UCAS), CHINA*

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¹*Global Foundries, SINGAPORE and* ²*Tyndall National Institute, IRELAND*

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¹*Technion - Israel Institute of Technology, ISRAEL* and ²*Stanford University, USA*

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Fabio Cicoira
Polytechnique Montréal, CANADA
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Seiji Wakabayashi¹, Takafumi Yamaguchi¹, Takayuki Arie¹, Seiji Akita¹,
and Kuniharu Takei^{1,2}
¹*Osaka Prefecture University, JAPAN* and
²*Japan Science and Technology Agency (JST), JAPAN*
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¹*Keio University, JAPAN* and ²*Tokyo University of Agriculture and Technology, JAPAN*

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Daegu Gyeongbuk Institute of Science and Technology (DGIST), KOREA

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Wednesday, January 22

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Martin Wegener
Karlsruhe Institute of Technology (KIT), GERMANY

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¹*Hong Kong University of Science and Technology, HONG KONG and*
²*Shenzhen University, CHINA*
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¹*Toshiba Corporation, JAPAN and*
²*Device & System Platform Development Center Co., Ltd., JAPAN*
- 09:45** **Break**

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- 10:15 SELF-POWERED WIRELESS IOT SENSOR
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Tianyi He¹, Feng Wen¹, Hao Wang¹, Qiongfeng Shi¹, Zhongda Sun¹,
Zixuan Zhang¹, Ting Zhang², and Chengkuo Lee¹
¹National University of Singapore, SINGAPORE and
²Chinese Academy of Sciences (CAS), CHINA
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Kai Wang, Xiufeng Shao, Xuhan Dai, Zhuoqing Yang, Guifu Ding, and Xiaolin Zhao
Shanghai Jiao Tong University, CHINA
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Ruofeng Han¹, Nianying Wang¹, Dacheng Xu², Jiebin Gu¹, and Xinxin Li¹
¹Chinese Academy of Sciences (CAS), CHINA and ²Soochow University, CHINA

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¹Chinese Academy of Sciences (CAS), CHINA, ²Suzhou Research Materials Microtech
Co., Ltd, CHINA, ³Wuxi Internet of Things Innovation Center Co. Ltd., CHINA, and
⁴Foshan Chuandong Magnetic Electronics, CHINA
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| EMS Physical Sensors |
| Materials, Fabrication and Packaging for Generic MEMS & NEMS |
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¹Kyung Hee University, KOREA, ²Keio University, JAPAN, and
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