

£1000 STUDENT RESEARCH GRANT FROM THE INSTITUTE OF REFRIGERATION

Post Graduate students undertaking research in a field related to air conditioning or refrigeration are eligible for the Ted Perry Award, which is sponsored Hawco Ltd specialist distributor of engineering parts & spares for the Refrigeration, Air Conditioning, Heating, Electrical & Control Sectors

We are now considering nominations from academic Institutions in the UK. By nominating your student you could gain exposure and recognition for the work of your department, as well as a valuable prize for the student.

The Award is given annually for ***research of a practical nature related to the field of refrigeration*** by a young person. The award winner will be presented with a cheque for **£1000** and a complete set of ASHRAE databooks at the Institute of Refrigeration Annual Dinner in February next year. Past winners have covered topics as diverse as use of the heat sink effect to cool underground tunnels, cryogenic freezing, domestic refrigerator design, and solar powered refrigeration.

Nominations must include:

- the name and contact address/email for the student(s)
- a brief summary of their area(s) of work (eg introductory page to thesis)
- a CV
- a recommendation from their supervising tutor

The closing date for nomination is **31st January 2021**. Rules and details of past winners are available in this nomination pack.

Yours sincerely



Miriam Rodway
Chief Executive

TED PERRY AWARD NOMINATION FORM

Closing date for applications 31st January 2021

Email the completed nomination to lisa@ior.org.uk

Full Name of Student
Contact address
Email address
Date of Birth
Title of Research
Name of University
Name of Supervising tutor
Name and address of person making nomination
Supervisors' recommendation

Please enclose: CV Summary of research (eg introduction to thesis) Other supporting material

New for 2020:

The shortlisted nominees will be required to take part in a three-minute thesis event. They will have just three minutes and one slide to explain their research.

This event will take place as a webinar in Spring 2021. Full details will be supplied to the nominees.

PAST WINNERS OF THE TED PERRY AWARD

- 2019/20 **Qi Xu** "A Novel Thermoelectric Heat Pump/Heat Recovery System for Low Carbon Buildings (EcoPump)" (University of Nottingham)
- 2018/19 **Eman Hussein** "Numerical and Experimental Evaluation of Advanced Metal-Organic Framework Materials for Adsorption Heat Pumps" (University of Birmingham)
- 2017/18 **Christina Francis** "Sustainable Refrigerated Road Transport" (London South Bank University)
- 2016/17 **Chris Druce** "The Effect of Refrigerant Charge on Operating Efficiency for an R404A Cooling Application in Comparison to Low GWP Drop in Refrigerants." (London South Bank University)
- 2015/16 **Thorsten Spillmann** "The performance and properties of novel desiccant coated heat exchange surfaces for solar air conditioning" (University of Warwick)
- 2014/15 **Angeles Pachó-Rivero** "Thermodynamic and heat transfer analysis of a carbon – ammonia adsorption heat pump" (University of Warwick)
- 2013/14 **Groan Micic** "Development of the -150°C Freezer" (London South Bank University)
- 2012/13 **Anna Catarina Marques** "Novel design and performance enhancement of domestic refrigerators with thermal storage" (London South Bank University)
- 2011/12 **Ahmed Elsayed** "Miniature Helical Coil Evaporators" (University of Birmingham)
- 2010/11 **Shane Symth** "Control Optimisation of an Economised Multi-Temperature Indirect Vapour Compression Cycle for Transport Refrigeration Systems" (University College Dublin)
- 2009/10 **Ina Colombo** "Carbon dioxide for supermarkets" (London South Bank University)
- 2008/2009 **Dr Dereje Shiferaw** "Flow Boiling of Refrigerants in Small to Micro Diameter Metallic Tubes" (Brunel University)
- 2007/8 **Dr Jolyon Thompson** "Sustainable Cooling of Underground Railways through Enhancement of the Heat Sink Effect", (London South Bank University)
- 2006/7 **Dr Alex Mischenko** "Giant electrocaloric effect in thin films" (Cambridge University)
- 2005/6 **Mr A Campbell** "The use of natural refrigerants in supermarkets" (London South Bank University)
- 2004/5 **Mr R Kemp** "Development of an Ejector Hybrid Air Conditioning System Using Carbon Dioxide" (University of Nottingham)
- 2003/4 **Dr Yu Yan** "Performance optimisation of HFC refrigerants by experimental and mathematical models" (University of Strathclyde)
- 2002/3 **Mr E Hammond** "Reducing the ozone depleting potential and improving the efficiency of domestic refrigerators" (University of Bath and Food Refrigeration and Process Engineering Research Centre, University of Bristol)
- 2001/2 **Mr Chris Martin BSc** "The freezing of non-metallic pipelines" (Southampton University)
- 2000/1 **Dr Shenyi Wu** "The development of an Advanced Thermally Powered Refrigeration Cycle" (University of Nottingham)
- 1999/2000 **Dr X Boissieux** "Heat Transfer Coefficients and Friction Factors for Non-Ozone Depleting Refrigerants and Oil Mixtures" (University of Brighton)
- 1998/9 **Dr A Lamb** "The Use of Wide Boiling Refrigerant Mixtures for Power Saving in Water Chillers" (Leeds University)

1997/8 **Mr Abu Madi BSc** “The Performance of Non-Ozone Depleting Refrigerants in Condensers and Evaporators, The Effect of Refrigerant Properties on the Design of Automotive Air Conditioning Systems and Performance Characteristics Correlation for Round Tube and Plate finned Heat Exchangers”. (University of Brighton)

1996/7 **Miss T Thomas** “Design and Development of a Solar Powered Portable Refrigerator for preserving vaccines” (Swansea Institute of Higher Education)

1995/6 **Dr A Bensafi** “Research in the Field of Mixed Refrigerants” (Leeds University)

1994/5 **Mr D Bostock** “Carbon Dioxide as a Secondary Refrigerant” (Strathclyde University)

1994/5 **Mssrs A Douglas, M Lewis, M Watson and R Fawcett** “Development of a High Performance Refrigerator” (University of Bristol, FR&PERC).

1993/4 **Mr L Nagle** “The Development of a Self-Contained Refrigerated Back-Pack for Vaccine Transportation” (Cranfield Institute of Technology)

1992/3 **JB McCafferty** “Refrigerant Distribution in Evaporators” (Herriot Watt University, Edinburgh)

1991/2 **Dr RN Richardson** “Developing a Pulse-Tube Refrigerator” (Southampton University, Institute of Cryogenics).

RULES, AIMS AND JUDGING CRITERIA

1. This Award was set up by the Institute of Refrigeration after the death of Ted Perry, a lifetime worker in the field of refrigeration and a past President of the Institute. It is sponsored by Hawco. Ted always had a great enjoyment in coaching young engineers in excellence in refrigeration and general engineering practice.
2. The aim of the Award is to encourage young engineers to investigate the special and diverse skills required in refrigeration with the hope of encouraging them to enter the field professionally.
3. The Award is open to anyone submitting a piece of work on an engineering topic related to refrigeration and undertaken as part of a degree course or doctorate. Other pieces of work will also be considered although it is envisaged that persons over the age of 35 are less likely to be successful.
4. Ted was always a practical man who enjoyed new challenges and had little time for those people who insisted on narrow thinking. Accordingly, the judges are looking particularly for the demonstration of the understanding of the problems that they are addressing in their work, for technical flair and for practical applicability. Work that addresses immediate problems are likely to be given higher consideration than work that is less directly applicable now.
5. The prize is a cheque for £1000, an engraved tankard and a set of ASHRAE databooks donated by Ted's family.
6. The judges are appointed by agreement between the Institute and sponsor. There are three judges, one from the sponsor, one from an academic establishment and one from industry. The latter two judges are appointed each year and are normally from organisations that do not have an interest in that year's entrants.
7. The winner is invited to attend the Annual Dinner of the Institute in February in London, all expenses paid including hotel accommodation, for the prize giving. Depending on the nature of the winning piece of work, the entrant may be asked to prepare and present a paper for the Institute's Proceedings. Entries can be received at any time of the year, although in general only those received before mid November can be assured of being assessed for the following February.
8. All candidates being considered for the Award will be required to take part in a Three Minute Thesis Event where they will present their nominated research project.
9. Further details about the Award or method of submission can be obtained, by writing to the Institute of Refrigeration, 76 Mill Lane, Carshalton, SM5 2JR or emailing ior@ior.org.uk.

