



Building Mainland China Partnerships at HKUST

Knowledge Exchange Conference
Dec 5-6, 2011
Hong Kong





二十周年校慶
20th Anniversary Celebrations
創·新傳奇
Our Miracle Continues

HKUST has established global distinction as a university of science and technology with a highly international orientation in focus, reach and impact.





HKUST intend to fully leverage on China's ambitious plans and investment in education, in particular in science and technology while at the same time retaining HKUST's international outlook.





Partnerships in China

- Extend our presence and impact in the Mainland, through developing partnerships with selected universities and cities, particularly in Shenzhen and the Pearl River Delta region
- Promoting our brand with the government, public and media, developing relationships with enterprises and entrepreneurs in China






Entities of HKUST established in Mainland



- HKUST Fok Ying Tung Graduate School, Nansha, Guangzhou
- HKUST Shenzhen-Hong Kong Institution - Industry, Education and Research (IER), Shenzhen
- Shenzhen PKU - HKUST Medical Center, Shenzhen
- Zhejiang Advanced Manufacturing Institute, Hangzhou
- HKUST LED Technology R&D Center at Foshan, Guangdong





HKUST Fok Ying Tung Graduate School

HKUST's prominent research and education base for the Pearl River Delta (PRD) region, with the site area of 36,000 sqm and the total floor area of 25,000 sqm.

HKUST Fok Ying Tung Graduate School proposed campus



HKUST Fok Ying Tung Graduate School

Various research centers have been set up on Nansha campus

<ol style="list-style-type: none"> 1. Information & Communications Technology <ul style="list-style-type: none"> ➢ Digital Life Research Center 2. Advanced Materials <ul style="list-style-type: none"> ➢ Center for Engineering Materials and Reliability ➢ Center for Polymer Processing and Systems 3. Biomedical & Biotechnology <ul style="list-style-type: none"> ➢ Applied Genomic Center ➢ Center for Bioengineering and Biomedical Devices 	<ol style="list-style-type: none"> 4. Environment & Sustainable Development <ul style="list-style-type: none"> ➢ Atmospheric Research Center ➢ Center for Green Products and Processing Technologies ➢ Joint Lab for Coastal Observation and Modeling ➢ Building Engineering Research Center
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HKUST Shenzhen-Hong Kong Institution – Industry, Education and Research Base

- Established in August 1999 by the Shenzhen Municipal Government, Beijing University, and HKUST
- A market-oriented, industry-pulling, research-supported platform based in Shenzhen and next to Hong Kong, aiming to practice the triple helix model involving government, industry, academia
- To become a hi-tech base for incubation, venture capital, innovative technology, and training of hi-tech professionals in the Shenzhen-Hong Kong bay area






Shenzhen PKU-HKUST Medical Center

- Jointly established by Peking University (PKU), HKUST and Shenzhen Municipal Government in 2001
- To leverage on the strengths of the two world renowned universities in clinical medicine, education, research and international networking
- Prof Nancy Ip and Prof Mingjie Zhang of HKUST's Division of Life Science currently serve as Deputy Directors of the Medical Center
- MD+PhD dual degree program launched by the Medical Center through the joint efforts of PKU and HKUST in 2001




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New HKUST Shenzhen Industry, Education and Research Building (IER)

- In September 2011, HKUST New Shenzhen IER Building opened, another milestone in HKUST's Mainland development
- A hub through which HKUST drives its long-term development plans and contributes to the economy, research and scientific development in Hong Kong and the region
- Strategically important in strengthening the Shenzhen-Hong Kong Innovation Circle and in nurturing talents
- 10 technology start-ups set up by HKUST faculty, students and alumni in the IER Building



The opening of the New SZ IER Building



HKUST SZ IER Building



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Zhejiang Advanced Manufacturing Institute

- Located in Yuhang Economic Development Zone, Hangzhou City
- Opened in August 2004 and co-established by HKUST, Zhejiang Provincial Bureau of Science & Technology, Yuhang District Government of Hangzhou City
- Research activities cover:
 - mass customization
 - network based design & manufacturing
 - software development service
 - enterprise information integration
 - RFID and applications





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HKUST LED Technology R&D Center in Foshan

- In view of the strength on LED research at HKUST and strong industry base in Foshan, the Foshan Gov't and HKUST has formed a R&D center in Foshan.
- For Phase I, the Foshan Government provided RMB 25M and a space of 1600m2 in Nanhai District
- HKUST will transfer LED packaging and manufacturing technology to local enterprises for further technology development.
- The Center provides services in the areas of:
 - design, simulation
 - product analysis
 - material development and characterization
 - reliability tests and failure analysis
 - reverse-engineering, product qualification and standardization.





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Huawei-HKUST Innovation Laboratory


- Established in April 2009; Huawei's 1st R&D laboratory in HK
- To connect and inspire researchers from both industry and academia
- To explore cutting-edge telecom networks and wireless technologies and other relevant emerging technologies
 - Network Architecture
 - Interference Mitigation
 - Wireless Sensor Network
 - Green Wireless Communication
 - Multimedia Transmission over Wireless Network
 - System Simulation Platform





**State Key Laboratory of Molecular Neuroscience
(I)**

- Establishment of the **State Key Laboratory (SKL) of Molecular Neuroscience** in 2010 as the **1st laboratory** focused on neuroscience research in Hong Kong
- As the foundation for world class research by attracting and nurturing outstanding researchers, as well as providing the platform for scholarly exchanges.
- SKL lies in the multidisciplinary nature of the team – drawing from the expertise of over 20 faculty members in the School of Science
- Research Direction:
 - Neuronal signal transduction pathways
 - Synapse development and plasticity
 - Regulation of neuronal survival
 - Neurodegenerative diseases
 - Learning and memory
 - Drug discovery and development




- **HKUST's efforts in China will be continue to focus on the following four aspects:**
 - **R&D and Education Relationships**
 - **Promoting HKUST in the Mainland**
 - **Recruitment of Mainland Students**
 - **Interaction with Mainland Enterprises**