



News

The Department of Industrial and Systems Engineering of The Hong Kong Polytechnic University has nurtured thousands of professionals in different areas, including industrial and systems engineering, product engineering, enterprise engineering, logistics engineering, industrial quality management, knowledge management, and technology management for the community since its establishment in 1957.

Many graduates have successfully developed their own businesses and have had remarkable achievements. With their strong technical engineering knowledge and innovative ideas, some of them have received various awards from different organizations in recent years. The following is a success story in product engineering and design.

International Awards in Product Engineering and Design

Fei Walnut Armchair

Organizer : iF International Forum Design GmbH
Title of Award : iF design award china 2009
Year of Award : 2009

The design of the **Fei** armchair was inspired by a flower at the initial stage of its spring blossom. Walnut wood is selected for its rich color, pleasing grain, and heavy density, leading to an impression of cleanliness and aesthetics. Each piece is handcrafted and fitted seamlessly together without any bolts, nuts, or nails. Whether placed in an unfurnished ambience or complemented with other furniture, the Fei armchair is always appealing with its form and function.



Fei SSt/Leather Magazine Rack

Organizer : CBI China Bridge International
Title of Award : 2009 China's Successful Design Award
Year of Award : 2009

The **Fei** Series SSt/Leather Magazine Rack has a modern and smart design with many features, including a pleasing form, strong and clean lines of a stainless steel frame, and endless possibilities for mixing and matching. The SSt/Leather Magazine Rack is part of the Fei Series of furniture that has been well received by the market due to its versatility, stylish design, and value for money.



Recipient of the awards:

Mr Danial Chow

Master of Science in Manufacturing System Engineering (2003)

Email: danialchow@alumni.polyu.edu.hk

Article and photos are provided by Mr Danial Chow.

Membership Drive

The MILES Alumni Association of The Hong Kong Polytechnic UniversitySM (MILESAA) and the Department of Industrial and Systems Engineering (ISE) jointly organized a career talk for all students of the department. The talk was held on 19 March 2010 in Room FJ303 at The Hong Kong Polytechnic University.

The talk provided students with the latest employment information, particularly on qualification and technical requirements, and career opportunities and development.

A member of The Hong Kong Institution of Engineers was invited to discuss with the students the paths to professionalism. To help students to prepare for job hunting, a professional in human resources management was invited to give tips in finding jobs. Individual and group mock interviews were conducted immediately after the talk to familiarize students with the interview process and to give them techniques on how to do well in job interviews. A total of 25 students joined the event and had a valuable learning experience.



Dr Johnny Ng, Chairman of Titanium Group Ltd.



Mr Mike Fung, Operation Director of Hong Kong RFID Ltd.



Mr Ivan Chan, School Ambassador of The Hong Kong Institution of Engineers (HKIE)



Mr K.F. Ng, Senior Human Resources Manager of SAE Magnetics (HK) Ltd.

Photo 1: Dr Benny Cheung, Associate Professor of ISE Department presents souvenirs to the speakers.



Photo 2: A student participates in the individual mock interview



Photo 3: Four students participate in the group mock interview

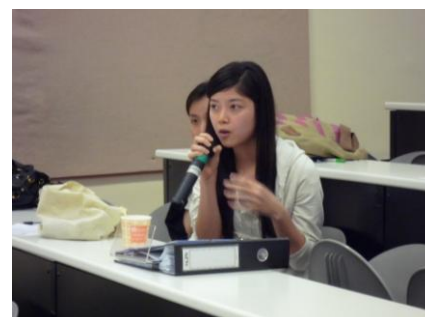
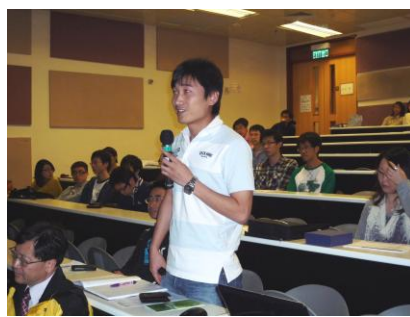


Photo 4: Students actively participate in the talk and mock interviews.

Technical Talk/Visit to Hong Kong Aero Engine Services Ltd. (HKAESL) 19 December 2009 (Saturday)

On 19 December 2009, a technical talk and a visit to Hong Kong Aero Engine Services Ltd. (HAESL) were successfully held. The event was co-organized by the MILES Alumni Association of The Hong Kong Polytechnic UniversitySM (MILESAA) and the Manufacturing and Industrial Engineering Section (MIES) of the Institution of Engineering and Technology (IET) Hong Kong.

A total of 40 individuals, including 9 MILESAA members, 13 students from the Department of Industrial and Systems Engineering of the PolyU, and 18 IET members enjoyed a productive morning in HAESL. In the first part of the tour, a technical talk on aero engine overhaul was conducted by Mr Billy Wong, engineer at HAESL. He not only introduced the aero engine overhaul process but also briefly explained how HAESL succeeds in the improvements in four major areas: business, health and safety, environmental protection, and community services.

In the second part of the tour, Mr Wong and his colleagues guided participants on a tour around the world-class aero engine maintenance facilities. Before the visitors left the plant, they were shown how every engine passed the tests performed in a large flying simulation room, where the group photo was taken.



Photo 2: Participants at the Engine Test Cell of Hong Kong Aero Engine Services Ltd. (HAESL)



Photo 1: Hong Kong Aero Engine Services Ltd. (HKAESL)

In the third part of the tour, Mr Cheung Chung Lai and Mr Chung Wai Leung guided participants on a tour around the Calibration and Metrology Centre of Hong Kong Aircraft Engineering Company Ltd. (HAECO), which is a sister company of and the office of which is adjacent to HAESL. The visit ended with a question and answer session in HAESL.

MILESAA would like to take this opportunity to thank Mr S.S. Lam, Engine Overhaul Manager, and his colleagues Mr Billy Wong, Mr Cheung Chung Lai, Mr Chung Wai Leung, and the others for their valuable contribution to the success of the event.



Photo3: Visiting the test cell control deck, where all engine tests are controlled and monitored



Photo 4: The Module Repair Workshop in the Engine Overhaul Department

Technical Talk/Visit to Hong Kong Aero Engine Services Ltd. (HKAESL) 19 December 2009 (Saturday) (Cont'd)

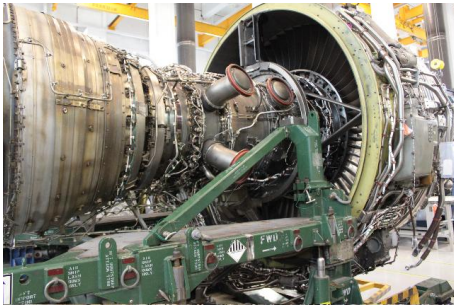


Photo 5: A Trent 500 engine on a transportation stand



Photo 6: Preparing an Intermediate Pressure Turbine for balancing

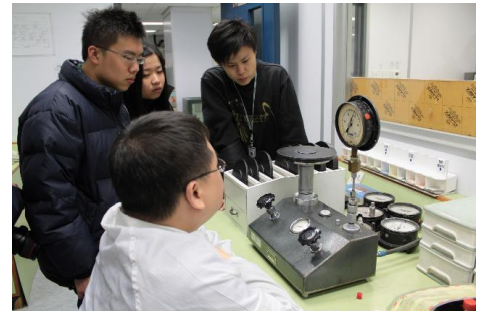


Photo 7: Calibrating a pressure gauge in HAECO Calibration and Metrology Center

Prepared by M.K. Lam

Technical Talk/Visit to KMB Lai Chi Kok Environmental-Friendly Depot 28 November 2009 (Saturday)

On 28 November 2009, a technical talk and a visit to KMB Lai Chi Kok Environmental-Friendly Depot was successfully held. The event was co-organized by the MILES Alumni Association of The Hong Kong Polytechnic UniversitySM (MILESAA) and the Manufacturing and Industrial Engineering Section (MIES) of the Institution of Engineering and Technology (IET) Hong Kong.

A total of 20 members enjoyed a fruitful morning in The Kowloon Motor Bus (KMB) Lai Chi Kok Depot. The Lai Chi Kok Depot is responsible to handle all buses in the Kowloon West District. It obtained ISO14001 certification from May 2003, making it the second accredited bus depot after Sha Tin Depot. The depots are equipped with waste water treatment systems. Chemicals are added to separate solid impurities and pollutants from the waste water that is produced during the daily operations of the depots. In addition, KMB depots are equipped with water recycling facilities and environment-friendly fire service systems.



Photo 1: Participants at the KMB Lai Chi Kok Depot.

In the first part of the tour, a technical talk on the Depot was conducted by Mr Mui. In the second part of the tour, Mr Mui guided participants to tour around their services and facilities. In the tour, Mr Mui introduced the fuel system and bus body cleaning system, in which water is recycled to be used. The visit ended with a question and answer session.

Prepared by M.K. Lam

Technical Talk/Visit to Lamma Power Station 16 January 2010 (Friday)

A technical talk held in and a tour around the Lamma Power Station was successfully held on 16 January 2010. The event was organized by the Institute of Measurement and Control - Hong Kong Section (InstMC) and supported by the MILES Alumni Association of The Hong Kong Polytechnic UniversitySM (MILESAA).



Photo 1: A total of 28 members and engineering students joined the tour.

Twenty-eight members of InstMC and MILESAA, and engineering students participated in the tour. In the first part of the tour, a representative of the Lamma Power Station gave a brief introduction on the history and development of the station. The Lamma Power Station has a total installed capacity of 3,736 MW with eight coal-fired units, five gas turbine units, one wind turbine, and two combined cycle units. The station was developed in three stages. The station was expanded for housing additional combined-cycle gas turbine units. The first gas-fired combined cycle unit was commissioned in 2006.

After the technical talk, the participants were guided on a tour around the Central Control Room, Turbine Hall, and Boiler House. A representative of the Lamma Power Station introduced the operation of the station and the environmental measures adopted at the station to reduce emissions.

Natural gas is used as the primary fuel for the generating units in the extension. It is environment-friendly because it produces minimal sulphur dioxide and respirable suspended particulates, and less nitrogen oxides and carbon dioxide after combustion. The combined-cycle technology also has higher efficiency, that is, it produces more electricity with the same amount of heat.



Photo 2: Participants at the Lamma Power Station

MILESAA would like to take this opportunity to thank the people from the Lamma Power Station for their hospitality and their valuable contributions to the success of the event.

Cross-border Technical Talk/Visit to Watch Manufacturers in Dongguan 23 January 2010 (Saturday)

On 23 January 2010, a technical talk in and tour around Dongguan to observe how watch manufacturers work was successfully co-organized by the MILES Alumni Association of The Hong Kong Polytechnic UniversitySM (MILESAA) and the Manufacturing and Industrial Engineering Section (MIES) of the Institution of Engineering and Technology (IET) Hong Kong.

Thirty-eight individuals, including 20 MILESAA members and 18 IET members, enjoyed a productive day in Dongguan. In the morning, the participants went to Silcon Electronics Co. Ltd., which has been engaged in the production of timepieces since 1979. In the first part of the tour, a technical talk on watch and clock manufacturing was conducted by Dr Kenneth Ng, Managing Director, and Mr Henry Ng, Assistant Manager. They explained the principle of a global radio-controlled clock. In the second part of the tour, their colleagues guided the visitors on a tour around the clock manufacturing plant.

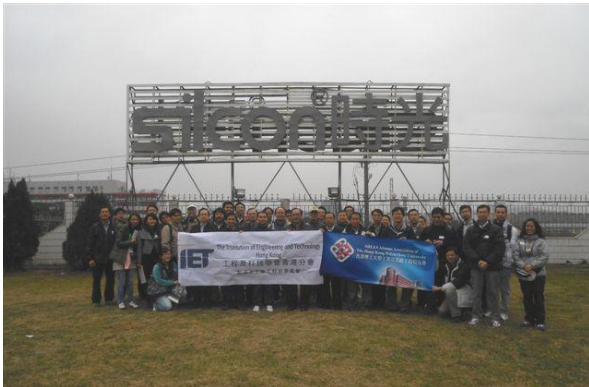


Photo 1: Participants in a group photo at the entrance of Silcon Electronics Co. Ltd.

In the afternoon, the participants went to Kelvin Precision Products Co. Ltd., an SME in watch manufacturing. Mr Stephen Yu, Managing Director, and Ms Neera Fung, Assistant Manager, guided the participants on a tour around the watch manufacturing plant. After the tour, Mr Yu shared his valuable experience in managing an SME in watch manufacturing.



Photo 2: Participants at the entrance of Kelvin Precision Products Co. Ltd.

MILESAA would like to take this opportunity to thank Dr Kenneth Ng and Mr Henry Ng of Silcon Electronics Co. Ltd., Mr Stephen Yu and Ms Neera Fung of Kelvin Precision Products Co. Ltd., and their colleagues for their valuable contribution to the success of the technical talk and tour.



Photo 3: Participants gather in the conference room at Silcon Electronics Co. Ltd.



Photo 4: Inspection of the product

Cross-border Technical Talk/Visit to Watch Manufacturers in Dongguan 23 January 2010 (Saturday) (Cont'd)



Photo 5: CNC machine for wood working



Photo 6: Sheet metal stamping in progress



Photo 7: Testing in progress

Prepared by M.K. Lam

Forthcoming Activities

Date	Activity
1 May 2010	Visit to GeoPark (東壩六角柱地質之謎)
14 May 2010	Technical Talk/Visit to The Government of the HKSAR Standards and Calibration Laboratory
15 May 2010	Technical Seminar for Engineering Design of Electrical, ELV and Vertical Transportation Installation for International Commerce Centre (ICC)
29 May 2010	Technical Seminar on Innovation Technology for Product Development

Our Latest Achievements

Awards received by the academic staff

“An Innovative Micro Injection Moulding Machine” China International Industry Fair 2009 – Innovation Prize

Principal members of the project team:

Prof. K.L. Yung, Prof. H.C. Man, Dr C.Y. Chan, Dr Sandy To, Dr K.H. Lau, Dr K.S. Lau, Dr. F. Y. Kwan, Dr K.F. Tam, Mr Simon S.H. Wong, Mr Zec Z.L. Chen, and Ms Nicole C.W. Chan

Invented by Prof. K. L. Yung and his development team from the Department of Industrial and Systems Engineering, an innovative micro-injection moulding machine has received several international awards, including the 2009 China International Industry Fair and Innovation Prize. It was patented a few years ago.

Today, product miniaturization in bioengineering, computers, communication, and industries, such as consumer electronics and micro-electro-mechanical systems, is employed increasingly for high precision micro plastic parts and components, such as micro pumps, micro nozzles, medical parts, micro lenses, and optical connectors. The most cost-effective method of manufacturing these parts is by micro-injection moulding. The innovative micro-injection moulding machine provides a new and effective solution, which involves the use of metrology principles to integrate mechanical, electronic, and computing techniques, coupled with an innovative valve-less design and the world’s first bottom-up injection method to achieve the high-precision moulding requirements necessary for the manufacture of products with microfeatures.



Photo 1: Micro Injection Moulding Machine

“Ultra-precision Machining Technology of Freeform Optics and its Applications” Ministry of Education Awards 2009 - Technology Progress Award (Second Class)

Principal members of the project team:

Prof. W.B. Lee, Dr C.F. Cheung, Dr Sandy To, Dr J.B. Jiang, Mr L. B. Kong, and Dr W.K. Wang

In the Advanced Optics Manufacturing Centre, Department of Industrial and Systems Engineering, Prof. W. B. Lee and his project team conduct research on the development of the design and manufacturing capability of freeform elements

and optical microstructures for photonic and telecommunication products. The project team has successfully developed a novel design methodology of freeform optics and built a 3D surface topography model to predict nanometric surface roughness, creating a tool path generator for ultra-precision freeform machining as well as establishing an integrated system for designing and efficiently manufacturing freeform optical components.



Photo 2: Mr Li Ling, Deputy Director General of Education, Science and Technology Department, Liaison Office of the Central People’s Government in HKSAR (3rd right) presents the award certificates to the project team members during the presentation ceremony.

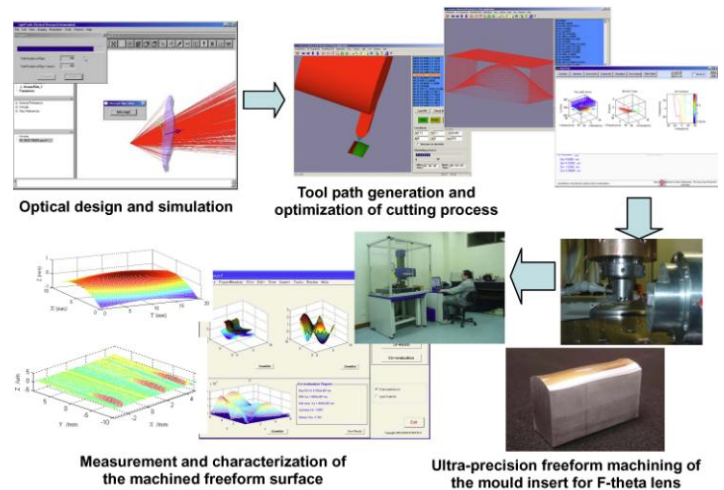


Photo 3: Fabrication of the freeform F-theta lens for laser scanners using the integrated system developed by the project team

These achievements meet international standards and fill the gap in freeform machining and measurement technology in Mainland China. The project team has published more than 100 journal papers as well as three technical books. It has also achieved six patents and received international awards. The team has successfully completed more than 500 consultancy projects for various industrial companies.

Our Latest Achievements (Cont'd)

Award received by students

Silver Award for the Hong Kong RFID Awards U-21 RFID Awards 2009

Project Supervisors: Dr S.K. Kwok, Mr Ting Siu Lun

Members of the project team: Mr Cheung Wai Lan, Miss Leung Ka Man, Miss Ng Suk Yee, and Mr Wong Chi Kit

Four undergraduate students of the Department of Industrial and Systems Engineering of The Hong Kong Polytechnic University were honored to receive the Silver Award for the Hong Kong RFID Awards U-21 RFID Awards 2009 (Undergraduate Stream). This first-ever awards event was organized by GS1 Hong Kong, a non-profit, industry-led organization established to promote global standards, best practices, and enabling technologies in the field of global value and supply chain management. It is open to

both full-time and part-time undergraduate and postgraduate students of local tertiary institutions.

The winning project was the “RFID-based Drug Management System (DMS) for Medical Organizations.” It aims to improve drug safety and patient safety in hospitals and clinics. Under Dr Kwok Siu Keung’s supervision, the students devised an RFID-based DMS that modifies clinic operations by tracking drugs throughout the replenishing and dispensing processes. The system can detect whether the drugs are put in the correct container, supply users with real-time drug information, and issue alerts about expiry dates. The system’s special features, such as images of drugs and information on contraindications and interaction alerts, can raise the awareness of users on the characteristics and potential problems of individual drugs.



Photo 1: (From left) Project Supervisors: Mr Ting Siu Lun, Dr Kwok Siu Keung and students: Miss Leung Ka Man, Mr Wong Chi Kit



Photo 2: Demonstration of RFID-based Drug Management System (DMS) for Medical Organizations

State Key Laboratory in Ultra-precision Machining Technology

Critical precision components play an important role in the field of photonics, telecommunication, aerospace, and information technology. Ultra-precision machining technology (UPMT), based on Single-Point Diamond Turning (SPDT) and multi-axis freeform machining, is one of the critical research areas in the manufacturing technology of advanced optical components and precision mechanical parts. Prof. W.B. Lee and his project team (Photo 1) at The Hong Kong Polytechnic University have conducted a considerable research on ultra-precision machining technology since 1990 and established the Ultra-precision Machining Centre in 1995 (Photo 2).



Photo 1: Prof. W. B. Lee (front 3rd right), Dr C. F. Cheung (front 4th right), Dr S. To (front 2nd right) and the project team members

Our Latest Achievements (Cont'd)

State Key Laboratory in Ultra-precision Machining Technology (Cont'd)

The Centre is the first of its kind in Southeast Asia and is a pioneer in the ultra-precision freeform machining of freeform surfaces and optical microstructures for photonics and optics industries. At present, the Centre is one of the most strategically important research centres for ultra-precision machining technologies and advanced optics manufacturing in Southeast Asia and Mainland China. The project team has succeeded in the development and application of SPDT and ultra-precision freeform machining technology.

In recognition of their achievements, the Ministry of Science and Technology has approved the establishment of the **State Key Laboratory in Ultra-precision Machining Technology 超精密加工技術國家重點實驗室 (SKL in UMT)** in Hong Kong. The SKL will collaborate with the State Key Laboratory of Precision Measurement Technology and Instruments of Tsinghua University and Tianjin University as a partner laboratory.

The objective of the laboratory is to aid in the conduct of research in UPMT and nano-surface metrology to enhance the capability of Hong Kong and Mainland China in the design, fabrication, and measurement of advanced optics and critical precision components. The main research areas (Photo 3) include micro and nano-machining mechanics and technologies; advanced processes and technologies in ultra-precision machining; energy efficient lighting technology based on freeform optics; advanced optics in aeronautics, astronautics, illumination and imaging

technologies; multi-functional and bionic structured surfaces; and the development of facilities, equipment, and standards in ultra-precision machining and freeform surface metrology.

The successful establishment of the SKL in UMT demonstrates the significant influence and visible success of PolyU in pushing the frontiers of research connected with UPMT in the international arena.



Photo 2: Advanced Optics Manufacturing Centre incorporated with Ultra-precision Machining Laboratory

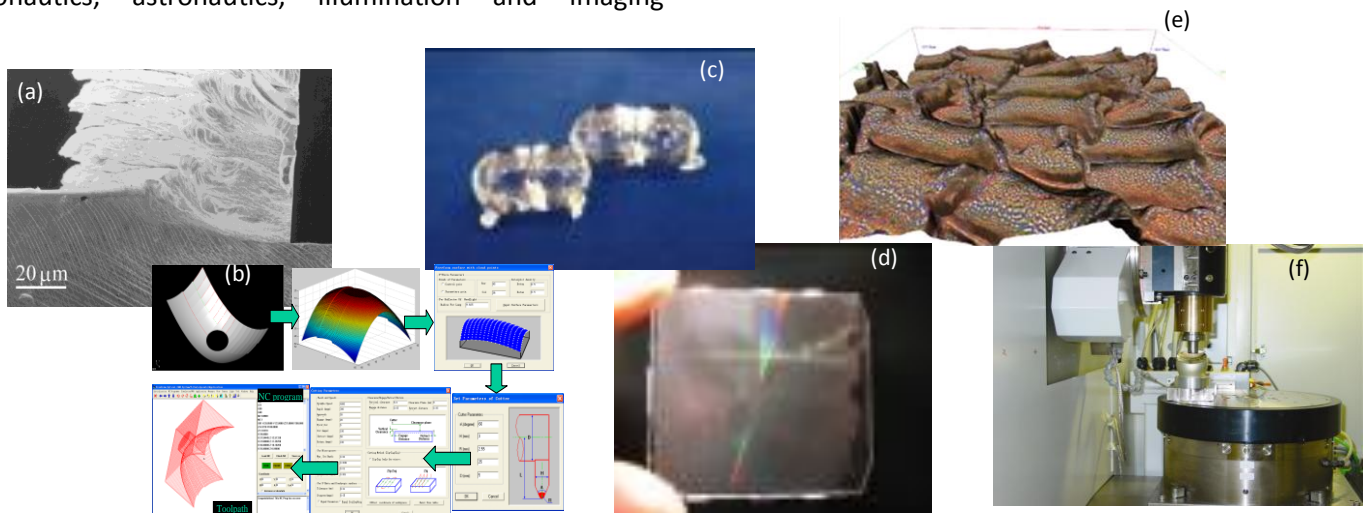


Photo 3: The main research areas of the State Key Laboratory in Ultra-precision Machining Technology:

- a) Micro and nano-machining mechanics and technologies
- b) Advanced processes and technologies in ultra-precision machining
- c) Energy efficient lighting technology based on freeform optics
- d) Advanced optics in aeronautics, astronautics, illumination and imaging technologies
- e) Multi-functional and bionic structured surfaces
- f) Development of facilities, equipment and standards in ultra-precision machining and freeform surface metrology

15th Congregation for the Faculty of Engineering

The 15th Congregation for the Faculty of Engineering was successfully held on 4 November 2009. A total of 7 PhD graduates, 140 postgraduates and 363 undergraduates of the Department of Industrial and Systems Engineering were awarded this year.

Doctor of Philosophy Graduates (in alphabetical order)



Dr AU Kin Man

Project Title: Conformal Cooling Channels Design for Rapid Plastic Injection Moulding

Dr CHAN Chiu Cheung

Project Title: Capturing, Maintaining and Sharing the Design Rationale within a CAD Environment



Dr NG Ka Wai

Project Title: Enhancement of Fretting Wear and Corrosion Resistance of NiTi Medical Implants by Laser Surface Modification Technologies



Dr WANG Wai Ming

Project Title: A Generic Individualized Computational Organization Model for Organizational Learning



Dr WONG Seng Fat

Project Title: A New Knowledge-based ERP for Partnership Development in Service Industry



Dr WU Yongzhong

Project Title: Optimization of PCB Assembly Planning in a High-Mix Production Environment



Dr YUEN Kam Fung

Project Title: A Fuzzy Qualitative Evaluation and Reasoning System for Decision Analysis



15th Congregation for the Faculty of Engineering (cont'd)



15th Congregation for the Faculty of Engineering (cont'd)



Light Peak Technology

We are delighted to report the latest achievement in communication technology called Light Peak, which was co-developed by Intel Corp. and SAE Magnetics. Distinguished alumni Dr Raymond Leung is the co-founder and currently serves as the Chairman of the company. SAE Magnetics is a wholly-owned subsidiary of TDK Corporation and is the largest independent magnetic head supplier of the world's hard disk drive industry, with an annual turnover of over USD2 billion. Under Raymond's leadership, the company has successfully branched out into other technology businesses, such as energy, wireless, and wireline communications. Light Peak is one such example.

Light Peak

Light Peak is spearheaded by Intel, and SAE was invited to be one of the two optical transceiver module developers for the technology. It is a new, high-speed optical technology designed to connect electronic devices, such as PCs, TVs/monitors, cell phones, mobile internet devices, and so on, to each other. Starting at 10 Gb/s and with the ability to scale to a higher data rate in the next generation, the technology will greatly improve the delivery of information and other bandwidth-hungry applications over the optical fiber. For instance, a full-length Blu-Ray movie may be transmitted in less than 30 seconds. Compared with traditional optical transceivers, the new technology claims to cost at least a factor of 10 cheaper, a much smaller form factor, and to require a much reduced power consumption. From the days of tens of thousands of people sharing a single transoceanic, optical fiber for telephony to the current hundreds of people enjoying video and internet delivery via the fiber-to-the-building mechanism, the Light Peak technology will further commoditize the optical communication technology, resulting in one or multiple fibers per individual in high-speed networking. This will take place within the next decade.

How the Technology Works

Light Peak consists of a controller IC linking the microprocessor on one end and an optical module on the other. The controller IC streams signals of a variety of protocols (e.g., display port, Ethernet, USB, etc.) to the optical module at which the electrical signals are converted to intensity modulated optical beams using miniature laser. The optical signals are then coupled to a multi-mode optical fiber through a system of optical lenses. At the receiving end, the reverse process occurs with optical signals being converted back to electrical signals through a photodiode. There are two duplex 10 Gb/s channels for each optical module supporting a total aggregated bit rate of 40 Gb/s. While it seems that there is little change on the optical communication principle, the technology behind the success is tremendous, particularly in the manufacturing technology, where tolerances and new processes are introduced to make the module inexpensive and thus affordable to the targeted consumers.

Light Peak exemplifies the advancement of fiber optics technology, the entire field of which was invented by Prof. Charles K. Kao, the 2009 Nobel Laureate in Physics for his pioneering work in fiber optics. In the technology business world, it is also one of Dr. Leung's visions that fiber optics will penetrate into the consumer electronics world. Dr. Leung has long been recognized as a relentless promoter and supporter of local, high-tech business and education.

Further Reading

http://en.wikipedia.org/wiki/Light_Peak

[http://hr.sae.com.hk/doc/Light%20Peak%20\(Eng\).html](http://hr.sae.com.hk/doc/Light%20Peak%20(Eng).html)

<http://specials.mingpao.com/cfm/News.cfm?SpecialsID=204&News=8a658ccfe8e4539b8a8c44dd26b340919b9d5544a2bf1082a91758dd2eb7>



Photo 1: Dr Raymond Leung (1st left with Prof. and Mrs. Charles Kao (2nd & 3rd left), the 2009 Nobel Laureate in Physics and the Father of Fiber Optics.

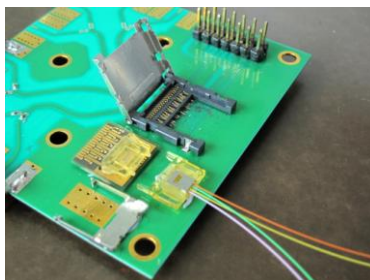


Photo 2: Close up of the optical module and the jumper cable

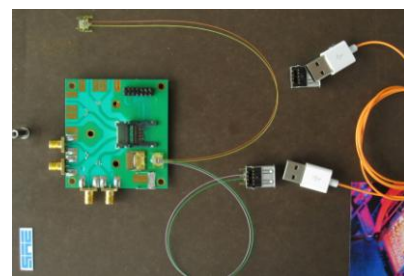


Photo 3: Light Peak optical module showing the 2 full duplex channels connected to modify USB connectors.

Article and photos are provided by SAE Magnetics (HK) Limited.

RFID Temperature Logger for Cold Chain Management

"It is the ultimate package for secure assets tracking and optimal cold chain management."

ThermAssureRF is the combination of the best electronic sensor and advanced micro-chip and wireless technologies. Our alumni, Mr Patrick Yuen of Mitochon Technology Limited is pleased to share such state-the-art-technology to fellow alumni and engineering students. Mitochon is the sole distributor of ThermAssureRF technology in Hong Kong. The ThermAssureRF temperature sensor is a credit card-sized, flexible, 100 percent water-resistant, and stand-alone temperature recorder that allows the easy monitoring of temperature fluctuations over time during shipment and storage of goods. Cable-free, it allows easy and user-friendly wireless data retrieval.

Programmable Semi-Passive RFID Temperature Sensor

This device is a 4,000-point temperature data logger (-45°C to +110°C). Its memory can be freely allocated to register temperature, information, and ePC 96-bit code. This feature defines ThermAssureRF as a smart-tag and as a true platform of traceability information.

The tags work on passive RF and are thus compliant with FAA and FDA RFID requirements. They can be kept for three years in inventory in a power conserving "sleep" mode until they are required. A simple push button system activates the tag to begin monitoring the contents of a refrigerated package. The tags are capable of receiving programmable temperature thresholds through two-way RFID communication. In the event of a temperature excursion (e.g., >10 min exposure >8°C), the tag is programmed to display a warning light to the end user, showing that an excursion point has been reached. The ThermAssureRF system offers attractive, price-performance options, including inexpensive, disposable, and re-usable specialty tags.

ePC™ Code Ready

The tag can be programmed with an actual ePC code or tagged with a standard ISO barcode or any other traceability standard.

The tag offers true cradle to the grave temperature tracking.

The ThermAssureRF is also a powerful data logger, offering a curve (graph) analysis of time versus temperature, as well as a visualization of temperature excursions (temperature abuse) over time.

A fundamental benefit and difference of ThermAssureRF with standard disposable logger is that it allows limitless downloads. The disposable version of the logger can be downloaded over and over even without being reformatted or reused, meeting the requirements of many insurance companies.



X2: WORLD'S FIRST USB AND RFID TEMPERATURE LOGGER

Revolutionize Your Cold Chain!!



MITOCHON
www.mitochon.com.hk



Mr Patrick Yuen

Year of graduation: 1999

Title of award: BEng (Hons) in
Manufacturing Engineering

Article and photos are provided by Mr Patrick Yuen, Mitochon Technology Limited.

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