

University Accountability Agreement (UAA)
Institution-specific Key Performance Indicators (KPIs) (as at July 2021)
The Hong Kong University of Sciences and Technology (HKUST)

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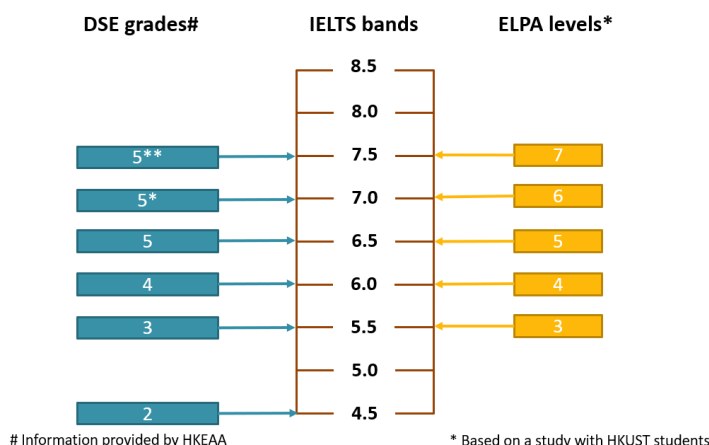
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Domain 1: The quality of the student experience of teaching and learning

KPI 1 Language improvement based on ELPA, an HKUST-developed English test benchmarked against IELTS

Definition: To measure the language proficiency improvement of HKUST UG students by comparing the students’ DSE English results before admission against their ELPA written and speaking test results in May at the end of the first year of study. Both tests have been benchmarked against IELTS band scores to allow direct comparison.

Benchmarking of DSE & ELPA with IELTS



Academic Year	2017/18		2018/19		2019/20	
Improvement in IELTS band score	No. of student	%	No. of student	%	No. of student	%
-0.5	12	0.7%	17	1.1%	26	1.6%
0	380	23.1%	338	21.4%	439	26.4%
0.5	1069	64.9%	1025	64.9%	875	52.6%
1	128	7.8%	128	8.1%	229	13.8%
+1.5 or above	58	3.5%	71	4.5%	95	5.7%
Total	1647	100.0%	1579	100.0%	1664	100.0%
% of students improved	1255	76.2%	1224	77.5%	1199	72.1%
% of students improved 1 band or above	186	11.3%	199	12.6%	324	19.5%

Finding: Percentage of students improving their English proficiency after completing Year 1 maintained at over 70% in the past three years. The percentage of students improved by one or more IELTS band score equivalent has increased from 11.3% in 2017/18 to 19.5% in 2019/20.

Domain 1: The quality of the student experience of teaching and learning**KPI 2 Pedagogical innovations and teaching development using active learning pedagogies**

Definition: Out of all credit-bearing courses offered, the percentage of courses having more than 50% structured face-to-face active learning components, including in-class small group discussions, small group problem solving sessions, presentations with peer-evaluations, hands-on prototype building and design, and other learning activities where students are engaged in very active learning modes while instructor(s) and TA(s) play the facilitator role.

Credit-bearing courses having more than 50% structured active learning components			
	2017/18 Academic Year	2018/19 Academic Year	2019/20 Academic Year
(a) No. of courses offered	356	534	505
(b) Total no. of courses	1,365	1,366	1,312
(c) Percentage of these courses = (a) ÷ (b)	26%	39%	39%
(d) Total no. of student-credit hours of these courses	57,059	81,819	84,922
(e) UG Student FTE	9,552	9,803	9,933
(f) Average no. of credit hours/student from these courses = (d) ÷ (e)	5.97	8.35	8.55

Note: Subsequent to the submission of last annual report, the numbers in 2018/19 were updated due to the collection of additional responses from schools/departments.

Finding: The percentage of courses offered which had more than 50% structured face-to-face active learning components increased significantly from 26% in 2017/18 to 39% in 2019/20.

In 2017/18, on average, each student took 5.97 credit hours from these courses per year. In 2019/20, the number of credit hours rose to 8.55.

Domain 1: The quality of the student experience of teaching and learning**KPI 3 Career development measured by employability globally**

Definition: Global University Employability Ranking (designed by HR consultancy Emerging, conducted by research institute Trendence and published by *Times Higher Education*)

Link: <http://www.emerging.fr/>

Global University Employability Ranking

Methodology: The ranking was based on around 6000 recruiters from major companies in 22 countries. The respondents were asked what they were looking for in university systems and to evaluate and choose which institutions in their opinion produce the best performing graduates.

Ranking positions in the past five years

Institution	2016	2017	2018	2019	2020
HKUST	13	12	16	10	26*
University of Tokyo	10	9	9	7	6
National University of Singapore	15	16	10	14	9
Peking University	17	14	19	18	17
HKU	77	71	63	35	48
Nanyang Technological University	101	91	73	47	29
CUHK	85	82	88	87	86

* A general downward trend is observed for some other Hong Kong universities, the ranking agency said it is probably due to the local context.

Finding: Our graduates are highly regarded by global employers. We are ranked 26th in Global Employability Rankings.

Domain 2: The quality of research performance and of research postgraduate experience**KPI 1 Success rate of competitive grants**

$$\text{Success Rate} = \frac{\text{No. of Approved projects}}{\text{No. of Applications with result (ie. No. of Applications – Awaiting result)}}$$

Period: Average Success Rate of Competitive Grants submitted from 2015/16 to 2017/18

Funding Source	Awaiting result	No. of Approved projects	No. of applications	Success rate
UGC/RGC				
UGC Central allocation	0	4	14	28.6%
UGC Other specific funds/earmarked grants	0	2	8	25.0%
RGC General Research Fund (GRF)	0	478	1036	46.1%
RGC Collaborative Research Fund	0	13	82	15.9%
RGC Theme-based Projects	0	4	22	18.2%
RGC Early Career Scheme (ECS)	0	49	79	62.0%
RGC Prestigious Fellowship Scheme	0	0	2	0.0%
RGC Other funds	0	39	121	32.2%
Overall	0	589	1364	43.2%
Government + HK Private				
HK Government	0	130	371	35.0%
Government related organisations	0	0	7	0.0%
HK charities/foundations	0	34	63	54.0%
HK others	0	3	6	50.0%
Overall	0	167	447	37.4%
Non-HK				
Non-HK	0	253	751	33.7%
Overall				
All competitive grants	0	1009	2562	39.4%

Some of the above figures have been updated since last UAA Annual Report as the result of the applications was changed from “awaiting” to “approved”.

Benchmarking data (2015-18)		HKUST	HKU	CUHK	PolyU	CityU	HKBU	LU	EduHK	<i>Sector-wide average</i>
GRF	Success Rate*	48%	35%	36%	29%	34%	25%	26%	22%	34%
ECS	Success Rate*	59%	42%	39%	35%	46%	38%	65%	27%	40%
Overall Success Rate*		49%	36%	37%	30%	35%	26%	33%	24%	35%

* The success rate is based on the applications and projects approved by program year, therefore the data could be different from the GRF and ECS success rate in the first table as the first table adopted the submission year.

Period: Average Success Rate of Competitive Grants submitted from 2016/17 to 2018/19

Funding Source	Awaiting result	No. of Approved projects	No. of applications	Success rate
UGC/RGC				
UGC Central allocation	0	7	31	22.6%
UGC Other specific funds/earmarked grants	0	1	4	25.0%
RGC General Research Fund (GRF)	0	479	1063	45.1%
RGC Collaborative Research Fund	0	15	85	17.6%
RGC Theme-based Projects	0	4	20	20.0%
RGC Early Career Scheme (ECS)	0	54	93	58.1%
26-RGC Prestigious Fellowship Scheme	0	0	3	0.0%
RGC Other funds	0	42	137	30.7%
Overall	0	602	1436	41.9%
Government + HK Private				
HK Government	0	139	417	33.3%
Government related organisations	0	2	12	16.7%
HK charities/foundations	0	29	63	46.0%
HK others	0	5	9	55.6%
Overall	0	175	501	34.9%
Non-HK				
Non-HK	4	232	778	30.0%
Overall				
All competitive grants	4	1009	2715	37.2%

Some of the above figures have been updated since last UAA Annual Report as the result of the applications was changed from “awaiting” to “approved”.

Benchmarking data (2016-19)		HKUST	HKU	CUHK	PolyU	CityU	HKBU	LU	EduHK	<i>Sector-wide average</i>
GRF	Success Rate*	46%	35%	36%	31%	33%	25%	18%	19%	34%
ECS	Success Rate*	62%	42%	38%	36%	45%	32%	65%	27%	40%
Overall Success Rate*		48%	35%	36%	31%	34%	26%	27%	21%	34%

* The success rate is based on the applications and projects approved by program year, therefore the data could be different from the GRF and ECS success rate in the first table as the first table adopted the submission year.

Period: Average Success Rate of Competitive Grants submitted from 2017/18 to 2019/20

Funding Source	Awaiting result	No. of Approved projects	No. of applications	Success rate
UGC/RGC				
UGC Central allocation	6	7	46	17.5%
UGC Other specific funds/earmarked grants	2	13	33	41.9%
RGC General Research Fund (GRF)	0	488	1085	45.0%
RGC Collaborative Research Fund	30	9	92	14.5%
RGC Theme-based Projects	0	4	19	21.1%
RGC Early Career Scheme (ECS)	0	57	107	53.3%
26-RGC Prestigious Fellowship Scheme	0	1	3	33.3%
RGC Other funds	25	36	156	27.5%
Overall	63	615	1541	41.6%
Government + HK Private				
HK Government	103	120	461	33.5%
Government related organisations	2	4	15	30.8%
HK charities/foundations	1	23	68	34.3%
HK others	0	4	5	80.0%
Overall	106	151	549	34.1%
Non-HK				
Non-HK	105	236	879	30.5%
Overall				
All competitive grants	274	1002	2969	37.2%

<u>Benchmarking data (2017-20)</u>		HKUST	HKU	CUHK	PolyU	CityU	HKBU	LU	EduHK	<i>Sector-wide average</i>
GRF	Success Rate*	45%	33%	35%	33%	33%	26%	21%	22%	34%
ECS	Success Rate*	58%	42%	39%	36%	42%	30%	60%	33%	40%
Overall Success Rate*		46%	34%	35%	33%	34%	27%	27%	25%	34%

* The success rate is based on the applications and projects approved by program year, therefore the data could be different from the GRF and ECS success rate in the first table as the first table adopted the submission year.

Finding: The University is able to obtain an average success rate of 37% in the above competitive research funding schemes. We have maintained a success rate of over 40% in applying highly competitive GRF and ECS, the highest among Hong Kong institutions and well above the sector-wide average.

Domain 2: The quality of research performance and of research postgraduate experience**KPI 2 Esteem measures including number of professional society recognitions/ awards, other prizes & honours****Period:** 2017/18 Academic Year*(Listed in alphabetical order according to the last name of professor under the Schools)***Joint Schools**

No	Name	Academic Unit	Description
1	Prof Ching Wan TANG	Department of Electronic & Computer Engineering	Inducted to US National Inventors Hall of Fame
		Department of Chemistry	Recipient of the 2018 Doctor of Science <i>honoris causa</i> from the University of Hong Kong
		Department of Physics	

School of Science

No	Name	Academic Unit	Description
2	Dr Kwan Kit Jason CHAN	Department of Chemistry	Recipient of the 2018 University Grants Committee (UGC) Teaching Award under the category of Early Career Faculty Members
3	Prof Wan CHAN	Department of Chemistry	Awarded the 2017 Research Article of the Year in the Journal of Agricultural and Food Chemistry
		Division of Environment & Sustainability	Recipient of the 2018 Chemical Research in Toxicology Young Investigator Award
4	Prof Bingyi JING	Department of Mathematics	Elected as Fellow of the American Statistical Association (ASA) in 2018
5	Prof Nancy Yuk-Yu IP	Division of Life Science	Recipient of a large-scale grant from the RGC Theme-based Research Scheme 8th Round (2018/19)
6	Prof Tuan Anh NGUYEN	Division of Life Science	Recipient of the Croucher Innovation Awards 2018
7	Prof Wing Yip LAM	Department of Chemistry	Named as a Highly Cited Researcher for 2017 by Clarivate Analytics
8	Prof Ding PAN	Department of Physics Department of Chemistry	Recipient of the Croucher Innovation Awards 2018
9	Prof Ping SHENG	Department of Physics	Recipient of the 2018 Rolf Landauer Medal by the International Association for the Science of Electrical Transport and Optical Properties of Inhomogeneous Media (ETOPIM)

School of Science (cont.)

No	Name	Academic Unit	Description
10	Prof Benzhong TANG	Department of Chemistry Department of Chemical & Biological Engineering	Recipient of the First-class State Natural Science Award 2017
			2017 Prize for Scientific and Technological Progress of the Ho Leung Ho Lee Foundation
			Named as a Highly Cited Researcher for 2017 by Clarivate Analytics
11	Prof Mingjie ZHANG	Division of Life Science	Recipient of the Croucher Senior Research Fellowship Award for 2018/19

School of Engineering

No	Name	Academic Unit	Description
12	Prof Man Sun CHAN	Department of Electronic & Computer Engineering	Recipient of the 2017 IEEE Electron Devices Society Education Award
13	Prof Zhiyong FAN	Department of Electronic & Computer Engineering	Elected as Fellow of the Royal Society of Chemistry in 2018
14	Prof Pan HUI	Department of Computer Science & Engineering	Elected as Fellow of the Institute of Electrical and Electronics Engineers in 2018
15	Prof Joseph Hun-wei LEE	Division of Public Policy Department of Civil & Environmental Engineering	Recipient of the First Prize of 2017 Hong Kong Construction Industry Council (CIC) Innovation Award in the Construction Sustainability Category
			Elected as one of seven Invisible Silent Superheroes by the Institution of Civil Engineers Hong Kong Association
16	Prof Charles Wang Wai NG	Department of Civil & Environmental Engineering	Elected as President of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) in 2017
			Recipient of the 2017 Telford Premium Award
			Recipient of the 2017 Prix R M Quigley Award (Honorable mention)
17	Prof David Paul ROSSITER	Department of Computer Science & Engineering	Recipient of the 2017 Michael G. Gale Medal for Distinguished Teaching
18	Prof Qiang YANG	Department of Computer Science & Engineering Department of Electronic & Computer Engineering	Recipient of the 2017 SIGKDD Service Award
			Elected as 2017 Fellow of Association for Computing Machinery (ACM)
19	Prof Li Min ZHANG	Department of Civil & Environmental Engineering	Recipient of GEOSNet Award 2017
			Recipient of the Second-class Higher Education Outstanding Scientific Research Output Awards (Science and Technology) 2017

School of Engineering (cont.)

No	Name	Academic Unit	Description
20	Prof Tianshou ZHAO	Department of Mechanical & Aerospace Engineering	Received a large-scale grant from the RGC Theme-based Research Scheme 7th Round (2017/18)
			Named as a Highly Cited Researcher for 2017 by Clarivate Analytics

School of Business & Management

No	Name	Academic Unit	Description
21	Prof Yingying LI	Department of Information Systems, Business Statistics & Operations Management Department of Finance	Elected as Fellow of the Society for Financial Econometrics in 2017
22	Prof Kar Yan TAM	Department of Information Systems, Business Statistics & Operations Management	Elected as President of Association of Asia-Pacific Business Schools Recipient of a large-scale grant from the RGC Theme-based Research Scheme 8th Round (2018/19)

School of Humanities and Social Science

No	Name	Academic Unit	Description
23	Prof Xiaogang WU	Division of Social Science Division of Public Policy	Elected as Inaugural President of the International Chinese Sociological Association

Note: The list of Highly Cited Researchers is announced in November each year, therefore the 2017 list is grouped under 2017/18.

Period: 2018/19 Academic Year

(Listed in alphabetical order according to the last name of professor under the Schools)

Joint Schools

No	Name	Academic Unit	Description
1	Prof. Ching Wan TANG	Department of Chemistry	Recipient of the 2018 C&C Prize by NEC C&C Foundation
		Department of Electronic and Computer Engineering	
		Department of Physics	Recipient of the 2019 Kyoto Prize in Advanced Technology by the Inamori Foundation

School of Science

No	Name	Academic Unit	Description
2	Prof Jianfeng CAI	Department of Mathematics	Named as a Highly Cited Researcher for 2018 by Clarivate Analytics
3	Prof. Huai-Liang CHANG	Department of Mathematics	Recipient of 2018 Hong Kong Mathematics Society Young Scholar Award
4	Prof. Xi DAI	Department of Physics	Elected Fellow of the American Physical Society (APS) in 2018
			Awarded the 2019 APS James C. McGroddy Prize for New Materials
			Named as a Highly Cited Researcher for 2018 by Clarivate Analytics
5	Prof. Shengwang DU	Department of Physics	Elected Fellow of the Optical Society in 2019
		Department of Chemical and Biological Engineering	
6	Prof. Nancy Yuk-Yu IP	Division of Life Science	Awarded the 2018 Outstanding Achievement Award by the Professional Validation Council of Hong Kong Industries
			Elected as a Fellow of the Chinese Academy of Medical Sciences in 2019
7	Prof Wing Yip LAM	Department of Chemistry	Named as a Highly Cited Researcher for 2018 by Clarivate Analytics
8	Prof. Shiqing LING	Department of Mathematics	Elected Fellow of the Institute of Mathematics Statistics in 2019
9	Prof. Benzong TANG	Department of Chemistry	Named the CCTV Innovation and Technology Person of the Year 2018
		Department of Chemical and Biological Engineering	Received the 2018 CASNN Lifetime Award by the Chinese American Society of Nanomedicine and Nanobiotechnology
			Named as a Highly Cited Researcher for 2018 by Clarivate Analytics
10	Prof. Jiguang WANG	Division of Life Science Department of Chemical and Biological Engineering	Recognized as contributor to one of China's Top 10 Advances in Life Sciences in 2018 by the Chinese Union of Life Science Societies

School of Science (cont.)

No	Name	Academic Unit	Description
11	Prof. Shihe YANG	Department of Chemistry	Named as a Highly Cited Researcher for 2018 by Clarivate Analytics
12	Prof. Zilong WEN	Division of Life Science	Received the Croucher Senior Research Fellowship Award for 2019/20
13	Prof Henry He YAN	Department of Chemistry	Named as a Highly Cited Researcher for 2018 by Clarivate Analytics
14	Prof. Mingjie ZHANG	Division of Life Science	Recognized as contributor to one of the “Best of Cell” articles in 2018
			Recipient of a highly competitive three-year grant from the Human Frontiers in Science Program based in France to investigate the molecular mechanism
15	Prof. Angela Ruohao WU	Division of Life Science	Selected as one of the World Economic Forum’s Young Scientists in 2018
		Department of Chemical and Biological Engineering	

School of Engineering

No	Name	Academic Unit	Description
16	Prof. Guanghao CHEN	Department of Civil and Environmental Engineering	Received the Bronze Award of the 2018 International Water Association (IWA) Project Innovation Awards in the category of Breakthroughs in Research and Development
			Received the Gold Award of the 2018 Hong Kong Green Innovations Awards
			Received a large-scale grant from RGC Theme-based Research Scheme 9th Round (2019/20) for the proposal of “A Paradigm-shifting, Fully-integrated, Compact Wastewater-to-resource Facility (WWRF)”
17	Prof. Qifeng CHEN	Department of Computer Science and Engineering	Named one of “35 Innovators under 35 in China” in 2018 by MIT Technology Review
		Department of Electronic and Computer Engineering	Received the 2018 Google Faculty Research Awards in the category of machine perception
18	Prof. Shing-Chi CHEUNG	Department of Computer Science and Engineering	Received the ACM SIGSOFT Distinguished Artifact Award in the 2019 IEEE International Conference on Software Engineering
19	Prof. Francesco CIUCCI	Department of Mechanical and Aerospace Engineering	Received the 2018 Tianhe Star Award for Excellence Application
		Department of Chemical and Biological Engineering	
20	Prof Zhiyong FAN	Department of Electronic & Computer Engineering	Named as a Highly Cited Researcher for 2018 by Clarivate Analytics

School of Engineering (cont.)

No	Name	Academic Unit	Description
21	Prof. Furong GAO	Department of Chemical and Biological Engineering	Received the second-class Higher Education Outstanding Scientific Research Output Awards (Science and Technology) in Natural Science category 2018 by the Chinese Ministry of Education for a research project led by Dalian University of Technology
22	Prof. Ravindra Stephen GOONETILLEKE	Division of Integrative Systems and Design Department of Industrial Engineering and Decision Analytics	Elected as Fellow of the International Ergonomics Association
23	Prof Jang-Kyo KIM	Department of Mechanical & Aerospace Engineering	Named as a Highly Cited Researcher for 2018 by Clarivate Analytics
24	Prof. Sung Hun KIM	Department of Computer Science and Engineering	Awarded the Most Influential Paper from ICSM 2008 Award in the 2018 IEEE International Conference on Software Maintenance and Evolution
25	Prof. Hoi Sing KWOK	Department of Electronic and Computer Engineering	Received the 2019 Jan Rajchman Prize by the Society for Information Display
26	Prof. Kei May LAU	Department of Electronic and Computer Engineering	Elected Fellow of the Optical Society in 2019
27	Prof. Vincent Kin Nang LAU	Department of Electronic and Computer Engineering	Received the second-class Higher Education Outstanding Scientific Research Output Awards (Science and Technology) in Natural Science category 2018 by the Chinese Ministry of Education
28	Prof. Joseph Hun-wei LEE	Department of Civil and Environmental Engineering Division of Public Policy	Received the second-class Da Yu Hydro-science and Engineering Award 2018 Elected President of the International Association for Hydro-Environment Engineering and Research
29	Prof. Ricky Shi-Wei LEE	Department of Mechanical and Aerospace Engineering	Received the 2019 Outstanding Sustained Technical Contribution Award by IEEE Electronics Packaging Society
30	Prof. Khaled BEN LETAIEF	Department of Electronic and Computer Engineering	Received the 2019 IEEE Communications Society & Information Theory Society Joint Paper Award
31	Prof. Zexiang LI	Department of Electronic and Computer Engineering	Selected as “2018 Leader of the Year” in the category of Education/Professions/Technology & Innovation by Sing Tao Newspaper Group

School of Engineering (cont.)

No	Name	Academic Unit	Description
32	Prof. Ming LIU	Department of Electronic and Computer Engineering Department of Computer Science and Engineering	Received the IROS Toshio Fukuda Young Professional Award in the 2018 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)
33	Prof. Matthew Robert MCKAY	Department of Electronic and Computer Engineering Department of Chemical and Biological Engineering	Selected as one of the World Economic Forum's Young Scientists in 2018
34	Prof. Lionel Ming-Shuang NI	Department of Computer Science and Engineering	Received the second-class Higher Education Outstanding Scientific Research Output Awards (Science and Technology) in Natural Science category 2018 presented by the Chinese Ministry of Education for a research project led by Shenzhen University
35	Prof. Charles Wang Wai NG	Department of Civil and Environmental Engineering	Received a large-scale grant from the Areas of Excellence Scheme 8th round for the proposal of "Centre for Slope Safety"
36	Prof. Shenghui SONG	Department of Electronic and Computer Engineering	Awarded the 2018 Michael G. Gale Medal for Distinguished Teaching
37	Prof. Fei SUN	Department of Chemical and Biological Engineering	Received the Scholars Award 2019/2020 from the Asian University Alliance
38	Prof. Chi Keung TANG	Department of Computer Science and Engineering	Elected Fellow of the Institute of Electrical and Electronics Engineers (IEEE) in 2019
39	Prof. Fugee TSUNG	Department of Industrial Engineering and Decision Analytics	Elected Fellow of Chinese Institute of Industrial Engineers in 2018
40	Prof. Gang WANG	Department of Civil and Environmental Engineering	Received the 2018 Mao Yisheng Youth Award
41	Prof. Charles Chuan ZHANG	Department of Computer Science and Engineering	Received the ACM SIGSOFT Distinguished Paper Award in the 2019 International Conference of Software Engineering
42	Prof. Tianshou ZHAO	Department of Mechanical and Aerospace Engineering	Received the 2018 Ho Leung Ho Lee Prize for Scientific and Technological Advancement Appointed as Editor-in-chief of International Journal of Heat and Mass Transfer Named as a Highly Cited Researcher for 2018 by Clarivate Analytics

School of Business & Management

No	Name	Academic Unit	Description
43	Prof. Hong XU	Department of Information Systems, Business Statistics and Operations Management	Appointed as an Associated Editor for the Information Systems Research (ISR) starting in January 2019

School of Humanities and Social Science

No	Name	Academic Unit	Description
44	Prof. Julian Mcallister GROVES	Division of Social Science	Elected President of the Hong Kong Sociological Association in 2018 for a period of two years
45	Prof. Guojun HE	Division of Social Science Department of Economics Division of Environment and Sustainability	Selected as one of the World Economic Forum's Young Scientists in 2018
46	Prof. Ching Kwan LEE	Division of Social Science	Received the following awards for her book <i>The Specter of Global China: Politics, Labor and Foreign Investment in Africa</i> 2019 Alice Amsden Book Award, Society for the Advancement of Socio-Economics 2019 Joseph Levenson Book Prize, Association for Asian Studies 2019 Outstanding Scholarly Book, Global Division, Society for the Study of Social Problems
47	Prof. Eric S NELSON	Division of Humanities	Received the Scholars Award 2019/2020 from the Asian University Alliance

Note: The list of Highly Cited Researchers is announced in November each year, therefore the 2018 list is grouped under 2018/19.

Period: 2019/20 Academic Year

(Listed in alphabetical order according to the last name of professor under the Schools)

Joint Schools

No	Name	Academic Unit	Description
1	Prof. Ching Wan TANG	Department of Chemistry Department of Electronic and Computer Engineering Department of Physics	Recipient of Progress Award for 2019 presented by the Photographic Society of America

School of Science

No	Name	Academic Unit	Description
2	Prof. Che Ting CHAN	Department of Physics	Named as a Highly Cited Researcher for 2019 by Clarivate Analytics
3	Prof. Xi DAI	Department of Physics	Named as a Highly Cited Researcher for 2019 by Clarivate Analytics
4	Prof. Shengwang DU	Department of Physics	Elected Fellow of American Physical Society in 2019
		Department of Chemical and Biological Engineering	Elected Member of the Hong Kong Young Academy of Sciences
5	Prof. Ryan Tsz Kin KWOK	Department of Chemistry	Named as a Highly Cited Researcher for 2019 by Clarivate Analytics
6	Prof. Nancy Yuk-Yu IP	Division of Life Science	Recipient of 2019 AmCham Women of Influence Awards presented by the American Chamber of Commerce in Hong Kong (AmCham)
			Selected for admission to the Health@InnoHK Research Clusters to establish the Hong Kong Centre for Neurodegenerative Diseases #
7	Mr. Kui JIANG	Department of Chemistry	Named as a Highly Cited Researcher for 2019 by Clarivate Analytics
8	Prof. Wing Yip LAM	Department of Chemistry	Named as a Highly Cited Researcher for 2019 by Clarivate Analytics
9	Prof. Kam Tuen LAW	Department of Physics	Selected as RGC Research Fellow 2020-21 by Research Grants Council #
10	Prof. Hongbin LIU	Department of Ocean Science	Elected Fellow of Association for the Sciences of Limnology and Oceanography in 2019
		Division of Life Science	
11	Prof. Kai LIU	Division of Life Science	Elected Member of the Hong Kong Young Academy of Sciences
12	Prof. Ding PAN	Department of Physics	Recipient of the 2019 Emerging Leader Award presented by the Deep Carbon Observatory
		Department of Chemistry	

School of Science (cont.)

No	Name	Academic Unit	Description
13	Prof. Peiyuan QIAN	Department of Ocean Science	Received cross-boundary funding from the Guangzhou-based Southern Laboratory of Ocean Science and Engineering to build a Hong Kong branch of the Laboratory
14	Prof. Ping SHENG	Department of Physics	Elected Member of Hong Kong Academy of Sciences in 2019
			Elected Honorary Member and Fellow of Physical Society of Hong Kong in 2020
15	Prof. Jianwei SUN	Department of Chemistry	Elected Member of the Hong Kong Young Academy of Sciences
16	Prof. Benzhong TANG	Department of Chemistry	Elected 2020 Class of Fellow (Chemical Sciences) of World Academy of Sciences
		Department of Chemical and Biological Engineering	Named as a Highly Cited Researcher for 2019 by Clarivate Analytics
17	Prof. Jiguang WANG	Division of Life Science	Awarded the Excellent Young Scientists Fund by the Natural Science Foundation of China in 2019 #
			Selected as Asian Universities Alliance Scholar for the year 2020-2021
18	Prof. Angela Ruohao WU	Division of Life Science	Selected as Asian Universities Alliance Scholar for the year 2020-2021
		Department of Chemical and Biological Engineering	
19	Prof. Henry He YAN	Department of Chemistry	Named as a Highly Cited Researcher for 2019 by Clarivate Analytics
			Selected as RGC Research Fellow 2020-21 by Research Grants Council #
20	Prof. Shihe YANG	Department of Chemistry	Named as a Highly Cited Researcher for 2019 by Clarivate Analytics
21	Prof. Mingjie ZHANG	Division of Life Science	Selected as RGC Senior Research Fellow 2020-21 by Research Grants Council #
22	Prof. Tong ZHANG	Department of Mathematics	Elected 2020 Fellow of the Institute of Electrical and Electronics
		Department of Computer Science and Engineering	

School of Engineering

No	Name	Academic Unit	Description
23	Prof. Man Sun CHAN	Department of Electronic and Computer Engineering	Recipient of Best Paper Award in the 15th IEEE International Conference on Electron Devices and Solid-State Circuits
24	Prof. Guanghao CHEN	Department of Civil and Environmental Engineering	Appointed as Lead editor of the Second Edition of Wastewater Biological Treatment: Principles, Modeling and Design, a bestseller published by the International Water Association

School of Engineering (cont.)

No	Name	Academic Unit	Description
25	Prof. Kai CHEN	Department of Computer Science and Engineering	Recipient of a large-scale grant from RGC Theme-based Research Scheme 10th Round (2020/21)
26	Prof. Lei CHEN	Department of Computer Science and Engineering	Elected 2020 Fellow of the Institute of Electrical and Electronics Engineers Awarded First Runner-Up of China Institute of Communications Technology Award 2019
27	Prof. Qing CHEN	Department of Mechanical and Aerospace Engineering Department of Chemistry	Selected as one of the 2nd World Laureates Forum Young Scientists
28	Prof. Tim CHENG	Department of Computer Science and Engineering Department of Electronic and Computer Engineering	Recipient of the Pan Wen Yuan Foundation Award for Outstanding Research in 2020 Selected for admission to the AIR@InnoHK Research Clusters to establish the AI Chip Center for Emerging Smart Systems #
29	Prof. Jack Chin Pang CHENG	Department of Civil and Environmental Engineering	Recipient of Best Paper Award in the 4th International Conference on Civil and Building Engineering Informatics (ICCBEI 2019) Recipient of Construction Industry Outstanding Young Person Award 2019 presented by the Hong Kong Construction Industry Council
30	Prof. Pascale FUNG	Department of Electronic and Computer Engineering Department of Computer Science and Engineering	Elected as Member-at-Large at the IEEE Signal Processing Society Board of Governors
31	Prof. Guillermo GALLEGO	Department of Industrial Engineering and Decision Analytics Department of Information Systems, Business Statistics and Operations Management	Recipient of M&SOM Best Operations Management Paper in Operations Research presented by The Manufacturing and Service Operations Management Society (M&SOM)
32	Prof. Pan HUI	Department of Computer Science and Engineering	Elected member of Academia Europaea (the Academy of Europe) in 2019
33	Prof. Richard LAKERVELD	Department of Chemical and Biological Engineering	Recognized as 2019 Class of Influential Researcher by Industrial & Engineering Chemistry Research
34	Prof. Kei May LAU	Department of Electronic and Computer Engineering	Recipient of 2020 Nick Holonyak Jr. Award presented by the Optical Society of America Recipient of Best Paper Award in the 26th International Display Workshops

School of Engineering (cont.)

No	Name	Academic Unit	Description
35	Prof. Joseph Hun-wei LEE	Department of Civil and Environmental Engineering	Appointed as Chairman of the Hong Kong Research Grants Council
36	Prof. Ricky Shi-wei LEE	Department of Mechanical and Aerospace Engineering	Appointed as Editor of the ASME Journal of Electronic Packaging
			Appointed as Chair of IEEE Fellows Evaluation Committee of Electronics Packaging Society
37	Prof. Khaled BEN LETAIEF	Department of Electronic and Computer Engineering	Recipient of Best Paper Award in the area of Green Communications Systems & Networks in 2020 IEEE International Conference on Communications
38	Prof. Anthony Kwan LEUNG	Department of Civil and Environmental Engineering	Awarded the Excellent Young Scientists Fund by the Natural Science Foundation of China in 2019 #
			Recipient of Bright Spark Award presented by the International Society of Soil Mechanics and Geotechnical Engineering
39	Prof. Christopher Kin Ying LEUNG	Department of Civil and Environmental Engineering	Recipient of the second prize of CIC Construction Innovation Award 2019 in the category of Construction Productivity presented by The Hong Kong Construction Industry Council (CIC)
			Recipient of the second-class Higher Education Outstanding Scientific Research Output Awards (Science and Technology) in Technological Advancement category presented by the Chinese Ministry of Education in 2019 for a research project by Southeast University
40	Prof. Kenneth Wai Ting LEUNG	Department of Computer Science and Engineering	Recipient of 2019 Common Core Teaching Excellence Award (Honorary Mention)
41	Prof. Sen LI	Department of Civil and Environmental Engineering	Recipient of 2020 O. Hugo Schuck Best Paper Award presented by the American Automatic Control Council
42	Prof. Zexiang LI	Department of Electronic and Computer Engineering	Selected for admission to the AIR@InnoHK Research Clusters to establish the Hong Kong Center for Construction Robotics #
43	Prof. Marshal Yuanshuai LIU	Department of Chemical and Biological Engineering	Received the 2019 Common Core Teaching Excellence Award
44	Prof. Irene Man Chi LO	Department of Civil and Environmental Engineering	Received the second-class Higher Education Outstanding Scientific Research Output Awards (Science and Technology) in Natural Science category presented by the Chinese Ministry of Education in 2019
45	Prof. Zhengtang LUO	Department of Chemical and Biological Engineering	Elected Fellow of the Royal Society of Chemistry in 2020
46	Prof. Xiaojuan MA	Department of Computer Science and Engineering	Received the CHI 2020 Honourable Mentions award at Association for Computing Machinery (ACM) Conference on Human Factors in Computing Systems (CHI) 2020

School of Engineering (cont.)

No	Name	Academic Unit	Description
47	Prof. Charles Wang Wai NG	Department of Civil and Environmental Engineering	Elected Fellow of the Royal Academy of Engineering
48	Prof. Ting Chuen PONG	Department of Computer Science and Engineering	Recipient of Best Lightning Speaker Award at the 6th Learning with MOOCS 2019 Conference on Enhancing Workforce Diversity and Inclusion
49	Prof. Huamin QU	Department of Computer Science and Engineering Department of Electronic and Computer Engineering	Selected for inclusion on the AI 2000 Most Influential Scholar Annual List and ranked 3rd in the visualization sub-field
50	Prof. Ling SHI	Department of Electronic and Computer Engineering	Selected as one of the World Economic Forum Young Scientists Class of 2020
			Selected as one of the 2nd World Laureates Forum Young Scientists
51	Prof. Xin WANG	Department of Industrial Engineering and Decision Analytics	Recipient of 2019 Best Working Paper Award presented by the Technology, Innovation Management and Entrepreneurship Section of the Institute for Operations Research and the Management Sciences
52	Prof. Raymond Chi Wing WONG	Department of Computer Science and Engineering	Recipient of 2019 Common Core Teaching Excellence Award (Honorary Mention)
53	Prof. Kam Tim WOO	Department of Electronic and Computer Engineering	Appointed as Chairman of the Institution of Engineering and Technology Hong Kong
54	Professor Di WU	Department of Civil and Environmental Engineering	Selected as one of the 2nd World Laureates Forum Young Scientists
55	Prof. Hai YANG	Department of Civil and Environmental Engineering	Recipient of 2020 Frank M. Masters Transportation Engineering Award presented by American Society of Civil Engineers
56	Prof. Qiang YANG	Department of Computer Science and Engineering	Elected as General Chair of the Thirty-Fifth AAAI Conference on Artificial Intelligence
			Selected for inclusion on the AI 2000 Most Influential Scholar Annual List and ranked 1st in the AAAI Conference on Artificial Intelligence/International Joint Conference on Artificial Intelligence (AAAI/IJCAI) sub-field
57	Prof. Patrick YUE	Department of Electronic and Computer Engineering	Elected 2020 Fellow of the Optical Society
			Recipient of a cross-boundary research grant from Department of Science and Technology of Guangdong Province
58	Prof. Limin ZHANG	Department of Civil and Environmental Engineering	Received the first-class Higher Education Outstanding Scientific Research Output Awards (Science and Technology) in Natural Science category presented by the Chinese Ministry of Education in 2019 for a research project led by Shanghai Jiao Tong University

School of Engineering (cont.)

No	Name	Academic Unit	Description
59	Prof. Qian ZHANG	Department of Computer Science and Engineering	Appointed as the Editor-in-Chief of IEEE Transactions on Mobile Computing (TMC)
60	Prof. Jidong ZHAO	Department of Civil and Environmental Engineering	Appointed as Editor of Computers and Geotechnics, a Q1-ranked journal in geotechnical engineering published by Elsevier
61	Prof. Tianshou ZHAO	Department of Mechanical and Aerospace Engineering	Elected Academician of the Chinese Academy Sciences

School of Business & Management

No	Name	Academic Unit	Description
62	Prof. Ralf VAN DER LANS	Department of Marketing	Selected as one of Outstanding Reviewers for the period of 2019/20 by the American Marketing Association
63	Prof. Yingying LI	Department of Information Systems, Business Statistics and Operations Management	Awarded the Excellent Young Scientists Fund by the Natural Science Foundation of China in 2019 #
		Department of Finance	Selected as one of the 2nd World Laureates Forum Young Scientists
64	Prof. Song LIN	Department of Marketing	Recipient of 2020 Weitz-Winer-O'Dell Award presented by the American Marketing Association
65	Prof. Yong Hyun KIM	Department of Management	Recipient of the Third Annual (2020) IACMR Responsible Research in Management Award co-sponsored by the International Association for Chinese Management Research (IACMR) and the Community for Responsible Research in Business and Management
66	Prof. Abhiroop MUKHERJEE	Department of Finance	Recipient of Best Paper Award sponsored by CFA Society of Melbourne and the CFA Institute Asia-Pacific Research Exchange at the 2020 Finance Down Under Conference in Melbourne
67	Prof. Alminas ZALDOKAS	Department of Finance	Awarded the Jerry S. Cohen Award for Antitrust Scholarship in 2019

School of Humanities and Social Science

No	Name	Academic Unit	Description
68	Prof. David Cheng CHANG	Division of Humanities	Recipient of Harvard-Yenching Institute Visiting Scholars fellowship for 2020-21

School of Humanities and Social Science (cont.)

No	Name	Academic Unit	Description
69	Prof. Stuart GIETEL-BASTEN	Division of Social Science Division of Public Policy	Selected as Asian Universities Alliance Scholar for the year 2020-2021
70	Prof. Julian Mcallister GROVES	Division of Social Science	Awarded the 2019 Michael G. Gale Medal for Distinguished Teaching
71	Prof. Jianmei LIU	Division of Humanities	Recipient of the Humanities and Social Sciences Prestigious Fellowship 2020/21
72	Prof. Xiaogang WU	Division of Social Science Division of Public Policy	Appointed as Global Scholar at Princeton University for 2020 -2024

Interdisciplinary Programs Office

No	Name	Academic Unit	Description
73	Prof. Laurence Laurencio DELINA	Division of Environment and Sustainability	Recipient of Balik Scientist Award presented by Department of Science and Technology of Republic of the Philippines
74	Prof. Wei HAN	Division of Environment and Sustainability	Selected as Asian Universities Alliance Scholar for the year 2020-2021
75	Prof. Pengyu ZHU	Division of Public Policy	Selected as Asian Universities Alliance Scholar for the year 2020-2021

Note: The list of Highly Cited Researchers is announced in November each year, therefore the 2019 list is grouped under 2019/20.

These awards were newly established in 2019/20

Summary:

Number of awards	2017/18	2018/19	2019/20
Joint Schools	1	1	1
School of Science	10	14	21
School of Engineering	9	27	39
School of Business & Management	2	1	6
School of Humanities and Social Science	1	4	5
Interdisciplinary Programs Office	-	-	3
Total	23	47	75

Findings: The awards received by HKUST faculty members keep increasing over the years; our faculty's research excellence is widely recognized and awarded.

Domain 2: The quality of research performance and of research postgraduate experience**KPI 3 RPg student experience based on end-of-program survey results**

Methodology: As part of the process of continuous improvement of its programs, the University invites graduating RPgs to complete an end-of-program satisfaction survey to provide systemic feedback on various aspects of their study experience including thesis supervision, coursework, professional development training, learning outcomes, and the overall learning experience.

Definition: RPg students' rating on: i) Thesis supervision and support; and ii) Learning outcomes.

i) Thesis Supervision and Support (5-point scale)

	2017/18		2018/19		2019/20	
	MPhil	PhD	MPhil	PhD	MPhil	PhD
My supervisor(s) stimulated my lateral and critical thinking and enabled me to create new knowledge and new discoveries.	4.57	4.72	4.56	4.75	4.44	4.69
My supervisor(s) stated to me clearly the standard of work expected.	4.55	4.62	4.43	4.70	4.40	4.63
My supervisor(s) provided helpful feedback on my progress.	4.58	4.64	4.46	4.66	4.44	4.64
I learned much about research skills from my supervisor(s).	4.51	4.66	4.40	4.64	4.41	4.59
Members of the Thesis Supervision Committee were accessible when I needed their advice.	4.64	4.65	4.53	4.64	4.54	4.59
Overall, I am happy with the thesis supervision received at HKUST.	4.56	4.64	4.46	4.68	4.45	4.68

ii) Learning Outcomes (5-point scale)

	2017/18		2018/19		2019/20	
	MPhil	PhD	MPhil	PhD	MPhil	PhD
I have developed sound research skills through my training at HKUST.	4.54	4.58	4.40	4.69	4.69	4.85
I have developed new knowledge and created new theories, methodology, or other research output in my field of study through my training at HKUST.	4.50	4.57	4.40	4.69	4.64	4.85
I become a critical thinker through my training at HKUST.	4.47	4.63	4.36	4.66	4.63	4.85
I am able to conduct enquiries in my area of specialisation in a professional, expert and ethical manner.	4.44	4.55	4.35	4.66	4.66	4.86
I am prepared to embark on an academic career, and to teach university-level courses in my area of specialisation.	4.13	4.35	4.08	4.39	4.20	4.68

Note: Response rate of the RPg end-of-program survey is 100% in 2019/20 and 99.6% in 2017/18 and 2018/19.

Findings: On the 5-point scale, the responses represented consistently positive rating toward thesis supervision and support, and learning outcomes though there are slight variations.

Thesis Supervision and Support

Some ratings on Thesis Supervision and Support are slightly lower than previous years', it could be affected by the general environment. Under the context of social unrest and COVID-19, students had fewer opportunities to attend international conferences or exchange ideas with international visitors, and the communication and interaction between some students and their supervisors is affected. While we have tried to strengthen their communication, it took some time for them to adapt to the new mode of online communication. All these might have affected students' morale. As such, the slight decline in rating in Thesis Supervision and Support under this situation is understandable. Nevertheless, PhD students gave high rating on "Overall, I am happy with the thesis supervision received at HKUST" which reflected faculty members' efforts and dedication to supervising their students.

Learning Outcomes

It is encouraging that all the ratings on Learning Outcomes by both MPhil and PhD students showed improvement which suggested that our 2019/20 RPg graduates were more satisfied with the training they received in the respective academic fields. During the time extremely complex dynamic situation, Schools and Interdisciplinary Programs Office had been reaching out to see if students have encountered difficulties and offered help as far as possible. Students were also informed of the communication channels and mechanisms accessible to them in case they need help.

The ratings from PhD students on all the questions are higher than those from MPhil students. This could be explained by the difference in academic and research competency of the two groups of students and MPhil students might need more guidance and direction in research. In addition, given the difference in the study duration, MPhil students might not be able to achieve as much as their PhD students in terms of satisfaction.

Domain 3: Knowledge transfer and wider engagement**KPI 1 Technology transfer and commercialization by number of patents filed, granted and used**

Definition: The figures are counted based on the actual number of patents filed and granted according to the official filing date and issue date of the application with the respective patent office. This is different from the CDCF required by UGC which is counted according to the:

- (1) number of country of filings
- (2) number of patent types which is defined in accordance with the international patent classification (i.e. technology area) of the patents)

Number of patents used (new contracts according to contract date) refers to the number of patents utilized by means of licensing during the reporting period, including rights granted as background Intellectual Property (IP) in newly signed contracts with value according to the contract date. All used patents only counted once if it is included in more than one contract.

Number of patents used (active contracts according to contract period) refers to the number of patents utilized by means of licensing during the reporting period, including rights granted as background IP in active contracts with value according to the contract period. All used patents only counted once even if it is included in more than one contract.

Type / Financial Year	2017/18	2018/19	2019/20
Number of patents filed (according to filing date)	280	270	286
Number of patents granted (according to issue date)	98	82	74
Number of patents used based on new contracts (according to contract date)	47	48	20
Number of patents used based on active contracts (according to contract period)	255	260	241

Note: Figures for 2017/18 and 2018/19 are adjusted due to further updates from the Mainland platforms after last UAA submission.

Finding: The University has filed a substantial number of patents throughout the year, and had a number of patents granted in the year. The situation may further improve with the opportunities brought by the Guangzhou campus down the road. Many of these patents are being used actively throughout the years, showing that the University's research achievements are recognized by the society to a large extent. The number of patents used in 2019/20 has dropped because of the decrease in the patents licensing due to COVID-19. The University will endeavor to increase the number of licenses by active industrial engagement such as strengthening the support for Joint Research Institutes / Centers, as well as improving the quality of IP portfolio and license by strengthening key IP portfolio for licensing programs, supporting start-up companies with multiple patents, active start-up incubation from various funding programs, engaging capable venture capitals, and cultivating strategic license portfolio.

Domain 3: Knowledge transfer and wider engagement**KPI 2 Entrepreneurship – number of start-up and spin-off companies funded or incubated by HKUST programs on entrepreneurship**

Definition: The following companies only include the economically active spin-off and start-up companies being funded or incubated by the HKUST entrepreneurship programs located in the Clear Water Bay Campus and Mainland platforms. The entrepreneurship programs include the HKUST Entrepreneurship Program (EP), Technology Start-up Support Scheme for University (TSSSU) Program, U*STAR Award, Yeung Wing Yee Entrepreneurs Fund (YWYEF), HKUST Entrepreneurship Acceleration Fund (EAF), Alumni Endowment Fund (AEF) Student Start-up Grants, HKUST One Million Dollar Entrepreneurship Competition (regional competitions inclusive), and programs under the Blue Bay Incubator and Innovation & Entrepreneurship Center (I&E Center) of HKUST R and D Corporation (Shenzhen) Ltd. (RDCSZ) in Shenzhen, programs under the Guangzhou HKUST Fok Ying Tung Research Institute (FYTRI) in Nansha, and programs under HKUST Foshan Research Institute of Smart Manufacturing (FRISM) in Foshan.

Category / Calendar Year	2017	2018	2019
Number of start-up companies	31	63	87
Number of spin-off companies	111	138	142
Total	142	201	229

Note: This KPI would only include companies being funded or incubated by various HKUST entrepreneurship programs. Companies admitted to HKUST entrepreneurship programs within the reporting period are counted, regardless of their establishing year. For companies funded or admitted to more than one program or having offices in more than one location only counted once.

Finding: The University has, through the offering of various scheme / programs, facilitated the founding of quite a number of companies for young entrepreneurs to realize their potential, dreams and inspirations on the path of entrepreneurship. The University will provide more services, support and encouragement to our students for them to form companies to increase the number of start-ups. By licensing HKUST technologies to promising start-ups, the University transforms its research output into products and services for public benefit.

Domain 3: Knowledge transfer and wider engagement**KPI 2 Number of entries in HKUST-supported competitions**

Definition: This KPI aims at measuring how HKUST is doing to engage the wider community by organizing or co-organizing competitions to promote knowledge transfer / entrepreneurship. The intended competition participants are open to the general public; the participants were not limit to our students, staff and alumni. Competitions which are organized solely for HKUST community were excluded.

Period: 2017/18 Academic Year

Name of Competition	Number of Teams	Number of Participants
HKUST One Million Dollar Entrepreneurship Competition	934	3,152
Hackathon@HKUST	95	422
Underwater Robot Competition	114	798
E-commerce Challenge	16	49
FinTech Hackathon (UHackFin)	28	120
HKUST-Citibank Case Competition 2017	15	75
HKUST Global MBA Challenge 2018	14	56
IEEE Electronic Endeavor Match	-	96
RoboMaster 2017 Tournament	32	815
The 2018 International Contest of Applications of Nano-Microtechnologies (iCAN2018)	23	79
14th Pan Pearl River Delta Physics Olympiad	-	605
Hong Kong Physics Olympiad	-	713
Secondary Schools Bridge Demonstration Competition 2018	10	72
Total	1,281	7,052

Period: 2018/19 Academic Year

Name of Competition	Number of Teams	Number of Participants
HKUST One Million Dollar Entrepreneurship Competition	1,265	3,358
hackathon@HKUST (hackUST and hardUST)	129	512
HKUST Underwater Robot Competition	24	168
RoboMaster 2018 Tournament	32	-
International Genetically Engineered Machine Competition (iGEM)	1	21
Global MBA Challenge	12	48
HKUST International Case Competition (HKICC) 2018	15	70
15th Pan Pearl River Delta Physics Olympiad	-	621
Hong Kong Physics Olympiad	-	702
Secondary Schools Bridge Demonstration Competition 2018	10	80
The 29th Annual ACM-HK Programming Contest	33	100
HKUST Inter-University Public Policy Case Competition 2019	38	150
Total	1,559	5,830

Period: 2019/20 Academic Year

Name of Competition	Number of Teams	Number of Participants
Bizkathon@HKUST - Virtual Banking Hackathon	25	120
H ² Innovation Challenge	83	299
HKUST One Million Dollar Entrepreneurship Competition	1443	3948
STEM+E Consortium 2020	16	76
Hong Kong Techathon 2020	55	260
2019 CyCore IEEE Electronic Endeavour Match	12	300
Total	1,634	5,003

Finding: In the past three years, more than 5,000 people from the general public benefited from these competitions organized by the University each year. The number of participants slightly shrank in 2019/20 since some regular competitions were called off due to the pandemic. In response to this, the competitions were switched to online. Despite the decrease in the number of competitions, collaboration and integration of student innovation with the commercial sector could still be reinforced through these competitions. Competitions stimulate students' creativity in developing ideas which have been adopted by industrial leaders for business development. The University will proactively reinforce partnership with collaborators to organize and co-organize events that are open to the public to promote entrepreneurship.

Domain 3: Knowledge transfer and wider engagement**KPI 3 Other societal contribution: number, participant size and diversity of community engagement projects, social service events, art related functions**

Financial Year	2017/18		2018/19		2019/20	
	Number of activities	Number of attendees	Number of activities	Number of attendees	Number of activities	Number of attendees
Total number of community engagement projects, social service events, art related functions						
Public lectures	313	29,684	288	34,767	300	2,514,732
Performance arts	74	36,345	112	14,368	29	7,892
Exhibitions	25	63,102	30	137,157	10	25,337
Public, community and social services	158	1,533,110	183	1,503,477	119	1,875,542
Other public engagement activities	198	651,017	233	824,380	81	128,405
Total	768	2,313,258	846	2,514,149	539	4,551,908

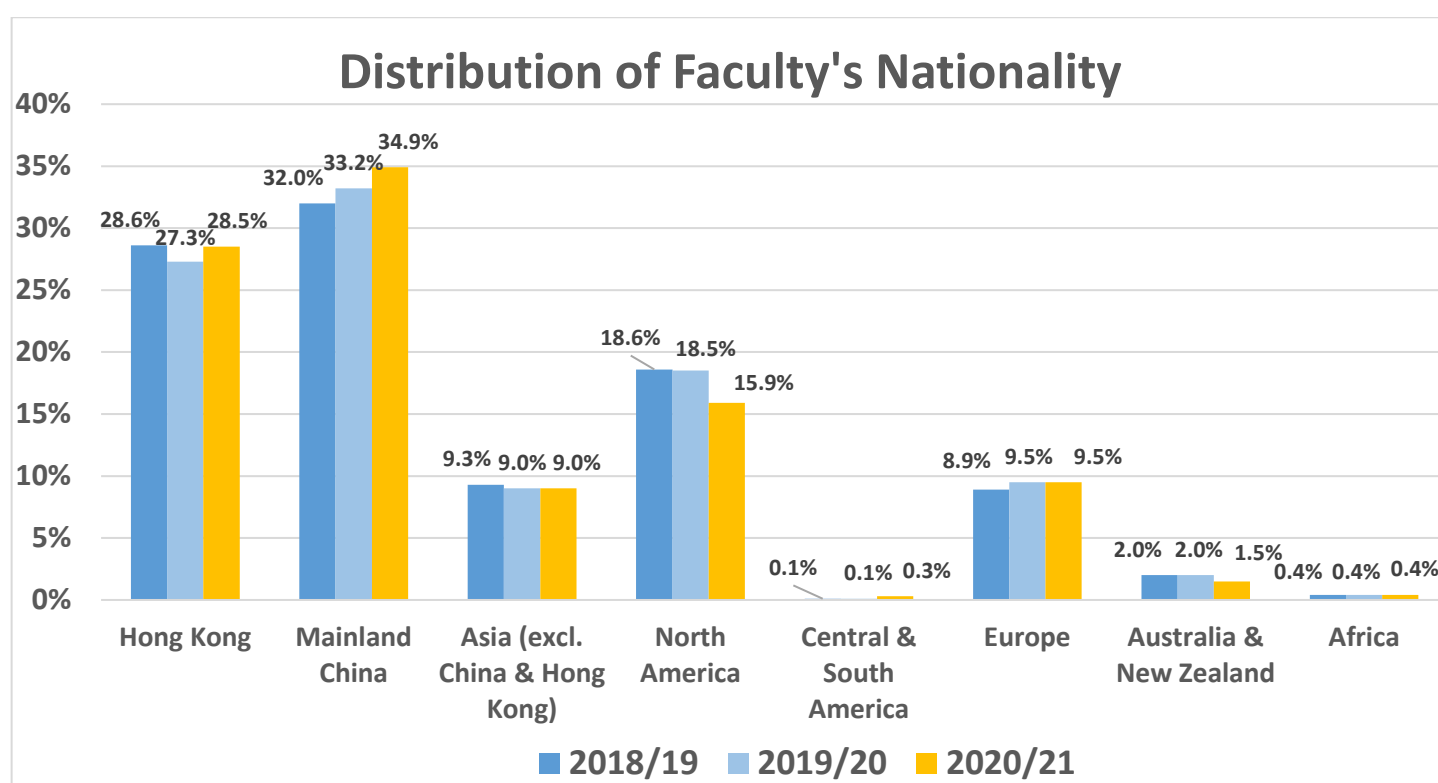
	2017/18	2018/19	2019/20
Number of faculty staff engaged as members of external advisory bodies including professional, industry, government, statutory or non-statutory bodies	442 / 625 (70.7%)	462 / 660 (70%)	485 / 693 (70%)

Finding: The number of activities organized in 2019/20 has reduced by 36% due to the outbreak of COVID-19. Nonetheless, the University was able to switch some of the activities online. Without restrictions of venue and even border, virtualizing the events could accommodate more participants of different ages and nationalities, which made the total number of attendees surged to 4.55 million, an 81% increase compared with last year. With a significant increase in the number of participants, the University can disseminate knowledge to more people and thus benefit the general public to a large extent. About 70% of our faculty staff were engaged in different kinds of external advisory bodies as a way to contribute to the society.

Domain 4: Enhanced internationalisation**KPI 1 Faculty profile by nationality**

Definition: The nationality of our faculty is based on the nationality self-reported by our faculty members. Faculty includes substantiation-track faculty, teaching-track faculty, research-track faculty and visiting/ adjunct faculty.

Academic Year (Census Date: 31 October)	2018/19		2019/20		2020/21	
Region	Headcount	%	Headcount	%	Headcount	%
Hong Kong	215	28.6%	209	27.3%	224	28.5%
Mainland China	240	32.0%	254	33.2%	274	34.9%
Asia (excl. China & HK)	70	9.3%	69	9.0%	71	9.0%
North America	140	18.6%	142	18.5%	125	15.9%
Central & South America	1	0.1%	1	0.1%	2	0.3%
Europe	67	8.9%	73	9.5%	75	9.5%
Australia & New Zealand	15	2.0%	15	2.0%	12	1.5%
Africa	3	0.4%	3	0.4%	3	0.4%
Total	751	100%	766	100.0%	786	100.0%



Finding: Over 70% of our faculty members are non-local, majority of non-local faculty members are from Mainland China.

Domain 4: Enhanced internationalisation**KPI 2 Formal joint offering of courses/programs with non-local universities**

Definition: Joint programs/courses offered in the academic year by number of agreements

Type of Collaboration	2017/18	2018/19	2019/20
Joint Programs	30	34	37
Joint Courses	13	13	7
Total	43	47	44

School	2017/18	2018/19	2019/20
School of Science	5	4	3
School of Engineering	10	11	10
School of Business and Management	6	7	8
School of Humanities and Social Science	13	16	15
Interdisciplinary Programs Office	8	7	6
School of Science/ School of Engineering	1	2	2
Total	43	47	44

Study Level	2017/18	2018/19	2019/20
UG	16	17	11
TPg	17	21	21
MPhil/PhD	9	8	9
UG/Pg	1	1	3
Total	43	47	44

Academic Year	2017/18		2018/19		2019/20	
	No. of collaboration	%	No. of collaboration	%	No. of collaboration	%
China	18	41.9%	19	40.4%	15	34.1%
United States	8	18.6%	8	17.0%	9	20.5%
France	2	4.7%	2	4.3%	3	6.8%
United Kingdom	3	7.0%	3	6.4%	3	6.8%
South Korea	2	4.7%	3	6.4%	2	4.5%
Japan	2	4.7%	2	4.3%	2	4.5%
Taiwan	2	4.7%	3	6.4%	2	4.5%
Italy	2	4.7%	2	4.3%	2	4.5%
Brazil	1	2.3%	1	2.1%	1	2.3%
Germany	1	2.3%	1	2.1%	1	2.3%
Iran	1	2.3%	1	2.1%	1	2.3%
Portugal	0	-	0	-	1	2.3%
Switzerland	1	2.3%	1	2.1%	1	2.3%
Russia	0	-	1	2.1%	1	2.3%
Total	43	100%	47	100%	44	100%

Finding: The University has entered into collaborations with over 40 overseas universities to offer joint programs/courses. The list of partner universities has become slightly more diversified in 2019/20.

Domain 4: Enhanced internationalisation
KPI 3 Substantial global study experience

1) Substantial global study experience on campus

Metric A: Percentage of UG students on campus being non-local

Non-local includes UG degree-seeking and inbound exchange/visiting students from all places.

Metric B: Percentage of UG students on campus being international

International includes UG degree-seeking and inbound exchange/visiting students from places outside of Mainland, Taiwan and Macau.

	No. of students in 2017/18	No. of students in 2018/19	No. of students in 2019/20
Metric A	1,933 (19.9%)	2,121 (21.2%)	2,240 (22.0%)
Metric B	1,243 (12.8%)	1,352 (13.5%)	1,409 (13.8%)

UG student type	No. of students in 2017/18	No. of students in 2018/19	No. of students in 2019/20	Metric A	Metric B
Local degree-seeking	7,761 (80.0%)	7,877 (78.7%)	7,954 (78.0%)		
Local inbound exchange/visiting	6 (0.1%)	6 (0.1%)	3 (0.0%)		
Non-local (Mainland) degree-seeking	656 (6.8%)	698 (7.0%)	742 (7.3%)	Y	
Non-local (Mainland) inbound exchange/visiting	34 (0.4%)	71 (0.7%)	89 (0.9%)	Y	
Non-local (Other places) degree-seeking	854 (8.8%)	937 (9.4%)	982 (9.6%)	Y	Y
Non-local (Other places) inbound exchange/visiting	389 (4.0%)	415 (4.1%)	427 (4.2%)	Y	Y
Total	9,700	10,004	10,197		

Notes: Students studying off-campus such as exchange-out or on study leave are excluded. World Bachelor in Business students on HKUST campus are included. Data cut-off dates are 30 Sep 2017, 2018 and 2019.

Finding: The University's on-campus UG students being non-local and international are 22.0% and 13.8% respectively in 2019/20; slightly increased compared with previous years.

2) Substantial global study experiences abroad

Metric C: Percentage of UG enrolment who completed a substantial study experience abroad in an academic year.

Definition: Substantial study experience includes:

- “Student exchange”: Follow UGC’s definition: study at an institution outside of Hong Kong under a reciprocal exchange agreement for at least one term (for summer term: at least 4 weeks)
- “One-way study/research abroad programs”: Programs at universities that last 3 weeks or above; participation is nominated/endorsed/registered with HKUST; programs are credit-bearing and/or with academic transcripts issued by the host university.

Note: In addition to reciprocal student exchange participation, one-way programs are included. Acquiring a substantial study experience at some universities is possible only on a one-way arrangement as it may not be possible to arrange reciprocal arrangements for issues controlled at the host university. These are nonetheless substantial study experiences that are beneficial to the global learning for HKUST students.

Experience type	No. of experiences at 3 weeks duration or above		
	2017/18	2018/19	2019/20
1 - Exchange	978	946	803
2 - Visiting	299	494	119
3 - Internship	388	345	122
4 - Study/Field trip	55	37	0
5 - Experiential learning experience	51	42	46
6 - International events	0	0	0
7 - Others	0	0	0
Total No. of experiences	1771	1864	1,090
No. of UG students with at least one of the above non-local learning experience (Metric C)	1659 <i>(16.8% of 9,894 UG enrolment)</i>	1,743 <i>(17.2% of 10,140 UG enrolment)</i>	1,050 <i>(10.2% of 10,317 UG enrolment)</i>

Notes on data definition:

- The end date of the experience is between 1 Sep and 31 Aug.
- “3 weeks” is defined as 15 weekdays.

Finding: 10.2% of our UG population participated in various types of substantial global study experiences abroad in the 2019/20 academic year; a large decrease compared with previous years due to travel restrictions caused by the COVID-19.

Metric D: Percentage of UG graduates with outgoing exchange experience.

Academic year	2017/18	2018/19	2019/20
Number of UG graduates	2,270	2,333	2,322
Number of UG with outgoing exchange experience	869 (38.3%)	906 (38.8%)	894 (38.5%)

Note: Data extracted from CDCF Table 28.1.

Finding: Close to 40% of our UG graduates have outgoing exchange experience during their study at the University.

Domain 4: Enhanced internationalisation**KPI 4 Global presence****Metric A: No. of international alliances that HKUST holds membership in.****Period:** from Academic Year 2017/18 to 2019/20**International Alliances**

As part of our internationalisation and global engagement endeavours, HKUST holds membership in many international alliances to build the network and mechanism required to support teaching and research collaboration between HKUST and world class universities/ organisations. Here are some examples:

University level

1. The Association of East Asian Research Universities (AEARU)
2. Association of Pacific Rim Universities (APRU)
3. World Economic Forum (WEF) - The Global University Leaders Forum (GULF)
4. The Association of Southeast Asian Institutions of Higher Learning (ASAIHL)
5. International Association of Universities (IAU) (*withdrawn in 2019/20 Academic Year*)
6. HKUST-MIT Research Alliance Consortium
7. Asian Science and Technology Pioneering Institutes of Research and Education (ASPIRE League)
8. Asian Universities Alliance (AUA)
9. Association of Sino-Russian Technical Universities (ASRTU)
10. C9 League + HK3
11. Guangdong-Hong Kong-Macau University Alliance
12. University Alliance of Belt & Road (*from 2017/18 Academic Year*)
13. Innovation & Entrepreneurship Education Alliance of China (*from 2017/18 Academic Year*)
14. Beijing-Hong Kong University Alliance (BHUA) (*from 2017/18 Academic Year*)
15. Shanghai-Hong Kong University Alliance (SHUA) (*from 2017/18 Academic Year*)
16. Silk-road Universities Network (SUN) (*from 2019/20 Academic Year*)
17. University Consortium of the 21st Century Maritime Silk Road (*from 2017/18 Academic Year*)

School level

School of Engineering:

1. Asia-Oceania Top University League on Engineering (AOTULE)
2. Asian Deans' Forum (*from 2017/18 Academic Year*)
3. The Global Engineering Deans Council (GEDC) (*from 2017/18 Academic Year*)

School of Business:

1. CEMS - The Global Alliance in Management Education
 2. Association to Advance Collegiate Schools of Business (AACSB)
 3. Association of Asia-Pacific Business Schools (AAPBS)
 4. Council for Advancement and Support of Education (CASE)
 5. European Foundation for Management Development (EFMD)
 6. Graduate Management Admission Council (GMAC)
 7. Global Network for Advanced Management (GNAM)
 8. Kellogg Executive MBA Global Network
 9. Partnership in International Management (PIM)
 10. The International University Consortium for Executive Education (UNICON)
- School of Business (cont.):
11. MBA Career Services & Employer Alliance (CSEA) (*from 2017/18 Academic Year*)
 12. Information Systems Audit and Control Association (ISACA) (*from 2017/18 Academic Year*)
 13. CISCO Networking Academy (*from 2017/18 Academic Year*)
 14. Global Business School Network (GBSN) (*from 2018/19 Academic Year*)

15. China Construction Bank (CCB) New Financial Talent Education Alliance *(from 2018/19 Academic Year)*

Interdisciplinary Programs Office:

1. Global Consortium for Sustainability Outcomes
2. Individualized Major Programs Network *(from 2017/18 Academic Year)*
3. Asia Pacific Public Policy Network *(from 2017/18 Academic Year)*
4. Network of Schools of Public Policy, Affairs, and Administration *(from 2017/18 Academic Year)*
5. Centers for Sustainability Across the Curriculum (through the Association for the Advancement of Sustainability in Higher Education (AASHE)) *(from 2018/19 Academic Year)*

Institute for Advanced Study

1. ATLAS Experiment at CERN *(from 2017/18 Academic Year)*

Number of International Alliances by Units

	2017/18	2018/19	2019/20
University Level	16	16	16
School of Engineering	3	3	3
School of Business	13	15	15
Interdisciplinary Programs Office	4	5	5
Institute for Advanced Study	1	1	1
Total	37	40	40

Findings: As part of our internationalization strategy, the University has spared no effort to establish a global network by actively involved in various international alliances at both university and school levels. The number of international alliances has reached a record high of 40 in 2019/20. Going forward, the University will enhance global presence through proactive engagement with our international partners and collaboration on knowledge exchange with wider community.

Metric B: HKUST's performance in world university rankings.

World University Rankings (WUR)	Position in 2018	Position in 2019	Position in 2020
QS - World University Rankings	30	37	32
QS - Asia University Rankings	3	7	8
QS - Top 50 Under 50	2	2	2
Times Higher Education - World University Rankings	44	41	47
Times Higher Education - Young University Rankings	1	1	1
Trendence/Emerging Global University Employability Ranking	16	10	26

By Subject Rankings	Position in 2018	Position in 2019	Position in 2020
Financial Times - Global EMBA Rankings	1	2	1
Financial Times - Global MBA Rankings	14	18	19
Times Higher Education - Engineering and Technology	18	23	24
Times Higher Education - Business & Economics	14	22	23
QS - Chemistry	23	22	29
QS - Material Science	22	23	23
QS - Engineering and Technology	17	18	18
QS - Social Sciences & Management	24	26	33

Finding: In more than two decades, HKUST has rapidly risen in the global academic arena and is consistently rated high in prestigious rankings worldwide. Our continuing success in global rankings reinforces our standing as a leading academic force.

Domain 5: Financial health and institutional sustainability**KPI 1 Approved capital commitment to be funded by non-UGC resources**

(Capital project over HK\$30M only)

University level

Actual	<u>2015/16</u> HK\$'M	<u>2016/17</u> HK\$'M	<u>2017/18</u> HK\$'M	<u>2018/19</u> HK\$'M	<u>2019/20</u> HK\$'M
Approved capital commitment to be funded by non-UGC resources	1,160	1,232	2,215	2,515	2,796

Projection	<u>2020/21</u> HK\$'M	<u>2021/22</u> HK\$'M
Approved capital commitment to be funded by non-UGC resources	876	444

Consolidated level

Actual	<u>2015/16</u> HK\$'M	<u>2016/17</u> HK\$'M	<u>2017/18</u> HK\$'M	<u>2018/19</u> HK\$'M	<u>2019/20</u> HK\$'M
Approved capital commitment to be funded by non-UGC resources	1,160	1,232	2,215	2,515	2,796

Projection	<u>2020/21</u> HK\$'M	<u>2021/22</u> HK\$'M
Approved capital commitment to be funded by non-UGC resources	876	444

Findings: The University continues to fund a significant proportion of its large capital expenditure programme. The projections reflect the progress on the already approved large capital projects and we are expecting to receive capital funding supports on the two new Research Buildings. No new large capital projects are assumed.

Domain 5: Financial health and institutional sustainability**KPI 2 Value of working capital pool / operating cash flow ratio****University level**

Actual	2015/16	2016/17	2017/18	2018/19	2019/20
Value of working capital pool/ operating cash flow ratio	2.7	26.9	11.7	50.0	1.0

Projection	2020/21	2021/22
Value of working capital pool/ operating cash flow ratio	6.8	22.2

Consolidated level

Actual	2015/16	2016/17	2017/18	2018/19	2019/20
Value of working capital pool/ operating cash flow ratio	2.8	18.8	11.3	7.6	1.2

Projection	2020/21	2021/22
Value of working capital pool/ operating cash flow ratio	7.1	24.4

Findings: The University's internal liquidity policy results in this ratio being around 20. Similar to 2015/16, the ratio being low in 2019/20 was due to higher operating cash inflow from new donations together with the 8th matching grant scheme, and therefore the ratio dropped to around 1.0, as contrary to other financial years and the 2020/21 and 2021/22 projections.

Domain 5: Financial health and institutional sustainability**KPI 3 Dollar value of uncommitted UGC and non-UGC reserves****University level**

Actual	<u>2015/16</u> HK\$'M	<u>2016/17</u> HK\$'M	<u>2017/18</u> HK\$'M	<u>2018/19</u> HK\$'M	<u>2019/20</u> HK\$'M
Uncommitted UGC reserves	1,670	1,797	1,832	1,774	2,384
Uncommitted non-UGC reserves	1,237	2,063	1,447	1,467	1,185

Projection	<u>2020/21</u> HK\$'M	<u>2021/22</u> HK\$'M
Uncommitted UGC reserves	2,514	2,690
Uncommitted non-UGC reserves	2,818	3,040

Consolidated level

Actual	<u>2015/16</u> HK\$'M	<u>2016/17</u> HK\$'M	<u>2017/18</u> HK\$'M	<u>2018/19</u> HK\$'M	<u>2019/20</u> HK\$'M
Uncommitted UGC reserves	1,670	1,797	1,832	1,774	2,384
Uncommitted non-UGC reserves	1,236	2,083	1,485	1,554	1,272

Projection	<u>2020/21</u> HK\$'M	<u>2021/22</u> HK\$'M
Uncommitted UGC reserves	2,514	2,690
Uncommitted non-UGC reserves	2,877	3,066

Note:
We have redefined the definition of the uncommitted reserves by taken out the endowment balances from the Matching Grant reserve and include other capital commitments below value of HK\$30 million. Balances in previous years are restated.

Findings: The uncommitted non-UGC reserve (“Free Reserve”) remains healthy at HK\$1-2 billion in past years. The projections reflect a significant drop in capital commitments as we are expecting to receive capital funding supports on the two new Research Buildings. No new large capital projects are assumed.