



ESAI ANNUAL REVIEW 2017

ESAI Chairpersons Address from Dr. Frances Lucy



The Environmental Sciences Association of Ireland has had a busy year. The highlights are as follows:

- Environ 2017 – 27th Irish Environmental Researchers Colloquium hosted by Athlone Institute of Technology, 10-12th April
- ESAI Postgraduate Researcher of the Year Award
- ESAI Graduate awards at Universities and Institutes of Technology throughout Ireland
- ESAI Grassroots Workshop competition
- Where there is No Engineer' – National Finals, Supported by ESAI

We had a large attendance at Environ 2017 and this is reported separately. I would like to acknowledge Dr. Andy Fogarty and Dr. Sile O'Flaherty and their team of staff and students for hosting Environ 2017 at Athlone IT. The colloquium in Athlone was a huge success and extremely well organised from the

welcoming committee directing car parking to the seamless management of the presentation sessions. The theme for 2017 was 'Putting the Eco in the Economy'. Congratulations to all the winners in the ESAI Student Presentation competition which featured nine awards this year with a special mention to Aoife Hayes, Winner of the Best Oral Presentation at Environ 2018'.

Congratulations to Philip Shine, the winner of the 'ESAI Postgraduate of the Year Award'. He is a postgraduate student at Cork Institute of Technology in the final year of his studies. Philip's entry based on his PhD research project on 'Electricity and direct water consumption on Irish dairy farms' was of exceptional high calibre. Philip's cutting edge research informs the dairy sector on how Increasing milk production must be met with the sustainable consumption of on-farm electricity and water resources to ensure sustainable growth. Thank you to all the entrants for the 'ESAI 2017 Postgraduate of the Year Award' – all of the entrants were of a very high standard. Thanks also to ESAI council members Drs. Liam McCarton and Niamh Power for co-ordinating the judging. We encourage MSc and PhD researchers, in the final year of their research study, to apply for the ESAI Postgraduate Award in 2018. Please come along to see Philip present his research at the ESAI AGM on March 27th at 5.30pm in Tourism & Catering Building, Room T106.

One of our major initiatives in the past few years is to reach out to colleges more than we have done in the past. As part of this, we are fortunate to have an ESAI Liaison in each college. These staff members act as a contact point for ESAI activities and information flow. We are also offering free membership to all undergraduates in relevant courses in each college. The list of third level environmental education programmes on our web site has been updated as part of this process. This year we have recruited 135 new undergraduate members. We see this is a good sign of increased interest in early stage researchers and the growth of the ESAI.

In 2017, for the first time, we provided an undergraduate research award to the best graduates in many Environmental programmes in Irish HEIs. This was carried out with the help of the college liaisons who worked with their colleagues to identify the best students within their own environmental courses. Many students throughout Ireland were delighted to get their certificate and prize of ESAI membership. They looked great in their graduation photos holding their awards on the ESAI Twitter feed!

We would also like you to consider the ESAI Grassroots workshop scheme. The Grassroots Workshop Support Scheme was established in 2016 to assist researchers, particularly postgrads and postdocs at hosting specialist workshops. We are grateful to the EPA for providing funds for four more workshops in 2017-2018. This is a great opportunity to organise an event independent of your postgrad research project, which adds to your knowledge, networking and competence in project management.

Another recent development is that we have signed up to the voluntary Code of Governance. We see this as an important self-assessment of how we carry out our role as an Association, with oversight and fair process. "Where there is no Engineer" is a design initiative funded by the European Union DEAR program and Irish Aid. It is delivered in partnership with DIT, Engineers without Borders Ireland, Habitat for Humanity, Engineers Ireland and the ESAI. ESAI Researchers who think their work may have an application within a developing country are invited to enter the competition. Research is grouped under six global themes: Climate Resilient Infrastructure, Self Supply Water and Sanitation, Health, Off Grid Energy Systems, Food Security and Smart Data in the Community. This year's competition will focus on the scientific and social challenges of forced migration. Selected entrants will be invited to participate in the National Finals where they get the opportunity to pitch their research in a dragons den style format. The winning team will be awarded a "Davies Travel Scholarship" to travel to work with Habitat for Humanity and EWB. Four research concepts will also be selected for funding under our "Arup Trust Innovation Award". This will fund researchers who need to further testing to develop their concept to a practical stage. This is an opportunity for researchers to bring their research into a practical real world environment. Anyone interested to apply can discuss further at the EWB Ireland stand at the environ conference or email liam.mccarton@dit.ie for more information.

We are depending on the voluntary efforts of our members, so as always, we welcome your input. We are keen to partner with relevant environmental events you may be organising. Remember to keep in touch with ESAI through social media on Twitter, Facebook and LinkedIn. We produce a bi-annual newsletter [mail chimp] to keep you up to date with our activities and your participation in ESAI. The ESAI listserver continues to be very effective in terms of spreading news on events and jobs to our network.

On the ESAI Council front, we are actively seeking new members for the council to get involved in a range of new and existing activities. This is a great experience for both early stage [PhD and Post Doc] and more mature researchers and also research supervisors. Please attend the ESAI AGM on March 27th at 5.30pm in Room T106. at 5.30pm if you wish to become involved.

On behalf of the ESAI, I wish to say a sincere thanks to all members of the ESAI Council who are always enthusiastic and willing to get involved in council tasks. I particularly want to thank those who are stepping down from their roles. I would also like to thank my predecessor Dr. Tom Curran former chair of the ESAI council for his continued guidance. Thanks to the ESAI college liaisons who play a pivotal role in promoting Environ and in other activities.

The Council wish to sincerely thank ESAI administrator, Sinead Macken, for her excellent work, dedication and support over the past year with all our diverse activities.

Best wishes to all for research in the year ahead.

Dr Frances Lucy is Head of Department of Environmental Science at IT Sligo. She has been on ESAI Council since 2013 and was the convenor at the 2015 ENVIRON in IT Sligo.

ESAI Goals and Objectives 2017

Benefits of Membership

By becoming a member of ESAI, you will also have access to:

- Discounted rates at Environ, the annual Irish Environmental Researchers Colloquium, one of the major activities of the Association. It is now one of the largest national scientific meetings in Ireland attracting over 300 delegates each year.
- Discounted rates for selected workshops, seminars, further education courses and conferences.
- Access to ESAI listserver
- Eligibility to apply for ESAI Postgraduate Researcher of the Year Award
- Eligibility to apply for ESAI Undergraduate Researcher of the Year Award
- Eligibility to apply for ESAI Grassroots Workshop Funding
- Learn from others and absorb best practice
- Raise the profile of you and your business
- Stimulate new business opportunities
- Innovate and commercialise new products and services

Raise your Profile

- Members of ESAI will receive free-of-charge E-Newsletters, Environews.
- Sponsorship opportunities

Keeping you informed

The ESAI website (www.esaiweb.org) is kept up to date with the latest news from the association about our upcoming events, competitions and funding opportunities.

We circulate a quarterly newsletter summarising our work throughout the year. We also coordinate an email Listserver, which facilitates a community in excess of 2,600 subscribers to exchange information about environmental events and career opportunities in Ireland. To sign up to these services, please visit our website. We are also very active on a number of social media platforms including Facebook, Twitter and LinkedIn.

http://twitter.com/esai_environ

<http://www.facebook.com/esaiweb>

<http://www.linkedin.com/in/esaiweb>

Contact details

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2017 Events

Date	Event
Jan 1 st	ESAI Grassroots Workshop Support Scheme Sponsored by EPA – Rolling Call
February 28 th	ESAI Grassroots Workshop Support Scheme Sponsored by EPA – Rolling Call
March	ESAI Environews Spring Edition available online www.esaiweb.org
April 10 th -12 th	Annual Conference Environ 2017 co-hosted by Athlone Institute of Technology 27th Annual Irish Environmental Researchers Colloquium, Athlone Institute of Technology, Athlone, Co. Westmeath
April 10 th	Workshop @ Environ 2017 14:00-17:00 Field Trip to Clara Bog Clara Bog
April 10 th	Workshop @ Environ 2017 14:00-17:00 Maximising and Assessing Research Impact Athlone Institute of Technology
April 10 th	Workshop @ Environ 2017 14:00-17:00 Where Next? Career Opportunities after Completing a PhD Athlone Institute of Technology
April 10 th	Workshop @ Environ 2017 14:00-17:00 Where Next? Career Opportunities after Completing a PhD Athlone Institute of Technology
April 10 th	Launch ESAI Postgraduate Researcher of the Year Award Launch
April 11 th	ESAI AGM 7:30-18:00, Athlone Institute of Technology All members welcome
April 12 th	ESAI Student Competition Prize Giving Ceremony
April 30 th	Undergraduate Membership Offer Free Membership for all Undergraduate Members Scheme Rolled Out
May 17 th	Talk: Evaluating Food Chain Sustainability Using Carbon and Water Footprint Toos – Supported by ESAI 16:00-17:00, Room G08, UCD Agriculture and Food Science Centre, UCD, Belfield, Dublin 4
June 31 st	'Where there is No Engineer' – National Finals, Supported by ESAI 10:00-16:00, Radisson Blue Royal Hotel, Golden Lane, Dublin 8
July 31 st	ESAI Undergraduate of the Year Award Nominations Closes
August 31 st	ESAI Grassroots Workshop Support Scheme for Postgraduate and Postdoctoral Researchers Sponsored by EPA – Rolling Call
September 31 st	Undergraduate Membership Offer Free Membership for all Undergraduate Members Scheme Rolled Out

2017 Events

Date	Event
October 31 st	ESAI Grassroots Workshop Support Scheme for Postgraduate and Postdoctoral Researchers Sponsored by EPA – Rolling Call
October / November	ESAI HEI Nominated Undergraduate of the Year Award Winners Graduate Presentations taking place at HEI's nationwide
December	ESAI Postgraduate Researcher of Year Award Winner Announced
December 4 th	Environ 2018 co-hosted by Cork Institute of Technology 28th Annual Irish Environmental Researchers Colloquium Call for Papers Opens – Register on www.environ2018.org
December 30 th	Free Membership for Undergraduate Members Offer Closes
December 31 st	ESAI Grassroots Workshop Support Scheme for Postgraduate and Postdoctoral Researchers Sponsored by EPA – Rolling Call

Environ 2017



Launch of Environ in Feb 2017: Cllr. Aengus O Rourke, Deputy Kevin Moran, TD, Dr. Andy Fogarty, Ms. Marese Ward Shine, Dr. Sile O Flaherty.

Two hundred and eighty five delegate registered for the hugely successful three day 27th Irish Environmental Researchers Colloquium, Environ 2017 in Athlone Institute of Technology which was organised by Dr. Andy Fogarty and Dr. Sile O'Flaherty (Conference Joint Convenors), Marese Ward Shine (Conference Coordinator), Sinead Macken (Environmental Sciences Association of Ireland – ESAI Liaison) and ESAI council members. The theme of the conference was “Putting the Eco in the Economy”.

Over 100 oral papers and sixty poster were presented at the conference which was divided into sixteen themes:- Biodiversity and Ecosystem Services,

Nanotechnology and the Environment, Environmental Socioeconomics, Air Quality, Urban Development, Water Quality and Resources, Invasive Species, Ecotoxicology, Sustainable Land Use and Agriculture, Waste Management, Environmental Management, Environmental Policy and Communications, Marine and Coastal, Environment and Human Health, Energy and Climate Change.

Delegates from USA, Germany, UK, Northern Ireland and Ireland attended the conference. The overwhelming success of the conference was largely due to the amazing student volunteers, AIT staff and the ESAI.

Highlights of the conference included a public engagement debate entitled “Draining the Shannon-Flood Mitigation” which was attended by 240 people and was addressed by two ministers, Minister Denis Naughten (Department of Communications, Climate Change and Environment) and Minister Sean Canney (Department of Office of Public Works and Flood relief) This debate was reported on the RTE 9 pm News and was also featured on Newstalk radio as well as all the local radio stations. The conference trended twice on Twitter which is unusual for academic conferences.

Environ 2017



Professor Ciaran O Cathan and Dr. Don Faller in front of the chocolate centrepiece which was specially commissioned for Environ 2017.



A unique feature of Environ 2017 was the production of an edible art centrepiece which was made entirely from chocolate. The art piece depicted a steel and concrete base, propping up a tree and entangled around the world to represent the intersection between ecology, the environment and the economy. The theme of the conference was "Putting the Eco in the Economy".

The conference began on the afternoon of Monday 10th April with four education and training workshops on offer to delegates: 'Field Trip to Clara Bog' (Dr Sile O'Flaherty, AIT), 'Maximising and Assessing Research Impact' (Dr Fintan Bracken, University of Limerick), 'What Next? Career Opportunities after completing a PhD' (Dr Yvonne Lang, IT Sligo) and 'Nature Based Solutions for Health and Mental Health' (Dr Tadhg MacIntyre, University of Limerick).



On Monday evening proceedings followed with Minister Denis Naughten planting a native oak tree in the president's garden to commemorate the special occasion of AIT hosting Environ.

This was followed by a cheese and wine reception in the fountain area of the canteen. All of the invited speakers for the evening which included Minister Denis Naughten, Minister Sean Canney (OPW and Flood Relief), Dr. Ciaran Byrne (CEO Inland Fisheries Ireland), Ms. Anja Murray (RTE), Mr. Éanna Rowe (Waterways Ireland), Mr. Michael Silke (IFA Spokesperson), Mr. Ciaran Mullooly RTE (Chairman) were presented with a beautiful piece of bog oak from the Celtic Roots studio in Ballinahown, Co. Offaly.

Above: Dr. Andy Fogarty, Mr. Ciaran Mullooly, RTE and Dr. Sile O Flaherty

Environ 2017



Ms. Kathleen Cleary, Flood victim making her point to Minister Sean Canney at the public engagement debate



Dr. Andy Fogarty, Professor Ciaran O Cathain and Dr. Pat Gallagher, Chief Executive, Westmeath County Council at the official opening ceremony of Environ 2017

Minister Naughten delivered his keynote address on the theme of Ireland's Climate Change Policy which was followed by the much anticipated public engagement debate entitled "Draining the Shannon – Flood Mitigation. This was always going to be an interesting event and didn't disappoint on the night. All of the six invited speakers were given seven minutes to outline their position. The contentious debate was very skilfully managed by the Chairperson, Mr. Ciaran Mullooly (RTE). It was then thrown open to the audience for questions. The Douglas Hyde auditorium was full to capacity and a lively debate ensued with lots of audience interaction. The evening finished up a little later than anticipated at 10.30pm due to the interest in the debate and the number of questions fielded from the audience.

At 9.15 am Tuesday 11th April, the conference was officially opened with a ceremony held in the Douglas Hyde Lecture Theatre. The speakers included:

AIT President Professor Ciarán Ó Catháin, Dr. Andy Fogarty - Conference Co-Convenor, Professor Frances Lucy, ESAI Chairperson and Dr. Pat Gallagher, Westmeath County Council.

Over the course of the next two days over 100 oral papers were presented in four parallel sessions. Sixty academic posters were exhibited upstairs in the B rooms. This worked particularly well as it allowed delegates to mingle with exhibitors/sponsors and to view the posters on display.

Environ 2017



Environ delegates at poster session

The college hosted the Environmental Science Association of Ireland AGM on Tuesday evening which was attended by over 40 people which is a record for the ESAI.

Proceedings then moved to the Sheraton Hotel Athlone for the Environ 2017 conference dinner. The evening began with a drinks reception in the Seige Suite with entertainment from AIT's very talented Professor Clem Higginbotham (AIT) and Ms. Aine O'Reagan. A buffet dinner was then served in the Hoey Suite with music afterwards from Small Deal.

Wednesday began with registration open at 9.00am. The conference then continued with oral presentation taking place throughout the morning alongside the poster presentations.

This was followed by lunch and then the important business of the day, the Environ 2017 prize giving.



Just some of the AIT staff and student volunteers who made Environ 2017 possible

A huge thank you to all the students and staff who are too numerous to mention who made the conference such a success.

ESAI INCOME AND EXPENDITURE ACCOUNT 2017

ESAI INCOME AND EXPENDITURE ACCOUNT		
For the year ended 31 December 2017		
	€	€
Opening balance as 01/01/17		11,871.02
Income		
Membership	2,830.76	
Environ 2016 - Delegate Fee	1000.00	
Environ 2017 - Delegate Fee	27,384.58	
Sponsorship	21,205.00	
Environ 2017 Prizes	1,750.00	
Workshop Sponsorship	3,000.00	
Rebate	62.50	
Total Income	58,727.84	
Expenditure		
Environ 2017 (inc prizes)	31,149.70	
Environ 2018	1,268.44	
Environ 2017 Refunds	458.54	

ESAI INCOME AND EXPENDITURE ACCOUNT 2017

Website	2,349.14	
Administration	9,087.50	
Travel	819.49	
Postage/Stationary	67.42	
Bank Charges (inc. Merchant banking)	1,269.00	
Insurance	1,047.50	
Workshop Grassroots	2,446.74	
Donation	100.00	
Postgrad Prize	500.00	
Admin	118.98	
Total Expenditure	50,682.45	
Excess Income over Expenditure		8,045.39
Closing Balance per Bank @ 31/12/17		19,916.41

ESAI Council Members 2017

Chairperson	Regular Members
Dr Frances Lucy	
Email: chairperson@esaiweb.org	Dr Thomas Curran
Honorary Secretary	Dr Dorothy Stewart
Dr Kevin Ryan	
Email: secretary@esaiweb.org	Mr Declan Feeney
Honorary Treasurer	Ms Caroline Wynne
Mr Liam McCarton	
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ESAI Student Competition 2018

The ESAI will be judging all student oral and poster presentations for consideration in this years student competition. Winners will be invited to submit an article on their research project to the ESAI Website and the ESAI E-Zine 'Environews. Along with their certificate and award each winner will receive a 12 month subscription to the Royal Irish Academy journal 'Biology and Environment'. Results will be announced at the prize giving ceremony at the close of conference at lunch time on Wednesday 28th March at 13:30pm.

The prizes and categories this year are:

- ESAI Best Oral Presentation (€500) sponsored by Environmental Sciences Association of Ireland (ESAI)
- ESAI Best Poster Presentation (€250) sponsored by Environmental Sciences Association of Ireland (ESAI)
- Best Soils Presentation (€250) sponsored by Soil Sciences Society of Ireland (SSSI)
- Best Water Related Presentation (€250) sponsored by the Chartered Institution for Water and Environmental Management (CIWEM)
- Best Biodiversity Related Presentation (€250) sponsored by the Chartered Institution for Ecology and Environmental Management (CIEEM)
- Best Waste and Resources Management Presentation (€250) and 12 months student membership to CIWM sponsored by the Chartered Institution of Wastes Management (CIWM)
- Best Air Quality Presentation (€250) sponsored by Department of Communications, Climate Action and Environment
- Best Climate Change Presentation (€250) sponsored by Department of Communications, Climate Action and Environment
- Richard Fitzgerald Poster Prize for Best Aquatic Environment Presentation (€250) sponsored by AquaTT
- Best Plant Biology Poster Prize (€250) sponsored by International Association for Plant Biotechnology

Dr. Richard D. Fitzgerald



Richard was an exemplary fisheries zoologist. He was an excellent researcher and a gifted and inspiring lecturer. A UCC graduate [BSc and PhD], Richard was involved research and development in Aquaculture for almost 30 years in a variety of roles and posts in UCC, AquaTT and NUIG. He was also extremely interested in natural freshwater and marine fish populations, with a rare and extensive knowledge in both aquatic environments developed over the span of his career. He published over thirty peer reviewed publications, which are widely cited. Until the end of 2015, he was Research Co-ordinator and manager of the NUIG aquaculture research lab at Carna.

Richard was blessed with an insatiable curiosity about all research, particularly in the aquatic environment and the highlight of his annual visit to Environ was the poster sessions. His rule of thumb for all his students and employees was that they could go to any relevant conference as long as they produced a poster! Richard sadly passed away on December 5th 2016. Thank you to AquaTT for sponsoring the Richard Fitzgerald prize for best poster in Aquatic Environment.