SEERC –
Call for PhD Applications from Kosovo 2017-2018.
Doctoral Study at SEERC: Kosovo scholarships 2017

1. The PhD Programme

The PhD programme is implemented jointly by the University of Sheffield and the International Faculty, CITY College, 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.

2. PhD scholarships

The scholarships will be awarded by the Ministry of Education and the International Faculty of the University of Sheffield, CITY College to two (2) qualified students. The scholarships cover the program fees for 3 years (full time programme) or 6 years (part time programme). Students are expected to cover their travel and living expenses. The duration of studies for the full time programme 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. The duration of the studies for the part time programme is 6 years (with 2 more years available for writing up the thesis). For the Part time programme the student does not have to be in Thessaloniki but needs to make at least three visits per year for supervision meeting and training purposes.

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.

3. Research topics

Priority will be given to proposals in line with the following topics; however we are open to other topics as well, which will be in line with our Research Tracks. Please see the following link for information on our Research Tracks: [http://www.seerc.org/new/index.php/component/entities/?view=track&Itemid=126](http://www.seerc.org/new/index.php/component/entities/?view=track&Itemid=126):

<table>
<thead>
<tr>
<th>Priority Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Research Track 1: Enterprise Innovation and Development</strong></td>
</tr>
<tr>
<td><strong>Topic 1:</strong> Exploring the current role of sustainability in the Balkans: An investigation into organisational practices and consumer behaviour</td>
</tr>
<tr>
<td><strong>Topic 2:</strong> The evolution of corporate governance and codes of practice</td>
</tr>
<tr>
<td><strong>Research Track 2: Information and Communication Technologies</strong></td>
</tr>
</tbody>
</table>
Call for PhD Applications, Kosovo scholarships 2017-2018

<table>
<thead>
<tr>
<th>Topic 3:</th>
<th>Energy Conservation and QoS in IoT Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Research Track 3: Society &amp; Human Development</strong></td>
<td></td>
</tr>
<tr>
<td>Topic 4:</td>
<td>Daily functionality measures in healthy and pathological aging: Cognitive, brain processes and environmental factors contributing to daily functionality.</td>
</tr>
<tr>
<td>Topic 5:</td>
<td>Perceptual sensitivity in Autism spectrum disorder (ASD)</td>
</tr>
<tr>
<td>Topic 6:</td>
<td>Attitudes towards minority and immigrant languages in Kosovo</td>
</tr>
</tbody>
</table>

A more detailed description of the topics is provided in the Annex.

4. Submission of a proposal

In order to apply, PhD candidates need to download the Application Form along with the Guidance Notes from SEERC’s web site, complete the application, and then submit the application folder to the Ministry of Education, Science & Technology in Pristina. 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, 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 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 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 the Ministry by 3/7/2017 (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 3/7/2017 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 at the Ministry (i.e. submission only of the proposal in electronic form) will result to the applications disqualifying.

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

### A step-by-step guide to submitting your application

<table>
<thead>
<tr>
<th>Step 1:</th>
<th>Read in detail the requirements from this Call for Proposals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2:</td>
<td>Download the application form</td>
</tr>
<tr>
<td>Step 3:</td>
<td>Read the Guidance Notes for completing it</td>
</tr>
<tr>
<td>Step 4:</td>
<td>Prepare Research Proposal and an Updated CV according to Guidelines</td>
</tr>
<tr>
<td>Step 5:</td>
<td>Prepare supporting documents for inclusion in the application pack</td>
</tr>
<tr>
<td>Step 6:</td>
<td>Send your application and all the supporting documents to the Ministry of Education, Science &amp; Technology of Kosovo in Prishtina by 3/7/2017</td>
</tr>
<tr>
<td>Step 7:</td>
<td>Send by 3/7/2017 the Research proposal and the updated CV by e-mail to <a href="mailto:phd_admissions@seerc.org">phd_admissions@seerc.org</a></td>
</tr>
</tbody>
</table>
3. 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

4. English Language Requirements
For # 1-2 Research topics and any proposals to Research Track 1, 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

For all other Research Proposals: A good command of the English language is essential for postgraduate study. If English is not your first language, you must provide evidence of your language ability.

In all cases the English language test should have been taken within the preceding two years. Our Standard English requirement is a minimum IELTS 6.5 (with no less than 6 in each part) – or equivalent. PhD candidates who hold an official English Language qualification will submit it with the rest of the documents by 3/7/2017. Those who do not hold an up to date official English Language qualification are requested to take the English Placement Test. The exact dates that the English Test will take place, will be announced later.

5. Selection procedure.
After the submission of the research proposals, students might be requested to present their proposal in an interview in front of the scholarship selection panel. The scholarships will be awarded based on an evaluation of their academic credentials, the merit of their proposal and the alignment of the proposal with SEERC’s strategy and research interests.

6. Time – plan

| Submission of Application Pack and electronic version of the CV and the proposal | July 3, 2017 |
| Interviews | September 2017 |
| Starting date | October 2017 |
ANNEX: Description of topics

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 the Eastern European region. This could be tailored to specialise in a specific country of the doctoral candidate’s choice. The research method would
be qualitative, employing interviews with leading decision makers including company
directors, company financial directors, accountants, auditors and members of the
investment community. 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. The research would aim to produce a series of
policy recommendations for governance practice.

Proposed supervisor from the International Faculty: Dr Athanasios Fassas
(afassas@city.academic.gr)

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 stack, 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
(tlagkas@city.academic.gr)

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:
Call for PhD Applications, Kosovo scholarships 2017-2018

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.
Call for PhD Applications, Kosovo scholarships 2017-2018

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.


Proposed supervisor from the International Faculty: Dr Froso Kalyva

(kalyva@city.academic.gr)

**Topic 6: Attitudes towards regional and minority languages in Kosovo**

Although Kosovo is a multilingual community of significant sociolinguistic interest due to its considerable ethnic and linguistic diversity, limited research has been conducted on the attitudes Kosovar people hold towards the regional and minority languages spoken in the country. Moreover, while laws on language rights have been amended by the latest Constitution in accordance with the European Charter for Regional or Minority Languages and the Framework Convention for the Protection of National Minorities, no studies have examined the attitudes people hold toward the implementation of those regulations and potential discrepancies in everyday
practices. The proposed call for PhD research should investigate the attitudes of different members of the Kosovar community towards regional and minority languages as well as towards existing and suggested language policies.

Proposed supervisor from the International Faculty: Dr Zoi Tatsioka

(ztatsioka@city.academic.gr)