

13/06/2000

HKUST Set New World Standard for Multimedia Communications

A fast motion estimation algorithm developed by multimedia experts at the Hong Kong University of Science and Technology (HKUST) has been internationally recognized as a new standard for MPEG-4 ([Moving Picture Experts Group](#)), the current global standard for multimedia applications.

This is the first time video compression technology developed by Hong Kong researchers has been accepted by MPEG, the committee that also produces international standards for MPEG-1, MPEG-2 and MPEG-4.

MPEG-4 (formal designation ISO/IEC 14496) is an ISO/IEC (International Organization for Standardization /International Electrotechnical Commission) standard developed by MPEG, a working group of the ISO/IEC in charge of developing international standards for the coded representation of digital audio and video.

The standard is widely supported by leading companies such as Microsoft, Sony, Motorola, Intel and Philips.

The new algorithm has been co-developed by Prof Ming Lei Liou, Assistant Professor Oscar Au and PhD student Alexis Tourapis at the Department of Electrical and Electronic Engineering. They have developed a cost-effective technology to compress bulky multimedia data without affecting the overall quality of the images and video. Their technology can be applied worldwide in all encoding products ranging from video cameras, video conferencing, videophones, and video editing, to digital libraries and Internet streaming.

Their hard-won recognition has been gained through a rigorous review process that involved the submissions of multiple rounds of papers, numerous meetings and discussions with sub-committees and working groups, and above all, fierce competition from the other applicants, over a period of 18 months.

"Throughout the long review process, we had to face very tough questioning from more than 300 industrialists, multimedia experts, researchers and engineers. We need to provide the best technical solutions for all possible situations that may arise," said Prof Liou.

Prof Au is coordinating with foreign companies on the possibilities of licensing the new algorithm. "There are many opportunities for commercialization as our technology can be applied to various MPEG products, to reduce their costs and improve their performance," he said.



 [Hi-res image](#) From left, Professor Oscar Au, Alexis Tourapis and Prof Ming Lei Liou.