



[Home](#) > [About HKUST](#) > [Media Relations](#) > [Press Releases](#) > **HKUST Wins Silver in Cybathlon – the World’s First Olympics for Bionic Athletes**

HKUST Wins Silver in Cybathlon – the World’s First Olympics for Bionic Athletes

26-10-2016

A team of undergraduate students at the Hong Kong University of Science and Technology (HKUST) has developed a wheelchair which is not only cheap, but is also safe and effective enough to be crowned silver in the powered wheelchair race of Cybathlon – the world’s first “Bionic Olympics”, against competitors including Imperial College of London and ETH Zurich.

Developed by a team of seven HKUST students in just eight months’ time, the wheelchair, driven by pilot Carol Ng Cho-yu from the Hong Kong Federation of Handicapped Youth, finished the race comprising six obstacles – which include stair climbing and crossing uneven surface, in 3 minutes 39 seconds, just five seconds behind the Champion. The team – supervised by Prof Robin Ma, Prof Michael Wang and Prof Christopher Chao from the Department of Mechanical and Aerospace Engineering, is planning to refine and commercialize the product to make it Hong Kong’s most affordable stair-climbing wheelchair.

Prof Wei Shyy, Executive Vice-President and Provost of HKUST, extended warm congratulations to the team. “We are excited that HKUST has achieved remarkable result in the competition, it speaks volumes about our students’ talents and innovative mind, as well as their can-do spirit,” he said.

Held in Zurich on 8 October 2016, Cybathlon is the first international competition that allows disabled competitors to use bionic assistive technology such as robotic prostheses, brain computer interfaces and powered exoskeletons. It attracted 66 teams with over 70 disabled athletes from 25 countries, who competed in six different categories.

Prof Robin Ma said, “I am truly amazed by our team members’ devotion and diligence in this project, we started much later than most of our contestants, and yet they managed to produce this quality product under extremely tight schedule and limited resources, I am very proud of them.”

The HKUSTwheels wheelchair, developed by Chunli Jiang, Gwyneth Sze Ho Lau, Harin Lee, Chengqi Lu, Kenneth Man Kit Suen, Isabel Yan Pui Tai and Rachel Yuet Yee Cheng, is equipped with durable belt system capable of mounting various kinds of terrace. The belt design can solve wheel-jamming problems and prevent the wheelchair from sliding down the stairs. It not only allows stair climbing in a face-forward direction, but its intelligent automatic system also allows the seat to stay at a horizontal level while ascending, offering the user extra comfort and convenience.

The team will spend the next year refining the features, and automatizing most of the parts to minimize the chances of human errors in operation. The team set to limit the price of their final product to two third of that of the comparable models now available in the market.

HKUSTwheels is one of the three Hong Kong teams competed in Cybathlon, they were led by the Hong Kong Science and Technology Parks.

For media enquiries, please contact:

Anita Lam

Tel: 2358 6313

Email: anitalam@ust.hk

Yuki Chung

Tel: 3469 2512 / 5190 7882

Email: yukichung@ust.hk



Prof Robin Ma (back row, third left) and members of HKUSTwheels



The powered wheelchair developed by HKUSTwheels.



Carol Ng Cho-yu passing one of the obstacles in Cybathlon using the HKUSTwheels powered wheelchair. (Photos from ETH Zurich, Photographer: Alessandro Della Bella)