Introduction to CSE Department

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Chair Professor and Head
Department of Computer Science and Engineering

香港科技大學
THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

THE DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING
計算機科學及工程學系

Research and Technology Forum 2018

Introduction

The Research and Technology Forum 2018 of the Department of Computer Science and Engineering aims at providing industry partners a better understanding of perspective research areas of the department and learn about different collaboration channels provided by HKUST. Throughout the event, some ongoing research projects conducted by our faculty would be showcased and industry partners may also meet with individual faculty of to discuss possible collaboration opportunities.

Event Details

Date: 7 December 2018
Time: 2:00 pm - 4:00 pm
Venue: Lecture Theatre D, HKUST
Registration: closed

Program

Time	Event Rundown
1:40 pm - 2:00 pm	Registration
2:00 pm - 2:10 pm	Introduction of CSE Department (CSE Department Head)
2:10 pm - 3:00 pm	Research and Project Presentation (CSE Professors)
3:00 pm - 3:15 pm	Presentation by Technology Transfer Center, HKUST (TTC)
3:15 pm - 4:00 pm	Tea Reception and Individual Meetings with Professors

Topics

Topics to be presented (more information on research areas):

Professors	Topics to be Presented	Research Areas
Prof Gary Chan	Smart Cities (with demo)	NE
Prof Lei Chen	Human Powered Machine Learning	DB, AI
Prof Shing-Chi Cheung	Code Analysis	ST
Prof Albert Chung	Image Analysis	VG, AI
Prof Fangzhen Lin	Artificial Intelligence	AI
Prof Huamin Qu	Visualization and XAI	HCI, AI
Prof Pedro Sander	Imaging and Video from Large-Scale Datasets	VG
Prof Charles Zhang	Cybersecurity (with demo)	SEC, ST
Prof Qian Zhang	Efficient and Secure IoT System Design	NE

Research and Technology Forum 2020

Introduction

The Research and Technology Forum 2020 of the Department of Computer Science and Technology aims at providing industry partners a better understanding of perspective research areas of the department and learn about different collaboration channels provided by HKUST. Throughout the event, some ongoing research projects conducted by our faculty would be showcased and industry partners may also meet with individual faculty of to discuss possible collaboration opportunities.

Event Details

Date: 27 May 2020 (Wednesday)
Time: 10:00 am - 12:00 noon HKT (Please sign in at 9:50 am)
Venue: Online via Zoom Meeting (A notification with Zoom link will be sent via email to confirm the registration)
Registration: Apply Online
Registration Deadline: 25 May 2020 (Monday)

Tentative Program

Time (HKT)	Event Rundown
10:00 am - 10:15 am	Introduction by CSE Department Head
10:15 am - 10:30 am	Presentation by Technology Transfer Center (TTC), HKUST
10:30 am - 11:00 am	Research and Project Presentation by HKUST Big Data Institute (BDI) and CSE/BDI Affiliated Labs
11:00 am - 12:00 noon	Research and Project Presentation by CSE Professors
12:00 noon onwards:	Q&A Session and Meeting with Individual CSE Professor

Topics

Topics to be presented (more information on research areas):

#	Presenter	Topic	Area
1	Prof. Lei CHEN	Knowledge Graph	AI & DB
2	Prof. Qifeng CHEN	Exploring the New Designs of 3D Sensors	AI & VG
3	Prof. Siu-Wing CHENG	Fair Allocation of Indivisible Resources	TH
4	Prof. Shing-Chi CHEUNG	May software investment be better managed?	SE & SEC
5	Prof. Andrew HORNER	Music Emotion and Creative Sound Design	HCI
6	Prof. Pan HUI	Augmented Reality	HCI
7	Prof. James KWOK	Artificial Intelligence and Machine Learning	AI
8	Prof. Qiong LUO	Accelerating Deep Learning Training	AI
9	Prof. Brian MAK	Deep Learning in Speaker, Speech and Language Technologies	AI
10	Prof. Raymond WONG	Understanding Users' Preference on Big Data	DB
11	Prof. Dit-Yan YEUNG	Machine Learning for Online Learning	AI

Research and Technology Forum 2021

Introduction

The Research and Technology Forum 2021 of the Department of Computer Science and Technology aims at providing industry partners a better understanding of perspective research areas of the department and learn about different collaboration channels provided by HKUST. Throughout the event, some ongoing research projects conducted by our faculty would be showcased and industry partners may also meet with individual faculty of to discuss possible collaboration opportunities.

Event Details

Date: 28 January 2021 (Thursday)
Time: 10:00 am - 12:00 noon HKT (Please sign in at 9:50 am)
Venue: Online via Zoom Meeting (A notification with Zoom link will be sent via email to confirm the registration)
Registration: Register Online
Registration Deadline: 24 January 2021 (Sunday)

Tentative Program

Time (HKT)	Event Rundown
10:00 am - 10:05 am	Welcome Remarks by the Dean of Engineering
10:05 am - 10:15 am	Introduction by CSE Department Head
10:15 am - 10:30 am	Presentation by Technology Transfer Center (TTC), HKUST
10:30 am - 10:45 am	Research and Project Presentation by HKUST Big Data Institute (BDI) and BDI Affiliated Labs
10:45 am - 12:00 noon	Research and Project Presentation by CSE Professors

Topics

Topics to be presented:

| #	Presenter	Topic
1	Prof. Lei CHEN	Data Management for Effective and Efficient Deep Learning
2	Prof. Tim Kwang-Ting CHENG	Computer Vision - Efficiency, Hardware Friendliness and Applications
3	Prof. Amir GOHARSHADY	Scalable Formal Methods: Analyzing Millions of Lines of Code in Less than a Second
4	Prof. Dimitris PAPADIAS	Learned Spatial Indexes
5	Prof. Dimitris PAPADOPOULOS	Secure Cryptographic Tools for Cloud and Blockchain Applications
6	Prof. Lionel PARREAUX	Improving software robustness and efficiency through programming language and compiler innovations
7	Prof. Chi-Keung TANG	Avatar 2025: storytelling and storyliving technologies in the next decade
8	Prof. Shuai WANG	Hardening Software Systems with AI
9	Prof. Dan XU	Joint 2D and 3D Visual Perception and Learning for Holistic Scene Understanding
10	Prof. Sai-Kit YEUNG	3D Contents Understanding and Remodeling
11	Prof. Ke YI	SQL over private data
12	Prof. Xiaofang ZHOU	Making Sense of Big Spatiotemporal Data

HKUST and School of Engineering

Established	1991

- School of Engineering
- School of Science
- School of Business and Management
- School of Humanities and Social Science
- Interdisciplinary Programs Office
- HKUST Fok Ying Tung Graduate School
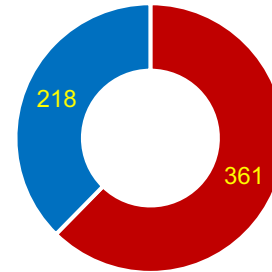- HKUST Institute for Public Policy

Undergraduate and Postgraduate Students (as of 2020.10)

Undergraduate Students

Postgraduate Students
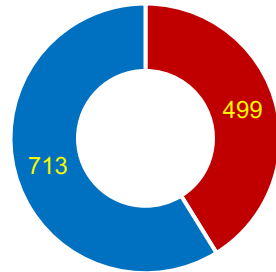
- CS Majors (BEng, BSc)
- Joint Programs (BEng, BSc)
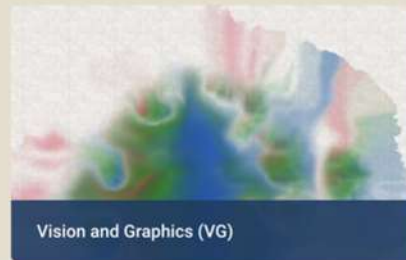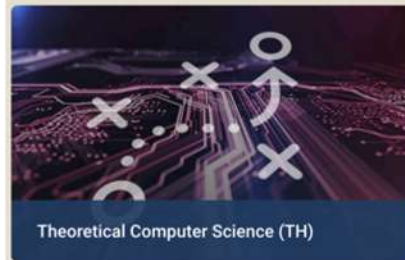
- Research Programs (MPhil, PhD)
- Taught Programs (MSc)

Faculty and Staff (as of 2021.01)

Major Research Areas

Artificial Intelligence (AI)

Cybersecurity (SEC)

Networking and Computer Systems (NE)

Software Engineering and Programming Languages (SE)

Data, Knowledge and Information Management (DB)

Human-Computer Interaction (HCI)

Theoretical Computer Science (TH)

Vision and Graphics (VG)
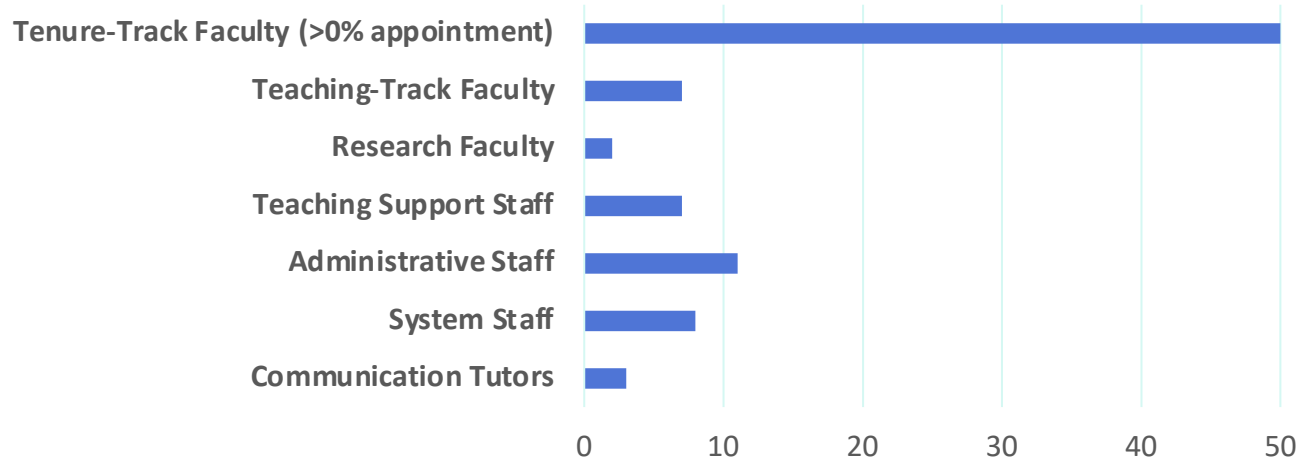
Joint Research Labs with Companies

Research Institutes

Sino Software Research Institute
Prof Shing Chi Cheung (Director)

Big Data Institute
Prof Lei Chen (Director)

Robotics Institute
Prof Michael Wang (Director)

GREAT Smart Cities Institute
Prof Hong Kam Lo (Director)

HKUST (Guangzhou Campus)

Hubs and Thrust Areas

Legend:
- Advanced Materials
- Earth, Ocean and Atmospheric Sciences
- Microelectronics
- Sustainable Energy and Environment
- Artificial Intelligence
- Data Science and Analytics
- Computational Media and Arts
- Internet of Things
- Bioscience and Biomedical Engineering
- Intelligent Transportation
- Robotics and Autonomous Systems
- Smart Manufacturing
- Financial Technology
- Innovation, Policy and Entrepreneurship
- MBA+
- Urban Governance and Design
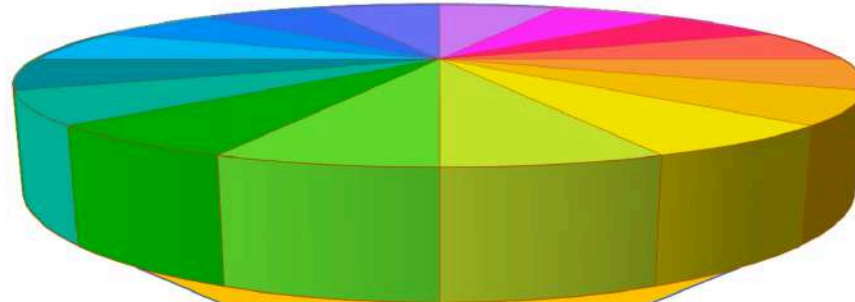
Thrust Areas

Enquiry-based Cross-disciplinary Active Learning

Hubs
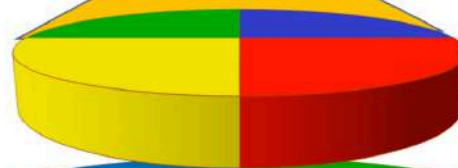
- Function
- Information
- Systems
- Society

- Research
- Education
- Knowledge Transfer

Thank You