

# Karen Acheson

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## EDUCATION

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- 2014-Present    **UNIVERSITY COLLEGE CORK**  
**PhD Physics**  
Project Title: *Distribution and Dynamics of Aerosol in the Troposphere over Southern Ireland: An Application of Laser Remote Sensing.*
- 2012-2014    **UNIVERSITY COLLEGE CORK**  
**MSc Physics**  
Project Title: *Laser remote sensing of Tropospheric aerosol over Southern Ireland using a backscatter Raman Lidar.*
- 2008-2012    **UNIVERSITY COLLEGE CORK**  
**BSc Chemical Physics (2H1)**

## WORK EXPERIENCE

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- 2013-Present    **Continuous assessment co-ordinator**  
Physics Department, UCC  
First year Physics modules.
- 2012-Present    **Lab demonstrator**  
Physics Department, UCC.  
PY4113 – Experimental Physics III, PY1006 – Physics for Engineers II.
- 2011-Present    **Tutoring/ Mentoring**  
UCC Students Union, UCC Plus and UCC Disability Service.  
Subjects: Physics, Mathematics, Chemistry and Mechanics.
- 2001-2012    **Printing and finishing**  
Waterford Graphics Ltd.

## SKILLS

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### Computing and numerical modelling

- Software    Proficient in most Microsoft office packages.  
Solid understanding of Matlab, LabView, Unix and Abinit.  
Basic understanding of C++, Mathematica and SPSS.
- Modules    Mathematical Modelling, Computational Physics – First class honours grade.

### Practical Laboratory Skills

- 2009-2011    Experimental Methods (II/III) – First class honours grade.  
Performed physics experiments involving optics and radiation. Designed and constructed circuits for experiments. Composed LabView programs to analyse data from the circuits.
- 2009-2011    Chemistry Practicals – First class honours grade .  
Performed many experiments in the fields of environmental chemistry, materials science and spectroscopy.

## Scientific Communication and Writing

### Certificates

2013-2014	PG6012 - Scholarly Approaches to Teaching and Learning in Higher Education
2012-2013	PG6003 - Teaching and Learning for Graduate Studies
2012-2013	PG6001 - Scientific Training for Enhanced Postgraduate Study (STEPS)
2010-2011	CM3028 - Scientific Communication and Information Literacy Skills (SCILS)

### Recent Talks

2015	<b>Distribution and Dynamics of Aerosol in the Troposphere over Southern Ireland: An Application of Laser Remote Sensing</b> - PhD review presentations, UCC - 25 <sup>th</sup> May 2015
2014	<b>Multiple intelligences: Three dimensional learning?</b> - Teaching and learning module, UCC - 26 <sup>th</sup> February 2014.
2014	<b>Backscatter Raman Lidar</b> – UCC Journal Club – 25 <sup>th</sup> February 2014

### Recent Posters

2015	<b>Lidar detection of Canadian forest fires over Europe in June and July 2013</b> - Rosse medal postgraduate poster competition – 28 <sup>th</sup> March 2015
2014	<b>Tropospheric aerosol profiles over Southern Ireland using a backscatter Raman lidar</b> Rosse medal postgraduate poster competition – 8 <sup>th</sup> March 2014

## **AWARDS**

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2014	Awarded Irish Research Council Government of Ireland Postgraduate STEM Scholarship. <b>Scholarship duration:</b> October 2014 - October 2017 The Irish Research council selects suitably qualified students through a competitive selection process on an annual basis. In 2014, only 20% of students who applied were awarded the scholarship.
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## **ACHIEVEMENTS**

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May 2014	Co-organised 11th General Assembly of EARLINET network.
2010-2013	Public Relations Officer (P.R.O.) of UCC Physics and Astronomy Society.
2010-2013	Class representative for Chemical Physics class.
2013-2015	Captain of UCC Kung Fu Club.

## **HOBBIES**

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**Martial Arts** Kung Fu, Genbukan Ninpo.

**Music & Art** Percussion, Volunteering at Camden Palace Arts Centre.

## **REFEREES**

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**Prof. A.A. Ruth**, Physics Department, University College Cork, Tel: +353-214902057, Email: [a.ruth@ucc.ie](mailto:a.ruth@ucc.ie)

**Dr. Dean Venables**, Chemistry Department, University College Cork, Tel: +353-214902439, Email: [d.venables@ucc.ie](mailto:d.venables@ucc.ie)