## Cambridge – Tsinghua Engineering Forum
Norwich Auditorium Seminar Room, Roger Needham Building,
7 JJ Thomson Ave, Cambridge CB3 0FA
Tuesday 2\textsuperscript{nd} October 2018

### Opening Ceremony
(09:00-09:30)
Chaired by: Prof Daping CHU
(Department of Engineering, University of Cambridge)

### Prof Chris ABELL
(Pro-Vice-Chancellor for Research, University of Cambridge)

### Prof Zheng YOU
(Vice President, Tsinghua University)

- A short video about Tsinghua University
- Group Photograph in the Seminar Room

### Morning Session I
(09:30-10:45)
Chaired by: Dr Robert MULLINS
(Computer Laboratory, University of Cambridge)

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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<tbody>
<tr>
<td>0930</td>
<td>Prof Ian WHITE (Cambridge)</td>
<td>Wireless communications and sensing for next generation</td>
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<tr>
<td>0955</td>
<td>Prof Huaqiang WU (Tsinghua)</td>
<td>Computing in memristor: from device to system</td>
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<tr>
<td>1020</td>
<td>Prof Richard PENTY (Cambridge)</td>
<td>Quantum communications</td>
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<td>1045</td>
<td>Morning break</td>
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### Morning Session II
(11:10-12:50)
Chaired by: Prof Huaqiang WU
(Institute of Microelectronics, Tsinghua University)

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<tr>
<th>Time</th>
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<tr>
<td>1110</td>
<td>Prof Xue WANG (Tsinghua)</td>
<td>Introduction to artificial intelligence &amp; information sensing</td>
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<tr>
<td>1135</td>
<td>Dr Shouyi YIN (Tsinghua)</td>
<td>Towards deploying AI everywhere: high energy efficient reconfigurable neural network processor for deep learning applications</td>
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<td>1200</td>
<td>Dr Robert MULLINS (Cambridge)</td>
<td>Can we train and run neural networks a 1000x faster?</td>
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<tr>
<td>Time</td>
<td>Session</td>
<td>Presenter</td>
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<tr>
<td>1225-1250</td>
<td>Machine learning under uncertain and adversarial environments</td>
<td>Prof Jun ZHU (Tsinghua)</td>
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<td>1250-1400</td>
<td>Lunch break &amp; Visit to the Cavendish Museum</td>
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<td><strong>Afternoon Session I</strong></td>
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<td>Chaired by: Prof Xue WANG</td>
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<tr>
<td>1400-1425</td>
<td>High Target Utilisation Sputtering of P-type Cuprous Oxide Thin Films and their Performance in Thin Film Transistors</td>
<td>Prof Andrew FLEWITT (Cambridge)</td>
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<td>1425-1450</td>
<td>Chemical vapor deposition of graphene and CNTs for functional thin films and interconnects</td>
<td>Prof John ROBERTSON (Cambridge)</td>
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<td>1450-1515</td>
<td>Engineering III-V semiconductor nanowires for optoelectronic device applications</td>
<td>Dr Hannah JOYCE (Cambridge)</td>
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<td>1515-1535</td>
<td><strong>Afternoon Session II</strong></td>
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<td>Chaired by: Dr Hannah JOYCE</td>
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<td>1535-1600</td>
<td>Optical fibre sensing techniques and its applications in aircraft monitoring</td>
<td>Prof Lianqing ZHU (BISTU)</td>
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<tr>
<td>1600-1625</td>
<td>Optical fibre sensing technology in morphing aircrafts and soft robotics</td>
<td>Dr Guangkai SUN (BISTU)</td>
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<td>1625-1650</td>
<td>Application of Fibre Optic Strain Sensors in Civil Engineering</td>
<td>Dr Xiaomin XU (Cambridge)</td>
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<td>1650-1715</td>
<td>Cell Traction Force Measurement: Applications and Challenges</td>
<td>Dr Fan ZHANG (BISTU)</td>
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<td><strong>Closing Remarks</strong></td>
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<td>Chaired by: Prof Daping CHU (Cambridge)</td>
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<td><strong>Welcome Dinner</strong></td>
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## List of Attendees

### University of Cambridge (15 people):

1. **Prof Chris ABELL**
   - Pro-Vice-Chancellor for Research
2. **Prof Richard PRAGER**
   - Head, School of Technology
3. **Dr Claire BARLOW**
   - Head, Department of Engineering
4. **Prof Ann COPESTAKE**
   - Head, Computer Laboratory
5. **Prof Andrew FLEWITT** (2-3pm)
   - Head, Electrical Engineering Division
6. **Prof Daping CHU**
   - Department of Engineering
7. **Dr Hannah JOYCE**
   - Department of Engineering
8. **Dr Robert MULLINS**
   - Computer Laboratory
9. **Prof Richard PENTY**
   - Department of Engineering, Master of Sidney Sussex
10. **Prof John ROBERTSON**
    - Department of Engineering
11. **Dr Xiaomin XU**
    - Department of Engineering
12. **Mr Stephen DAVISON**
    - Head, International Relations, Uni of Cambridge
13. **Prof Zhong YOU**
    - Tsinghua University Vice President
14. **Mr Zesheng PAN**
    - Deputy Director of Government Relations Office, Secretary to the Vice President
15. **Prof Ian WHITE** (am only)
    - Department of Engineering, Master of Jesus College
16. **Dr Xiaomin XU**
    - Department of Engineering
17. **Dr Cedric KECHAVARZI**
    - Department of Engineering
18. **Mr Philip KEENAN**
    - Department of Engineering
19. **Mr John ROBERTSON**
    - Department of Engineering
20. **Dr Shouyi YIN**
    - Institute of Microelectronics Associate Professor
21. **Dr Shijie YU**
    - Department of Precision Instrument Research Fellow
22. **Ms Moyuan ZENG**
    - Beijing Innovation Centre for Future Chips International Cooperation Officer
23. **Dr Zhuocun LIN**
    - TusPark at Cambridge Science Park
24. **Dr Wei MENG**
    - TusPark at Cambridge Science Park

### Tsinghua University (12 people):

1. **Prof Xue WANG**
   - Department of Precision Instrument Professor
2. **Prof Jun ZHU**
   - Department of Computer Science Professor
3. **Prof Huaqiang WU**
   - Institute of Microelectronics Professor
4. **Dr Fei XING**
   - Department of Precision Instrument Associate Professor
5. **Dr Jiahao ZHAO**
   - Department of Precision Instrument Associate Professor
6. **Dr Shouyi YIN**
   - Institute of Microelectronics Associate Professor
7. **Dr Shijie YU**
   - Department of Precision Instrument Research Fellow
8. **Ms Moyuan ZENG** (contact at Tsinghua: moyuanzeng@mail.tsinghua.edu.cn)
9. **Dr Zhong YOU**
   - Tsinghua University Vice President
10. **Dr Feng LIU**
    - Associate Professor
11. **Dr Guangkai SUN**
    - Associate Professor
12. **Dr Fan ZHANG**
    - Associate Professor (contact at BISTU: zhangfan@bistu.edu.cn)
13. **Dr Shaohua CHEN**
    - Associate Professor
14. **Dr Hong LI**
    - Lecturer
15. **Ms Moyuan ZENG**
    - Beijing Innovation Centre for Future Chips International Cooperation Officer
16. **Dr Zhuocun LIN**
    - TusPark at Cambridge Science Park
17. **Dr Wei MENG**
    - TusPark at Cambridge Science Park

### BISTU (Beijing Information Science and Technology University) (6 people, all from School of Instrument Science and Opto-electronics Engineering):

1. **Prof Lianqing ZHU**
   - Professor
2. **Dr Feng LIU**
   - Associate Professor
3. **Dr Guangkai SUN**
   - Associate Professor
4. **Dr Fan ZHANG**
   - Associate Professor (contact at BISTU: zhangfan@bistu.edu.cn)
5. **Dr Shaohua CHEN**
   - Associate Professor
6. **Dr Hong LI**
   - Lecturer

### Chinese Academy of Sciences (1 person)

1. **Prof Zichen ZHANG**
   - Institute of Microelectronics Professor

*Attendee who will give a talk (14 talks in total, 7x Cambridge, 4x Tsinghua, 3x BISTU)*