

## Fong's Industries shows support to University of Hong Kong (HKU) with the donation of HK\$15 million

Fong's Industries Co., Ltd. made a donation of HK\$15 million to the University of Hong Kong to establish the Fong's Research Center for Advanced Mechanical Systems ("FRCAMS") and to sponsor the identified research areas of projects of this research center. The special interview with Fong's Industries Group was conducted at the Opening Ceremony of "FRCAMS" by Ms. Vicky Sung, Textile and Apparel Journalist. PTJ is pleased to include this interview in our dyeing, printing and finishing technology section for the interest of our readers. Ed.

In a simple but formal ceremony, members of the Fong's Industries (Fong's) and the University of Hong Kong (HKU) presented the donation of HK\$15 million by Fong's in support of HKU's Mechanical Engineering Department's applied research in advanced machineries.

Of the \$15 million donation, HK\$7 million was for the establishment of the Fong's Research Centre for Advanced Mechanical Systems (FRCAMS) and the remaining HK\$8 million for the sponsorship of research projects identified by FRCAMS.

Speaking at the opening ceremony, vice chancellor of HKU **Professor Tsui Lap-Chee**, expressed deep gratitude for the generous donation by the donor. "I am extremely grateful to **Mr. Fong Sou Lam**, the Chairman of Fong's Industries Co Ltd., for his long term support," he said. "The close relationship between HKU and Fong's Industries Co. Ltd. over the years is a successful example of university-industry partnership. We look forward to fostering such partnership with various parties in the industry".

"It is HKU's mission to pursue excellence in teaching and research. The setting up of Fong's Research Center has helped the University in realizing our mission. On one hand, the applied research achievements of the Centre will benefit the society as a whole. On the other hand, it will help nurture more research talents in mechanical engineering", he added.

Executive director of Fong's Industries **Mr Bill Fong** spoke on behalf of Fong's Industries Co. Ltd. "It is an honour for us to make this donation and collaboration with such a prestigious and dynamic University. It is our hope that with the establishment of FRCAMS, innovative research and applications can be conducted to benefit a number of industries."

"The University of Hong Kong was the first University in Hong Kong which began in 1911. Even then, the Faculty of Engineering was one of the two founding faculties and therefore it would be difficult to find a better qualified research collaboration partner in this field in Hong Kong or in Asia. The University of Hong Kong, from the rankings of 33rd in 2006, now

ranks 18th amongst the top 200 universities in the world according to The Times Higher Education Rankings in 2007."

"Fong's Industries certainly does not have such a long history nor pedigree compared to the University but following 45 years of business, Fong's has now established itself as one of the world leading producers of textile machinery with over 5,000 colleagues worldwide and under such brand names as Fong's, THEN, Xorella, Goller and Monfongs. Nevertheless, in order to maintain a leading position, we must provide innovative products and solutions to our customers."

Mr Bill Fong took this occasion to share the company's "**Green**" philosophy. "We are seeing great demand from our customers for more environment-friendly solutions for the industry. In order to maintain a leading position, we must provide innovative products and solutions to our customers. Due to ever rising costs of various commodities from energy to base metals and to water, by being an "environmentally conscious company" also means being a profitable company."

He expressed confidence that the Centre will produce meaningful solutions for the industries in Hong Kong, China and throughout Asia and can contribute towards the future strategic development of this great University. It is the hopes of Fong's Industries that the FRCAMS can contribute towards the future strategic development goals of the University of Hong Kong.

Fong's cooperation with the University of Hong Kong dates back to 1999 when it starting sponsoring industrial design projects for the final year undergraduate students of the Department of Mechanical Engineering and individual project research collaborations. Since 2003 Fong's had established a "**Fong's Scholarship and Project Prize**" awarded annually to students in Mechanical Engineering at the University. Over 60 students have benefited so far.

**Professors Soh Ai-Kah**, Acting Dean, Faculty of Engineering and **Tan Sooi-Thor**, Head, Department of Mechanical Engineering also added their voices of deep appreciation to Fong's.

Present at the ceremony besides the abovementioned gentlemen were **Mr Wan Wai Yung**, managing director of Fong's, **Mr Kevin Fong** and **Dr. William Tsui**, executive directors of



Mr. Bill Fong, Executive Director of Fong's Industries Co., Ltd.

Fong's, a number of students who were beneficiaries of the Fong's Scholarship as well as friends in industry and well wishers.

In recent years, Fong's has been acquiring European companies that produce textile machinery and equipment with high quality and intellectual property rights. In addition, Fong's has also extended her businesses to produce and sell precision stainless steel castings all over the world since 1995. Fong's is committed to searching for excellence and innovation in technology with the aim of serving the global markets with competitive products. In order to maintain her leading position in the industry, Fong's was looking for potential universities to set up a research centre in advanced mechanical systems for the development of modern machinery and system plants, especially for dyeing machines, casting products and associated goods. Fong's has decided to collaborate with local universities to establish research arms.

Teaching and research programs in Design & Manufacture, Control & Automation, Materials and Solids, among others, are the strengths and development directions of the Mechanical Engineering Department of HKU. Through a decade of successful project collaboration, the ME Department has established excellent partnership with Fong's. Fong's has shown keen interest to collaborate with the ME Department as she understands that the Department is well-positioned to pursue innovative research in advanced mechanical systems. In light of this, Fong's decided to establish the FRCAMS in HKU.

The donation to HKU is not the only donation Fong's has made to the local universities. On December 20, 2006, Fong's National Engineering Co., Ltd., Hong Kong, a member of Fong's Industries Co., Ltd., made a generous donation of HKD15 million to the Hong Kong University of Science and Technology (HKUST) in support of the University's innovative research and development in advanced materials and processing.

### **Fong's Research Centre for Advanced Mechanical Systems (FRCAMS)**

FRCAMS is a successful example of the partnership between the University and the industry. It will be a unique industrial sponsored research organization taking a leading role in exploring, promoting and conducting applied research for water treatment, dyeing, steelwork and associated manufacturing industries in local and the Asia-Pacific Region. Its mission is to promote and perform applied research on mechanical principles and system design, focusing on the areas of recycling systems, control and automation, machine design and steelwork.

- ❖ To conduct innovative research in new technologies and apply them onto the design and development of new systems for upgrading the dyeing and finishing processes in textile industry, for protecting environment by recovering heavy metals from waste water of electroplating industry, and for promoting new technologies on steel work process in casting industry.
- ❖ To provide consultancy service and transfer new applications and developed technologies to machinery building and associated industries where the Center's research deliverables can be applied.
- ❖ To serve as a training ground for developing young engineers and researchers for the industry.

FRCAMS seeks to conduct innovative research and applications to benefit a number of industries to help in four core areas:-

- ❖ Recover heavy metals from waste water;
- ❖ To significantly reduce water consumption in the textile dyeing process;
- ❖ To minimize energy usage for critical processes in the textile dyeing and finishing areas;
- ❖ To explore new materials and new methods to enhance all kinds of metal or steel-workings in machinery and plant equipments.

### **Eco Focused**

In an interview with **Mr Bill Fong**, he said, "40 years ago, it was common world



Mr. Fong Sou Lam, the Chairman of Fong's Industries Co., Ltd., (left) presents the cheque of a donation of HK\$15 million to Lap-Chee Tsui, HKU Vice-Chancellor Professor.

wide to dye at a "liquor ratio" of about 20 to 1 using a total of 150 litres of water to process 1 kg of fabric and the process time required for each batch of fabric was around 15 hours. Today, our latest machines are able to dye at a liquor ratio of between 4:1 and 5:1 and the process times can be as short as 4.5 hours. Despite the significant advances, we are convinced to bring the liquor ratio and process times even lower. As at this already low liquor ratio, a reduction of 1 unit translates to a 20-25% in water savings and correspondingly savings of other costs such as chemicals, energy and waste water treatment."

"However, an even more significant factor is that we are able to dye textiles and thereby minimize the future impact on the environment given the growing demand to clothe the large populations of the various "soon to be" industrialized nations of China and Asia. And in order to achieve the break through to bring down the liquor ratio and the process times even further, we are required to start pushing the boundaries in today's technology applied in the industry. This requires leading research and expertise in such areas as Chemistry, Physics, Engineering, IT and Controls as well as perhaps Biology as a large portion of textile fibres today are still natural fibres."

Fong's Industries' message of efficient use of water was clearly broadcasted at ITMA 2007. The big banner in front of the main entrance read, "On average the worldwide textile industry is consuming 150 l/kg of water for dyeing – How about using 1/3 or less?" it challenged the industry. Long recognizing the importance of environmental protection of the earth, **Mr S.L. Fong**, the founder and chairman of

the company, set the "Green" initiative for the Group many years ago. "As water availability per capita will be less and less all over the world, green business is good business because it is cost savings", said Bill Fong, executive director of European operation at their press conference.

"It is envisaged that by 2010, Asia's apparel market will equal in size as that of N. America or Europe. If growth continues in the rate it has been going in Asia, every few years, the Asia market will double its size. The availability of water will however become a critical issue. Fong's is taking the initiative to raise the awareness of this important issue and to develop water and energy saving machines. It is estimated that the current installed production in most parts of the world consumes on average 150 litres of water for one kilogram of textile product processed for dyeing. Fong's Jumboflow requires only 50 litres and THEN Airflow only 30-40 litres. When less water is consumed, energy and salts and other costs also come down in the similar proportion. Textile companies are beginning to replace old machines with new eco-machines.

### **Fong's Industries Company Limited**

Founded by Mr. Fong Sou Lam in 1963, Fong's Industries Co., Ltd. has focused on its principal business of design, manufacture and sale of dyeing and finishing machinery with strategic business divisions of stainless steel trading and casting.

Research and development effort is the indispensable factor for maintaining the Group's competitiveness and long-term development. At present, there are more than 100 engineers and technical specialists working in research and development. This group of skilled people collaborates closely on technological research projects with top universities in China, Hong Kong and Europe in order to constantly improve design efficiency and product quality.

The R & D department uses advanced software design tools such as 3-D simulation, finite element analysis, computational flow and heat transfer analysis, static and dynamic structural analysis as well as specialised pressure vessel analysis and appraisal packages to enhance the product design process and technological development. Fong's Industries is determined to pursue its mission to focus on research and development. This will lead to a continuous delivery of competitive products for the world markets and will maintain its leading position in the global textile industry. ♦