Technology Transfer Center and HKUST R&D Corporation

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Mr Samuel Wong, TTC Cluster Head (ttsamuel@ust.hk)
Creating Impact through Innovation

**Faculties**

- **University Research**
  - **Invention**
    - 146 New Inventions

**TTC/RDC**

- **IP management**
  - 1,673 Active patents/patent applications *
  - IP landscaping and Technology portfolio

- **Licensing**
  - 117 Active License Agreements #

**Industry Collaboration, Contracts and shareholdings**

- 876 agreements, Turnover of HK$98.2M#

**Spin off with HKUST Technology**

- 46 spin offs

**IMPACT Product/services in the market**

- BGF, TSSSU, E-Fund

**IP management team setup in Sep 2020**

- Strategic IP and portfolio management
- Digital Transformation: IP Management System (IPMS)
- Streamline patent application process and form
- IP landscaping for aggregation-induced emission (AIE) portfolio
- Patent utilization is expected to increase from 35 (3 years average 2016/17 - 2019/20) to more than 40 (2020/21)

**Five Technology Clusters**

- Strategic technology portfolio analysis and setup focus area
- Leading commercialization of HBJRI, HKJRI and HCIC projects
- Setting up online technology marketing and Express Licensing Platform
- HKUST Technology licensed start-ups in TSSSU increased from 6 (3 years average 2017/18 - 2019/20) to 15 (2020/21)

^ 2020/21
* Dec 2020
# 2019/20
HKUST Deep Tech Startup is the key to create impact

• Bridge Gap Fund (BGF) created 4 Technology start-up pipelines
• 15 Technology Start-up companies will receive TSSSU funding in 2020/21
Patent ownership increased 2.75 times higher probability for the success of Startup companies.

Biotech and Software businesses are more sensitive on Patent ownership and success.

Source: Can patent data predict the success of start-ups? By Justus Baron, Maria Fayos Herrera, Yann Ménière and Tim Pohilman (MINES ParisTech 2014)
TTC is continuously supporting HKUST Technology Start-up companies

- 15 awardees (79%) are licensing HKUST Technology, and 5 awardees (26%) were supported by either BGF or PCF
- E-Fund invested Atom Semiconductor and in discussion with Intensel Limited
- Around 60% of TSSSU awardees receives more than HK$0.5M external funding in two years
- Coordination with HKSTP and Cyberport: 57.5% of TSSSU awardees was admitted by HKSTP or Cyberport over last 4 years
Profile of Patents in ICT and Software Related Technology

### Legend
- **AI / Big Data related patents**

### Row Labels

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<tr>
<th>Row Labels</th>
<th>IT</th>
<th>CSE</th>
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**Profile of Patents in ICT and Software Related Technology**

- **Top 3 Contributors in ICT & Software Patents**
  1. Prof. Gary Chan, CSE (22)
  2. Prof QUAN Long, CSE (10)
  3. Prof HUI Pan, CSE (7)
Profile of Patents in AI/Big Data Related Technologies

Top 5 Researchers and Their Contributions:

- Prof. QU Huamin (屈惠民), CSE HKUST: 3 patents
- Prof. YEUNG Dit Yan (楊世仁), CSE HKUST: 2 patents
- Prof. CHAN Shueng Han Gary (陳雙華), CSE HKUST: 2 patents
- Prof. WONG Chi Wing (黃智炯), CSE HKUST: 2 patents
- Prof. SHE Pei Man James (許丕文), ECE HKUST: 1 patent

AI / Big Data Related Patents:

1. No. of Patents: 13
2. No. of Patents Licensed: 5
3. Top 3 AI / Big Data Patent Licensing:
   - Prof. Gary Chan, CSE
   - Prof. Dit-Yan Yeung, CSE
   - Prof. James SHE, ECE

Categories of Contributions:

- Artificial intelligence; Machine learning; Pattern recognition: 3
- Big data; Information visualization: 3
- Data, Knowledge and Information Management: 2
- Other: 1
Profile of Software Disclosure & Licensing

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<td>- Prof. Charles Zhang, CSE</td>
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<td>- Prof. Pascale Fung, ECE</td>
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SOFTWARE DISCLOSURE USAGE (32%)

Licensed, 12

Others, 26

Faculty Member vs Number of SDF - Total 38 nos.
New TTC Initiatives

1. TTC Established IP management team in Sep 2020
   a. **Digitalization of IP management system** (Q3 2021)
   b. Real-time IP analysis and reporting

2. Simplified provisional patent filing (implemented Jan 2021)
   a. TTC will decide/file provisional patent **within 7 days from Invention Disclosure Form (IDF)**
   b. **Simplified 2 page IDF** for provisional patent filing
   c. TTC will pay for filing cost

3. **Online Express Licensing Platform** (Q3 2021)
   a. Target to engage start-up companies in Cyberport and HKSTP
   b. Mainly for **Source Code, Compiled Software and Data Base**
   c. Simple transaction with online payment
   d. Online Technology Marketing
Selected Funding Support from Innovation and Technology Commission (ITC)

Innovation and Technology Fund (ITF) from Innovation and Technology Commission (ITC)
(http://www.itf.gov.hk)

Innovation and Technology Fund

- Innovation and Technology Support Program (ITSP)
  - Guangdong – Hong Kong Technology Cooperation Funding Scheme (TCFS)
  - Public Sector Trial Scheme

- University-Industry Collaboration Program (UICP)

- General Support Program (GSP)
  - GSP – Internship Program
  - GSP – Patent Application Grant

- Enterprise Support Scheme (ESS)
E-Fund targets to invest HK$10M in 2020/21

E-Fund Portfolios: HK$5.4M invested (HK$3M in 2020/21)

- dayta
- ATOM
- SEMI
- Data Engraver
- SPES
- TECH
- SynCoord

Strong Investor Network: E-Fund Co-Investment Partners (> HK$6.8 Billion investment pool)

- Lenovo Capital and Innovator Group
- Alibaba Entrepreneurs Fund
- IDG Capital
- T12M
- SQ CAPITAL
- SPARK VENTURES
- INNO
- RADIANT
- BEYOND VENTURES
- COCOON

- E-Fund reviewed more than 100 projects and routinely re-visit start-ups for developments
- E-Fund established strong co-investor pool, which provides not only funds but experts/strong network with professional guidance/advice.
- E-Fund opens the window to capable and trustworthy investors
Thank you