The University Of Sheffield.

CITY College
An International Faculty Of The University.

SEERC – Call for PhD Applications 2017-2018.

SEERC

PhD Studies at SEERC – Call for Applications (Submission Deadline: 30/5/2017)

1. The PhD Programme

The PhD programme is run jointly by the International Faculty of the University of Sheffield CITY College and the Sheffield based Faculties of the University, under a joint supervision scheme. The programme is hosted by the South East European Research Centre (SEERC), a Research Centre of the University's International Faculty based in Thessaloniki, Greece.

At SEERC there are currently two possibilities for a PhD degree:

A) Full Time programme. The duration is 3 years (with a 4th year available for writing up the thesis) and it requires full time commitment on the part of the PhD student, which means that one would have to be physically present at SEERC premises located in Thessaloniki.

B) Part Time programme, with duration 6 years (with 2 years available for writing up). To be eligible for a part-time PhD the candidate should be able to prove significant experience in the selected field. In this case, the PhD student has the obligation for a minimum of two visits to Thessaloniki annually for supervision purposes. All other communication with supervisors occurs via e-mail, Skype and telephone.

Students applying for the programme (Full time and Part time) must have an excellent academic record (normally Degrees with Distinction) and should possess a Master's Degree. Potential work experience, research training and publications play important role also. Applicants for part time positions must submit proposals that demonstrate a clear linkage between their current work and their PhD topic.

2. Entry Requirements

The University has clear minimum entry requirements. These are the following:

- A relevant first Degree (Normally with Distinction)

- A Master's Degree (Normally with Distinction)
- Proof of English Language Qualifications

For # 1-2 Research Topics the standard English Language requirement is IELTS at 7.0 with a minimum of 6.0 in each component or equivalent.

For the # 3-6 Research Topics please see the English language requirements for prospective postgraduate students at The University of Sheffield:

http://www.sheffield.ac.uk/postgraduate/research/englang

http://www.sheffield.ac.uk/postgraduate/info/englang

3. Tuition Fees

The exact figures on tuition fees will be announced shortly. Interested students may enquire at eltsimiga@seerc.org

4. Fee Waivers

Once again this year, the University of Sheffield and its' International Faculty - CITY College will be offering a small number of fee waiver positions for students to read for a PhD **through SEERC in Thessaloniki**. The fee waivers are offered to applicants with outstanding academic records and the process is highly competitive. **Please note that fee waivers are only given to candidates applying for Full time studies.**

More information on the terms of reference of the Fee waivers can be found at the following link:

http://www.seerc.org/new/index.php/doctoral-programme/studentships.html

5. Submission process

We accept proposals from qualified students for Full-time or for Part-time study, **however fee waivers are offered for FULL TIME studies only. The topics on which we accept applications are the following:**

Research Track 1: Enterprise Innovation and Development	
Topic 1:	Exploring the current role of sustainability in the Balkans: An investigation into organisational practices and consumer behaviour
Topic 2:	The evolution of corporate governance and codes of practice

Research Track 2: Information and Communication Technologies	
Topic 3:	Energy Conservation and QoS in IoT Communications
Research Track 3: Society & Human Development	
Topic 4:	Daily functionality measures in healthy and pathological aging: Cognitive, brain processes and environmental factors contributing to daily functionality.
Topic 5:	Perceptual sensitivity in Autism spectrum disorder (ASD)
Topic 6:	Attitudes towards minority and immigrant languages in Greece

In order to apply, PhD candidates need to download the **Application Form** along with the **Guidance Notes** from SEERC's web site[1], complete the application, and then send, by post the application folder to SEERC.

Please note that incomplete applications will be disqualified from the process. Candidates have to ensure that all supporting documentation is included in the application. The application form and supporting documents should be accompanied by a **Research Proposal** and an updated **CV**. **The CV and the proposal of the PhD candidate should be sent electronically also, by e-mail at phd_admissions@seerc.org**

The **Research Proposal** should be typed, the length should be about 1,500 – 2,000 words (6 to 8 pages) and should include the following:

a) *Title of the proposed thesis*

b) *Reference to one of the Specific Research Topics (section 6)*

c) *Proposed mode of work (full time or part time)*

d) *Proposed source of Funding: Fee Waiver (Full time Only), Personal funding, funded by any other institution/organization e.t.c.*

e) *Background to research topic*

This section needs to introduce the topic before discussing it in relation to wider academic debates. The section might seek to situate the topic and highlight why the

[1] http://www.seerc.org/new/index.php/doctoral-programme/how-to-apply.html

issue being addressed is important - this should be identified and justified as an important/interesting academic issue not simply in terms of current media/political/popular interest.

f) *Specific problem(s) to be examined*

In his section the discussion of the topic needs to be more specific. The focus should include reference to the framework or conceptual approach that the research might seek to draw on. Also the discussion is likely to highlight and make reference to parallel, comparable and complimentary research. The aim of this section is essentially to set up the area of research specifically. The challenge is to ensure that the proposed research has a substantive empirical and conceptual focus, both of which are suitably grounded in contemporary academic debate with appropriate citations to relevant literature. By the end of the section a gap in existing knowledge needs to be highlighted and and the research questions(s) that the thesis will address be stated.

g) *Methods of research proposal, plan and timetable of work*

The research methods section needs to highlight what methods will be used and how, with an appropriate level of detail. In the case on quantitative research the data set to be accessed and used should be identified and the nature if proposed statistical analysis detailed. In the case of more qualitative research, again the methods should be elaborated and proposed stakeholders/populations to be interviewed/surveyed should be detailed. Due consideration should be given to accessing relevant data/interviewees. Proposals should also highlight ethical issues and potential limitations.

h) *Resources available and required (if any)*

i) *Any other information in support of your proposal*

j) *The proposal should include correct literature citations and a brief bibliography*

All applications should be submitted at SEERC by 30/5/2017 (postmarked). (PLEASE NOTE THAT ON THE ENVELOPE/FOLDER SHOULD BE CLEARLY WRITTEN "SEERC-SHEFFIELD DOCTORAL PROGRAMME APPLICATION FOLDER")

Moreover, **an electronic version of the Research proposal and the CV should be sent by 30/5/2017 by email to SEERC at phd_admissions@seerc.org.**

Incomplete applications missing one or more documents or failure to submit the hard copies of the application by post (i.e. submission only of the proposal in electronic form) to SEERC will result to the application's disqualifying.

The possible outcomes of your application are:

- Acceptance to read for a PhD
- Acceptance to read for a PhD with a fee waiver (FULL TIME candidates only)
- Rejection

All candidates will be informed on the outcome of the evaluation procedure, which may involve an interview at SEERC premises with the proposed supervisors.

A step-by-step guide to submitting your application	
Step 1:	Read in detail the requirements from this Call for Proposals
Step 2:	Download the application form
Step 3:	Read the Guidance Notes for completing it
Step 4:	Prepare Research Proposal and an Updated CV according to Guidelines
Step 5:	Prepare supporting documents for inclusion in the application pack
Step 6:	Send by post or in person 1 envelope with the application and all the supporting documents to SEERC. Do this by **30/5/2017** (post stamp as proof of validity of the application).
Step 7:	Send by **30/5/2017** the Research proposal and the updated CV by e-mail to phd_admissions@seerc.org

6. Research Topics

Research Track 1: Enterprise Innovation and Development

Topic 1: Exploring the current role of sustainability in the Balkans: An investigation into organisational practices and consumer behaviour

The Post Development Agenda of the United Nations raised several important issues to be addressed in the near future, for the purpose of achieving overall greater global welfare. Consequently, the task of developing sustainable solutions in business has been highlighted, and given prominence due to recent incidents caused by unethical and unsustainable practices worldwide. Despite the fact that countries and firms are attempting to produce sustainable business models through corporate social responsibility schemes, it is undeniable that in the area of South East Europe sustainability is being addressed at a slow pace. Even in countries which have placed more emphasis on sustainability issues, there is a popular preconception that firms are implementing such schemes for marketing and branding purposes, rather than fully integrating it to address specific issues. The wider context of global consumerism which continually forces replacement of goods and an overall increase in consumption creates a situation which contradicts the global United Nations plan. Therefore, it is pertinent to ask what the exact role of sustainability is in the 21st century, particularly in the Balkan area where its significance has possibly not been fully comprehended to date.

Lastly it would be invaluable to uncover how small and medium sized enterprises in the Balkan area, with turbulent and uncertain market and economic conditions, are dealing with the phenomenon of sustainability.

Proposed supervisor from the International Faculty: Dr Alexandros Kapoulas

(akapoulas@city.academic.gr)

Topic 2: The evolution of corporate governance and codes of practice

The research would focus on the evolution of corporate governance and relevant codes of practice in Southeastern and Eastern European regions. This could be tailored to specialise in a specific country of the doctoral candidate's choice with a focus on transition economies. The research method would be both qualitative and quantitative. The qualitative part of the PhD will employ interviews with leading decision makers including company directors, company financial directors, accountants, auditors and members of the investment community. The quantitative part will employ empirical analysis through the use of statistical and econometric techniques. The aim of the research would be to discover the extent to which corporate governance practice is effective in improving the way companies are governed, monitored and controlled as well as the extent to which relevant codes of

practice are being followed in spirit. In addition, significant effort will be put in examining the application of corporate governance to firms' access to sources of financing, and to the implementation of their investment plans. The research would aim to produce a series of policy recommendations for governance practice.

Proposed supervisor from the International Faculty: Dr Athanasios Fassas

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Research Track 2: Information & Communication Technologies

Topic 3: Energy Conservation and QoS in IoT Communications

One of the biggest challenges today in the area of computer networking and data communications is enabling the Internet of Things (IoT). A lot of research is now concentrated on techniques that would allow interoperability of connected devices. On top of this necessary condition for the successful deployment of IoT applications is the ability of functioning in a power efficient manner. Different types of IoT devices are expected to be of small size, with limited energy autonomy. For instance, small sensing devices which are deployed in distributed locations far from some power source need to stay operational for long time without requiring recharging. Towards that direction, it is crucial to develop and apply smart techniques that allow advanced energy conservation without notable degradation of performance.

Additionally, the successfulness of the IoT paradigm greatly depends on the ability of the related applications to ensure high Quality of Experience (QoE). This implies the need for adaptive networking behaviour, which allows traffic differentiation and optimization of the crucial performance metrics. Moreover, IoT devices are planned to be used for critical monitoring applications, such as in industrial environments and healthcare systems. So, it is evident that efficient and reliable techniques for prioritising information are required, providing in that way advanced Quality of Service (QoS) support.

The main aim of this project is the conceptualization, development, and evaluation of protocols that provide energy conservation and QoS in IoT applications. Related cutting-edge techniques that enhance communications in the IoT architecture need to be thoroughly studied and the corresponding research gaps should be identified. The introduction of novel schemes for effective communications, focusing on the MAC, Network (routing) or higher layers of the protocol stuck, is an important

parameter. The conceived protocols (or improved versions of existing ones) have to be evaluated in comparison with known approaches through simulation and/or mathematical analysis. By the end of this project, a working prototype that includes IoT devices programmed with different communication protocols should be developed and evaluated. Skills/experience on the following fields would be appreciated:

- Wireless sensors
- Network modelling/simulation
- Communications protocols
- Board-based Systems (such as Arduino or Raspberry Pi)
- Software development (programming/scripting)
- Unix-like systems
- Statistics (for mathematical analysis)

Proposed supervisor from the International Faculty: Dr Thomas Lagkas

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Research Track 3: Society & Human Development Psychology, Politics, Sociology, and English Studies

Topic 4: Daily functionality measures in healthy and pathological aging: Cognitive, brain processes and environmental factors contributing to daily functionality.

One of the main challenges that characterize nowadays most of the western-developed societies is the demographic change of the ever-growing representation of older adults in the general population, due to the combination of an increase in the average life expectancy at birth (Hamilton, 2011; Hertzog, Kramer, Wilson, & Lindenberger, 2009) with the decline in birth rates (Atchley & Barush, 2004; Hamilton, 2012). This demographic change poses certain challenges for the pensions systems' and welfare systems´ financial sustainability, due to changes brought in health and the old-age dependency ratio (The Bank of America Merrill Lynch, 2014; OECD, 2014a,b). The main construct employed in this research and policy-making discourse is independent living, which refers to the ability of older citizens to handle and conduct daily activities. In the scientific literature, these abilities are included in

the umbrella-term of Everyday functioning (EvF). EvF is usually assessed by measures of basic Activities of Daily Living (ADL; bathing, grooming, dressing and eating) and Instrumental Activities of Daily Living (IADL; managing finance, medication handling, using the phone etc). IADLs are more cognitive demanding and thus are more sensitive to subtle deteriorations in cognitive vitality. The differential nature of the ADL and IADL may be explained from their reliance on different cognitive processes and on different brain areas. It has been argued that ADL are frequently practised tasks that rely more on cognitive process that are based in the basal ganglia, an area that becomes less affected from age-related neuronal degenerations. On the other hand, IADL seem to rely on the hippocampal and enthorhinal structures of the brain, areas that seem to be more susceptible to age-related degenerations (Loewenstein & Acevedo, 2010). The belief that cognitive and functional decline with ageing are strongly related has been, and still persist to be, a strong statement in science and in policy-making. Thus many of the "intervention" programmes to promote healthy aging have aimed at boosting cognitive vitality in the short-term, in order to prolong the average years living independently (Bamidis et al., 2014; Diehl et al., 2005; Jobe et al., 2001). However, research supports that cognitive performance and EvF have a small to moderate relationship (Royall et al., 2007). Some of the hypotheses proposed to account for the poor relationship between cognition and EvF are age-related compensatory mechanisms and the methodological shortcomings of studies that examined the relation between cognitive and functional decline with ageing (EvF measures not ecological or sensitive to the healthy population etc). But the fact is that little is known about the brain and cognitive processes that contribute to EvF. Based on the above, this project will explore the relationship between cognitive and brain processes and EvF, and the validity of current EvF to detect changes in the healthy spectrum of aging. A second objective might be to further test threshold models of aging (Stern et al., 2003), which propose a functional thresholds as an official diagnostic criterion for the occurrence of age-related neurological disorders (Tucker-Drop et al., 2009).

How does this studentship fits into the SEERC's/Department's/Research Track strategy:

The project fits very well with the departmental research strategy since one of the main research focus of the department is Aging. It also aligns with the research priorities of HORIZON2020 both in Health and ICT, since one of the main research

priorities of this research framework is improving the quality of life of older citizens and thus reducing the dependency ratio for older adults, which is directly related to daily functionality. This topic will follow up on the research conducted in the context of Mr Pavlidis´ PhD, strengthening this way the research group on aging and helping Mr Pavlidis to develop his research carrier with mentoring from Professor Vivas. The work of Professor Ana Vivas, spanning from basic to applied research, had and continues to have an important contribution and influence to the field of cognitive psychology and neuropsychology. She has been involved in European projects on aging such as Long Lasting Memories and Silver . Hence the student will be able to take advantage of a well established international network on ageing. This project will further strengthen the collaboration between Sheffield and City, on one of the main themes for the next European Research Framework Programme "Horizon 2020". This fits well with one of the main strategic goals of SEERC: promoting sustainable research.

Candidates Profile:

The candidate is expected to a Bachelor degree in Psychology. S/he should also demonstrate knowledge and interest on quantitative research methods and analyses. Relevant postgraduate studies and knowledge/previous experience on neuroimaging techniques, or neuropsychological method will be positively evaluated. The mode of study is F/T

Proposed supervisor from the International Faculty: Prof. Ana Vivas (vivas@city.academic.gr)

Topic 5: Perceptual sensitivity in Autism spectrum disorder (ASD)

Autism spectrum disorder (ASD) is a neurodevelopmental condition that affects social interaction and behaviour. Sensory issues are also common in individuals with ASD. Sensory issues were only recently included in the diagnostic manual for psychiatric diagnoses (DSM-V, 2013), and until this point most evidence for sensory issues in ASD has been anecdotal or obtained from self-report measures. Clinical researchers have attempted to measure sensory behaviours in ASD using parental report questionnaires and experimental researchers have attempted to measure sensory issues in ASD by developing experimental and psychophysical tasks to measure perceptual sensitivities (e.g. Milne et al., 2002; Dickinson et al. 2016a). The

resulting literature has revealed quite a confusing picture with regards to the extent to which individuals with ASD show increased sensitivity or reduced sensitivity to certain types of stimuli, and whether or not perceptual sensitivity is related to sensory behaviours in ASD (see Dickinson et al. 2016b for a review).

The aim of this proposed PhD is to resolve some of the confusion in this field by carrying out a thorough investigation of perceptual sensitivity in ASD and its relation to sensory behaviours and ASD symptoms. This project will bridge the gap between clinical psychology and perceptual psychophysics by investigating both sensory behaviours and clinical profile (i.e. background history, presence of any comorbidities) and perceptual sensitivity using rigorous experimental tasks. A large cohort (N = 40) of individuals with ASD will be recruited to take part. Detailed information regarding participant's symptom profile will be obtained via clinical interviews and standardised tasks (ADOS, ADI-R, WIPSI). Perceptual sensitivity will then be measured using bespoke psychophysical tasks. A number of domains will be investigated including motion perception, colour perception, pitch perception and orientation discrimination. Existing literature suggests ASD specific abnormalities in all of these domains, although some studies suggest enhanced perception whereas some studies suggest reduced perception in ASD). Following on from some of our previous work (Pirrone et al. in press), we will apply novel analysis methods (including applying the Drift Diffusion Model) to investigate not only response time and accuracy of responses, but also parameters representing decision making processes. These analyses will enable us to establish the extent to which differences in perceptual task performance in ASD may be explained by different perceptual sensitivity, or by different decision making processes.

In addition to obtaining data from individuals with ASD, similar batteries of tasks will be administered to individuals with no known developmental conditions (the neurotypical group) and also to individuals with ADHD. This is so that we can establish the extent to which perceptual abnormalities and potential differences in the mechanisms underlying decision making are unique to ASD or occur in other developmental conditions.

This project extends an existing collaboration between Dr Milne in Sheffield and Dr Kalyva in Thessaloniki, who are currently working on a COEUS grant to set up potential cohorts of participants and obtain pilot data on the perceptual tasks. It is anticipated that a number of high impact publications will arise from this project due to the fact that it will be the first time that clinical features, including sensory

behaviours, have been measured alongside results from perceptual tasks, and also due to the fact that we will be measuring decision making parameters alongside perceptual sensitivity. The resulting dataset will be the most detailed dataset to date regarding sensory issues in ASD.

Dickinson, A., Bruyns-Haylett, M., Smith, R., Jones, M., & Milne, E. (2016a). Superior orientation discrimination and increased peak gamma frequency in autism spectrum conditions. Journal of abnormal psychology, 125(3), 412.

Dickinson, A., Jones, M., & Milne, E. (2016b). Measuring neural excitation and inhibition in autism: Different approaches, different findings and different interpretations. Brain Research, 1648, 277-289.

Milne, E., Swettenham, J., Hansen, P., Campbell, R., Jeffries, H., & Plaisted, K. (2002). High motion coherence thresholds in children with autism. Journal of Child Psychology and Psychiatry, 43(2), 255-263.

Pirrone, A., Dickinson, A., Gomez, R., Stafford, T., & Milne, E. (2016). Understanding Perceptual Judgment in Autism Spectrum Disorder Using the Drift Diffusion Model.

Proposed supervisor from the International Faculty: Dr Froso Kalyva

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Topic 6: Attitudes towards minority and immigrant languages in Greece

The increasing influx of migrants and refugees in South-East Europe and Greece in particular has brought to the forefront the lack of language services resources and policies, as well as the fact that the vast majority of immigrant or minority languages are not recognized by the Greek state. Although the literature has discussed how these languages - some of which have been spoken in Greece for hundreds of years - are regarded by the Greek state and the limited range of provision offered to their speakers, it has not examined the attitudes of the Greek public and the possible correlation between the state's inaction and the public's opinion. The proposed Call for PhD research should examine the attitudes of different members of the Greek community towards immigrant and minority languages as well as towards existing or suggested language policies.

Proposed supervisor from the International Faculty: Dr Zoi Tatsioka

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