

## Biomedical Discipline Advisory Panel

With the endeavours of many senior members of the Biomedical Division and the support of the Q & M Board, the Council endorsed the resolution of the formation of a Biomedical (BME) Engineering Discipline and also approved in principle the Model Training Guide for setting up of training programme in Session 2005/2006.

The Biomedical Discipline Advisory Panel was formally established with the Council's approval for the list of the founding Panel members in January 2005. The Panel has deliberated and reviewed issues related to qualifications, membership, education, training and accreditation of engineering courses. The major work of the Panel for the Session was to provide advice and support for the establishment of Scheme 'A' training for the BME Discipline engineering graduates. We are pleased to report that the first Scheme 'A' training company was approved for the BME Discipline. It is expected that more prospective companies will join the Scheme 'A' in the coming Session.

The Panel will continue to collaborate with the Biomedical Division to promote membership to make the HKIE a home for professional biomedical engineers.

## Building Discipline Advisory Panel

The Panel's challenging tasks during the Session included the negotiation of the mutual recognition of Supervising Engineers (監理工程師) under the Ministry of Construction (MOC) and the HKIE Members of Building Discipline (MHKIE (BUD)), and mutual recognition with the Chartered Institute of Building (CIOB), UK.

On the mutual recognition with the Supervising Engineers under the Closer Economic Partnership Arrangement (CEPA), several rounds of talks were held with the MOC in Beijing and agreement on fundamental principles was reached. The Ministry also suggested the Discipline to look into mutual recognition arrangements with the Constructors (營造師).

Talks with the CIOB were successful and the first examination for members of both groups to seek mutual recognition is expected to take place later this year.

The Panel also approved two building engineering degree courses offered by the Hong Kong Polytechnic University and the City University of Hong Kong to meet the increased intake demand for building engineers. In addition to the course offered by the City University of Hong Kong, the School of Professional and Continuing Education of the University of Hong Kong also has courses approved in topping up the academic requirements for Discipline membership.

The Panel continued to collaborate with the Building Division by arranging joint functions and visits. A reception was held in March 2005 for all Scheme 'A' engineering supervisors to revisit the training scheme and the professional examinations.

Statutory requirements of the MHKIE (BUD) under the revamped Buildings Ordinance and the new Code of Practice remain unchanged. The Building Discipline members' general level of statutory involvement is expected to continue to grow.

## Building Services Discipline Advisory Panel

In the 2004/2005 Session, the Panel updated the Building Services Core Objective for Scheme 'A' training and reviewed the Reciprocal Recognition Agreements with the Chartered Institution of Building Services Engineers and Institution of Engineers, Australia. It also prepared suggestions on changes to the relevant ordinances, regulation and code of practice for the wider use of Registered Professional Engineers (R.P.E.) and Registered Building Services Engineers.

The Panel, which provides advice and support to the Q & M Board and associated committees, prepared suggestions for the establishment of a Fire Services Discipline and supported the Education & Examinations (E & E) Committee in the assessment of the academic qualifications of individual applicants.

## Chemical Discipline Advisory Panel

The Panel continued to advise and support the Q & M Board and associated committees on matters relating to membership qualifications, training and education. The Panel also promoted Scheme 'A' training to local companies and graduates.

## Civil Discipline Advisory Panel

During the Session, Panel efforts focused on the administration of the annual professional assessment for over 200 applicants who aspired to qualify as Corporate Members in the Civil Discipline. The Panel also provided advice to the Q & M Board and associated committees on matters related to education, training, professional qualifications and membership admission. It also advised the Engineers Registration Board on the registration of professional engineers.

A pilot training scheme (Scheme 'A') leading to Associate Membership was instituted and launched during the Session.

In the area of inter-institutional affairs, work on the revamping of the Reciprocal Recognition Agreement with the Institution of Civil Engineers in the UK continued. This will rationalise the membership class and admission requirements under the UK's new Standards and Routes to Registration (SARTOR) system. Further talks were held with the view to merging annual professional assessments undertaken by both institutions in Hong Kong.

### **Control, Automation & Instrumentation Discipline Advisory Panel**

The HKIE and the Institute of Measurement and Control (InstMC) have signed a Reciprocal Recognition Agreement that enables HKIE members to join the InstMC. During the 2004/2005 Session, membership of the Control, Automation & Instrumentation (CAI) Discipline increased by 6%. The Panel met three times to discuss issues relating to the Discipline. A panel member also participated in the accreditation of the Aircraft Maintenance Engineering Course offered by the Hong Kong Institute of Vocational Education (IVE) in February 2005.

A meeting between the CAI Discipline and the Chinese Automation Association (CAA) on Reciprocal Recognition was held at HKIE Headquarters in November 2004. An HKIE working group was formed and continued to work on this issue. Further meetings with senior members of the CAA were held in January and March 2005 and the way forward for reciprocal recognition was agreed with the CAA. A Letter of Intent was officially signed in Beijing in March and further satisfactory progress is being made.

The Panel's success throughout the Session was the result of commitment and support from all Panel members.

### **Electrical Discipline Advisory Panel**

The Panel offered views and comments on the Reciprocal Recognition Agreement with the Institution of Electrical Engineers (IEE), UK, during the Session.

It also studied the qualification requirements for graduates with degrees that do not match the Discipline requirement or which have inadequate core subjects. To enable more graduates to qualify for Scheme 'A' training, the Panel agreed to accept candidates from an engineering degree course that meets only 60% of the requirements for the Discipline. Candidates must, however, complete two top-up courses during the training period.

The Panel established a working group to work with the Mainland's MOC on the reciprocal recognition of professional qualifications between Mainland and Hong Kong Electrical Engineers. The Panel also attended meetings with the Environment, Transport and Works Bureau (ETWB) in Hong Kong and with ETWB/MOC in Beijing. Despite slow progress, the Panel will continue to work towards formalising the reciprocal recognition of professional qualifications for Electrical Engineers.

Throughout the Session, the Panel continued to support the Q & M Board and its related committees.

The Institution currently has 100 Fellows and 1,100 Corporate Members in the Electrical Discipline.

### **Electronics Discipline Advisory Panel**

The Panel has actively promoted membership in a focused and effective way during the Session as well as focusing on its routine activities which include the professional assessment of applications for the membership, the assessment and re-assessment of Scheme 'A' training and reviews of the Core Objectives and the Model Training Guide for Scheme 'A' training. The Panel, together with the Electronics Division, conducted a symposium at the Hong Kong Science and Technology Park (HKSTP) Corporation in November 2004. Overwhelming responses were received from technical staff of the tenant companies of the HKSTP Corporation in the related fields of electronics, optics, electro-thermal and telecommunications. Over 13 applications for assessment for Discipline membership were received and more applications are expected. This approach has proved to be successful and the Panel plans to organise similar membership promotion activities to large corporations.

The Panel also puts effort in attracting student members, who will become the new breed of professional electronics engineers, to join the Discipline. With the full support from the Electronics Division, the Panel has given professional career development talks to electronics engineering students from all local universities. Regarding the Scheme 'A' training companies of the Electronics Discipline, three new companies have joined the Scheme. There are a total of 19 companies participating in the Scheme 'A' training programme of the Electronics Discipline. The number of degree programmes relevant to the Electronics Discipline has also been increased to 17.

## Environmental Discipline Advisory Panel

The Panel actively promoted membership growth during the Session and four of eight membership applications were successful. By March 2005, there were 222 Corporate Members and Fellows and three Associate Members in the Discipline. The Panel was actively involved in qualification and membership activities including the professional assessment of applicants, the assessment and re-assessment of Scheme 'A' applications and the accreditation of degree courses.

The Core Objectives for Scheme 'A' training were reviewed and updated to bring them in line with current developments in environmental engineering training. The Model Training Guide for Scheme 'A' training of environmental engineering graduates has also been updated.

The Panel further reviewed and formalised the guidelines for the assessment of top-up training for non-recognised first-degree graduates who are interested in applying for Corporate Membership of the HKIE. The guidelines for the assessment of mismatch degree cases applying to join Scheme 'A' training were also revisited and formalised, enabling the Panel to assess whether candidates are acceptable for formal training under an approved training programme.

Greater lobbying efforts will be required to obtain wider use of R.P.E. (Environmental) in environmental legislation. Attempts to obtain Government recognition of the professional status of members in this Discipline were not successful during the year, partly because the use of R.P.E. (Environmental) is not considered a priority within the administration.

## Gas Discipline Advisory Panel

The Panel held two meetings during the 2004/2005 Session to discuss a number of important issues. At other times members communicated and discussed ad hoc issues through emails.

During the Session, the Reciprocal Recognition Agreement with the Institution of Gas Engineers and Managers (IGEM) was reviewed and renewed. The Panel also took the initiative to develop internal guidelines for decision making on the eligibility of mismatch degree cases for joining the Gas engineering Scheme 'A' training programme. The aim is to maintain consistency in the assessment process.

Panel Members continued to actively participate in the Q & M Board, Registration Committee of the Engineers Registration Board (ERB), PAC, E & E Committee, Training Committee and Training Review Sub-committee to provide advice on matters relating to qualifications, membership, reciprocal recognition, professional assessment, education, training and accreditation of engineering courses.

## Geotechnical Discipline Advisory Panel

The Panel met bimonthly, providing advice and support to the Q & M Board and associated committees on matters relating to membership, education, training, professional assessment and reciprocal recognition. It assisted in negotiations with the Mainland on the reciprocal recognition of Geotechnical engineers.

The Panel formed a working group to review the education requirements of Earth Sciences graduates to join as members of the Geotechnical Discipline. The objectives of the working group are to clarify the academic requirements and to make the information ready for Earth Sciences graduates who aspire to join the HKIE. It also assisted the Q & M Board to assess course modules proposed by the Department of Earth Sciences of the University of Hong Kong to meet the education requirements of the Discipline.

## Information Discipline Advisory Panel

During the Session, the Panel continued to enhance the IT profession and to provide advice to the Q & M Board and associated committees on matters related to education and examinations, training, membership and professional qualifications.

Following the Memorandum of Understanding signed between the HKIE and the Hong Kong Computer Society (HKCS), a Reciprocal Recognition Agreement was prepared and subsequently approved by both the Q & M Board and the Council. This Agreement will serve as an important milestone in the relationship between these two key IT professional bodies in Hong Kong.

The Panel continued to coordinate with different IT professional bodies in Hong Kong on the Working Group for Registration System for IT Professionals. In addition to agreed objectives, the Working Group reviewed membership requirements. A common standard of requirements on academic qualifications, working experience, CPD and assessment was agreed among the representing bodies.

The Panel's success during the Session was the result of efforts by all Panel Members and their supporters. As a result, both the HKIE and the Panel are now viewed as welcome affiliates by IT professionals in Hong Kong.

### **Manufacturing & Industrial Discipline Advisory Panel**

The Panel held regular meetings to discuss major issues related to education, training, membership, qualification and examination. Panel Members worked together with the Manufacturing & Industrial (MI) Division in reviewing and promoting the Scheme 'A' training, and successfully recommended the Scheme to a number of local universities that offered engineering training of the Manufacturing & Industrial Discipline.

Another focus of the Panel was to look into new paradigms of manufacturing and industrial engineers. The Panel is now considering the dynamics of embracing the aviation industry.

The Panel also maintained a very strong collaboration with the MI Division Committee in promoting the Discipline.

### **Marine & Naval Architecture Discipline Advisory Panel**

The Panel Members conducted meetings regularly during the Session to discuss various matters related to the Marine & Naval Architecture (MNA) Discipline. The major topics included reviewing the criteria for the R.P.E., training secondment on the Mainland and the matching of the Scheme 'A' training programme of the MNA Discipline with local university degree courses.

The Panel Members and representatives continued to serve the Q & M Board and different committees such as the Registration Committee of the ERB, PAC, Training Committee, Training Review Sub-Committee, E & E Committee and the Accreditation Committee for Higher Diploma Programmes.

### **Materials Discipline Advisory Panel**

In this Session, the Panel held several informal meetings. Key issues discussed focused on the best means of promoting formal recognition for materials engineers among the local business community, public sector organisations and reciprocal recognition internationally.

### **Mechanical Discipline Advisory Panel**

The Panel initiated a new system to speed up the process of its regular work. Under the new system, cases received by the Chairman were scanned and immediately circulated by email to the Panel Members for consideration and discussion. Upon the receipt of a consensus from the Panel Members, the result was quickly sent by fax to the relevant coordinator at the HKIE Headquarters. Standard fax reply forms were used for all replies. The new system has proved effective in speeding up the responses of the Panel.

The Panel normally held three meetings in each Session. However, as Panel Members have to work frequently on the Mainland, only two meetings were held in this Session.

The Panel continued its representation on the E & E Committee, Training Committee and PAC. The Panel Chairman also represented the Mechanical Discipline in the Registration Committee of the ERB and the Q & M Board.

### **Structural Discipline Advisory Panel**

Under the Mutual Recognition Agreement signed between the HKIE and the MOC in August 2004, the Structural Discipline Advisory Panel and the National Administration Board of Structural Engineers Registration of the Mainland jointly organised a series of training and examination sessions in November 2004. The objective was to enable members of the Structural Discipline to obtain the qualification of First Class Registered Structural Engineers on the Mainland. Twenty senior members from the Structural Discipline were invited to take up the role of trainers and assessors for the event. Of the 107 candidates who attended the training and examination sessions, 90 successfully obtained the First Class Registered Structural Engineer status on the Mainland. The Panel will organise the next round of training and examinations later this year.

It is expected that the work of the Panel will help instigate the professional reciprocal recognition of the other disciplines. The Panel is ready to share its experience with other Discipline Advisory Panels.