

# SCHOLARSHIPS IN CLIMATE ACTION OFFERED BY THE GOVERNMENT OF MALTA FOR POSTGRADUATE STUDIES AT THE UNIVERSITY OF MALTA

Call for Applications 2018

## **1.The Purpose and Aim of this Initiative.**

The Scholarships are being offered as part of the Government of Malta's commitment under the Climate Finance Package to provide support for capacity building in developing States. Whilst capacity building is often associated with infrastructural projects, Malta believes that the formation of professionals within a community is the most essential step in this process of emancipation from an excessive and long-term dependence on external expertise. Consequently, the Government of Malta wishes to provide assistance to developing states on an equally fundamental aspect of capacity building, namely the empowerment of human resources in developing States through funding scholarships for academic learning and research at the post graduate level.

Three scholarships are being offered for students seeking to enroll in Post-Graduate Studies at the University of Malta commencing in October 2018. Each scholarship focuses on a key area recognized as an essential pathway for ensuring effective climate action on a national level. These pathways span across various disciplines, speak to a local body of expertise at the University of Malta and should appeal to potential candidates from a wide range of jurisdictions, irrespective of their geophysical realities or economic situation.

The three pathways identified for the 2018 Call for Applications are:

- Mitigation of climate change and low carbon transportation
- Adaptation to climate change to enhance resilience for the conservation of living marine resources
- Climate change governance in the context of small island states and territories

The scholarships offer students from developing States the opportunity to focus their studies and research according to their national needs and realities. A number of developing states are already exploring methodologies on how to build a better future in view of the impacts of climate change. The formation of young professionals in this field will directly support the growth and consolidation of these home-grown initiatives. The aim of these scholarships donated by the Government of Malta will serve to complement other national climate action projects and provide the opportunity to

educate academically and train professionally, young people from developing States on how to manage mitigation, adaptation and governance of climate change. The scholarships will help to:

- address skill mismatches and gaps in local expertise
- empower local communities to build a tailor-made knowledge base
- identify the appropriate tools and options for the local scenario to address and adapt to climate change
- provide a powerful medium for the formation of a sense of national identity, economic stability and community regeneration.

## **2. Malta's Role in Promoting Climate Action.**

Malta has always been on the forefront in advocating climate action. It was Malta that requested the 43rd session of the United Nations General Assembly (UNGA) to discuss climate change at the highest international political level in 1988. At the same Assembly, Malta had, together with a group of like-minded States, piloted the formulation of the legendary Resolution UNGA 43/53 declaring Climate Change as a Common Concern of Humankind. The said Resolution was adopted unanimously at UNGA's 43rd session. It paved the way for the setting up of the Inter Governmental Panel on Climate Change and eventually the Intergovernmental Negotiating Committee that drafted the UNFCCC. This legacy is proudly engrained in the history of our nation, as one of most salient contributions Malta has made to the International community of States and future generations.

Malta's initiative on climate change in 1988 was based on its conviction that the International community needed to address the warnings on human-induced climate change by the scientific and academic community. The government of Malta's decision to raise the political profile of the threat of climate change happened because of its close collaboration with the academics of the University of Malta.

Malta believed then, that our nation, despite its minute size, has to transform the circumstances that may work against us as leverage to build up our resilience against this threat facing humankind. Malta took action by primarily investing in the capacity of its human resources, who in turn influenced policy making for climate action. It was this investment in academic achievement that guided government in making the requisite infrastructural changes to address mitigation of and adaptation to climate change as well to set up the institutional networks required to facilitate good governance of climate action. Malta has had to overcome significant challenges to meet its greenhouse gas objectives, but we remain committed to forge ahead and to identify any possible

opportunities that aim for further reductions. Like other EU Member States, we have experienced the decoupling of economic and emissions growth. Since 1990 to date, our GDP has grown by 260%, yet our GHG emissions per unit GDP have decreased by 55%.

Fifty years after achieving independence, Malta's role as a nation within the International community of States depends on what kind of "added-value" it can give to other States in this new geopolitical world order of the twenty first century. The aim of these scholarships is fulfill this vision by outreaching developing States and assist in empowering them in achieving an academic and hence professional knowledge base that would render beneficiaries of these scholarships, leaders in their own countries to promote climate action. The scholarship scheme will directly support the successful and sustainable delivery of these goals through capacity-building at a local level, in order to help develop a professional workforce on the ground that is capable of developing and maintaining an indigenous capacity building in climate action. Malta firmly believes that the specialised formation of professionals from developing States in these sectors is an investment in the future of these countries States that will assist them to achieve a more sustainable and better quality of life for their citizens.

### **3. Why Study in Malta?**

Malta is an ideal meeting point for the realization of this goal, not only because of the relevant academic expertise it has acquired in these sectors, but also because its size and other geophysical conditions render it a living laboratory. Although it is an Annex I Party under the United Nations Framework Convention on Climate Change (UNFCCC), Malta is not a major net emitter yet it is likely to be amongst the most vulnerable states that will be effected by climate change. Malta has taken salient preventive and precautionary measures to address this challenge by adopting policy and legal measures that promote a low carbon economy. It is steadily working to enhance resilience to the effects of climate change. It has a robust legal and policy framework that facilitate intersectoral governance of climate action. Malta has committed itself to ambitious climate action whilst continuing to develop its economy. Malta has in fact been successful in decoupling economic growth from its consumption of fossil fuels. It has managed to increase its GDP by 260% whilst decreasing its green house gas emissions by 55% since 1990 levels.

#### **4.The Role of the University of Malta in Climate Action.**

The academics of the University of Malta have played a vital role in guiding the government of Malta to adopt the necessary measures for climate action. The University of Malta has acquired a wealth of experience in identifying policy, legal, administrative and institutional capacity building measures that serve to fulfill Malta's obligations in climate action as a small island nation in the Mediterranean and as a member of the European Union. On the one hand Malta's Mediterranean dimension highlights its need to address climate change urgently so as to ensure resilience in one of the zones predicted to be worst effected by climate change. On the other hand, as a member State of the European Union, Malta has implemented inter disciplinary climate action measures that form part of the most developed and researched regime on the subject.

Four students were funded through the first Call for applications issued in 2017. The students, hailing from Grenada, Zambia, Palau and Botswana are currently pursuing Post-Graduate studies at the Institute for Institute for Climate Change and Sustainable Development, the Faculty for the Built Environment and the Institute for Renewable Energy respectively.

## **5. The Scholarships.**

### **5.1 Scholarship in Post Graduate Studies in Sustainable and Low Carbon Transportation**

#### **5.1.1. Background**

The adverse impacts of climate change are well known and urge the necessity for mitigation measures. Significant effort has been directed worldwide towards the reduction of emissions from bulk electricity generating plants through the use of cleaner fuels. As the emissions figures drop, it is becoming increasingly clear that road transport is a noteworthy contributor to greenhouse gas emissions. Electrification of transport provides a potential solution for low emission mobility. A number of countries have embraced this and have announced plans for the phasing out of combustion engines.

#### **5.1.2. The Scholarship Proposal and Eligibility Details.**

**Master of Science in Engineering (Electrical) by Research – Department of Industrial Electrical Power Conversion, Faculty of Engineering**

**Proposed Title:** Impact of Electromobility on Power Distribution Networks

**Main Supervisor:** Dr Cedric Caruana

#### **5.1.3. Brief Description**

Electrification of transport has been heralded as a potential long term solution for the environmental and energy challenges which currently prevail. Electric vehicles in particular have been growing in popularity over the last years with major manufacturers increasing production to cater for the demand. As electric vehicles become more affordable, the drive for electromobility is fuelled even further. Electromobility however brings on new challenges. The charging of electric vehicle batteries presents a new load for power distribution networks which have recently experienced a change in operation due to the widespread adoption of distributed renewable energy systems. Some form of optimization of the charging profiles needs to be devised to alleviate the effect on the existing utility infrastructures. Optimised charging might be controlled through smart meters or via communication directly with electric vehicles. Electric vehicle batteries also present an

opportunity as collectively they form a considerable storage which opens the possibility to enhance the operation of power distribution networks through the provision of ancillary services.

Applicants can submit a research proposal in one or more of the following:

- assessment of the impact of electric vehicle charging profiles on the power distribution network
- investigation of solutions for power network operation with harmonised increased integration of distributed generation and electric vehicle charging;
- provision of ancillary services to the power distribution network
- facilitation of charging through use of wireless charging
- extending electrification to waterborne transport

A more detailed description of the course structure may be viewed at:

<https://www.um.edu.mt/eng/overview/PMSCELCFTR8-2017-8-F>

The detailed course bye-laws may be viewed at:

<https://www.um.edu.mt/registrar/regulations/faculties/eng/msc-engineering-bl-2009>

#### **5.1.4. Admission Requirements**

The Course shall be open to applicants in possession of a first cycle degree in Electrical Engineering with at least Second Class (Honours), obtained in the ten years previous to registration for the Course.

Applicants are required to present an internationally recognized English Language proficiency Certificate at the required level. Further information is available at:

[https://www.um.edu.mt/international/international/english\\_language\\_requirements](https://www.um.edu.mt/international/international/english_language_requirements)

#### **5.1.5. Ideal Student Profile**

Applicants should ideally have experience in or be familiar with the power distribution network and the proliferation of distributed generation in their country of origin. Applicants should also have some experience in the use of related simulation software.

## **5.2. Scholarship in Post Graduate Studies on the Ecological Implications of climate-induced Sea warming**

### **5.2.1. Background**

The effects of climate change on marine ecosystems and living resources include changes to species populations and biotic communities. More specifically, continued elevated levels of carbon dioxide that contribute to ocean acidification, and warming of the seas and oceans, will result in such changes. It is therefore very important to undertake research to identify, understand and possibly mitigate the ecological impacts of such changes on marine species, habitats and ecosystems in order to adopt any necessary adaptation measures and enhance resilience for the conservation of marine living resources.

### **5.2.2. The Scholarship Proposal and Eligibility Details**

**Master of Science in Biology by Research – Department of Biology, Faculty of Science**

**Title of the Proposal:** Ecological implications of climate-induced sea warming

**Supervisors:** Prof Patrick J Schembri, Dr Julian Evans, Dr Joseph A. Borg

### **5.2.3. Brief Description:**

The Mediterranean Sea is undergoing a climate-induced warming trend that is affecting the biogeographic composition and distribution of its biota, which can alter the functioning of entire ecosystems. Thermophilic species may be expected to respond favourably to warmer temperatures, resulting in increases in their abundance and a north-westward expansion of their distributional range within the sea. Species having a more cold-water affinity, on the contrary, may suffer adverse effects depending on the extent of warming. The initial responses to environmental changes will likely include changes in physiological and behavioural processes at the individual level, which ultimately lead to ecological effects such as changes in distribution and abundance. While the direct responses to climatic changes are species-specific, large changes in the abundance of one species could in turn affect other species through trophic or competitive interactions, ultimately leading to significant alterations in the structure of the biotic assemblages. This research will investigate ecological aspects of selected species in temperate central Mediterranean waters, as a case study, based on populations in Malta. A series of field and/or laboratory experiments will be employed to assess the ecological and/or physiological consequences of warming temperatures on the selected species, and on the communities of which they form part. The results of this study will provide a better understanding of the effects of climate change on biological processes in marine species, and provide insights into how the structure and functioning of the ecosystems they form part of may change in response to future warming.

A more detailed description of the course structure may be viewed at:

<https://www.um.edu.mt/science/overview/PMSCBIOFTR8-2017-8-0>

The detailed course bye-laws may be viewed at:

<https://www.um.edu.mt/registrar/regulations/faculties/science/msc-bl-2009>

#### **5.2.4. Admission Requirements:**

The Course shall be open to applicants in possession of a Bachelor's degree classified at least at Second Class Honours or Category II, in Biology obtained in the ten years previous to registration for the Course.

Applicants are required to present an internationally recognized English Language proficiency Certificate at the required level. Further information is available at:

[https://www.um.edu.mt/international/international/english\\_language\\_requirements](https://www.um.edu.mt/international/international/english_language_requirements)

#### **5.2.5. Ideal Student Profile:**

The ideal applicant, besides holding a first degree in biology, would ideally have knowledge and experience in marine biology, in particular marine ecology. Experience in field surveys, sampling and laboratory analyses of environmental data, including biological attributes, and statistical analyses of ecological data is desirable.

Diving experience would be considered an asset but is not essential.



## **5.4 Scholarship in Post Graduate Studies on the Impacts of, and Responses to, Climate Change in Small Island States and Territories**

### **5.4.1. Background**

46 out of 193 members of the United Nations are island and archipelagic states, mostly with small populations, and which have secured their independence mainly in the period 1944-1984. Their geographical predicament makes them especially susceptible to exogenous events whose sources and triggers they do not control. Environmental impacts are one such set of exogenous events: from dramatic one-off events like hurricanes, typhoons, floods, earthquakes or tsunamis; to longer-term threats such as droughts, retreating glaciers, or global warming and sea level rise.

### **5.4.2. The Scholarship Proposal and Eligibility Details**

Master of Arts in Islands and Small States Studies (by Research) – Islands and Small States Institute

Proposed Title: Adapting and Building Resilience to Climate Change in the Context of Small Island States and Territories

Supervisors: Prof Lino Briguglio; Dr Stefano Moncada

### **5.4.3. Brief Description of Research Project**

Since the Alliance of Small Island States (AOSIS) was set up within the UN system in the early 1990s, small island states have become increasingly vocal about their predicament particularly in relation to being victims of sea level rise and have become quite visible in climate change negotiations in regional and international fora. With leadership from countries like the Seychelles, the Maldives, the Marshall Islands, Palau and Tuvalu, small states have alerted the world community to the devastating threat of total inundation of their limited land area and territory, requiring some very radical action – such as wholesale and permanent emigration - on the part of the residents of such small island states. The Poetry of Marshallese Kathy Jetnil-Kijiner and the ‘underwater cabinet meeting’ orchestrated by former Maldives President Mohammed Nasheed have done much to popularise and democratise the concerns with climate change, while alerting the global community to the particular predicament of small island states. Can such and similar media scoops help to foster a significant attitudinal change amongst world leaders as well as the general masses, as to reduce our carbon footprint and shift resolutely towards sustainable lifestyles?

Concurrently, there is a growing body of literature that is disappointed with the almost exclusive focus of climate change as the undisputed contemporary development vector of and for small island states. The criticism is real if policy makers in such small island states find themselves having to focus on long term, climate change-related projects in order to tap funding, while more immediate, urgent and socially pressing concerns – social inequality, urban poverty, child care, primary education,

sewage treatment - have to languish on the proverbial backburner or somehow creatively piggy-back on climate change related funding initiatives to see the light of day.

In any case, the policy and research spotlight remains steadfastly on small island states and territories because of their long-recognised ability to serve as sites of experimentation. They are natural laboratories for observing the effects of evolution and endemism, as well as for quickly assessing the effects of measures adopted to mitigate, or adapt to, the impacts of environmental change.

The research project will offer an opportunity for either a single case study or a comparative research design that explores how islandness, often combined with isolation and small size and scale, creates a specific environment where climate change, and climate action, can be identified, reviewed and critically assessed.

### **Admission Requirements**

The Course shall be open to applicants in possession of a first cycle degree obtained with at least Second Class (Honours) or Category II in a discipline related to Sustainable Development, Geography, Island Studies or in any other area of study which the Board considers as appropriate, obtained in the ten years previous to registration for the Course. Applicants may be asked to demonstrate competence in those skills required by the nature of the proposed research via an extended interview and the submission of appropriate documentation, provided that where deficiencies are identified applicants shall be required to take specific study-units intended to compensate for the deficit.

A more detailed description of the course structure may be viewed at:

<https://www.um.edu.mt/courses/overview/PMAISSFTB8-2018-9-O>

The detailed course bye-laws may be viewed at:

[https://www.um.edu.mt/\\_data/assets/pdf\\_file/0004/347980/masterartsislandssmallstatesstudies.pdf](https://www.um.edu.mt/_data/assets/pdf_file/0004/347980/masterartsislandssmallstatesstudies.pdf)

Applicants are required to present an internationally recognized English Language Proficiency Certificate at the required level. Further information is available at:

[https://www.um.edu.mt/international/international/english\\_language\\_requirements](https://www.um.edu.mt/international/international/english_language_requirements)

### **Ideal Student Profile**

Applicants would ideally be living and working in small island states and/or territories and have experience in grassroots mobilisation, community activism, policy making or public sector management in such small island states and territories.

## 6. Funding for the Scholarship

Funding will cover

- Payment of the University of Malta Tuition Fees and bench fees
- Health Insurance to cover a premium up to a maximum of EUR 500. Students will be guided on this and other arrangements upon arrival.
- Reimbursement for visa expenses amounting to EUR 60.
- A monthly subsistence allowance amounting to EUR 1100 per month to be used towards accommodation, living, transport, academic expenses and any other expenses that may arise. Students will receive this monthly allowance for a maximum and continued duration of 13 months. The study programme must be completed on a full-time basis within the same time-frame. This amount may not cover all costs related to living and studying in Malta and students are required to have other means of financial assistance to cover their stay in Malta.
- One return journey to the home country/country of residence the cost of which is capped at 1200 euro. Any additional trips or travel costs higher than this amount will have to be covered by the student. The amount will be refunded on presentation of receipts and entry boarding passes following the student's arrival in Malta.

**The scholarship holders will be requested to attend the Orientation Programme that is organised for all new international students joining the University of Malta. This will be held towards the end of September 2018.**

## 7. Instructions to Applicants and Conditions of Selection

- In order to be considered eligible, applicants should be Nationals and current residents of one of the countries indicated in the following list:  
[http://unfcc.int/parties\\_and\\_observers/parties/non\\_annex\\_i/items/2833.php](http://unfcc.int/parties_and_observers/parties/non_annex_i/items/2833.php)
- Applicants should demonstrate a clear intention of returning to their home country at the end of their studies in Malta.
- Applicants need to have submitted their application online and provided copies of their academic qualifications and all other requested documentation to the University of Malta by the 25<sup>th</sup> May 2018. Information is available at:  
<http://www.um.edu.mt/registrar/prospective/admissions>

- Applicants are requested to pay the application fee to the University of Malta in order for their application to be considered. The application fee is non-refundable. Details concerning the applicable fees are available at:  
<http://www.um.edu.mt/registrar/prospective/admissions>
- Applicants who wish to be considered for the scholarship are required to present a letter of motivation and three letters of reference. These are to be submitted as signed and scanned copies to the Director, International Office by email at: [international@um.edu.mt](mailto:international@um.edu.mt). The covering message is to include reference to the application code generated by the online application and should also be submitted by the 25<sup>th</sup> May 2018. Documents that are submitted after the deadline cannot be considered.
- Applicants for the above mentioned courses who intend to apply for the scholarship must meet the entry requirements set out by the University of Malta and the conditions for joining the specific programmes indicated above at the time of application.
- Applicants who are not yet in possession of an internationally recognized English Language proficiency certificate at the required level by the deadline for applications need to show proof that they have registered for an exam that will take place by the 25<sup>th</sup> May 2018. Information concerning English language requirements is available at:  
[https://www.um.edu.mt/international/international/english\\_language\\_requirements](https://www.um.edu.mt/international/international/english_language_requirements)
- Applicants may be required to attend an online interview
- Applicants for other courses will not be considered for these scholarships. Students who are accepted for the scholarship will not be allowed to shift their research to a different area of study other than that specified in the current call.
- The scholarship holders will be requested to enter into an agreement with the University of Malta for the duration of their studies in Malta. The agreement will be binding in terms of the observation of rules and regulations of the host University and host country, to seriously engage in studies, register monthly progress with their academic tutor/coordinator and complete the set programme within the established time-frame.

**Further information is available through:**

The International Office, University of Malta: [international@um.edu.mt](mailto:international@um.edu.mt)

## APPENDIX

### More Information on the University of Malta

The University of Malta is the highest teaching institution in Malta. It is publicly funded and is open to all those who have the requisite qualifications. Over the past few years, the University has reviewed its structures in order to be in line with the Bologna Process and the European Higher Education Area. Conscious of its public role, the University strives to create courses which are relevant and timely in response to the needs of the country. The supreme governing bodies of the University are the Council and the Senate. The present structure of the University was established by the 1988 Education Act.

There are some 11,000 students following full-time or part-time degree and diploma courses, all of which run on the modular / ECTS credit system.

The University is geared towards the infrastructural and industrial needs of the country so as to provide expertise in crucial fields. Over 3,000 students graduate in various disciplines annually. The degree courses at the University are designed to produce highly qualified professionals, with experience of research, who will play key roles in industry, commerce and public affairs in general. There are a further 2,800 pre-tertiary students at the Junior College which is also managed by the University.

The University today has fourteen faculties: Arts; Built Environment; Dental Surgery; Economics, Management & Accountancy; Education; Engineering; Health Sciences; Information & Communication Technology; Laws; Media & Knowledge Sciences; Medicine & Surgery; Science; Social Wellbeing and Theology.

A number of interdisciplinary Institutes and Centres have been set up in various fields. The Institutes include Anglo-Italian Studies; Baroque Studies; Confucius; Digital Games; Earth Systems; European Studies; Islands & Small States; Linguistics; Maltese Studies; Physical Education & Sport; Public Administration & Management; Sustainable Development; Sustainable Energy; Tourism, Travel & Culture; the Edward de Bono Institute for the Design & Development of Thinking; the Mediterranean Academy of Diplomatic Studies and the Mediterranean Institute.

The Centres comprise: Centre for Biomedical Cybernetics; Centre for English-Language Proficiency; Centre for Entrepreneurship and Business Incubation; Centre for Environmental Education and Research; Centre for Labour Studies; Centre for Literacy; Euro-Mediterranean Centre for Educational Research; Euro-Mediterranean Centre on Insular Coastal Dynamics; European Centre for Gerontology; European Centre of Educational Resilience & Socio-Emotional Health and the IOI - Malta Operational Centre.

The University of Malta has also set up a School of Performing Arts.

The campus is home to the IMO International Maritime Law Institute (IMLI).

### **The University of Malta as a host for international students**

Lying at the cross-roads of the Mediterranean, the University of Malta has, over its 400-year history been the hub for international academic exchange on the island. This legacy has been carried on to the present day as the University hosts close to one thousand international students from 86 different countries, active collaborations with universities in Europe, Asia, the United States, Africa and Australia and a host of international visitors, experts and external examiners from different parts of the globe which have turned the University into an international campus which celebrates the diversity and cultural richness of all those who frequent it. With English as its language of instruction and wide-ranging support services to meet the needs of its local and international community, the University consistently seeks to embark on projects and initiatives in order to continue boosting its international student figures and extending its network to new partners in order to create sustainable collaborations in diverse fields of interest.

The University of Malta currently hosts over 11,000 students, of which 10% are international students from 98 different countries, following courses at undergraduate and postgraduate level. For the academic year 2016/17, the University hosted 550 students on Erasmus (European) and other exchange programmes with the US, Japan, Australia, Canada and China whilst another 1000 international students are currently reading for a full degree.

The principal contact point for prospective and registered international students/visitors is the International Office: <https://www.um.edu.mt/international>