

12. Program rundown

The rundown is subject to change without prior notice.

Day 0 - July 9, 2017 (Sunday)

Check in at the CUHK campus hostel (Morningside College / SH Ho College) between 3 PM and 6 PM.

Day 1 - July 10, 2017 (Monday)

8:30-8:50	Arrival of participants
	Welcoming Ceremony (TY Wong Hall, 5/F, SHB)
9:00-9:20	<ul style="list-style-type: none"> - Welcome address and Introduction of CUHK Faculty of Engineering, Prof. John Lui, Associate Dean for Research, Faculty of Engineering - Introduction to HKPFS and application process by Prof. Minghua Chen, Organizing Chair of HKPFS Summer Workshop - Taking group photo
9:20-10:20	Introduction to Graduate Divisions
	Introduction to Curriculum and Research Opportunities, TY Wong Hall, 5/F, SHB
9:20 - 9:30	1. Prof. Raymond Tong, Division Head, BME Graduate Division (10 mins)
9:30 - 9:40	2. Prof. Kevin Yip, Division Head, CSE Graduate Division (10 mins)
9:40 - 9:50	3. Prof. Xiaogang Wang, Division Head, EE Graduate Division (10 mins)
9:50 - 10:00	4. Prof. S.C. Liew, Division Head, IE Graduate Division (10 mins)
10:00 - 10:10	5. Prof. Yunhui Liu, Division Head, MAE Graduate Division (10 mins)
10:10 - 10:20	6. Prof. Xuedong He, SEEM Graduate Division (10 mins)
10:20 - 10:35	Break
10:40 - 12:20	Research Seminars I delivered by faculty members (parallel sessions)
	TY Wong Hall, 5/F, SHB
	Session chair: Prof. Kevin Yip (CSE)
10:40 - 11:00	A. "Algorithms and Optimization for Electronic Design Automation of VLSI", Prof. Evangeline Young (CSE)
11:00 - 11:20	B. "VLSI Layout Hotspot Detection: From Online Learning To Deep Learning", Prof. Bei Yu (CSE)
11:20 - 11:40	C. "Computer vision: An Important AI Area", Prof. Jiaya Jia (CSE)
11:40 - 12:00	D. "Computational 3D Printing, Fabrication and Object Assembly", Prof. Philip Fu (CSE)
12:00 - 12:20	E. "Computer science meeting biomedicine", Prof. Kevin Yip (CSE)
	ERB1009
	Session chair: Prof. Xuedong He (SEEM)
10:40 - 11:00	A. "Communicating in adverse situations", Prof. Sidharth Jaggi (IE)
11:00 - 11:20	B. "Three questions that I can't answer", Prof. Andrej Bogdanov (CSE)
11:20 - 11:40	C. "Processing Encrypted Data", Prof. Sherman Chow (IE)
11:40 - 12:00	D. "Resource Allocation for Big Data Processing Systems ; System/Network Security", Prof. Wing C. Lau (IE)
12:00 - 12:20	E. "Distributed Systems: the real boss behind Bitcoin and Blockchain", Prof. Eric Lo (CSE)
	ERB803
	Session chair: Prof. Jonathan Choi (BME)
10:40 - 11:00	A. "Robotic Exoskeleton, Energy Harvesting, and 4D Printing", Prof. Wei-Hsin Liao (MAE/Energy)
11:00 - 11:20	B. "Designing bionanomaterials for drug delivery and understanding their "bio-nano" interactions", Prof. Jonathan Choi (BME)
11:20 - 11:40	C. "Exoskeleton robotics for stroke rehabilitation and Brain research using neuroimaging", Prof. Raymond Tong (BME)
11:40 - 12:00	D. "DNA nanosensors and microfluidics for disease diagnostics", Prof. Megan Ho (BME)
12:00 - 12:20	E. "Bio-detection with lab-on-a-disc", Prof. Aaron Ho (BME)
12:30 - 14:00	Lunch (lunch boxes will be provided for all workshop participants) - collection of lunch boxes at Reading Room, 6/F, SHB building

Day 1 - July 10, 2017 (Monday)

14:00 - 15:40	Research Seminars II delivered by faculty members from different Graduate Divisions (parallel sessions)
	TY Wong Hall, 5/F, SHB Session chair: Prof. Xiankai Sun (EE)
14:00 - 14:20	A. "Challenges of Antenna Array Technologies in 5G Wireless Systems", Prof. Ke-Li Wu (EE)
14:20 - 14:40	B. "Quantum Information Science: Towards the quantum era", Prof. Haidong Yuan (MAE)
14:40 - 15:00	C. "Classical and quantum information processing", Prof. Pascal Vontobel (IE)
15:00 - 15:20	D. "(1) DARPA SC2 Competition (2) HKUST-MIT Consortium: Communications Networks for Intelligent Transportation Systems", Prof. Soung Liew (IE)
15:20 - 15:40	E. "Optical Systems & Networks", Prof. Calvin Chan (IE)
	ERB1009 Session chair: Prof. Minghua Chen (IE)
14:00 - 14:20	A. "Non-Convex Optimization Models in Machine Learning: Fast Methods and Provable Guarantees", Prof. Anthony So (SEEM)
14:20 - 14:40	B. "Benefits of Data-driven Prediction in Algorithm and System Design", Prof. Minghua Chen (IE)
14:40 - 15:00	C. "Network Science, Machine Learning and their Applications", Prof. John C.S. Lui (CSE)
15:00 - 15:20	D. "Searching Communities in Large Networks", Prof. Hong Cheng (SEEM)
15:20 - 15:40	E. "Algorithms on Massive Datasets: Theory Meets Practice", Prof. Yufei Tao (CSE)
	ERB803 Session chair: Prof. Renjie Zhou (BME)
14:00 - 14:20	A. "Addressing key neuroscience questions by advanced electrophysiological and imaging techniques", Prof. Wing-Ho Yung (SBS)
14:20 - 14:40	B. "Multiscale biomaterials for stem cell-based therapy", Prof. Liming Bian (BME)
14:40 - 15:00	C. "Tomographic Phase Microscopy: a marker-free platform for 3D cell imaging", Prof. Renjie Zhou (BME)
15:00 - 15:20	D. "Introduction to MPIL Lab", Prof. Shih-Chi Chen (MAE)
15:20 - 15:40	E. "Introduction to Nanostructured Optoelectronic Devices and Wearable Biomedical Devices", Prof. Ni Zhao (EE)
15:40 - 16:00	20-min break
	Research Seminars III delivered by faculty members from different Graduate Divisions (parallel sessions)
16:00 - 17:40	TY Wong Hall, 5/F, SHB Session chair: Prof. Dahua Lin (IE)
16:00 - 16:20	A. "Visual Analysis, Learning and Synthesis in Computational Manga", Prof. TT Wong (CSE)
16:20 - 16:40	B. "Deep Learning meets Structured Data", Prof. Dahua Lin (IE)
16:40 - 17:00	C. "Deep Learning in Computer Vision", Prof. Chen Change Loy (IE)
17:00 - 17:20	D. "Deep learning for computer vision", Prof. Xiaogang Wang (EE)
	ERB1009 Session chair: Prof. Ping Guo (MAE)
16:00 - 16:20	A. "Optical sensors for environment, energy and healthcare", Prof. Wei Ren (MAE/Energy)
16:20 - 16:40	B. "Nanoscale Thermal Transport and Applications", Prof. Dongyan Xu (MAE/Energy)
16:40 - 17:00	C. "Electrochemical Energy Storage & Conversion", Prof. Yi-Chun Lu (MAE/Energy)
17:00 - 17:20	D. "Catalysis in Energy and Environmental Engineering", Prof. Yongsheng Chen (MAE/Energy)
17:20 - 17:40	E. "Impact of Outdoor Air Pollution on Indoor Environments", Prof. Chun Chen (MAE/Energy)
	ERB803 Session chair: Prof. Xuedong He (SEEM)
16:00 - 16:20	A. "Introduction to Behavioral Finance and Economics", Prof. Xuedong He (SEEM)
16:20 - 16:40	B. "Stochastic Inventory and Revenue Management", Prof. Xiting Gong (SEEM)
16:40 - 17:00	C. "Robust Optimization and Project Management", Prof. Daniel Zhuoyu Long (SEEM)
17:00 - 17:20	D. "Human-in-the-Loop Wireless Networks", Prof. Man Hon Cheung (IE)
18:30 - 20:30	Welcoming Banquet (Dining Hall, Morningside College)

Day 2 - July 11, 2017 (Tuesday)

09:00 - 10:00	Breakfast (sandwich and soft-drinks will be provided) - collection of breakfast at Reading Room, 6/F, SHB building
10:00 - 12:00	Research Seminars IV delivered by faculty members from different Graduate Divisions (parallel sessions)
	TY Wong Hall, 5/F, SHB Session chair: Prof. Kevin Yip (CSE)
10:00 - 10:20	A. "Flexible Electronics, Past, Present and Future", Prof. Jianbin Xu (EE)
10:20 - 10:40	B. "Large-Scale Systems for Big Data and Machine Learning", Prof. James Cheng (CSE)
10:40 - 11:00	C. "Sharing Economy in Communication Networks", Prof. Jianwei Huang (IE)
11:00 - 11:20	D. "Understanding and Using Machine Learning", Prof. Shengyu Zhang (CSE)
11:20 - 11:40	E. "Research Directions on Big Data Analytics with Machine Learning Techniques", Prof. Michael Lyu (CSE)
11:40 - 12:00	F. "Medical Image Analysis and Surgical Simulation", Prof. Pheng Ann Heng (CSE)
	ERB1009 Session chair: Prof. Xiankai Sun (EE)
10:00 - 10:20	A. "Emerging Applications of Silicon Photonics ", Prof. Hon Tsang (EE)
10:20 - 10:40	B. "New phenomena and technological development of photonic and optomechanical nanodevices ", Prof. Xiankai Sun (EE)
10:40 - 11:00	C. "Challenges in Advanced Processing of Photonic Signals", Prof. Chester Shu (EE)
11:00 - 11:20	D. "What is Signal Processing and Why Such Expertise Make a Difference?", Prof. Ken Ma (EE)
11:20 - 11:40	E. "Challenges and excitemets in speech and language research", Prof. Tan Lee (EE)
11:40 - 12:00	F. "Scalable Deep Language Models", Prof. Xunying Liu (SEEM)
	ERB803 Session chair: Prof. Wei Ren (MAE)
10:20 - 10:40	A. "Bio-inspired medical robots and devices", Prof. Zheng Li (BME/Surgery)
10:40 - 11:00	B. "What is missing in mechanically capable robots?", Prof. Max Meng (EE)
11:00 - 11:20	C. "Introduction to microrobotics and nanotechnology for minimally invasive medicine", Prof. Li Zhang (MAE)
11:20 - 11:40	D. "Novel Applications in Manufacturing and Automation", Prof. Ping Guo (MAE)
11:40 - 12:00	E. "Medical robotics", Prof. Yunhui Liu (MAE)

Day 2 - July 11, 2017 (Tuesday) , cont'd

12:00 - 14:45	<p>Poster Session & Lunch (lunch boxes will be provided for all workshop participants) - collection of lunch boxes at Reading Room, 6/F, SHB building</p> <p>(BME, EE, CSE, IE, SE) (MAE, Energy) @ Reading Room, 6/F, SHB @ 5/F Foyer, TY Wong Hall, SHB</p>
15:00 - 17:00	<p>Parallel activities:</p> <p>Guided Lab Tour * (see table below)</p> <p>Individual meetings with Professors (participants are free to make individual arrangements with professors)</p>
17:00 - 18:30	<p>Individual meetings with Professors (participants are free to make individual arrangements with professors)</p>

15:00 - 17:10	<p>Guided Lab Tour * (Interested students should gather at SHB 5/F Podium at 14:45 for grouping)</p>		
	Tour A	Tour B	Tour C
	ERB 312 Smart Materials and Structures Lab, Prof. Wei-Hsin LIAO (MAE)	RRSSB G12 Bionanotechnology Lab, Prof. Jonathan CHOI (BME)	SHB 901-903 Virtual Reality, Visualisation and Imaging Research Centre, Profs. Pheng Ann Heng, Tien Tsin Wong (CSE)
	ERB 303& G06 Multiscale Precision Instrumentation Lab, Prof. Shih-chi CHEN (MAE)	RRSSB G18 Biomaterials and Tissue Engineering Lab, Prof. Liming BIAN (BME)	SHB 827 Lightwave Communications Laboratory, Prof. Lian-Kuan CHEN / Calvin CK CHAN
	SHB 505 Electrochemical Energy & Interfaces Lab, Prof. Yi-Chun LU (MAE)	RRSSB G20 Biosensing & BioMEMS Lab, Prof. Megan Ho (BME)	SHB702-703 Multimedia Lab, Prof. Dahua LIN (IE)
	SHB506 Laser Diagnostics and Combustion Laboratory, Prof. Wei Ren (MAE).	SHB 431 Neuroengineering Lab, Prof. Raymond TONG (BME)	SHB 303/318/319 Fiber Optics and Integrated Photonics Lab, Profs. Hon Ki TSANG / Chester SHU / Xiankai SUN (EE)
	1/F, Academic Building No.1 CUHK T Stone Robotics Institute, Prof. Yunhui LIU (MAE)	SHB 432 Robotics and Perception Lab, Prof. Max Meng (EE)	SHB220 Organic and Nanostructured Optoelectronics Lab, Prof. Ni ZHAO (EE)

Day 3 - July 12, 2017 (Wednesday)

10:00 - 12:00	Individual meetings with Professors <i>(participants are free to make individual arrangements with professors)</i>	
12:30 - 14:30	Lunch (self- arranged)	
15:00-17:00	Panel discussion with professors and PhD students	
	MAE, BME, SEEM (ERB 1009) a. Making the right decision: Why do a PhD at CUHK? What's the PhD life like? b. Career prospects of recent PhD graduates from CUHK c. How to pursue excellence in research? d. Tips for applying to HKPFS / division at CUHK e. Survival guide for an international student in HK (e.g. finance, cultural shock, life in HK)	CSE, IE, EE (ECE+CS) (ERB 803) a. Making the right decision: Why do a PhD at CUHK? What's the PhD life like? b. Career prospects of recent PhD graduates from CUHK c. How to pursue excellence in research? d. Tips for applying to HKPFS / division at CUHK e. Survival guide for an international student in HK (e.g. finance, cultural shock, life in HK)
17:30-18:30	CSE written test	
	Remarks: (i) students who are shortlisted by CSE Graduate Division for admission interviews are required to attend the test. (ii) shortlisting results will be posted at 4pm outside ERB1009 and ERB803, as well as on the web at https://www.cse.cuhk.edu.hk/v7/en/misc/cseinterviewlist.pdf	
Evening	Free Time	

Day 4 - July 13, 2017 (Thursday)

09:00 - 09:30	Interview arrangement will be announced to all participants						
10:00 - 12:30	Admission Interviews						
	EE (SHB222)	CSE (SHB1027)	SEEM (ERB513)	-	IE (SHB835)	BME (SHB606A)	
12:30 - 14:00	Lunch (self- arranged)						
14:00 - 17:30	Admission Interviews						
	EE (SHB222)	CSE (SHB1027)	SEEM (ERB513)	MAE & Energy (ERB215)	IE (SHB835)	BME (SHB606A)	
Evening	Free Time						

SHB—Ho Sin Hang Engineering Building 何善衡工程學大樓 | ERB—William M.W. Mong Engineering Building 蒙民偉工程大樓

Day 5 - July 14, 2017 (Friday)

9:00-12:30	Admission Interviews					
	EE (SHB222)	CSE (SHB1027)	SEEM (ERB513)	MAE & Energy (ERB215)	IE (SHB835)	BME (SHB606A)
12:30-14:00	Lunch (self- arranged)					
14:00-17:30	Admission Interviews					
	EE (SHB222)	CSE (SHB1027)	SEEM (ERB513)	MAE & Energy (ERB215)	IE (SHB835)	BME (SHB606A)
Evening	Free Time					

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Day 6 - July 15, 2017 (Saturday)

Checkout at 9 AM—11 AM and leave CUHK

