Anti-heat Stress Clothing Winning Grand Prize and Gold Medal in Geneva’s Invention Expo

The award-winning research project ‘Anti-heat Stress Clothing for Construction Workers in Hot & Humid Weather’ was internationally recognized by the Grand Prize and the Gold Medal at the 44th International Exhibition of Inventions of Geneva.

Under the leadership of Ir Prof. Albert Chan (Principal Investigator), this research team paid strenuous efforts on inventing an anti-heat stress uniform for local construction workers who work outdoors for long hours under hot and humid weather. With excellent one-way transferability and liquid moisture management capacity, the technology is proved to improve fabric breathability, speed up sweat evaporation and help reduce construction workers’ heat stress. In 2015, based on this technology, the Hong Kong Construction Industry Council produced 20,000 sets of the newly designed uniform for workers.

The International Exhibition of Inventions of Geneva is the biggest event for new inventions, services and visitors from all over the world.

(From the left) Ir Prof. Albert Chan and Prof. Francis Wong at the 44th International Exhibition of Inventions of Geneva
This project ‘Anti-heat Stress Clothing for Construction Workers in Hot and Humid Weather’ earned the following achievements.

Team Awards:

- The 44th International Exhibition of Inventions of Geneva: Grand Prize and Gold Medal
  *(under the patronage of the Swiss Federal Government, the State, the City of Geneva and of the World Intellectual Property Organization)*

- CIOB International Innovation & Research Awards 2015: the Innovation Achiever’s Award
  *(organized by Charted Institute of Building (CIOB), UK)*

- Local Grand Prize of CIC Innovation Award 2015
  *(organized by the Construction Industry Council)*

- Hong Kong Institute of Project Management Awards 2015 – The Category F, Research Award
  *(organized by the Hong Kong Institute of Project Management)*

- Dean’s Award for Outstanding Achievement in Technology Transfer 2015
  *(organized by Faculty of Construction and Environment, The Hong Kong Polytechnic University)*

Individual Awards (Jackie Yang, Research Student):

- OSH Student Research Scholarship 2014
  *(organized by the Occupational Safety and Health Council)*

- Best Dissertation Competition 2015 – Merit Award
  *(organized by the HKPolyU Student Chapter of The International Council for Research and Innovation in Building and Construction)*
Research Team:

<table>
<thead>
<tr>
<th>Team Leader (Department)</th>
<th>Ir Prof Albert PC Chan, Department of Building and Real Estate (BRE), PolyU</th>
</tr>
</thead>
</table>
| Team Members (Departments) | Prof Francis KW Wong, BRE  
Dr Michael CH Yam, BRE  
Dr Daniel WM Chan, BRE  
Dr Edmond WM Lam, BRE  
Prof Yi Li, Institute of Textile and Clothing, PolyU  
Dr YP Guo, ITC  
Dr WF Song, BRE  
Dr Wei Yi, BRE  
Miss Y Yang, BRE |
| External collaborators: | Dr Del Wong, the Technological and Higher Education Institute of Hong Kong  
Dr Esther Cheung, HKU School of Professional and Continuing Education  
Prof Joanne Chung, the Hong Kong Institute of Education |

More about the project:  

April 2016