



**Please note that this document is comprised of two separate reports, as outlined below.**

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1. Report of the findings of the evaluation panel engaged to consider the application by the Athlone Institute of Technology for accreditation to maintain postgraduate research degree register at Master's and Doctoral levels in Polymer Engineering; And at Masters level only in Software Engineering

12 July 2008

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2. Report of the findings of the evaluation panel engaged to consider the application by the Athlone Institute of Technology for accreditation to maintain a postgraduate research degree register at Master's and Doctoral levels in Life and Physical Sciences

25th August 2008

**Report of the findings of the evaluation panel engaged to consider the application by the Athlone Institute of Technology for accreditation to maintain postgraduate research degree register at Master's and Doctoral levels in Polymer Engineering; And at Masters level only in Software Engineering**

12 July 2008

**Assessors** [*Polymer Engineering and Software Engineering only*]: Professor John Ebdon, Professor Marianne Gilbert, Dr. Stephen Kukureka, Dr. Arthur Wilkinson, Mr. Declan Fanning, Professor Dr. Bettina Harriehausen-Mühlbauer, Professor Sape Mullender, Professor Tony Fagan (Chairperson)

## **1 Introduction**

HETAC received, on 3<sup>rd</sup> March 2008, an application by Athlone Institute of Technology for accreditation to maintain a postgraduate research degree register at Master's and Doctoral levels in two fields: Life & Physical Science and Polymer Engineering; and at Master's level only, in one field: Software Engineering. This report pertains to the fields of Polymer Engineering and Software Engineering only.

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 Professor Tony Fagan, School of Electrical, Electronic and Mechanical Engineering, UCD to evaluate the case for accreditation and make a recommendation.

A site visit took place between 09:00 and approximately 15:00 on 24 June 2008 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 Athlone Institute of Technology** to maintain a register of postgraduate degrees in:

**Polymer Engineering, Levels 9 and 10**

And

**Software Engineering, Level 9**

*in all cases in areas reflecting the expertise of the research-active academic staff* and subject to the standard conditions and in respect of the two fields that

1. The Institute produce a response detailing how it will address the issues raised by the assessors and which is considered satisfactory by HETAC.
2. Accreditation be granted for a period of *five years*.

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 Summary of specific recommendations and comments by field.**

#### **3.1 Polymer Engineering**

In order to secure the viability of this research area over future years, it is recommended that consideration should be given to:

- 3.1.1** Ensuring that appropriate feeder undergraduate programmes be put in place as soon as possible.
- 3.1.2** The appointment of sufficient additional research-active academic staff members, commencing with the appointment of a senior principal investigator in the short-medium term.
- 3.1.3** Creating greater flexibility in principal researchers' contracts of employment, perhaps through looking at areas of remuneration and the type of rewards available to research active staff.
- 3.1.4** Broadening the range of international speakers presenting at seminar series; seeking additional research collaborations, e.g. many UK groups are carrying out high quality research in areas overlapping with research activity in AIT.
- 3.1.5** Providing greater and more accessible information on the website on research conducted and having information on the research profiles of staff members.

#### **3.2 Software Engineering**

In order to enable the viability of this research area over future years the following conditions should be met:

- 3.2.1** A plan to increase student numbers be implemented as a matter of priority
- 3.2.2** That all students undertake compulsory units on research practices which include writing skills, project management, information sourcing, presentation skills, etc.
- 3.2.3** A key performance indicator schedule for each research programme be developed.

## 4 Detailed Reports & Recommendations

### 4.1 Polymer Engineering

Assessors: Professor John Ebdon, Professor Marianne Gilbert, Dr Stephen Kukureka, Dr Arthur Wilkinson

#### 4.1.1 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. It is clear that over the recent few years there has been a change in emphasis and a shift in culture at the Institute which have led to the increased sense of local and institutional commitment to research. Starting therefore from a low base there are increasing numbers of publications and there is demonstrable enthusiasm amongst staff and research students. It is important that this be maintained and built upon.

#### Strengths

- There is an active and effective research community which is made up of academic staff, technicians, post doctoral researchers and students. Their willing and enthusiastic approach is one of the key reasons for success.
- A number of staff members currently have supervised PhD students through to successful completion and submission of theses.
- The Director of the Centre for Nanotechnology and Materials Research (CNMR), Dr Clement Higginbotham, has an excellent CV and is clearly a researcher of international standing and quality.

#### Areas for improvement

- Whilst there are substantial and developing research activities Polymer Engineering faces challenges owing to its small size. If the activity is to grow as planned then further permanent appointments to academic staff are required.
- Whilst the evaluation panel fully recognizes national dimensions pertaining to staff contracts, the Institute is encouraged to consider ways to remunerate and acknowledge the significant work of researchers. The assessors suggest consideration of traditional higher education models, such as awarding titles such as Reader, Professor, which provide recognition of significant contributions made,

such as extensive high quality peer reviewed publications, as well as alternative structuring of financial rewards.

#### 4.1.2 Is there evidence of academic guidance, authority and leadership?

Yes.

##### Strengths

- There are good structures in place with leadership provided by the Dean of Research, the Head of School and the Director of the CNMR.
- Dr Higginbotham is a huge asset to the team

##### Improvements

- If Dr Higginbotham were to leave AIT, it would cause a significant problem for the team. AIT needs to consider how it might appoint another principal researcher and additional research staff as a matter of priority, as with the current arrangement; there is a significant risk to the sustainability and development of AIT capacity in this field.

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

Yes.

##### Strengths

- There is a robust system of monitoring implemented through interim reports.
- There are appropriate transition arrangements between MSc and PhD.
- The Polymer Engineering group is effective in gaining industrial support for research.
- Promising areas have been developed and new topical areas identified, e.g. recycling.

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

Yes.

##### Strengths

- There is good training provided in the use of the polymer engineering equipment by research staff and technicians. Training is also provided by First Polymer Training. Clear safety practices are established.

#### 4.1.4 Are there staff who:

are willing to lead research programmes?

Yes. All, but one of the Polymer Engineering staff members are research active and happy to undertake further supervisions.

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

Yes. Many staff members have higher degrees and in most cases have extensive research portfolios.

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

Yes, in most cases to Masters level. There is a sufficient critical mass with experience of supervision to PhD.

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

Yes.

#### Strengths

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

#### 4.1.5 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 research activities are well equipped. There is a good network of technical and research staff supporting the equipment.
- Research activities and student supervision are supported by both central and school/centre administrative staff.

#### Areas for improvement

- There may be scope for greater up-skilling of technical staff. Much of the expertise resides with academic staff and students.
- Currently outside facilities are used to address any equipment gaps that arise. As volume of activities increase, provision of equipment for molecular characterisation of polymers (nuclear magnetic resonance) may be important given the chosen direction for research at AIT.

4.1.6 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 which reflects the multidisciplinary nature of the research conducted.
- These provide opportunities for research students, staff and external speakers to present their research.

#### Areas for improvement

- Notwithstanding the existing good work that is being done, the seminar programme should be enhanced by the inclusion of greater numbers of international speakers.

4.1.7 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

- A relatively small but keen cohort ensures active stimulation from peers with poster days and most student's present work at conferences.
- A proposed move to a dedicated postgraduate building will significantly aide cross-fertilisation.

- Both staff and students are encouraged to attend national and international conferences.
- There are significant national and international links which are beneficial.
- Many projects are industrially funded.

#### Areas for Improvement

- There are some very good international linkages in place that are clearly beneficial to the Institute as a whole. Nevertheless the Polymer Engineering field may benefit from greater collaborations with some of the top ranked research centres in this field in, for example, the UK.

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

Yes.

#### Strengths

- There is a clear system of academic committees and PhD monitoring procedures in place which seem to be working well.
- These systems seem to be well supported by dedicated administrative staff.

#### Improvements

- There may be uneven practice between various supervisors. Efforts should be taken to ensure good practice is maintained throughout the group.

#### 4.1.9 Additional comments or considerations regarding Polymer Engineering:

- AIT has well equipped, modern laboratories and workshops which are of international standard which service the field of Polymer Engineering.
- Postgraduate students have good personal workspace with good access to journals and electronic databases.
- Support to attend and present at both national and international meetings and conferences is good and well availed of by research students.
- Seminar and poster events for students are organized and provide useful development opportunities.
- Student recruitment may be a problem in the future owing to the closure of the current undergraduate programme. However it is planned to commence a new biomedical materials programme. This should be attractive to students and should be acted upon quickly as should any other potential undergraduate 'feeder' options.
- There is a variety of views amongst the assessors on the appropriateness or helpfulness of the title Polymer Engineering. It is suggested that the Department reflect on the title, its accuracy, its currency, its attractiveness to potential (new to AIT) students, etc. and assure themselves of the efficacy of their ultimate choice.
- Staff should examine the absence of any competences, e.g. persons with extensive experience in polymer synthesis, and other chemical expertise. Addressing such gaps may help papers by staff and students to be accepted for publication in greater numbers of top journals.

## 4.2 Software Engineering

**Assessors:** Mr Declan Fanning, Prof. Dr. Bettina Harriehausen-Mühlbauer,  
Professor Sape Mullender

4.2.1 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.

### Areas for improvement

- The number of students participating in research studies is small. A larger community would offer significantly more opportunities for learning from others.

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

Yes in a group sense.

### Areas for improvement

- There is no one single figure of authority, nor a natural leader of the research group. It would be of great benefit to the department if an established researcher were appointed as a research leader.

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

Yes.

### Areas for improvement

- Whilst the formal processes in place are adequate, greater institutional guidance and support on the processes of doing research would be helpful. Areas such as investigating literature, formulating problem statements, reporting on related research, presenting solutions, evaluating solutions, making presentations, writing

skills, etc. should be addressed.

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

Partly.

Areas for improvement

- Some students attend relevant courses, but a more focussed, relevant and structured approach would be beneficial to students. The programme on research studies mentioned above would be very helpful too.

**4.2.5** 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. Though the appointment of a senior researcher would improve the direction and enhance quality;

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

Some do, but with very limited numbers of students;

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

Yes. There is enthusiastic engagement with research projects, which is evidenced in curriculum vitae and lists of publications.

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

Yes;

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

There is some limited provision of seminars;

#### Areas for improvement

There is some limited provision of seminars but this area needs to be significantly improved; current practices are inadequate. (See previous sections)

- 4.2.8** 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?

Some opportunities, and it would appear there are plans to develop more. There are already good links with the Performance Engineering Laboratory based in UCD and DCU.

#### Areas for improvement

- Whilst there may be some good international linkages with locations such as China, it would be more useful to have more regional linkages which may provide greater access for students to collaboration opportunities.

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

Yes.

#### Areas for Improvement

- A designated senior researcher leading the team would enhance this area.

- 4.2.10** Additional comments or considerations regarding Software Engineering

- There has been significant progress in the development of this field of research in AIT between 2005 and 2008.
  - Research output has increased
  - The quality of students has improved
- Lack of senior leadership and the low number of students are serious threats to the sustainability of a quality research environment

## **5 Comments relating to General criteria (appendix A) – RELEVANT TO BOTH FIELDS**

### **5.2.2 Regulations and code of good practice**

There are adequate and appropriate regulatory structures in place.

### **5.2.3 Research Performance Indicators**

Good indicators include quality of theses and posters examined during the visit.

There are good collaborations with other reputable academic institutions in place, but more regional linkages could be established in all fields.

The publications records of some staff are limited. The Institute needs to provide focussed incentives and encouragement for staff to publish their work.

### **5.2.4 Intellectual Property**

Appropriate structures in place, though one member of staff felt IP issues might restrict publication.

### **5.2.5 Research administration and Quality assurance**

There are appropriate procedures in place.

### **5.2.6 Research leadership and motivation**

The enthusiasm, strategic focus and ambitious goals of senior management are noteworthy.

There are dedicated and key principal investigators in some of the specified fields. Where research leaders are not in place they should be appointed.

### Areas for improvement

- There are relatively small numbers of academic and technical staff for the size of the research activity.
- Whilst acknowledging that it is not a problem unique to AIT, staff contracts do not appear to reward research activities and this may hamper attempts to recruit new staff in the future.
- Where lead researchers are not in place (i.e. Software Engineering) this should be remedied.

### **5.2.7 Monitoring research Progress**

There are appropriate checks in place.

### **5.2.8 Equality of opportunity**

No evidence of any concerns.

#### **5.2.9 Feedback, complaints and appeals**

There are adequate procedures in place.

#### **5.2.10 Information: Research Studies Programme**

Well thought-out strategic plans in place.

#### **5.2.11 Access to research degree programmes**

There are plans in place to increase this, as exemplified by the accreditation application, and the formation of research centres.

#### **5.2.12 Transfer between the Doctoral and Master's Registers**

There are appropriate procedures in place.

#### **5.2.13 Direction, supervision, support and training of students (including access to information)**

There are good support structures and systems in place in Polymer Engineering, but this area is relatively weak in Software Engineering and needs to be addressed.

#### **5.2.14 Postgraduate research degree: Assessment of the student**

There are adequate procedures in place.

#### Improvements

- It would be beneficial to use a wider range of external examiners for PhD theses, particularly if AIT wishes to recruit international students. Senior academics should be the norm for the examination for PhD theses.
- A need for a core skills programme in academic writing is evidenced by some of the theses viewed at Master's level.

#### **5.2.15 Supervisor training and support**

Good practices being undertaken in a practical and focussed way in Polymer Engineering. A more focussed approach and programme is essential in Software Engineering.

**6. Some general additional comments pertaining to the Institute**

- It is suggested that the language employed in *Procedures and Guidelines for Postgraduate Research at the Institute* be clear and at all time unambiguous. E.g. it should be clear when something is mandatory or when it is only a matter of guidance, use of the word 'should', etc.

## 7. The panel

### Polymer Engineering

Professor John Ebdon	Department of Chemistry, University of Sheffield
Professor Marianne Gilbert	Inst of Polymer Technology & Materials Engineering, Loughborough University
Dr Stephen Kukureka	Department of Metallurgy & Materials, University of Birmingham
Dr Arthur Wilkinson	Department of Polymer Science & Technology, University of Manchester

### Software Engineering

Prof. Dr.Bettina Science / Harriehausen-Mühlbauer	University of Applied  Hochschule Darmstadt, Department. of Computer Science / FB Informatik Germany
Professor Sape Mullender	Faculty of Computer Science, University of Twente

### Graduate Assessors

Mr Declan Fanning	Software Engineering graduate
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### Chairperson

Professor Tony Fagan	School of Electrical, Electronic and Mechanical Engineering, University College, Dublin
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*In attendance: Dr Peter Cullen and Tara Ryan HETAC.*

## 8. Declarations

There were no potential conflicts of interest declared.

# **Report of the findings of the evaluation panel engaged to consider the application by the Athlone Institute of Technology for accreditation to maintain a postgraduate research degree register at Master's and Doctoral levels in Life and Physical Sciences**

**25<sup>th</sup> August 2008**

**Assessors** [*Life and Physical Sciences only*]: Professor Diana Anderson, Dr Maria Davoren, Dr Anne Lardner, Dr Lorraine O'Driscoll, Professor Michael Ryan, Professor Tony Fagan (Chairperson)

## **1 Introduction**

HETAC received, on 3<sup>rd</sup> March 2008, an application by Athlone Institute of Technology for accreditation to maintain a postgraduate research degree register at Master's and Doctoral levels in two fields: Life & Physical Science and Polymer Engineering; and at Master's level only, in one field: Software Engineering. This report pertains to the field of Life and Physical Science only.

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

In response to the application for accreditation HETAC assembled a panel of assessors chaired by Professor Tony Fagan, School of Electrical, Electronic and Mechanical Engineering, UCD to evaluate the case for accreditation and make a recommendation.

A site visit took place between 09:00 and approximately 15:00 on 24 June 2008 at the main campus of the Institute and the panel held a private meeting during the previous evening.

Assessors met and 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 Athlone Institute of Technology** to maintain a register of postgraduate degrees in:

**Life and Physical Sciences, Levels 9 and 10, solely in areas reflecting the expertise of the research-active academic staff, e.g. Biopolymer, biomolecular studies, toxicology, drug delivery and microbiology**

and subject to the standard condition that

1. The Institute produce a response detailing how it will address the issues raised by the assessors and which is considered satisfactory by HETAC.
2. Accreditation be granted for a period of *five years*.

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 Summary of specific recommendations and comments**

While the panel is of the view that in this discipline area the Institute is on a trajectory of noteworthy improvement, there are not insignificant concerns relating to the quantity and quality of publications and the relatively low number of research active staff. There is also concern that the title “Life and Physical Sciences” is much too general to accurately reflect the scope of activities. The following recommendations and conditions are the consensus view of the panel.

#### **3.1 Life and Physical Sciences**

**In order to secure the viability of this research area over future years, the following conditions should be met:**

- 3.1.1** PhD candidates should be encouraged and supported to publish at least two peer-reviewed publications on the basis of their thesis.
- 3.1.2** Research Staff should focus on publishing in peer-reviewed journals, and where possible presenting at international conferences.
- 3.1.3** The completion of the new research infrastructure should be prioritised; it is essential for the creation of a doctoral level environment.
- 3.1.4** In accordance with HETAC’s accreditation conditions, research candidates should only be registered in areas where there is appropriate supervision capacity. It is noted that candidates should only be registered in the niche areas specified where that capacity exists.

**In addition it is strongly recommended that:**

- 3.1.5** Very serious consideration be given to the recruitment of more research active staff, including post-doctoral researchers.
- 3.1.6** Steps should be continued and enhanced to facilitate qualified staff who are not very research active at present to become much more research active.
- 3.1.7** Links with other research and academic institutions, with similar interests, both in Ireland and abroad be strengthened and developed. It could be particularly useful to develop and exploit these links in the context of providing specialist postgraduate training.
- 3.1.8** There be a focussed implementation of all research strategic objectives and that there be a move from aspirational statements towards specific action plans.
- 3.1.9** Departmental and institute documentation should be clear and factual. Areas of research that are not currently being carried out should not be referenced. For example, the accreditation application cites as research areas: protein and organelle purification and HTS ligand binding. However these are not currently active areas of research in the Institute.

## 4 Detailed Reports & Recommendations

### 4.1 Life and Physical Sciences

Assessors: Professor Diana Anderson, Dr Maria Davoren, Dr Anne Lardner, Dr. Lorraine O'Driscoll, Professor Michael Ryan

#### 4.1.1 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, in the areas of biopolymer and biomolecular studies, toxicology, drug delivery and areas of microbiology.

##### Areas for improvement

- It is clear that the Department is aware of a weakness in having research published and is trying to address this. However it is essential that a focus on publications is taken seriously and effective measures be put in place to encourage, support and assist in developing this area.
- While there is access to online journals, pub-med, science direct and a good inter-library loan system, greater journal access would be desirable.

#### 4.1.2 Is there evidence of academic guidance, authority and leadership?

Yes.

##### Strengths

- The provision of start up funds by the Institute has been helpful in enabling some staff members to undertake research.
- The Head of School leads research by example and is a very active researcher in his field

- There are strengths of leadership at Departmental and Institutional level and the recent appointment of a Director of Research underpins the organisation's commitment to developing a research culture.

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

Yes.

##### Strengths

- The appointment of a postgraduate research officer has assisted in the coordination of student progress.
- Staff allow sufficient time for discussing research issues with students.
- There is good use of the review/appraisal form with students

##### Improvements

- Clear documentation should be produced in relation to planning and monitoring of postgraduate programs; both staff and students indicated ignorance of the documentation.
- Ensure staff and students are fully familiar with the documentation.
- Ensure documentation is as short and succinct as possible.

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

Yes.

##### Strengths

- There is training provided in both practical and theoretical areas. Both staff and students find the training useful.
- Students spoke highly of the supervision and monitoring of their research.

##### Improvements

- Additional specialised training could be provided, building in particular on current and potential external linkages

4.1.5 Are there staff who:  
are willing to lead research programmes?

Yes. The employment of additional staff would enhance this capacity. Also of the 29 members of the department only 15 hold PhDs. This number limits the capacity to lead research programmes;

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

Yes. As stated above additional staff, more qualified staff or additional staff roles such as post-doctoral fellows would assist this;

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

Yes. A number have supervised to research Masters completion and a smaller but sufficient number have supervised to PhD completion in the areas of competence;

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

Yes.

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

Yes.

#### Strengths

- New premises planned will significantly enhance the facilities.

#### Areas for improvement

- The limitations of the facilities could be addressed through greater collaboration with other research centres, such as the universities.
- Additional technical support would ensure the appropriateness of the environment.
- Additional post doctoral fellows would improve the research environment.

4.1.7 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 well organised seminar series which offer sessions on both specific and general areas of research interest.

4.1.8 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

- Students interrelated well with each other and the assessment panel.
- Staff are supportive of one another and focussed on developing a greater research focus.
- There are a number of MOUs in place with both institutes of higher education and industry which should provide good opportunities for research students to collaborate with professional peers.

#### Areas for Improvement

- Good interactions that occur at Departmental level could be enhanced by greater Institutional wide dialogue and cooperation.
- Postgraduate students should be encouraged to submit abstracts for oral presentations at international conferences.
- Notwithstanding the MOUs in place, greater efforts at maintaining and developing professional research collaborations should be made. This is of particular relevance given AIT's relatively isolated location compared with many other third level institutes and also its relatively small size.

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

Yes.

### Improvements

- Knowledge of documentation and its complete implementation has not yet occurred. This should be addressed.

#### **4.1.10** Additional comments or considerations regarding Life and Physical Sciences

- The staff in the area of Life and Physical Science have been successfully building its research activities and portfolio over the past couple of years. A coherent plan and strategy has been followed.
- The planned new facility **is essential** and will enhance the work of the team.
- There has been a significant acquisition of research funds over the last several years which demonstrates a dynamic and hardworking research ethos.
- The team is carrying out some high quality work **in specific niche areas** and the motivation and enthusiasm of the staff is admirable.

## **5 Comments relating to General criteria (appendix A) –**

### **5.1 Regulations and code of good practice**

There are adequate Regulations and codes of good practice established and also appropriate committee structures in place.

### **5.2 Research Performance Indicators**

The Institute is developing appropriate, focussed, discipline-specific indicators. The office of the Director of Research will facilitate the implementation of these within the Institute.

### **5.3 Intellectual Property**

There is a suitable policy and procedure in place. It is important to ensure all staff and students are familiar with this.

### **5.4 Research administration and Quality assurance**

There are appropriate procedures in place. The presence of a quality assurance office, and the appointment of a Director of Research, demonstrates Institutional commitment to the development of high quality research.

### **5.5 Research leadership and motivation**

The staff members were highly motivated and enthusiastic about their respective research areas. The senior management team are committed to the development of the organisation.

### **5.6 Monitoring research progress**

There are appropriate checks in place and students are happy with the support received.

### **5.7 Equality of opportunity**

Equality of opportunity exists. There is no evidence of any concerns.

### **5.8 Feedback, complaints and appeals**

There are adequate procedures in place. The roles of the postgraduate research officer and that of the quality officer support this.

### **5.9 Information: Research Studies Programme**

Adequate information is provided in the Procedures and Guidelines document.

### **5.10 Access to research degree programmes**

There were no concerns regarding this area.

#### **5.11 Transfer between the Doctoral and Master's Registers**

There are appropriate procedures in place.

#### **5.12 Direction, supervision, support and training of students (including access to information)**

There are good support structures and systems in place with regular contact between postgraduates and their supervisors. Staff members are very accessible to students.

#### **5.13 Postgraduate research degree: Assessment of the student**

There are adequate procedures in place.

#### **5.14 Supervisor training and support**

There are excellent staff opportunities for additional specific supervisor training. There is a good system of 'back-filling' teaching hours for research staff.

AIT is also a partner in the SIF project "The Institutes of Technology Research Alliance" which is developing courses for both research students and supervisors.

## **6. The panel**

### **Life & Physical Sciences**

Professor Diana Anderson	Professor of Biomedical Sciences, University of Bradford
Dr Anne Lardner	Biochemistry Laboratory, St Vincent's Hospital, Dublin
Dr Lorraine O'Driscoll	National Institute for Cellular Biotechnology, Dublin City University
Professor Michael Ryan	Biomolecular and Biomedical Science, Conway Inst. of Biomolecular and Biomedical Research, University College Dublin

### **Graduate Assessors**

Dr Maria Davoren	PhD Graduate
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### **Chairperson**

Professor Tony Fagan	School of Electrical, Electronic and Mechanical Engineering, University College, Dublin
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*In attendance: Dr Peter Cullen and Tara Ryan HETAC.*

## **7. Declarations**

There were no potential conflicts of interest declared.