

**Comhairle na nDámhachtainí Ardoideachais agus Oiliúna
The Higher Education and Training Awards Council**

Report of the findings of the evaluation panel engaged to consider the application by the Institute of Technology Tallaght for accreditation to maintain a postgraduate research degree register at Master's and Doctoral levels in the Biology and Chemistry sub-disciplines and at Master's level in Engineering and Science

26 June 2007

Assessors: Eda Sagarra (chairman), Christopher G Dowson, William Egerton, Anthony F. Fell, Frank Hegarty, Gerard Hurley, David King, Madeleine Lowery, Catherine McKenna, John Monaghan, Richard O'Kennedy, Iain Phillips, Paolo Rosso, Adrian Walmsley.

1 Introduction

HETAC received, on 16 February 2007, an application by the Institute of Technology Tallaght for accreditation to maintain a postgraduate research degree register at Master's and Doctoral levels in the Biology and Chemistry sub-disciplines and at Master's level in Engineering and Science (all areas: specifically the Departments of Electronic Engineering, Mechanical Engineering, Science and Computing.)

Accreditation to maintain a register allows an institution to register postgraduate research degree students without referring the details of the individual research degree programme to HETAC for validation decision on a case-by-case basis.

Such accreditation is now a prerequisite for an Institute of Technology to apply to receive delegated authority from HETAC to make its own research degree awards.

HETAC assembled a panel of assessors chaired by Dr Eda Sagarra (Pro-Chancellor of the University of Dublin) to evaluate the case for accreditation and make a recommendation: details are provided in Section 6.

The site visit took place between 09:00 and approximately 15:15 on 27 April 2007 at the main campus of the Institute and the panel held a private meeting during the previous evening.

Assessors met and/or had discussions with the senior management team; research active academic staff; current and former postgraduate research students; perused research outputs; and viewed relevant facilities.

2 Summary of Findings

It is recommended that HETAC accredit the Institute of Technology Tallaght to maintain a register of postgraduate degrees at Master's Level (Level 9) *in the areas in the Departments of Electronic Engineering, Mechanical Engineering, Science and Computing reflecting the expertise of the research-active academic staff* and at Master's Level (Level 9) and Doctoral Level (Level 10) *in the areas of Biology and Chemistry reflecting the expertise of the research-active academic staff* subject to the standard conditions and that

- 1) The Institute produce a response detailing how it will address the issues raised by the assessors.
- 2) The Institute commit to establishing a research supervisor training programme for novice supervisors and for experienced colleagues in the 2007/2008 academic year.
- 3) Accreditation be granted for a period of *five years*.

3 Research environment (appendix B)

The panel is confident that Master's and Doctoral graduates attain a standard that is equivalent to the standard typical of universities in Ireland and the United Kingdom.

3.1 Biology and Chemistry

Assessors: Chris Dowson, Tony Fell, Frank Hegarty, Catherine McKenna, Richard O Kennedy, Eda Sagarra (Chairman,) and Adrian R. Walmsley.

Research is flourishing in Biology and Chemistry—there are well developed research groups and clusters; the staff are highly motivated and many are research active; the students are most satisfied with the support provided by their supervisors; and significant funding has been won in competitive research programmes.

This is all the more impressive given the relative youth of the Institute and that it has developed and provides an extensive portfolio of full-time and part-time taught programmes.

Generally the research environment is also an improving one—there are positive developments in laboratory quality, equipment, technical support, administrative infrastructure, and institutional support and procedures. Major expansions are planned e.g. under PRTLI and other programmes.

Notwithstanding all of this there are a number of areas that need to be addressed—some critical—to sustain or increase the momentum and assure future success. The Institute staff are aware of many of these areas and have identified some potential approaches.

3.1.1 Is there an active, supportive academic environment and research community in the subject or discipline area for which accreditation is sought demonstrated by traditional research performance indicators?

Yes.

Strengths

The staff are motivated and enthusiastic, they cooperate in generating new research programmes making effective use of their expertise and the other available resources to develop an active research environment.

The students are enthusiastic, can discuss their research in depth, are aware of the relevant literature and many have or intend to present and publish their work. Perusal of students' research during the visit—the panel had an opportunity to review poster presentations and to speak with students about their work—and interviews with graduates confirmed the supportive nature of the research environment. Students highlighted the enthusiasm, commitment, and availability of staff.

The organisation of the staff into clusters, groups and Institute Research Centres coupled with the development of strategic alliances with other institutions (e.g. universities, other institutes of technology, hospitals and industry) is well conceived, timely and highly commendable because it optimises resources and opens access to facilities not yet available on site.

The high quality of the research environment in this area is demonstrated by volume of research activity and by the quality of published work (e.g. the awards won for some conference presentations).

Prior to the visit there was a concern about whether there was a 'critical mass' of researchers to create a supportive research environment. It is now evident that, while staff numbers are limited, the

interactions between different groups in this area compensate to make delivery of PhD programmes feasible.

The number of candidates graduating in this area has been steadily increasing and, while the majority of post-graduate students have been undergraduates of the Institute, there is now an increasing number entering the programmes from other institutions.

Areas for improvement

The current balance between time allocated to active research and to teaching work may be difficult to sustain. Current arrangements (2 hours credit against lectures per singly supervised postgraduate research student and 4 hours credit for leadership functions in an IRC) may not necessarily provide sufficient relief from academic and other pressures for active researchers. There is a need for protected ('ring fenced') time for research activity.

3.1.2 Is there evidence of academic guidance, authority and leadership?

Yes.

Strengths

Research is seen as a key Institute activity by all levels of management and the commitment at the top is admirable.

The staff are committed to developing high quality research and well trained researchers.

The Institute recognises that 'graduate training' of students is an essential concomitant of successful research programmes and of the effective development of researchers.

There is strong evidence of academic guidance at multiple levels.

3.1.3 Are there procedures for the planning and monitoring of postgraduate programmes of research within the discipline area?

Yes.

Strengths

There is, for example, an effective process for transfer from the Master's register to the Doctoral register which involves the supervisor, an internal examiner, and an external examiner, who makes the ultimate decision in consultation with the others.

Joint supervision is widely practised, especially where the research is multi-disciplinary in nature, which is to be commended.

Areas for improvement

Currently the supervisor is present during all of the monitoring process. Clearly, it may be difficult for a student to openly discuss issues that may relate directly to their supervisor in their presence.

3.1.4 *Is there specialised training dictated by the discipline and the nature of the research being undertaken?*

Yes.

Strengths

There are a number of training programmes—both specialised and general—available. Some are provided by staff and others by experts from other institutions. These cover areas such as experimental design, statistical analysis, ethics, health and safety, intellectual property, etc. This range may be extended shortly as the Institute is part of a multi-Institute alliance to enhance graduate education through sharing of expertise across institutions for the purpose of designing and delivering graduate training modules.

**3.1.5 *Are there staff who:
-are willing to lead research programmes?***

Yes.

-are sufficiently qualified to the level of the programmes of research for which accreditation is being sought?

Yes.

-have prior experience in the supervision of research students to successful completion?

Yes.

-are engaged in research, advanced study and other activities relating to practice in the subject or discipline area concerned?

Yes.

Strengths

Suitable staff are available and lead a number of research initiatives many of which are multidisciplinary in nature which is a particular strength.

There is an impressive level and breadth of research and commitment to both basic and applied research.

The staff members are highly qualified. Many have Ph.D.s, have worked in major research centres and industry and are well recognised for their expertise.

Staff are carving out specialist areas of research and development that will allow them to develop and sustain critical mass in the areas where they have strategically targeted.

Funding has been won under the STRAND initiative and from Enterprise Ireland, SFI, PRTL and other agencies. Seed funding is available to inexperienced staff wishing to build a track record.

Established staff in this area have considerable supervisory experience and pass this on by mentoring less experienced staff.

Areas for improvement

It is necessary to increase the pool of trained supervisors and strengthen the supervisory skills of experienced supervisors. This can be accomplished by establishing a research supervisor training programme both for novice supervisors and for experienced colleagues. There was evidence that this requirement is being actively pursued by management at ITT.

3.1.6 Are there adequate physical resources as well as technical and administrative support structures and attendant staff appropriate to the research being undertaken?

Yes.

Strengths

Laboratories are well equipped and students have good access to the resources that are required to support their research. Strategic alliances have been developed to provide access to facilities at other institutions where necessary. Some facilities are shared for both teaching and research.

There is a wide variety of analytical equipment which is well maintained. There have been recent purchases of new equipment and some excellent advanced technologies exist: e.g. fermentation, pharmaceutical processing, electrochemistry, microscopy, and FACS.

Areas for improvement

Faster, wider and more direct access to the research literature is necessary as a matter of some urgency and much desired by students. The currently available e-journal facilities are inadequate.

The panel was of the view that it is imperative (no less) that the HEA funded Irish Research Electronic Library (IREL)—accessible by university students (on and off campus)—should be made accessible by students attending the Institutes of Technology.

Students would benefit from 24 hour access to research laboratories. The procedure for gaining access to laboratory facilities out of hours is an obstacle to students and is discouraging to the active researchers. **It is essential that more appropriate systems, with adequate safety safeguards, be established to provide active researchers (students and staff) with appropriate out-of-hours access to facilities.**

The research environment could be enhanced by increasing the number of post-doctoral staff who have 'hands on experience' at the bench and from whom students could acquire technical/practical knowledge/experience.

Although laboratory space is currently adequate, it will limit expansion of student numbers.

The NMR installation has had a long service and is key for many projects: a plan for its replacement needs to be put in place. More generally, while the equipment is adequate, there is not the *abundance* of equipment that might be available in bigger facilities. The kind of equipment at issue includes, in the biological and biomedical areas for example: superspeed- and ultra-centrifuges, PCR machines, autoclaves, ice-machines, electrophoresis equipment for protein and DNA gels, dark rooms for developing films, UV spectrometers and fluorimeters, biological safety-cabinets, etc. In bigger biomedical facilities each student might have a bench-top microfuge and vortex mixer.

3.1.7 Are there seminars, both focused and interdisciplinary, to facilitate the dissemination and exchange of the fruits of research, enabling peer review and quality assessment?

Yes.

Strengths

There is a regular seminar series. Students are encouraged to attend relevant seminars, research meetings and workshops at other venues where appropriate. The students have their own research days and attend relevant national meetings.

Areas for improvement

While students are aware of, and frequently attend, seminars, the availability of seminars in the various subjects within the Institute itself is limited.

3.1.8 *Are there opportunities for interaction with other postgraduate research candidates and their supervisors, both within and outside the institution and opportunities, where appropriate, for collaboration with other providers of higher education, industry and commerce and the public sector etc.?*

Yes.

Strengths

These are very active and well developed

3.1.9 *Are there procedures for the implementation of quality assurance within the schools / departments concerned?*

Yes.

Strengths

The procedures and codes of practice are being implemented—they are understood and supported by staff and students.

3.1.10 *Additional comments*

None.

3.2 Engineering

Assessors: W. G. Hurley, John Monaghan, Madeleine Lavery, William Egerton, David King

3.2.1 *Is there an active, supportive academic environment and research community in the subject or discipline area for which accreditation is sought demonstrated by traditional research performance indicators?*

Yes, although this is still in the early stages and there is a strong push for the Engineering School to become more research active.

Strengths

There is a clear and coherent strategy—integrated in the academic and capital plans—for building research capacity and addressing the critical mass issue.

The Engineering staff are enthusiastic and dedicated to building a vibrant research environment.

There is collaboration with industry, other third level institutions and European universities.

Staff are encouraged to engage in research, attract and support graduate students, and publish the results of their research.

Areas for improvement

While both Engineering departments are properly attentive to short to medium term goals and objectives, they may also benefit from developing, articulating and disseminating a shared vision of how to sustain and grow the research activity in the longer term. This vision might address, *inter alia*, strategies for attracting sufficient numbers of high calibre students to allow the research to grow.

The Institute is aware that the ability to disseminate research findings through publications is a critical outcome of any research degree programme; that this is an area in which it can and should improve and that research productivity will become increasingly important to enable the engineering research programmes at the Institute to compete for funding at national level.

3.2.2 *Is there evidence of academic guidance, authority and leadership?*

Yes.

Strengths

There is commitment and leadership at all levels.

3.2.3 *Are there procedures for the planning and monitoring of postgraduate programmes of research within the discipline area?*

Yes.

Strengths

There is a robust and effective system in place to monitor student progress.

The procedure for transferring from the Master's to PhD register is appropriate.

3.2.4 Is there specialised training dictated by the discipline and the nature of the research being undertaken?

Yes.

Areas for improvement

While all incoming graduate students undertake an Induction Course, repeated at intervals throughout the year, and they are provided with a detailed Postgraduate Student Handbook, the main training of graduate students is undertaken by the supervisor. The Institute may wish to consider if there is a need for a more structured approach to specialised training comparable and perhaps in partnership with the training programmes being developed in Biology and Chemistry.

**3.2.5 Are there staff who:
-are willing to lead research programmes?**

Yes.

-are sufficiently qualified to the level of the programmes of research for which accreditation is being sought?

Yes.

-have prior experience in the supervision of research students to successful completion?

Yes in many cases.

-are engaged in research, advanced study and other activities relating to practice in the subject or discipline area concerned?

Yes.

Strengths

Experienced staff mentor those who have limited prior experience in supervision of students.

Areas for improvement

Notwithstanding that the record in respect of funding, collaboration and publications is currently good and appropriate to the current stage of development of research activity at the Institute, if the level and quality of the research activity is to improve, and it should, then staff and students require continuing support and *research* facilities must be improved. For example, the Institute may wish to consider how more time may be made available where necessary for staff to further their research development and how research time of research-active staff may be protected or “ring-fenced”.

As in Biology and Chemistry, it is necessary to increase the pool of trained supervisors and strengthen the supervisory skills of experienced supervisors. See also related comments in section 3.1.

3.2.6 Are there adequate physical resources as well as technical and administrative support structures and attendant staff appropriate to the research being undertaken?

Yes.

Strengths

The laboratories, computing facilities and technical support available are all more than adequate.

Areas for improvement

The students found that the lack of electronic access journals places them at a disadvantage relative to those who do have such access.

Faster, wider and more direct access to the research literature is necessary as a matter of some urgency and much desired by students. The currently available e-journal facilities are inadequate.

3.2.7 Are there seminars, both focused and interdisciplinary, to facilitate the dissemination and exchange of the fruits of research, enabling peer review and quality assessment?

Yes.

Strengths

There is a well organised seminar series to encourage students and staff to share research findings.

There are opportunities for interaction with students throughout the Institute and in other colleges.

Students are strongly encouraged to produce papers and posters and to present these at conferences.

Areas for improvement

Notwithstanding the existing good work that is being done, the seminar programme could be enhanced so that students' experience is broadened.

3.2.8 Are there opportunities for interaction with other postgraduate research candidates and their supervisors, both within and outside the institution and opportunities, where appropriate, for collaboration with other providers of higher education, industry and commerce and the public sector etc.?

Yes.

Strengths

There are links with other institutions in Ireland and beyond and staff and students have good opportunities, mainly through collaborative projects, to meet colleagues from other institutions.

Areas for improvement

Some of these links have yet to be exploited.

3.2.9 Are there procedures for the implementation of quality assurance within the schools / departments concerned?

Yes.

3.2.10 Additional comments

ITT is a relatively young academic institution which is still in the early stages of developing active research programs in engineering. The number of research students in both the department of Electronic Engineering and the Department of Mechanical Engineering is low and there is not yet a long track-record of demonstrated research as indicated by traditional indicators, e.g. publications and graduation of research students. Therefore, it is critical during this developmental stage that students have the opportunity to interact with collaborating academic institutions or industry and with other persons doing research in similar areas. The need for collaboration to support the growth of the research programs is recognised by the Departments, and there are several established collaborations with academic institutions in Ireland (TCD, DCU, UL and UCD) and abroad (Aalborg). An SFI Walton Professorship has been successfully used to help establish the Innovations in Medical Devices research centre. There are also links with industrial partners who actively support specific research projects.

Success in phase 1 of the recent PRTLI (Programme for Research in Third-Level Institutions) programme is a major boost since success is largely based on the institutional strategy for research.

3.3 Computing

Assessors: Iain Phillips, and Paolo Rosso.

3.3.1 *Is there an active, supportive academic environment and research community in the subject or discipline area for which accreditation is sought, demonstrated by traditional research performance indicators?*

Yes, except that student numbers are low.

Strengths

The Computing research is of high quality as evidenced by the theses inspected during the site visit and the poster presentations.

Areas for improvement

The most striking problem for Computing is the lack of a local “critical mass” of computing research students. Many graduates apparently prefer employment in industry to a research degree programme at the Institute and those that try to combine the two often fail to complete. The historical completion rate is low but the Department provided a satisfactory explanation for this.

The critical mass issue must be addressed immediately. The department needs to increase the number of students to provide the level of support needed from peers. The Computing department may wish to consider aligning its applied research with other research activities in the Institute where there is critical mass. Applied research in health informatics or interdisciplinary research involving the engineering, biomedical or pharmaceutical areas may provide opportunities. Even combining research student facilities (desks etc) with another department (either Science or Engineering) will help provide this peer support, even if only in a non discipline-specific manner.

3.3.2 *Is there evidence of academic guidance, authority and leadership?*

Yes.

Strengths

A number of Master’s research theses have been completed and these are of high quality.

Areas for improvement

The outcome of the research work is good. The Institute would benefit from more exposure at international conferences and in Journal publications. This type of output should be factored into the planning for staff and students.

3.3.3 *Are there procedures for the planning and monitoring of postgraduate programmes of research within the discipline area?*

Yes.

Strengths

The Department sets targets for publication during the programme.

3.3.4 *Is there specialised training dictated by the discipline and the nature of the research being undertaken?*

Yes

Areas for improvement

The Institute may wish to consider developing a more structured approach to specialised training, comparable and perhaps in partnership with the training programmes being developed in Biology and Chemistry.

3.3.5 Are there staff who:

-are willing to lead research programmes?

Yes (more than 50% are involved in research activity).

-are sufficiently qualified to the level of the programmes of research for which accreditation is being sought?

If the staff were judged exclusively by their output of peer-reviewed published work (a traditional university metric) then there would be a question about this criterion because the level is not high. However, if software development (applied research) is included—recognising that it is appropriate to the mission of the Institute that there be a balance between research and development—then yes.

-have prior experience in the supervision of research students to successful completion?

Yes but the number of students is low.

-are engaged in research, advanced study and other activities relating to practice in the subject or discipline area concerned?

Yes.

Strengths

There is a programme in place to encourage staff to gain their own PhDs and this is supported by allocated research time. This time usually allows two days per week for research work.

Areas for improvement

See comments on supervisor training elsewhere.

3.3.6 Are there adequate physical resources as well as technical and administrative support structures and attendant staff appropriate to the research being undertaken?

Yes.

Strengths

Students are funded externally through the Innovative Partnership Programme (applied research with industry).

3.3.7 Are there seminars, both focused and interdisciplinary, to facilitate the dissemination and exchange of the fruits of research, enabling peer review and quality assessment?

Yes.

Areas for improvement

The Department may wish to try to use seminars to foster interdisciplinary research to address the critical mass issue as outlined already.

3.3.8 *Are there opportunities for interaction with other postgraduate research candidates and their supervisors, both within and outside the institution and opportunities, where appropriate, for collaboration with other providers of higher education, industry and commerce and the public sector etc.?*

Yes but limited by small numbers.

Strengths

There is good collaboration with industry. Students are encouraged to present at an international conference during their programmes and funding is usually available for such travel because generally projects are funded externally.

Areas for improvement

See earlier comments under 'research environment'.

It may also be useful to consider increasing cooperation with foreign higher education institutions and research centres—there is already a link with Austria—through student and staff exchange.

3.3.9 *Are there procedures for the implementation of quality assurance within the schools / departments concerned?*

Yes.

Areas for improvement

While there are procedures in place, it is difficult to assess them owing to the small numbers of students.

3.3.10 *Additional comments*

Considering the theses of those who completed, the track record is good, but the numbers are small. The recommendation by the assessors to accredit is qualified by the observation that if HETAC feels that the number of students is insufficient, then the decision should be not to accredit.

4 Comments relating to General criteria (appendix A)

4.1.1 Regulations and code of good practice

These are well developed and comprehensive.

4.1.2 Research Performance Indicators

Research output will need to be further developed but staff are aware of the need to publish more in journals with high impact factors, relevance and importance within their research field.

4.1.3 Intellectual Property

The documented approach appropriately addresses this subject.

4.1.4 Research administration and Quality assurance

The Institute has a documented quality management system in place. Staff and students are continually reminded of its importance.

Areas for improvement

Much of the research administration is carried out by academic staff. With the development of larger numbers of staff, students and research centres it will be necessary to improve relevant infrastructure by providing enhanced administrative support e.g. in the administration of grants, reporting and grant preparation.

As already mentioned the Institute needs to free up more time from administration for research active staff.

4.1.5 Research leadership and motivation

The Institute has a number of highly motivated staff who lead worthwhile research programmes.

There is a commitment from the top of the Institute to support research. This support is systemic and is evident in the Institute's Strategic Plan and is backed-up financially, physically and through human resource policy.

4.1.6 Monitoring research Progress

This is done in a formal and rigorous fashion at an Institute level by the Registrar, and various committees and at Department level by the Heads of Departments.

4.1.7 Equality of opportunity

The Institute promotes equality, diversity and inclusiveness and this includes the recruitment and selection of research students. It has a support service available to all students—including research students with a disability or specific learning difficulty.

The Institute attracts a significant and impressive number of students, both undergraduate and postgraduate from the D24 catchment area, an acknowledged area of high social disadvantage.

4.1.8 Feedback, complaints and appeals

There is a defined process available that is well documented in the student handbook.

There are regular meetings with postgraduates and the meeting minutes were available to assessors.

4.1.9 Information: Research Studies Programme

A Postgraduate Student Handbook has been produced and plans are in place to update the website.

Research opportunities are advertised in the national press. Information on potential research opportunities and positions are also published in other national and international media from time to time.

4.1.10 Access to research degree programmes

Appropriate.

4.1.11 Transfer between the Doctoral and Master's Registers

The procedures in place for this are good and comparable to those used in most universities.

4.1.12 Direction, supervision, support and training of students (including access to information)

See comments under specific discipline areas in Section 3.

Areas for improvement

Generally, interaction with other research organisations could be further expanded to improve graduate training and the research environment. In this respect the welcome new developments relating to Graduate Research Education Programmes need to be vigorously pursued.

4.1.13 Postgraduate research degree: Assessment of the student

The procedures and practices in place for this are robust and comparable to those used in most universities.

4.1.14 Supervisor training and support

Areas for improvement

The pool of trained supervisors must be extended and the skills of experienced supervisors strengthened by establishing research supervisor training both for novice supervisors and for experienced colleagues. There was evidence that this requirement (no less) is being actively pursued by management at IIT.

4.1.15 Postgraduate research degree: Assessment of the student

Appropriate

5 Additional comments

The panel perceived that the leadership emanating from the top was combined with trust and found strategic thinking at virtually every level.

The staff were evidently relaxed and confident in their own ability to lead the process forward, the students were impressive in their poster presentations and in their participation in discussions with the panel, demonstrating that the Institute had not only taught them well and but also nurtured their social skills.

The relative youth of the institution and of its staff is a distinct advantage. Their enthusiasm was a delight to the panel and the Institute's responsive and flexible approach to teaching is an asset for future sustainability (however, please see note below relating to staff retention).

The Institute has done an excellent job in reaching the present position.

Critical mass is a very real issue in all areas, less so in Science (where Chemistry and Biology have impressive achievements) and more so in Computing. The publication record in Engineering and Computing is relatively thin. But there is clear evidence of a 'can-do' attitude from all departments and a sense that everyone, staff and management are pulling together, and that they are performing on a multiplicity of fronts in terms of the Institute's mission.

The record of fund raising for research is excellent, though greater focussed support is needed from the state in particular areas. **The panel stress to national policy makers that postgraduate students in Science and Engineering in the Institutes of Technology sector in Ireland need to be given the resources to allow access to all the necessary but expensive electronic sources for their research, which as of now they, by contrast with the university sector, only enjoy in part.**

Currently, the support of PhD training is not carried by the majority of staff. Those who are aiming to be substantially research active appear to have adequate provision made (relative to their colleagues within the Institute) to facilitate research activity. However, looking forward, retention of successful research staff within the Institute, and more widely within the Institute of Technology (IoT) sector, may become increasingly difficult owing to financial constraints on IoT salaries and pressures of 'poaching' from establishments that can pay more and award personal chairs.

Finally, the panel commends the Institute, its staff and students on the quality of the application documents, which were comprehensive, readable and supplied it with the appropriate material to inform its judgements, and for the way in which they prepared for the site visit.

6 The panel

Dr Eda Sagarra (Chairman), Pro-Chancellor of the University of Dublin;
Professor Christopher G Dowson, University of Warwick;
Mr William Egenton Dromone Engineering Ltd.
Professor Anthony F. Fell, University of Bradford;
Professor Frank Hegarty, University College Dublin;
Professor Gerard Hurley, National University of Ireland, Galway;
Mr David King, Rail Procurement Agency; (**Recent IT Tallaght Graduate**)
Dr Madeleine Lowery, University College Dublin;
Dr Catherine McKenna, Biocatalysts Ltd; (**Recent IT Tallaght Graduate**)
Professor John Monaghan, The University of Dublin, Trinity College;
Professor Richard O’Kennedy, Dublin City University;
Dr Iain Phillips, Loughborough University;
Professor Paolo Rosso, Universidad Politecnica de Valencia;
Professor Adrian Walmsley, Durham University;

In attendance: Dr Peter Cullen and Karena Maguire HETAC.

6.1 Declarations

Professor Paolo Rosso, at the invitation of HETAC about two years ago, formed part of a panel to consider the accreditation of a Master’s degree level taught programme in Computing. There is an Erasmus exchange agreement between the Department of Computing at IT Tallaght and the School of Informatics of the Polytechnic University of Valencia.

Fintan Kelleher at IT Tallaght employee completed a PhD under **Professor Frank Hegarty’s** direction about 10 years ago.

Professor John Monaghan mentioned that the submission on the research profile of the Department of Mechanical Engineering at Tallaght makes reference to prior collaboration between that department and his research group at TCD. This collaboration was in respect of an EI funded ATRP Project that commenced in 2000 and was completed in 2003. During the course of this project the groups at TCD and IT Tallaght worked on independent research programmes focusing on different topics entirely and only came together to share research results and keep each other informed on the actions/progress of the other.

Two IT Tallaght employees completed their doctorates under the supervision of **Professor Richard O’Kennedy**: (i) 1988 Kenneth Carroll. Monoclonal antibody production and the application of monoclonal antibodies to the study of tumour cell membrane antigens and (ii) 1993 Denise A. Egan. Analytical, immunological and toxicological studies on coumarin and coumarin-related compounds.

Dr Madeleine Lowery declared that she knows one of the lecturers in Electronic Engineering in a social capacity.

Mr William Egenton declared that some Dromone Engineering Ltd. staff had attended an hydraulics course provided by IT Tallaght.