

# ATHLONE INSTITUTE OF TECHNOLOGY

## ANNUAL REPORT 2008/2009

*This Report has been compiled and edited by the President's Office and the Marketing and Communications Office, Athlone Institute of Technology*

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## **CHAIRMAN'S STATEMENT**

As Chairman of the Governing Body of Athlone Institute of Technology, it gives me great pleasure to present the annual report for the academic year 2008/2009.

I am pleased to note that preparatory work is continuing on the institute's forthcoming strategic plan, which will set out a vision for the institute for the coming years. Ireland is a country currently in transition and it is essential that the forthcoming plan will have at its core a roadmap to steer the institute through the next half-decade and beyond.

The imperative to deliver a world-class higher education service continues to drive the staff team at the institute. It is this willingness to provide a best-in-class education to learners and to work with industry in helping them bring new products and services to market that has been a hallmark throughout AIT's existence.

Once again, I look forward to working with the institute's President, Governing Body members, management and staff in the forthcoming academic year. AIT is a progressive institute with the student at the heart of all activities, and its management and staff are to be commended on their commitment and professional approach to the institute.

**Paul Breen**  
**Chairman**

## **1.0 PRESIDENT'S INTRODUCTION**

This annual report covers the period from 1 September 2008 to 31 August 2009.

The rapid decline in the economic fortunes of the country is having a significant effect on the demand for places in third level education. In particular, those involved in the construction sector have been impacted, with the situation unlikely to improve in the immediate future. To this end, AIT offered a wide suite of programmes through the government-funded Labour Market Activation Programme, with two new offerings attracting considerable demand. The rationale for both the New Directions – Certificate for Higher Studies and the Certificate in Engineering was to enable people to achieve progression within a third level environment. The demand for both offerings has been very high, and it is likely that AIT will seek to repeat the offerings in the coming years.

As has been noted in previous annual reports, AIT enjoys extensive collaborations with higher education institutions around the world. In the year under review, the institute extended its contacts in the Middle East and is looking to further develop relationships with the TVTC in the Kingdom of Saudi Arabia. As with other international engagements, this will have the benefit of not only adding to the multicultural environment on campus, but of raising the profile of the institute and its research and learner community considerably.

In conclusion, I would like to thank the members of the Governing Body for their continued support and advice during the period of review. I would also like to record my appreciation to the management team and all staff of the institute for their continued dedication and commitment to the institute.

**Professor Ciarán Ó Catháin**  
**President**

## **2.0 GOVERNANCE**

### **2.1 GOVERNING BODY MEMBERS**

The composition of the Governing Body is determined by the Regional Technical Colleges Act, 1992 and 1994.

#### **Ex-Officio Members as per Section 4 of the 1992 Act**

*Mr Paul Breen* [Chairperson Section 2(a)]

*Professor Ciarán Ó Catháin* [Director, Section 2(b)]

#### **Governing Body Members as per Section 4 of the 1994 Act**

##### ***Under Section 4(1)(a)/(b)***

Cllr Molly Buckley

Cllr Kitty Duignan

Cllr Jarlath Mc Donagh

Cllr Kevin O'Brien

Cllr Peggy Nolan

Cllr Joe Whelan

##### ***Under Section 4(1)(c)***

Dr Mark Daly

Ms Brigid Delamere

##### ***Under Section 4(1)(d)***

Mr Peter McAleer

##### ***Under Section 4(1)(e)***

Mr Micheál Fogarty

Ms Emma Kilbride

##### ***Under Section 4(1)(f)***

Mr Joseph LaCumbre

##### ***Under Section 4(1)(g)***

Mr Frank Conlon

Ms Breda Crehan-Roche

Dr Krish Ahuja,

Dr Yvonne Kennedy

Mr Willie Loughnane

#### **Secretary to the Governing Body**

Mr John McKenna

### **2.2 MANAGEMENT AND SENIOR STAFF**

The Institute has four schools: School of Business, School of Humanities, School of Engineering and the School of Science, which in turn are further divided into Departments to provide courses/programmes of study to students. Each School has a Head of School and relevant Heads of Department.

President

Professor Ciarán Ó Catháin

Registrar

Dr Joseph Ryan

Secretary/Financial Controller

Mr John McKenna

Head of Development

Dr Patrick J. Mulhern

Director of Research

Professor Gabriel Crean

Marketing and Communications Manager

Mr Brian Lynch

Head of School of Business	Mr John Cusack
Head of Department Professional Accountancy, Financial Services and Business Computing	Mr Eoin Langan
Head of Department of Business and Management Studies	Mr Peter Melinn
Head of School of Humanities	Dr Marian Fitzgibbon
Head of Department of Humanities	Mr Owen Ross
Head of Department of Adult and Continuing Education	Mr Joe Lawless (Acting)
Head of Department of Hospitality, Tourism and Leisure Studies	Mr John O'Hara
Head of School of Engineering	Mr Austin Hanley
Head of Department of Civil, Construction and Mineral Engineering	Mr Fergal Sweeney
Head of Department of Mechanical, Mechatronics, Software and Electronic Engineering	Mr Marcus Rahilly
Head of Department of Engineering Trades	Mr Kieran Heavin
Head of School of Science	Dr Paul Tomkins
Head of Department of Life and Physical Sciences	Dr Brian Murphy
Head of Department of Nursing and Health Sciences	Mr Pearse Murphy (Acting)
Academic Administration and Student Affairs Manager	Ms Jackie Farrell (Acting)
Finance Manager	Mr Bill Delaney (Acting)
Human Resources Manager	Mr Liam Brennan (Acting)
Librarian	Ms Josephine Corkery
Information Technology Manager	Mr Peter Mc Aleer (Acting)
Estates Manager	Mr Gerard Connolly
External Services Manager	Ms Helen Fitzsimons /Ms Lorna Walsh
Director of International Relations	Ms Mary Simpson
Student Services Manager	Ms Sarah La Cumbre

### **3.0 ACADEMIC STAFF AND STUDENT AFFAIRS**

The Academic Council is the Statutory Body appointed by the Governing Body to assist in planning, co-ordinating, developing and overseeing the academic/educational activities of the Institute. The Academic Council, and its sub-committees, protect, maintain and develop academic standards throughout the Institute, and advise the Governing Body on all relevant matters relating to academic standards.

#### **3.1 ACADEMIC COUNCIL MEMBERSHIP – updated 1 April 09**

Professor Ciarán Ó Catháin (Chair), Dr Joseph Ryan, Mr John Cusack,, Mr Austin Hanley, Dr Marian Fitzgibbon, Dr Paul Tomkins,Dr Pat Mulhern, Prof. Gabriel Crean, Ms Jo Corkery, Ms Mary Doyle, Ms Sarah La Cumbre, Mr Eoin Langan/Mr Peter Melinn, Mr Fergal Sweeney, Mr Owen Ross, Mr Pearse Murphy/Dr Brian Murphy, Ms Mary Corrigan, Mr Luke Fannon, Mr Barry O Loughlin, Dr Paul Archbold, Mr Brian Garvey, Mr Joe O'Brien, Ms Karen Gardiner, Mr Kevin McLoughlin, Mr Eddie Ryan, Ms Margaret Franklin, Dr Neasa Kinasella, Dr Mary McDonnell-Naughton, Mr Micheál Fogarty, Ms Emma Kilbride, Mr Hugh Farrell, Mr Vincent Walsh

## **3.2 ACADEMIC DEVELOPMENTS**

### **3.2.1 General**

Given the current economic downturn and the fact that companies cut their training budgets it was expected that Adult Education student numbers might drop slightly in comparison to previous years. However numbers came in similar to last year's all time record.

The Bachelor of Arts (Hons) in Law and The Bachelor of Arts in Counselling and Psychotherapy were both extremely popular for their first offering attracting almost 60 enrolments collectively.

AIT signed MOUs with three Chinese 985 Class Universities - these are prestigious Universities that attract significant additional state funding.

The Higher Education and Training Awards Council approved the application by Athlone Institute of Technology for accreditation to maintain postgraduate research degree registers at Doctoral and Masters Levels in Life & Physical Sciences and the application for accreditation to maintain postgraduate research degree registers at Doctoral and Masters Levels in Polymer Engineering and at Masters Level in Software Engineering. This is the penultimate stage in seeking to establish the fullest delegated authority.

A three person delegation from TVTC, Saudi Arabia visited AIT on 4<sup>th</sup> December, 2008. The purpose of the visit was to explore opportunities for engaging AIT in meeting the rapidly expanding need to upgrade to degree level the qualifications of instructors employed by TVTC in their existing 120 Training Colleges. The Saudi delegation was led by Dr Saleh Alamr, Vice Governor for Development. TVTC and will be happy to engage the IOT sector as a provider for some of the required training for its instructor staff.

Arising from a SIF project, links were made with IT Sligo, GMIT, and LIT toward a shared development of information systems. The purpose is to maximize business intelligence and other benefits consistent with the Banner system.

The Peer Assisted Student Support (PASS) project, a joint initiative with GMIT, commenced in semester two. PASS is a scheme that offers cross-year support between students on the same programme. PASS student leaders from three undergraduate programmes were trained in facilitation skills.

### **3.2.2 School of Business**

The Business School participated in research undertaken as part of the SIF project entitled "Ethnic Minority Workers and Access to Higher Education and Training." This research, along with the work undertaken by some other Institutes of Technology, is contained in the report "Migrants and Higher Education in Ireland," which was launched at a Symposium held in the Hodson Bay Hotel on 4 December 2008.

Dr Harman Murtagh, lecturer in the Business School was selected as President of The Military History Society of Ireland. Dr Murtagh previously held a position as a Vice-President of the Society.

### **3.2.3 School of Humanities**

The School made a submission to the National Foresight exercise on the Arts, Humanities and Social Sciences with the assistance of Ashling Jackson, Senior Lecturer in Social Care, Dr Margaret O'Keefe, Dr Mairead Seery and Mary McHugh.

A July 2008 submission on the development of excellence in scholarship in the Hospitality, Tourism and Leisure area resulted in AIT's designation as the pilot site for a national scholarship development pilot project by Fáilte Ireland. That agency appointed Dr Ted

Fleming of NUI Maynooth as evaluator to the project and Dr Tom Baum of the University of Strathclyde and Anne Coughlan of UCD as mentors.

An adult education evening was held on 22 January.

A mentoring session was conducted to assist a number of new staff in the School, all of whom professed themselves informed and encouraged by the exercise.

The launch of the BA in Spa Management took place on January 13<sup>th</sup>

#### **3.2.4 School of Science**

The Copenhagen Futures Institute and a US based Futures group agreed to participate in the proposed new EU-US Environmental Science programme

In the School Research Forum, Dr Leeza McCarragher and colleague of Brennan & Co gave a presentation on research applications of flow cytometry.

Under the FP6 endocrine disrupter chemicals project, the department hosted an EU consortium meeting in early 09.

A series of Research Briefing sessions in the life and materials sciences, directed toward an industry audience were held in November and December.

The end of 2008 saw the closure of the EU side of the EU-US Biotechnology in Healthcare student exchange project. The jointly EU-US funded project supported the mobility of 41 students between six partners (3 EU and 3US), the development of a blended learning joint module and student engagement in more than 40 other course modules. The majority of the AIT exchange students have since enrolled on postgraduate research degrees.

#### **3.2.5 School of Engineering**

An evening event was held for parents of the new first year students in the engineering department. The purpose of the initiative is to afford the parents information and assurance on the academic and general supports that are available to learners. The evening was well attended and the initial feedback suggests that it was appreciated by the parents and guardians concerned.

InterTradeIreland issued a press release concerning a highly successful FUSION project, which linked the School of Engineering with East Belfast firm Patterson Protective Coatings Ltd. This project concerned the development of a methodology and a transportable system for the cleaning of asbestos roofing and cladding prior to the application of an encapsulation solution. As a result of this project, the Health and Safety Executive in the UK issued a new directive concerning the maintenance of asbestos sheeting.

### **3.3 COURSES FOR INDUSTRY**

ICTU engaged AIT to deliver an RPL Mentoring programme to industry WBL facilitators in November 2008. The AIT WBL Development Executive commenced a programme of industry visitation and meetings with professional bodies. Tailored WBL programmes were drafted to respond to industry requirements. Particular interest was expressed in Supervisory Management Development courses and training relevant to the Finance Act 2008. The objective of these initiatives will be to provide those in the workplace the opportunity to attain a third level qualification in a flexible cost effective manner.

BSc in Pharmaceutical Sciences was revised to become a model that leverages an AIT-industry network - this is in keeping with the aims of SIF2 Reap programme.

At the request of the Department of Adult & Continuing Education, Joe Durkan from SEI visited the new Alternative Energy laboratory in the East Campus. Mr Durkan supported any

application made by AIT to become a registered training facility for renewable energies installer. The Department also developed a proposal for a new Special Award in Renewable Energy Systems (Level 7)

The third successful short course in Applied Site Engineering Surveying was held at AIT in November. This course was part-financed by FAS and ran on a part-time mode to practitioners of the construction and civil engineering industries.

AIT was recognised by the C.I.O.B. as fulfilling the academic requirements for corporate membership of the C.I.O.B. A student graduating from this course is automatically entitled to Incorporated membership (I.C.I.O.B.) & may achieve Chartered Membership (M.C.I.O.B.) on successfully completing the professional review.

### **3.4 COURSES APPROVALS**

Approval was granted by EMT for the development of a BA in Humanities, to be led by Dr Mairead Seery.

Research was conducted to ascertain the feasibility and demand for the development of a Certificate in First Line Management (Level 6 – 60 credits) to replace the IMI Certificate in Front Line Management, which has been running under the Department of Adult and Continuing Education for the last 10 years.

The AIT accredited part-time Higher Certificate in Business, Bachelor of Business and Bachelor (Hons) in Business Degree were re-developed to run on a part-time basis. It is proposed that graduates for the Certificate in First Line Management (above) would be able to gain entry to year two of the Higher Certificate in Business.

The institute received formal notification arising from the evaluation panel established by the Veterinary Council of Ireland which visited the institute on Friday, 05 December 2008. This was to review the B Sc (Level 7) Veterinary Nursing programme and its suitability as a recognized programme for the purposes of registration as a veterinary nurse. The return is most positive and praises the considerable work undertaken by the institute, school, and department to address matters previously raised by the VCI. The outcome is that learners on the degree programme will now attract professional recognition.

The institute worked with local partners and with the HEA to prepare a fully accredited 60 ECTS programme focused on assisting those impacted by the current economic challenge. The Certificate for Higher Studies is a short-term course that will develop skills for those who wish to re-enter the workplace and will provide an introduction to a number of academic disciplines at AIT. Upon successful completion of the course, students may apply to progress to a higher certificate programme in Athlone.

The submission of two new programmes from the Business School to the external assessment panel was successful. The programmes are: -

- Bachelor of Arts in Accounting and Law – this is a 4 year full-time honours course at Level 8 under the National Framework of Qualifications.
- Bachelor of Business and Law - also a 4 year full-time honours course at Level 8 under the National Framework of Qualifications.

### 3.5 STUDENT STATISTICS

A brief summary of student statistics is given below.

#### 3.5.1 Central Applications Office (CAO) Preferences

The Central Applications Office (CAO) processes applications centrally for admission to undergraduate courses in member institutions of third-level education. The statistics for entry to Athlone Institute of Technology in September 2008 were as follows:

All Preferences <sup>1</sup>	14,617
First Preferences <sup>2</sup>	3,157
Acceptances (net) <sup>3</sup>	1,101
Registered <sup>4</sup>	934

<sup>1</sup> Total number of preference mentions of Athlone Institute of Technology in the total CAO preference list.

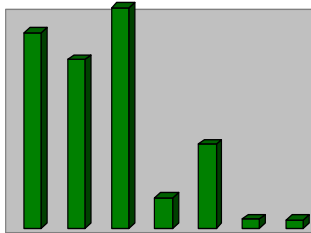
<sup>2</sup> Number of CAO applicants ranking a course at Athlone Institute of Technology as their first choice.

<sup>3</sup> The number of acceptances of CAO offers for a place at Athlone Institute of Technology, that are not superceded by an offer elsewhere.

<sup>4</sup> The number of students offered a place at Athlone Institute of Technology by the CAO who actually took up their place at the Institute.

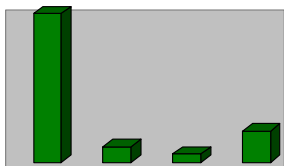
#### 3.5.2 Number of Students Registered by Course Level as at 31<sup>st</sup> January 2009

Course Level	No. of Students	%
Higher Certificate	1,233	
Ordinary Degree	1,062	
Honours Degree/Professional	1,387	
Post Graduate	193	
Craft/Apprentice	531	
Foundation Cert/Bridging	60	
Personal Development	57	
<b>TOTAL</b>	<b>4,523</b>	<b>100</b>



#### 3.5.3 Number of Students Registered by Course mode as at 31<sup>st</sup> January 2009

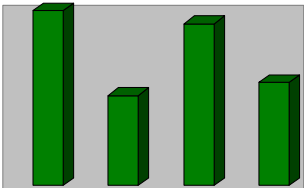
Course Mode	No. of Students	%
Full-time	3,293	
Apprentice	349	
Failte Ireland	182*	
Part-Time	699	
<b>TOTAL</b>	<b>4,523</b>	<b>100</b>



\* This figures includes 118 students who are classified in 3.5.4 and 3.5.5 as full-time students

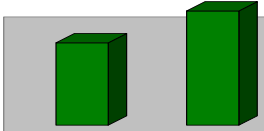
#### 3.5.4 Number of Full-Time Students Registered by School as at 31<sup>st</sup> January 2009

School	No. of Students	%
School of Business	1,126	
School of Engineering	579	
School of Humanities	1,041	
School of Science	665	
<b>TOTAL</b>	<b>3,411</b>	<b>100</b>



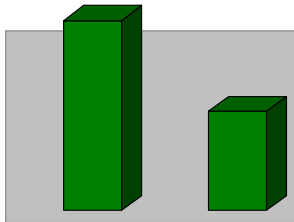
### 3.5.5 Gender Balance of Full-Time Registered Students

Gender	No. of Student	%
Male	1,433	
Female	1978	
<b>TOTAL</b>	<b>4,523</b>	<b>100</b>



### 3.5.6 Apprentice Enrolment by Trade as at 31<sup>st</sup> January 2009

Department	No. of Students	%
Engineering	349	
Failte Ireland	182	
<b>TOTAL</b>	<b>531</b>	<b>100</b>



### 3.5.7 Conferred Awards (Graduation Ceremony November 2009)

Award	No. of Students	%
School of Business	513	28
School of Humanities	472	26
School of Science & Health Science	306	17
School of Engineering	254	14
Department of Adult & Continuing Education	265	15
<b>TOTAL</b>	<b>1,810</b>	

### 3.5.8 Survey of Graduates

Athlone Institute of Technology recognises the importance of monitoring the destination of graduates on completion of their course programme. The information gathered in the survey, by the Careers and Appointments Office, is used by Institute staff when updating existing courses and developing new course programmes, and gives valuable information on employment opportunities.

<b>Number of Graduates Surveyed</b>	<b>1810</b>
<b>Number who Responded</b>	<b>1147</b>

Status of Respondents	
Graduates in Further Studies	60%
Graduates Employed	21%
Graduates Seeking Employment	11%
Graduates in Part-time Employment	4%
Graduates not available for Employment <sup>1</sup>	0%
Graduates on Work Experience and Training Schemes	0%

<sup>1</sup>Constitutes traveling abroad or due to illness

### 3.5.9 Domiciliary Origin of Students Enrolled on Full-Time Third Level Courses

The catchment area normally associated with the Institute includes Counties Westmeath, Offaly, Longford, Roscommon (south) and Galway (east). This chart shows the breakdown of domiciliary origin of students attending the Institute.

AREA	%	
European – EU Members (excl Ireland)	10.8	
European - Non EU Members	1.0	
International (Excl Europe)	9.0	
Galway	10.9	
Longford	6.3	
Offaly	10.7	
Roscommon	8.4	
Westmeath	23.4	
Rest of Ireland	19.5	
<b>TOTAL</b>	<b>100</b>	

### 3.5.10 Reasons for Withdrawal of Students Enrolled on Full-Time Third Level Courses

Each year a significant number of students leave the Institute without completing their examinations. The following is an analysis of the reasons given by students for leaving the course

Reason for Withdrawal	No
Employment	11
Apprenticeship	5
Other IT/University	16
Other Third Level College	5
Repeat Leaving Certificate	2
Financial reasons	19
PLC/NCVA – training course	1
Other	27
Not Declared	14
Medical	12
Did not like Course/Not suited	34

### 3.5.11 Number of Students availing of European Social Fund (ESF), Local Authority and other Grants/Awards

These figures refer only to grants and awards administered by the Institute.

	Numbers who qualified for Maintenance Grants:									NON Grant Holders TLT None	TOTAL NUMBER STUDENTS
	Adjacent Rates TLT B				Non-adjacent Rates TLT A				Student Charge only TLT N		
	Full B+BS	75%	50%	25%	Full A+AS	75%	50%	25%			
LEVEL 6	41	1	3	3	397	23	15	14	10	328	835
LEVEL 7	29	2	2	0	279	12	8	9	7	244	592
<b>TOTAL</b>	<b>70</b>	<b>3</b>	<b>5</b>	<b>3</b>	<b>676</b>	<b>35</b>	<b>23</b>	<b>23</b>	<b>17</b>	<b>572</b>	<b>1,427</b>

## 3.6 STUDENT ACHIEVEMENTS

Two Summer students from Georgia Institute of Technology, **Sonya Parpart** and **Karan Ruturi**, were funded to work in the CBBR with Dr Salwa Barkwan and undertake PCR studies associated with cell characterization. A further Summer Studentship was awarded to a

4<sup>th</sup> year Biotech graduate, **Haroon Rashid** who undertook an apoptosis study of a number of cell lines.

**Vincent Walsh**, a student entering third year toxicology, was awarded a Summer Studentship to undertake laboratory practical development work.

Staff and students from HTL participated in the AEHT 21<sup>st</sup> Conference and Competitions in Estonia. **Cathal McLoughlin** (Bar) got the overall award for 'Bar Technique.' Similarly two 3<sup>rd</sup> year students, **Dawn Cosgrove** and **Amina Mansoor**, were involved in an EU LLP Grundtvig project and travelled to Norway to participate in this project in October.

A HTL Professional Cookery graduate – **David McKane** returned from a semester spent at Johnson and Wales University in Rhode Island, USA. He progressed to year two of the BBS in Hospitality Business Management.

**Liu Shidong** commenced a Research Masters course in the Department of Civil, Construction & Mineral Engineering under the supervision of Dr Paul Archbold. The project is entitled "Structural Condition Monitoring of Large-Scale Civil Engineering Structures" and is funded under the Strand1 programme. Liu is the second postgraduate student in the department.

Dr Michael Nugent's postgraduate research student **Michael McGann** had the following article accepted for publication.

*"The synthesis of novel pH sensitive poly(vinyl alcohol) composite hydrogels using a freeze/thaw process for biomedical applications". International Journal of Pharmaceutics and Biopharmaceutics, (2009 in press).*

McGann M. J, Geever, L.M., Higginbotham, C.L., Nugent, M.J.D.,

**Catrina O'Donohoe** won the Post Grad poster competition in January in AIT 'Posterfest' 2009 with poster entitled "A potential cure for Alzheimers disease?"

2nd year Toxicology students from AIT came second in EAMC 2009 Competition **Alan Byrne & Daniel White**.

### 3.7 STAFF ACTIVITIES

**Dr Paul Blackie** was appointed as secretary of the Institute of Materials (Irish South Division). This is a professional body which organizes seminars, factory visits, student lecture competitions etc.

**Dr Paul Archbold** initiated the establishment of the Civil Engineering Society. This is a student society that aims to promote an interest in civil engineering within the student community.

**Mr Denis McCarthy** set up a Games society to complement the new Gaming honours degree successfully launched in response to student demand. It will be used to provide an environment within which students can experiment with a variety of games and also invite prospective students to the Institute to play advanced gaming programmes and to test game development.

**Dr Brendan Kelly** of the School of Science represented Ireland at the European Commission's GMES Advisory Council meeting. He chaired the GMES/GEO Ireland Forum meeting held at Enterprise Ireland, Glasnevin and he was invited to make a presentation at the EPA/Met Eireann/Marine Institute workshop in Dublin on national climate observation needs to respond to climate change, to fulfil Ireland's obligations under the UN Framework Convention on Climate Change (UNFCCC) and to contribute to the Global Climate Observing System (GCOS). He also participated in the French EU Presidency GMES event in Lille, France, where the new phase of GMES (Kopernikus) was launched by Günter Verheugen, Vice-President of the European Commission.

**Dr Pat Mulhern** was re-nominated by IBEC West to the Roscommon County Enterprise Board and he was elected Chairman of the Board by the members.

**Dr Andy Fogarty** delivered a four day Ecotoxicology module to MSc students at Aalborg University, Denmark. Topics lectured included Scope, application and limitations of ecotoxicity testing; population dynamics and responses of populations to toxic insults; population genetics; multi-trophic ecotoxicity testing and effects of EDCs on Irish fish populations.

**Dr Brian Murphy** was Chief External Examiner in Chemistry for the Diploma Programme for the International Baccalaureate Organization (IBO) (Geneva, Switzerland).

**Dr Clement Higginbotham** was invited to be an associate editor on the Editorial board of the Journal of Bioactive and Compatible Polymers (Editor: Raphael M. Ottenbrite). The Journal of Bioactive and Compatible Polymers is a fully peer reviewed scholarly journal that provides biomedical polymer scientists and researchers with new information on important advances in this field.

**Dr Sean Lyons** won the All Ireland Young Persons Lecture Competition and represented Ireland at the Young Persons' World Lecture Competition (YPWLC) in Florida. The competition is organised and held annually by the Institute of Materials, Minerals and Mining (IOM<sup>3</sup>). Dr Lyons spoke on 'The incorporation of organically modified layered silicates in monolithic polymeric matrices for the design of drug delivery vehicles', finishing third.

**Dr Luke Geever**, graduated with his PhD degree. His thesis entitled "*Synthesis and characterisation of novel temperature sensitive hydrogels for controlled drug delivery*" was supervised by Dr Clement Higginbotham (principal supervisor) and Dr Michael Nugent (co-supervisor), and centred on the development of 'smart' negative temperature sensitive polymeric materials for potential biomedical applications.

**Dr Michael Nugent** was invited to be a reviewer for "*The International Journal of Pharmaceutics*". The journal publishes innovative papers, reviews, mini-reviews, rapid communications and notes dealing with physical, chemical, biological, microbiological and engineering studies related to the conception, design, production, characterisation and evaluation of drug delivery systems *in vitro* and *in vivo*.

**Dr Marc Cashin** completed his Doctorate in Knowledge Management, awarded by Middlesex University and facilitated by the Irish Centre for Work Based Learning partnerships. The title of Marc's thesis is *The Development of Knowledge Management Roadmapping Processes to support Work Based Learning in Organisations*.

**Dr Harman Murtagh** delivered a guest lecture entitled "**Ultimate strength!**" **Artillery in Ireland from the Armada to 1800** at the Collins Barracks, Dublin. This lecture forms part of a series organised by the National Museum of Ireland.

**Mr Brian Toolan**, lecturer in the School of Business delivered a series of four lectures in English and in French, at the Institut Universitaire de Technologie de Rennes, (IUT), France.

**Mr Barry O' Loughlin** presented a paper at the EdTech 2009 - the Irish Educational Technology Users' Conference in the National College of Ireland entitled "An Investigation into the Use of Short Screen Recordings as a Means of Instruction in a Practical Computer Module".

### 3.8 SPORTS ACTIVITIES

Our sports facilities continue to improve each year. The all-weather pitch was the first in the country to be granted FIFA 2 Star International status and hosted an underage international match between Latvia and Lithuania in January. The IAAF standard athletics track is also fully operational. The Fitness Suite is one of the best equipped and managed in the midlands

with the support of two part-time staff from the Institutes own Sports and Recreation Management courses.

Some of the major sporting achievements by Institute teams and individuals throughout 2008/2009 are detailed in Appendix 1.

### **Sports Scholarships Presented**

The following students were presented with Sports Scholarships at the Annual Sports Awards Ceremony held on the evening on 23 April 2008:

<b>RECIPIENTS 2008/09</b>	<b>COUNTY</b>	<b>SPORT</b>
Eamon Bannon	Roscommon	Gaelic Football
Patrick Rigney	Offaly	Gaelic Football
David Shallow	Galway	Gaelic Football
Enda Mullarkey	Galway	Gaelic Football
David Reilly	Galway	Gaelic Football
Niall Judge	Sligo	Gaelic Football
Aidan Burke	Westmeath	Gaelic Football
Gary Burke	Galway	Hurling
Conor Slater	Westmeath	Hurling
Craig Tone	Westmeath	Soccer
Brendan McManus	Offaly	Rugby
Patrick Doran	Roscommon	Rugby
Rory Walshe	Offaly	Rugby
Amy Grehan	Laois	Gaelic Football
Charlotte Delaney	Laois	Gaelic Football
Marian Murray	Galway	Gaelic Football
Louise Donoghue	Meath	Camogie
Siobhan Flannery	Offaly	Camogie
Orna O'Dowd	Sligo	Soccer
Claire Madigan	Clare	Athletics
James Durkin	Westmeath	Gaelic Football
James McKeague	Roscommon	Gaelic Football.
Ray Galligan	Cavan	Gaelic Football
Fintan O'Reilly	Westmeath	Gaelic Football
Trevor Phelan	Westmeath	Rugby
Carmine Russo	Offaly	Soccer
Martin Coyne	Galway	Rugby
Paul Harte	Westmeath	Rugby
Catriona Dolan	Kildare	Gaelic Football
Louise Hayes	Clare	Camogie
Arlene Watkins	Offaly	Camogie
Sarah Noone	Galway	Camogie
Fiona Stephens	Offaly	Camogie
Aisling Egan	Roscommon	Soccer

### **3.9 STUDENT SERVICES**

The AIT Student Services Department is often described by students as the 'heart' of the college in that this department is primarily concerned with student welfare and the pastoral elements of academic life. Our reputation for caring for students is evident in our increased student numbers, excellent retention rates, funding awards such as the Strategic Innovation Fund and the Dormant Accounts Initiative and awards from external bodies such as the 02 Ability Awards.

The Student Services Department's engagement with the external community and BMW hinterland was taken to another level this year with our participation in the Athlone

Community Taskforce open day for the recently unemployed, and with the introduction of 'New Directions' and the accelerated 'First Year Engineering' courses. These Labour Market Activation Programmes were aimed at giving the recently unemployed access to education, a solid grounding in the skills they would need to be successful as fulltime students and a strong base from which to progress into mainstream programmes. The Student Services Department was very active in reaching out to the surrounding community and responding to the needs of the people affected by the downturn in our economy who were looking to return to education. Our role in the New Directions programme took the form of collaboration with academic colleagues on programme design, project management, early recruitment and promotion, interviewing, provision of guidance to individuals, access support and liaison with stakeholder agencies and social welfare offices, continual mentoring and coaching and liaison and advocacy through academic channels. Of the 31 participants in AIT's New Directions programme, 29 progressed into mainstream courses and found this experience to be life changing.

### **Funded Programmes**

The student Services Department was involved in a range of programmes throughout the academic year 2008-09 and these have been made possible through external funding. Some of these initiatives include:

#### **Dormant Accounts Initiative**

- After Schools Club – 40 primary school children participated in this programme
- Music and Technology Course – 7 secondary school students participated in this programmes
- Summer Camps

#### **Strategic Innovation Fund**

- Access Foundation courses (Tullamore, Ballinasloe and Longford)
- Saturday Maths programme for secondary school students from disadvantaged areas – 80 students from 20 different schools participated in this programme
- Ascent Regional Assessment and Resource Centre project – this was conducted through the AIT Disability Service in collaboration with 5 higher level institutions in the North West and Midlands regions.
- REACH Regional Assistive Technology Connection to Higher Education – supports access, retention and progression of students with specific learning difficulties.

#### **Additional Programmes**

- AIT Foundation Certificate in Access Studies — 23 participants took part in this AIT based programme.
- Supplementary Admissions Route for Students with Disabilities – this joint project aimed at monitoring the quality control aspects of evaluation of students with specific learning difficulties in conjunction with the 7 universities, DIT, NCI, CAO and the Irish Universities Association
- Healthy Campus Project (HSE funded) – this programme involved promoting healthy living across the campus through such initiatives as the Fit for Life programmes.

#### **Major Events**

In addition to the **Graduation**, Student Services was involved with **New Student Induction**. We believe in a philosophy of continuous improvement and have made changes and additions to these events year on year with a strong emphasis being placed on activities geared towards student retention and progression. A new student diary was developed as part of the Induction 2008 experience as were fun ice breaker activities which helped students meet new friends and get acquainted with their new surroundings.

In addition to regular health promotion activities, the Student Services Department held two separate **health screening** days for staff and students in association with the Healthy Campus initiative and the Diabetes Federation of Ireland.

Student Services is proud to host the largest **Careers Fair** outside of Dublin. 2008-09 proved more challenging with less companies and less jobs available than in previous years as a result of the deepening economic recession; which made the AIT Careers Fair all the more important to our students.

#### **4.0 RESEARCH AND DEVELOPMENTAL ACTIVITIES**

##### **4.1 DEVELOPMENT ACTIVITIES**

The reconfiguration of the old Administration Area into separate Registration and Research suites was undertaken over the summer.

Parking Permits were issued to staff and students for the first time in September. A limited number of Pay & Display car spaces will be designated on the Main Campus and the East Campus.

##### **4.2 RESEARCH ACTIVITIES**

The Implementation of AIT Research Administration and Management Systems continued. The AIT Ethics Committee which is a subcommittee of AIT RI&E committee was formed to finalise the proposal for RI&E and subsequently Academic Council. The process to develop an AIT Code of Conduct for Researchers commenced and the implementation of new governance / operational procedures for research centers continued. New research collaborations initiated with DCU (4 bilateral research projects; software, biotox, materials, health) and with UCD (Nanomed and education initiatives) while an MOU with Georgia Tech (GT), Georgia Tech Research Institute (GTRI) and Georgia Tech Ireland (GTI) continued to cover research, education and innovation activities. The submission to *Higher Education Authority - Research Facilities Enhancement Scheme (RFES) 2008* to develop dedicated postgraduate research environment with appropriate social space at AIT East Campus McCarricks Building, was successful with €1.8million secured. Dr Clem Higginbotham secured a Strand III research grant to the value of €400,000 in the area of Nanoprotein Delivery. A listing of research activities and publications is contained in Appendix II

###### **4.2.1 Research Programmes**

A breakdown and listing of the research projects successful in obtaining funding by School is shown in Appendix III.

###### **4.2.2. Research Collaborations**

*European Union Atlantic Area Transnational 2008 Collaboration Programme:* AIT coordinated a major project proposal submission to this call for proposals in the area of Entrepreneurship. Partners include Smurfit Business School, UCD, New University of Lisbon, University Montesquieu-Bordeaux IV, Westmeath County Council, Lisbon Science Park, University of Algarve, Camara Municipal Almada

Dr Michael Nugent commenced a research project with Erin Energy. Erin Energy Ltd to develop and produce innovative renewable energy technologies. It's lead product is a unique solar panel water heating system that delivers high performance with excellent aesthetics, is designed for the residential market in Ireland, the UK, and northern Europe. Michael also completed a research project with PressPlay Ltd. Pressplay Ltd. is an industrial design company formed to design high value solutions for the construction industry. Working with Pressplay, AIT researchers examined the development issues for a novel product EziTile. This is a novel prefabricated product which will level floors and walls prior to setting tile or marble.

#### **4.3 CAMPUS DEVELOPMENT**

The construction of the Engineering/Informatics building continued. However the completion date for the project was extended due to ongoing issues relating to the project.

#### **4.4 Office of Safety, Health and Wellbeing**

The institute health, safety and welfare programme is a plan designed to ensure regulatory compliance, the prevention of accidents injury and ill health and protect the reputation of the institute. For the programme to work successfully requires the commitment and participation from students, staff, contractors and visitors. The is further challenged by the wide diversity of needs and activities, constant changes, reviews and updating necessary in relation to regulatory compliance. Safety culture describes the shared values in the organisation that influence members attitudes, values, and beliefs in relation to safety. This is now generally accepted as having a strong influence in the prevention of accidents and injuries in both the workplace activities and those of life style and behaviour.

The main activities focused on risk management, the new engineering building, construction/ renovation projects, election of safety representatives, safety, health and wellbeing presentations, dissemination of safety information to students, staff, and contractors, safety training, ergonomics, the HSE Community Games and the promotion and greater adoption of a positive safety culture. Success collaboration with managers, staff, students and contractors ensured effective emergency management access and the most efficient use of the finite car parking resources available.

One off the main priorities of the academic year was the commissioning and practical completion of the new engineering building. This process highlighted problems which are being addressed prior to handover.

An investigation into an intermittent odour causing illness and lost time concluded there was no evidence of gaseous, biological and physical parameters to support poor air quality.

The time line for the completion of the research hub proved very demanding not least of which was the safe system of work agreed for the removal and registered disposal of asbestos. Also the use of new and existing equipment and the changing nature of experiments represent safety challenges of a technical and individual nature e.g. specialist training, lone working or working outside normal working hours.

Research and testing of a digital mobile communications system was facilitated on campus. This research and related data will serve to determine possible health risks and the practical safety levels of RF (Radio Frequency) equipment that will be commensurate with the system operating effectively.

This office, the estates office and the office of disability support services facilitated transition students from the Marist College Athlone to set up a blind cafe. This unique project was designed to raise awareness by enabling students and staff to experience the difficulties faced by those who are blind or visually impaired in their daily activities.

Statutory compliance was fulfilled when staffs were consulted through an election of safety representatives to the institute committee for safety health & wellbeing. Their role is to highlight areas and activities in the workplace that pose a risk, particularly an unacceptable risk to the safety, health & wellbeing of students, staff, visitors and contractors.

The influenza A (H1N1) potential pandemic and its possible impact on students, staff and critical function focused the minds of a representative working group. This was set against a background of students and staff returning from the four corners of the globe after the summer break. The group prioritised the need and availability for accurate information on the planning, preventing, identifying and treating of A (H1N1). The AIT Web page proved to be the most flexible and visible means of promoting information for students, staff, parents and guardians. Monitoring and confirming absenteeism specific to A (H1N1) is ongoing.

During one weekend in May and two weekends in August the HSE Community Games were hosted on campus. Good planning and a practical safety management approach ensured thousands of participants and supporters enjoyed a successful diversity of sporting and cultural activities. The experience gained will enable greater clarification of the boundaries of

risks and responsibilities each organisation may have in relation to regulatory compliance (duty of care) in preparation for the games scheduled for 2010.

Ergonomic assessments regularly identify the risks and the necessary corrective action was implemented in partnership with the user and head of the department. This strategy has proved successful and is now well established. The wider use of laptops by staff and researchers in many different environments has changed the ergonomic climate, generating the need for greater awareness and extra measures to protect users from musculoskeletal problems. These include awareness regarding, hunching over a fixed keyboard/screen arrangement, working in unsuitable environments on an extended basis and carrying extra weight (plus accessories),

The exchange of ideas and the challenges of risk management were discussed with a group of deans of faculties from the technical vocational college in Saudi Arabia.

## 5.0 **Human Resources Department**

The institute's Human Resources Department manages a variety of activities within the Institute and these include recruitment, training, management of employee benefits, employee records and personnel policies. The Institute has appropriate personnel policies and procedures that comply with legislation and health and safety requirements. The following are the staffing figures for 2008/2009:

	<b>Total</b>	<b>Male</b>	<b>Female</b>
Management <sup>1</sup>	5	4	1
Academic Staff (Permanent) <sup>2</sup>	199	124	75
Academic Staff (Part-Time) <sup>3</sup>	44	22	22
Technical Support (Permanent) <sup>4</sup>	33	20	13
Technical Support (Part-Time)	0	0	0
Administrative Staff (Permanent) <sup>5</sup>	91	22	69
Administrative Staff (TWT/Part/Time)	19	3	16
Contract Employees <sup>6</sup>	1	1	0
Support Staff <sup>7</sup>	72	24	48

<sup>1</sup> Senior Management only (Director included as academic staff).

<sup>2</sup> Includes permanent whole-time (PWT) posts filled on a temporary whole-time (TWT). Excludes equivalent part-time (EPT).

<sup>3</sup> Includes equivalent part-time (EPT) and other part-time staff.

<sup>4</sup> Technicians and Craft Assistants.

<sup>5</sup> Includes Grades III-VII and Assistant Principal Officers (APOs).

<sup>6</sup> Contract administration staff and the Sports Officer.

<sup>7</sup> Class Aides, maintenance Staff, caretaking staff, part-time attendant, Nurse, Clerk of Works and the Cleaning Supervisor.

## 6.0 **INTERNATIONAL LINKS**

### 6.1 **Student Mobility -**

A total of 260 European students studied at Athlone Institute of Technology during the academic year 2008/2009. The number of European countries represented is continually on the increase. The International Office at the Institute, under the management of Ms Mary Simpson, provides a focal point for the students where all their queries are dealt with in a professional manner.

## Student Inward Flow from EU Countries

<b>Country of Origin</b>	<b>Number of Students</b>
Austria	2
Belgium	11
Czech Republic	3
Finland	12
France	57
Germany	26
Hungary	2
Italy	40
Lithuania	19
Poland	25
Spain	45
Switzerland	4
The Netherlands	3
Turkey	11
<b>TOTAL</b>	<b>260</b>

A major area for development for the Institute in recent years has been the growth in the number of Non-EU students studying at the Institute. The Institute is justifiably proud of the services provided to such students and every effort is made to ensure that they adapt to the cultural and economic differences of living and studying in Ireland. This year 225 Non-EU students were enrolled at the Institute under the following headings:

<b>Year</b>	<b>Student Numbers</b>
Foundation	37
Undergraduates	132
Post Graduates	26
Repeats	30
<b>TOTAL</b>	<b>225</b>

### 6.2 Institutional Contract 2008/2009

The Institutional contract under the Erasmus programme was €14,579.

## 7.0 MISCELLANEOUS

### 7.1 Guests/Visiting Lecturers

The Canadian Ambassador to Ireland his Excellency Patrick Binns visited the MIRC Centre on 15<sup>th</sup> September, 2008 and met many of the entrepreneurs based at the Centre. The Ambassador was very impressed with the quality and diversity of the technology - based start-ups, and in particular the calibre of the promoters of these businesses.

His Excellency, Dr Zion Evrony, Ambassador of Israel visited AIT in December 2008; the Ambassador was accompanied by Mrs Evrony. The Ambassador was met by Dr P. Mulhern and Ms Mary Simpson.

### 7.2 Institute Events

Open Days 2008 were held on Friday and Saturday, 14 and 15 November. In keeping with previous years, the larger class visits happened on Friday, with individual students, many accompanied by their parents, visiting the institute on Saturday.

The School hosted the annual ISTA Science quiz regional final for secondary school pupils in November. There were 21 teams from around the region, with Scoil Mhuire Longford the winners.

An information evening for mature students was held in the Nursing and Health Science Building in January. The event was well attended and the combination of information stands on behalf of the schools, fees/grants and admissions, together with a presentation about AIT and how to apply to the CAO was well received.

The occasional series of lectures hosted by the main library of the institute continued with separate contributions from historian, Dr Harman Murtagh and from Marian Harkin MEP.

The Business School hosted the Second Annual Junior Certificate Awards Ceremony in February 2009. Guest speaker on the night was Mr Gary Keegan, Director of Performance Management with the Irish Institute of Sport.

A very successful parents' evening for new applicants took place in HTL at the end of April. Well-attended by some 80 parents, the meeting was regarded as sufficiently valuable to become part of the annual School calendar.

The National Finals of the HSE Community Games were staged at AIT for the first time in summer 2009. The finals moved to Athlone after four decades at Mosney. The three weekends (May and August) were deemed a major success for the HSE Community Games and AIT. Furthermore, the competitions gained significant media coverage in national and regional press.

The former World and European athletics champion Eamonn Coghlan, officially opened the IAAF-standard athletics facility at AIT in May.

## 8.0 **FINANCIAL REPORT**

Audited accounts are displayed in Appendix IV.

### **Income and Expenditure Account**

#### **Current Income by Source for the year ended 31 August 2009**

	€	%
State Grant	25,425	53%
Tuition Fees	7,136	15%
Student Registration Charge	2,927	6%
Amortisation of Deferred Capital Grants	2,861	6%
Research Grants and Contracts	6,438	13%
Other Income	2,696	6%
Student Support Funding Income recognised	266	0.5%
Interest Income	122	0.25%
<b>Total</b>	<b>€47,871</b>	

#### **Current Expenditure for the year ended 31 August 2009**

	€	%
Academic Departments	25,909	56%
Academic Services	1,398	3%
Facilities Costs	3,038	7%
Central Administration and Services	5,054	11%
General Educational Expenses	333	1%
Student Registration Fees	1,542	3%
Research Grants and Contracts	5,725	12%
Student Support Funding Income applied	266	1%
Depreciation	2,861	6%
<b>Total</b>	<b>€46,126</b>	

## **9.0 APPENDICES**

### **APPENDIX I Some of the major sporting achievements by Institute teams and individuals throughout 2008/2009**

#### **BASKETBALL**

An outstanding team this year, probably the best the AIT has had. The addition of new players to the squad made the team very strong – they were undefeated all season. It is hoped that the winning form will continue throughout next season.

#### **MENS SOCCER**

The Mens 1<sup>st</sup> team won the CFAI Premier Division West and were narrowly defeated, in a penalty shootout, by UCC in the league quarter finals. The team also made it through to the CFAI finals but were beaten in the semi-final. Kevin Gaylard and Carmine Russo were selected for the CFAI National Squad.

The Mens 2<sup>nd</sup> team won the CFAI First Division West but were beaten in the league semi-final by a very strong Sallynoggin team. They were narrowly defeated in the B Teams Cup by IT Sligo on a penalty shootout.

#### **WOMENS SOCCER**

The team's first season in the WSCAI First Division proved very successful, ending the season as runners up after only one defeat. This qualified them for a playoff match with a premier division team which they won defeating the Garda College thus gaining promotion to the Premier Division next season. They exceeded all expectations in their first ever Intervarsities, beating two Premier Division teams to top their group and qualify for the Cup semi-finals. Catriona Dolan won the WSCAI First Division Top Goal Scorer award. Four team members – Aisling Egan, Catriona Dolan, Orna O'Dowd and Charlotte Delaney – were selected for the First Division All Star team.

#### **FUTSAL**

The Civilians won out the Futsal League 2009. In the Third Level Futsal Cup AIT were narrowly defeated in the final by UL.

#### **RUGBY**

Paul Harte and Paul Galvin played for the Irish Colleges in their international matches.

#### **WOMENS RUGBY**

AIT Lions Womens' Rugby team had a successful season with increased numbers involved in the sport. They won over half of their matches in the College's League and finished fourth in the South-West Conference Development League.

#### **CAMOGIE**

Camogie continued to be the most successful club in the college, having claimed their third Purcell Cup success in the past six years with victory over Mary Immaculate College, Limerick in this year's final. AIT is now the most successful college in the competition in the past twenty years. Such success is due to the tremendous commitment and dedication of the players and this is borne out by the fact that ten of the 2009 team also won medals on the 2007 winning squad.

#### **HOCKEY**

AIT Hockey club finished runners-up in the Mixed League. The highlight of the year was the trip to Cork where the team played a Round Robin competition.

#### **EQUESTRIAN:**

In November 2008, AIT in conjunction with Gurteen College hosted the National Tetrathlon. This consisted of four events – running, shooting, swimming and show jumping. Over one hundred competitors from twelve colleges competed. At the annual Intervarsities four teams and three individuals competed in three elements. Our competitors did well and the college scored well being fourth out of sixteen colleges. AIT also hosted the now annual "Colours" competition between UCC, Gurteen and AIT in March 2009. AIT was very successful and placed first in the team jumping.

### **GAELIC FOOTBALL**

The Sigerson Football team competed very well in Division 1 of the All Ireland league and beat Tralee IT in the Sigerson Cup only to lose out to eventual finalists DIT in the quarter final. The Intermediate footballers had a mixed season competing very well in the league pre Christmas but struggled in the championship after Christmas. The Junior footballers defence of their All Ireland title started well but they were beaten by a strong NUIG team that cost them a place in knock-outs stages. The Freshers' footballers won the Connacht league where they went on to reach the All Ireland semi-finals but were beaten by UCC.

### **HURLING**

The Senior Hurlers qualified for the league quarter finals losing out to UUJ, while the Freshers' hurlers had a great year culminating in a one point loss in the All Ireland semi final after extra time to eventual winners DCU. The Junior hurlers participated in the Connacht league and competed well but unfortunately there is not enough competition after Christmas for this level.

### **LADIES GAELIC FOOTBALL**

The Ladies Football Club hosted the All Ireland Sevens competition. AIT reached the cup final only to be beaten by a star studded UUJ team. Our senior girls reached the Lynch Cup Q-finals with fine wins over Carlow IT and GMIT only to lose out to eventual winners St Mary's Belfast by one solitary point, with St Mary's scoring a goal late in injury time to break AIT hearts.

## **APPENDIX II**

## **Research Activities and Publications**

A journal paper by **Ronan Flynn** and Edward Jones (NUI Galway) was accepted for publication. The paper entitled "*Robust Distributed Speech Recognition using Speech Enhancement*" was published in the August 2008 issue of the IEEE Transactions on Consumer Electronics.

**Jason Palframan** delivered a paper, titled "*COPING WITH MAJOR LIFE EVENTS: THE ROLE OF SPIRITUALITY AND SELF-TRANSFORMATION*" at the British Psychological Society, Transpersonal Psychology Section, Twelfth Annual Conference, at Cober Hill, Cloughton, near Scarborough, UK 12-15th September 2008. In addition, the above paper, co-authored with Professor Les Lancaster, School of Psychology, Liverpool John Moores University, UK, was accepted for publication by the Mental Health, Religion, and Culture Journal, Volume 11, Issue 7.

**Dr Paul Archbold** submitted a paper to the 2008 Joint Symposium on Bridge and Transport and Concrete Research in Ireland entitled "*Evaluation of Novel Interactive Load Models for Footbridges*"

**Karen Gardiner** presented on "*Heritage and Culture - Issues to be Addressed for the Future*" at the Annual EuroChrie Congress in the Emirates Academy of Hospitality Management in Dubai, UAE in October 2008. The European Council on Hotel, Restaurant & Institutional Education (Eurochrie) is the official federation for Europe, the Mediterranean Basin and Africa of International CHRIE and supports education and training for the world's largest industry.

A paper submitted to the Elsevier journal Speech Communication by **Ronan Flynn** and Edward Jones (NUI Galway) was accepted for publication. The paper "*Combined Speech Enhancement and Auditory Modelling for Robust Distributed Speech Recognition*" was published in Speech Communication 50 (2008) pp. 797-809.

**Xu, C, Miro Muntean, G, Fallon, E**, "*Distributed Storage-Assisted Data-driven Overlay Network for P2P VoD Services*" was accepted for publication by the IEEE Trans. of Broadcasting Journal (2008).

A follow on paper to **Qiao Y, Fallon, E, Murphy, J, Murphy, L, Hanley, A**, "*Path Selection of SCTP Fast Retransmission in Multi-homed Wireless Environments*" was requested for publication in the Springer Telecommunications Journal (2008) and was subsequently presented at the proceedings of the 13<sup>th</sup> IFIP Personal and Wireless Communications (PWC) Conference Toulouse France 2008.

**Fallon, S, Jacob, P, Qiao, Y, Murphy, L, Fallon, E, Hanley, A** "*An Analysis of Alterations to the SCTP RTO Calculation Mechanism for WLAN Environments*", presented at the proceedings of the 10<sup>th</sup> IFIP Mobile and Wireless Communications Networking Conference (MWCN) Toulouse France 2008.

**Xu, C, Miro Muntean, G, Fallon, E**, "*DONET VOD, A Hybrid Overlay Solution For Efficient Peer-to-peer Video On Demand Services*" presented at the proceedings of the IEEE International Conference and Multimedia Expo (ICME) Hanover Germany 2008.

**Fallon, E, Murphy, L, Murphy, J**, "*An Analysis of the Performance of an MIH Based Switch Strategy for Heterogeneous Network Mobility*" presented at the proceedings of the ICT Mobile Summit Stockholm Sweden June 2008.

**Sutkevicius, A, Fallon, E, Qiao, Y** "*A SIP Based Application Layer Multi-homed Implementation*" presented at the proceedings of the 2008 IT&T Conference Galway, Ireland.

**Xu C, Qiao, Y, Fallon, E, Muntean, G, Li, X, Jacob, P, Hanley, A**, "*Evalvid-SCTP: Trace Driven Simulation of MPEG-4 Video Transmission over SCTP Network*" presented at the proceedings of the 2008 IT&T Conference Galway, Ireland.

**Li, X, Stewart, R, Xu, C, Murphy, S, Fallon, E**, "*Study of AODV Routing in Multi-channel Multi-interface Wireless Mesh Network*" presented at the proceedings of the 2008 IT&T Conference Galway, Ireland.

**The Higginbotham Research Group** represented AIT at the 21<sup>st</sup> European Conference on Biomaterials in Brighton (UK) and at the International Congress on Biohydrogels in Viareggio (Italy). The following postgraduate students and staff members exhibited poster presentations at these conferences: Dr John Lyons, Dr Luke Geever, Dr James E. Kennedy, Dr Sinead Devery, Oilbhe Lawlor, Ciaran Cooney, Dr Michael Nugent, Thomas Smith, Michael McGann, Dr Ernest Foy, Dr Declan Devine and Dr Clement Higginbotham. The following oral presentations and publications were also given at these conferences:

**James E. Kennedy, Clement L. Higginbotham.** “*Surface topography and drug elution characteristics of a grafted thermoplastic elastomer*”. Proceedings of the 21<sup>st</sup> European Conference on Biomaterials, Brighton, UK.

**Luke Geever, Declan Devine, Michael Nugent, Clement L. Higginbotham.** “*Temperature sensitive poly (N-isopropylacrylamide) based gels for controlled drug delivery*” . Proceedings of the 21<sup>st</sup> European Conference on Biomaterials, Brighton, UK.

**Luke Geever, Ciaran Cooney, Sinead M. Devery, Clement L. Higginbotham.** “*Negative temperature sensitive hydrogels in controlled drug delivery*”. Proceedings of the International Congress on Biohydrogels, Congress Centre “Principe di Piemonte”, Viareggio, Italy.

**James E. Kennedy, Clement L. Higginbotham.** “*A Study of the Drug Release Mechanisms from a Grafted Thermoplastic Elastomer*”. Proceedings of the International Congress on Biohydrogels, Congress Centre “Principe di Piemonte”, Viareggio, Italy.

**Clement L. Higginbotham, Ray Hamilton, Ernest Foy, Guy Havet, John Cadogen** (2008). “*Polymers produced from polyfunctional alcohols and processes for producing said polymers*”. Patent application No. P13177.EP

**Geever, L.M., Cooney, C.C., Lyons, J.G., Kennedy, J.E., Nugent, M.J.D., Devery, S., Higginbotham, C.L.**, (2008), ‘*Characterisation and controlled drug release from novel drug-loaded hydrogels*’. European Journal of Pharmaceutics and Biopharmaceutics, 69, 1147-1159.

**Geever, L.M., Cooney, C.C., Devine, D.M., Devery, S., Nugent, M.J.D., Higginbotham, C.L.**, (2008), ‘*Negative Temperature Sensitive Hydrogels in Controlled Drug Delivery*’. Macromolecular Symposia, 266, 53-58.

**Lyons, J.G., Blackie, P., Higginbotham, C.L.**, (2008), ‘*The significance of variation in extrusion speeds and temperatures on a PEO/PCL blend based matrix for oral drug delivery*’. International Journal of Pharmaceutics, 351, 201-208.

**The Higginbotham Research Group** also represented AIT at the 8<sup>th</sup> World Biomaterials Congress in Amsterdam. This conference, which takes every four years, brings together all the top biomaterials researchers in the world. The following oral presentation and a number of poster presentations were given:

**James E. Kennedy and Clement L. Higginbotham**

Development of a novel drug eluting grafted thermoplastic elastomer for the prevention of restenosis  
*Proceedings of the 8<sup>th</sup> World Biomaterials Congress, RAI Conference Centre, Amsterdam, Netherlands*

The Higginbotham research group had the following research papers accepted:

**Thomas J. Smith, James E. Kennedy, Clement L. Higginbotham** (2009)

“*The rheological and thermal characteristics of freeze-thawed hydrogels containing hydrogen peroxide for potential wound healing applications*”. Journal of the Mechanical Behaviour of Biomedical Materials, **In Press**, DOI: 10.1016/j.jmbbm.2008.10.003

**James E. Kennedy, John G. Lyons, Luke M. Geever, Clement L. Higginbotham**

“*Synthesis and characterisation of grafted co-polymers used as biomedical coatings*”,

Society of Plastics Engineers, European Conference on Medical Polymers, September 2-4, Polymer processing and Medical Polymer Research Centres, Queen’s University Belfast

**John G. Lyons, Mark Hallinan, Paul Blackie, Clement L. Higginbotham**

*“Sustained release polymeric matrices for oral drug delivery from a supercritical fluid assisted extrusion”*, Society of Plastics Engineers, European Conference on Medical Polymers, Polymer processing and Medical Polymer Research Centres, Queen’s University Belfast

Following peer review the following paper were published.

**Reid, A.M., Brougham, C.A., Fogarty, A.M., Roche, J.J.** (2009) *“Accelerated solvent based extraction and enrichment of selected plasticisers and 4-nonylphenol, and extraction of tin from organotin sources in sediments, sludges and leachate soils”*. *Analytica Chimica Acta* 634, 2, 197-204  
DOI:10.1016/j.aca.2008.12.032

**Dr Andy Fogarty** presented a paper entitled “Endocrine Disruption in Irish Freshwater Fish” at an International conference on Water, Waste and the Environment held in the RDS in March.

**APPENDIX III****RESEARCH PROJECTS WHICH WERE SUCCESSFUL IN OBTAINING FUNDING DURING THE YEAR 2008/2009 –**

**Project Title:** Innovation Voucher  
**Amount:** €5,000  
**Funding Body:** Intertrade Ireland  
**Research Supervisor:** SRI

**Project Title:** DRAI  
**Amount:** €383,976  
**Funding Body:** EI  
**Research Supervisor:** SRI

**Project Title:** Innovation Voucher  
**Amount:** €5,000  
**Funding Body:** EI Voucher  
**Research Supervisor:** Michael Nugent

**Project Title:** Innovation Voucher  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** MRI

**Project Title:** Water Collection System for Rainwater in Paved Areas  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** MRI

**Project Title:** Development of a Database to Keep Track of Farm Livestock  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** Ronan Flynn

**Project Title:** Design of a New Hurley Stick  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** MRI

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** SRI

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** SRI

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** MRI

**Project Title:** Design and Building of Prototypes for baby Bottle Sterilization Unit  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** Keith Vaugh

**Project Title:**

**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** Keith Vaugh

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** Paul Tomkins

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** Michael Nugent

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** Keith Vaugh

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** SRI

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** MRI

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** MRI

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** MRI

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** MRI

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** MRI

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** MRI

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** MRI

**Project Title:**

**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** John Cusack

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** John Cusack

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** Keith Vaugh

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** Keith Vaugh

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** SRI

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** MRI

**Project Title:**  
**Amount:** €5,000  
**Funding Body:** EI  
**Research Supervisor:** Paul Tomkins

**Project Title:** Fusion Project  
**Amount:** €9,000  
**Funding Body:** Intertrade Ireland  
**Research Supervisor:** Paul Blackie

**Project Title:**  
**Amount:** €5,600  
**Funding Body:** Industry  
**Research Supervisor:** SRI

**Project Title:** Recycling Polycarbonate  
**Amount:** €9,000  
**Funding Body:** EI  
**Research Supervisor:** Paul Blackie

**Project Title:** Development of a Novel Method of HDPE Recycling  
**Amount:** €136,000  
**Funding Body:** EI  
**Research Supervisor:** Clem Higginbotham

**Project Title:** Structural Condition of Monitoring of Large Scale Civil Engineering Structures  
**Amount:** €46,000  
**Funding Body:** HEA  
**Research Supervisor:** Paul Archbold

**Project Title:** Enhancement of a management system for an enterprise class wireless integrated network  
**Amount:** €46,000  
**Funding Body:** HEA  
**Research Supervisor:** Paul Archbold

**Project Title:** An investigation into the involvement of proton-dependent uptake of nateglinide in ovine and porcine intestinal membrane vesicles  
**Amount:** €46,000  
**Funding Body:** HEA  
**Research Supervisor:** Don Faller

**Project Title:** Development of a high intensity, pulsed plasma, gas-discharge system as a novel innovation for decontaminating municipal wastewater  
**Amount:** €46,000  
**Funding Body:** HEA  
**Research Supervisor:** Neil Rowan

**Project Title:** Novel hydrogels for drug delivery applications in Nanomedicine  
**Amount:** €46,000  
**Funding Body:** HEA  
**Research Supervisor:** Clem Higginbotham

**Project Title:** Development of a test battery for epigenetic non-genotoxic carcinogens  
**Amount:** €45,970  
**Funding Body:** HEA  
**Research Supervisor:** Sinead Devery

**Project Title:** Companion Animals as Reservoirs of Antibiotic Resistant Staphylococci (ARS)  
**Amount:** €46,000  
**Funding Body:** HEA  
**Research Supervisor:** Mary Booth

**Project Title:** The development of a novel two-phase polymeric wound healing device to help the healing of burn victims  
**Amount:** €46,000  
**Funding Body:** HEA  
**Research Supervisor:** James Kennedy

**Project Title:** Slamming Doors Open: A critical study of the work of French slam artist Abd Al Malik and its relevance for intercultural communication  
**Amount:** €40,000  
**Funding Body:** HEA  
**Research Supervisor:** Mairead Seery

**Project Title:** Polymeric Nanoparticles for the Oral Delivery of Protein Therapeutics  
**Amount:** €400,000  
**Funding Body:** HEA  
**Research Supervisor:** Clem Higginbotham

**Project Title:** Pulsed UV Light inactivation of Cryptosporidium spp. Oocysts in drinking water supplies in Ireland  
**Amount:** €27,100  
**Funding Body:** EPA  
**Research Supervisor:** Neil Rowan

**Project Title:**  
**Amount:** €25,000  
**Funding Body:** Failte Ireland

**Research Supervisor:** Marian Fitzgibbon

**Project Title:**

**Amount:** €62,000

**Funding Body:** Failte Ireland

**Research Supervisor:** Marian Fitzgibbon

**Project Title:** Unimap Project

**Amount:** €18,000

**Funding Body:** Other

**Research Supervisor:** Robert Stewart

**APPENDIX IV****AUDITED ACCOUNTS****ATHLONE INSTITUTE OF TECHNOLOGY****BALANCE SHEET AT 31 AUGUST 2009**

	<b><u>2008</u></b>	<b><u>2009</u></b>
	<b>€000s</b>	<b>€000s</b>
<b>FIXED ASSETS</b>	<b><u>63,323</u></b>	<b><u>79,785</u></b>
	<u>63,323</u>	<u>79,785</u>
<b>CURRENT ASSETS</b>		
Debtors and Prepayments	3,414	3,643
Cash at bank and in hand	<u>6,059</u>	<u>7,686</u>
	<u>9,473</u>	<u>11,329</u>
<b>CURRENT LIABILITIES</b>		
Creditors and Accrued Expenses – Amounts Falling due within 1 yr	6,799	6,975
	<u>6,799</u>	<u>6,975</u>
<b>NET CURRENT ASSETS</b>	<u>2,674</u>	<u>4,354</u>
	<u>2,674</u>	<u>4,354</u>
<b>NET ASSETS</b>	<u>65,997</u>	<u>84,139</u>
	<u>65,997</u>	<u>84,139</u>
<b>Represented by</b>		
<b>RESERVES</b>		
Deferred Capital Grants	63,323	79,785
Income and Expenditure Account	2,651	2,356
Restricted Reserve	<u>23</u>	<u>1,998</u>
	<u>65,997</u>	<u>84,139</u>

**Signed on behalf of the Governing Body:**

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**ATHLONE INSTITUTE OF TECHNOLOGY**

**INCOME AND EXPENDITURE ACCOUNT**

**FOR THE YEAR ENDED 31 AUGUST 2009**

	<b><u>2008</u></b> €000s	<b><u>2009</u></b> €000s
<b>INCOME</b>		
State Grant	25,298	25,425
Tuition Fees	6,889	7,136
Student Registration Charge	2,737	2,927
Amortisation of Deferred Capital Grants	2,722	2,861
Research Grants and Contracts	4,879	6,438
Other Income	2,255	2,696
Student Support Funding Income recognised	322	266
Interest Income	210	122
	<b><u>45,312</u></b>	<b><u>47,871</u></b>
<b>EXPENDITURE</b>		
Academic Departments	24,826	25,909
Academic Services	1,470	1,398
Facilities Costs	2,973	3,038
Central Administration and Services	5,738	5,054
General Educational Expenses	410	333
Student Registration Fees	1,779	1,542
Research Grants and Contracts	4,876	5,725
Student Support Funding Income applied	322	266
Depreciation	2,722	2,861
	<b><u>45,116</u></b>	<b><u>46,126</u></b>
<b>OPERATING SURPLUS/(DEFICIT)</b>	<b>196</b>	<b>1,745</b>
<b>Transfer to Restricted Reserve</b>	<b>(87)</b>	<b>(2,040)</b>
<b>ACCUMULATED SURPLUS AT START OF YEAR</b>	<b><u>2,542</u></b>	<b><u>2,651</u></b>
<b>ACCUMULATED SURPLUS AT END OF YEAR</b>	<b><u>2,651</u></b>	<b><u>2,356</u></b>

**Signed on behalf of the Governing Body:**

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