



CYPRUS UNIVERSITY OF TECHNOLOGY

Service for Academic Affairs and Student Welfare

Studies Office

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ANNOUNCEMENT FOR POSTGRADUATE STUDIES

DOCTORAL LEVEL

The Cyprus University of Technology announces the opening to apply for limited positions of postgraduate studies at doctoral level that will begin January 2017. The Departments with their doctoral positions are as follows:

DEPARTMENT OF AGRICULTURAL SCIENCES, BIOTECHNOLOGY AND FOOD SCIENCE

- **One (1) position in the topic: «Seed priming of angiosperm plants using chemical agents towards improved growth and protection under stress conditions»**

Required skills: Bachelor's and Master's degree from an accredited University in Agricultural/Biological Sciences. Fluency in English language is required.

Funding source: Qualified candidates could be funded as teaching assistants, receive internal scholarships based on excellence when and if available or by participating in funded research grants.

Supervisor: Dr. Vassilis Fotopoulos, Assistant Professor (<http://plant-stress.weebly.com>; vassilis.fotopoulos@cut.ac.cy)

- **One (1) position in the topic «Ecology and management of insect pests»**

Candidates are expected to have a Bachelor's and Master's degree from an accredited University in Agricultural Sciences or Ecology or related disciplines. Applicants should be fluent in English. Previous relevant research experience is highly valued.

- **One (1) position in the topic «Nutritional and physiological factors affecting milk fat and gene expression in ruminants»**

Candidates are expected to have a Bachelor's and Master's degree from an accredited University in Agricultural, Animal or Veterinary Sciences or related disciplines. Applicants should be fluent in English. Previous relevant research experience is highly valued.

Information:

Department Secretary

Tel.: 25002436, Fax: 25002767

DEPARTMENT OF ENVIRONMENTAL SCIENCE AND TECHNOLOGY, CYPRUS
UNIVERSITY OF TECHNOLOGY

- **One (1) post on the following topic: “Biochar as a Cell Carrier for Industrial Biotechnology Applications”**

Description: Biochar is the carbonaceous solid product of pyrolysis using organic material (e.g. biomass waste and residues) that constitutes tremendous commercial potential due to a wide range of applications. Previous research has shown that biochar provides a highly suitable habitat for microbial growth and thus the aim of the post is to demonstrate the efficiency of various types of biochar produced from biowaste as immobilization carriers for strains used in major industrial bioprocesses. The team has a wide experience in alcoholic and succinic acid fermentations and the successful candidate will explore the potential of biochar to enhance the production of the two chemical products from different food-waste. Industrial microorganisms will be used in cheese whey and fruit processing waste fermentations, while the productivity of each commodity will be calculated in experiments using suspended cultures as well as in tests involving cells immobilized on biochar and other common carriers (e.g. delignified cellulosic material, gamma-alumina, alginate gels). The comparison of biochar’s performance to other carriers will be performed through analysis of lactose consumption and products’ formation in cheese whey fermentations. Furthermore, a sugar-rich hydrolysate, generated from citrus peel waste using a standard lignocellulosic pretreatment protocol applied for polysaccharides’ hydrolysis, will be used as an alternative fermentation feedstock. The required dosage of biochar, measured in g/g of waste, will be evaluated for both types of food-waste to estimate the maximum capacity of the material to enhance the productivity of the process.

Qualifications: Candidates should possess a Bachelor’s and postgraduate degree of Master’s level from accredited Universities in Chemical Engineering, Chemistry, Biology, Environmental Engineering or any other related field.

Research Advisor of the post: Michalis Koutinas, Assistant Professor, michail.koutinas@cut.ac.cy

- **Announcing the opening of one (1) position for a Doctoral Candidate in the research topic “Treatment of water and wastewater with Advanced Oxidation Processes (AOPs)”.**

The presence and subsequently the removal of micropollutants like pesticides, hormones, medical drugs and naturally occurring toxic metabolites (cyanotoxins) from water resources comprises a challenge for the water and wastewater industry. In order to remove micropollutants in trace concentrations from water resources chemical oxidation technologies such as ozonation and advanced oxidation processes (AOPs) are increasingly used to treat different types of source water and wastewater. The aim of this thesis is to explore the potential application of various AOPs for the removal of micropollutants from water and wastewater.

Successful candidates must possess a Bachelor’s degree from an accredited University in Chemistry or Chemical Engineering and a postgraduate degree (Master level) from an accredited University in the field of Environmental Chemistry, Analytical Chemistry, Environmental Science or Environmental Engineering. The candidates must be fluent in

English. Previous experience in the above-mentioned research topic will be considered as an advantage. Funding opportunities are available for exceptional candidates.

Contact Person: Dr. Maria G. Antoniou

Tel: +357 25002277

Email: maria.antoniou@cut.ac.cy

- **Energy and Meteorology**

Electricity production from Photovoltaics (PVs) is heavily dependent on local meteorological phenomena, especially cloud type and cloud cover. Thus, in order to further promote the penetration of small-scale roof-top PVs in cities, the effect of clouds on PVs and the prediction of electricity production from these systems needs to be understood and any problems should be resolved. The current project addresses this topic and a software will be developed based on a novel methodology (patent pending) for the prediction electricity production from PVs.

Successful candidates should possess Bachelor's and Master's degrees from an accredited University in Mechanical or Electrical Engineering or Physics. They should have experience in computer software (C++/Matlab/GIS/etc) and should be willing to engage in interdisciplinary work on energy and meteorology.

Contact Person: Assistant Professor Alexandros Charalambides
(a.charalambides@cut.ac.cy)

- **Biogas utilization by methanotrophs for production of methanol or other high value added products.**

Methanotrophs can consume methane and can generate methanol or other high value added products. This process can valorise biogas and natural gas to the aforementioned products under ambient temperature. Part of the objectives of this PhD is to enrich a mix culture capable of methane consumption from biogas to methanol. In addition, the PhD aims the isolation and characterization of methanotrophs and the operation of methanotrophic bioreactors. The bioreactors will start up at various initial methane concentration and use various initial methanotrophic inoculumns. The microbial dynamics of the methanotrophic bioreactors will be examined over time and the stability of the system will be investigated under environmental harsh conditions. Successful candidates must possess a Bachelor's degree from an accredited University in Chemistry or Chemical Engineering or Biology or Geology. They should possess a postgraduate degree (Master's level) from an accredited University in the field of Environmental Chemistry, Analytical Chemistry, Environmental Science or Environmental Engineering or Oil and Gas Technology. Candidates must be fluent in English. Previous experience in the above-mentioned research topic will be considered as an advantage.

For more information candidates could contact Assistant Professor, Dr Ioannis Vyrides at ioannis.vyrides@cut.ac.cy

- **Production of lipids from mix microorganisms using products from anaerobic digestion.**

Many yeast and bacteria can synthesise high concentration of intracellular lipids. These lipids after extraction can be used for biodiesel production or as high value added products. Part of the PhD objective is to develop mix cultures able to synthesise lipids utilizing biogas and or volatile fatty acids. Moreover, physicochemical techniques will be investigated as strategies in order to extract lipids from anaerobic and activated sludge. Successful candidates must possess a Bachelor's degree from an accredited University in Chemistry or Chemical Engineering. Candidates must be fluent in English. Previous experience in the above-mentioned research topic will be considered as an advantage.

For more information please contact Assistant Professor, Dr Ioannis Vyrides at ioannis.vyrides@cut.ac.cy

- **One doctoral position in “Study of Environmental Biocatalysts and Biofilms by FTIR Spectroscopy”**

For more information please contact Professor, Dr Constantinos Varotsis at c.varotsis@cut.ac.cy

Information:

From the Department Secretary

Tel.: 25002178, Fax: 25002636

DEPARTMENT OF HOTEL AND TOURISM MANAGEMENT

- One (1) post in the following research area:« **Sports Tourism Development** ». The call emphasizes on the study of sports tourism as a vehicle for tourism, with emphasis on the case of Cyprus.

Applicants for the aforementioned post are required to hold an accredited undergraduate degree **as well as** an accredited postgraduate masters degree, one of which should be in Physical Education. Experience (research related and/or professional) of a minimum of 3 years in (a) the field of sports - in more than one sport, and (b) in tourism planning and development, would be considered an advantage. Furthermore, candidates are expected to possess analytical skills, very good command of the English Language as well as very good knowledge of computer applications. Candidates should be able to deliver their doctoral dissertation in the English language.

Research Advisor: Alexis Saveriades, Assistant Professor, alexis.saveriades@cut.ac.cy

Information:

Department Secretary

Tel: 25002430, Fax: 25002633

DEPARTMENT OF COMMERCE, FINANCE AND SHIPPING

- One (1) post in the topic « **Behavioral Finance** »

Behavioral Finance is the new field of financial economics that studies those sociological factors and human's behavior that affect certain financial decisions. This field is probably the most important new research in economics in the last 20 years. Candidates should possess a Bachelor's degree and a Master's level postgraduate degree in Finance or Economics or Mathematics or Statistics or Applied Mathematics or related field of study. The doctoral candidate usually receives financial support.

- One (1) post in the topic « **Operations Management with emphasis in Shipping** »

Operations Management with emphasis in Shipping studies the learning environment of fundamental knowledge and skills related to the development and application of analytical tools essential for the support of corporate decisions. This field represents one of the key elements for the efficiency of operations management, especially in the shipping industry. Candidates should possess a Bachelor's degree and a Master's level postgraduate degree in Business Management, or Economics or Shipping Economics or Operations Management or Mathematics or Statistics or Applied Mathematics or related field of study. The doctoral candidate usually receives financial support.

- One (1) post in the topic « **Finance** »

Candidates should possess a Bachelor's degree and a Master's level postgraduate degree in Finance or Economics or Applied Mathematics or related field of study. The doctoral candidate usually receives financial support.

- One (1) post in the area «**International Finance**» or «**International Financial Management**»

Candidates should possess a Bachelor's degree and/or a Master's degree from an accredited University in at least one of the following fields: Economics, Finance, Econometrics, Business Administration, Applied Statistics. Prospective doctoral students will receive financial support from the department.

- One (1) post in the topic «**Shipping or Shipping Management or Shipping Economics or Transportation Logistics** »

Candidates should possess a Bachelor's degree and a Master's level postgraduate degree from an accredited University in Operations Research, Econometrics or Quantitative Methods or Statistics or Finance or Business Administration or Shipping or Logistics/Supply Chain Management".

Information:

Department Secretary

Tel: 25002720, Fax: 25002633

DEPARTMENT OF COMMUNICATION AND INTERNET STUDIES

- **One (1) post on the following topic: “Mobile Health (mHealth) Technologies”**

Description: Chronic diseases, such as cardiovascular and respiratory diseases, are a major threat to today's healthcare systems. They account for nearly 40% of mortality cases and 75% of health care costs worldwide, while researchers predict a 42 percent increase in chronic disease cases by 2023. Much of this can be prevented through an emphasis on healthy lifestyles. Obesity alone, for example, accounts for an estimated 12 percent of the health spending growth in the United States. In this new landscape of healthcare, mobile and wearable technologies, such as physical activity trackers, have recently gained substantial interest both in research and practice as they can provide many benefits, ranging from increased awareness of one's behaviors, to empowerment and responsibility taking with one's own health, as well as opportunistic engagement in desired behaviors. The candidate will join an international team which strives to understand the long-term impact mobile health technologies have on individuals' behaviors and to design and prototype new forms of such technologies. Candidates with strong methodological background in the social sciences will conduct longitudinal studies on users' engagement with the technology as well as in behavior change, while candidates with a computer science background will work on designing and building new mobile and wearable technologies for behavior change, utilizing sensors available in smartphones and smartwatches and building new ways to visualize information and inspire action towards healthy lifestyles.

Qualifications: Candidates must hold either an undergraduate and a postgraduate degree in Computer Science, Computer Engineering or a relevant field with interests in Human-Computer Interaction and experience in mobile development (Android/Android Wear/iOS), or hold an undergraduate and a postgraduate degree in the Social Sciences with strong methodological background. The application of each candidate should include a detailed CV along with a brief description of research interests (maximum 2 pages).

Financial Support: Funding may be available from a startup grant and external research funding of the Persuasive Technologies Lab (<http://persuasive.cut.ac.cy>). Moreover, depending on their field of expertise and qualifications, candidates may be offered teaching assistant positions in the department for lab-based courses.

Research Advisor of the Post: Evangelos Karapanos, Assistant Professor, evangelos.karapanos@cut.ac.cy

- **One (1) post on the following topic: “Enhancing communication networks for the Internet of Things”**

Description: The aim of this dissertation is to analyse the various applications of ubiquitous computing in the Internet of Things and their requirements from the network communications infrastructure within both urban and rural areas. The analysis will help to identify and resolve the open issues and enhance networked communications. The work for the above subject entails carrying out high level research that produces original results that advance knowledge in the corresponding scientific field.

Qualifications: Candidates must hold an undergraduate degree in Computer Science, Computer Engineering, Electrical Engineering or a relevant field. The application of each candidate should include a detailed CV along with a brief description of their research interests (maximum 2 pages) written in English.

Financial Support: Depending on their field of expertise and qualifications, candidates may be offered teaching assistant positions in the department for lab-based courses. Moreover, funding is currently available through on-going research projects.

Research Advisor: Lambros Lambrinos, Assistant Professor, lambros.lambrinos@cut.ac.cy

- **One (1) post on the following topic: “Context awareness in the Internet of Things”**

Description: This dissertation will study the existing and potential applications of the Internet of Things and how they interact between them, with their users and the surrounding environment (e.g. within a smart city). The study will examine both the software and hardware (e.g. mobile devices, sensors) supporting the applications in order to identify the role of context awareness and resolve the issues identified. The work for the above subject entails carrying out high level research that produces original results that advance knowledge in the corresponding scientific field.

Qualifications: Candidates must hold an undergraduate degree in Computer Science, Computer Engineering, Electrical Engineering or a relevant field. The application of each candidate should include a detailed CV along with a brief description of their research interests (maximum 2 pages) written in English.

Financial Support: Depending on their field of expertise and qualifications, candidates may be offered teaching assistant positions in the department for lab-based courses. Moreover, funding is currently available through on-going research projects.

Research Advisor: Lambros Lambrinos, Assistant Professor, lambros.lambrinos@cut.ac.cy

- **One (1) post on the following topic: “Integrating the Internet of Things in smart city environments”**

Description: The aim of this dissertation is to examine how the Internet of Things can be applied within smart city environments. The analysis will help to enhance the use of smart city infrastructures in order to provide an improved level of services to the citizens. The work entails carrying out high level research that produces original results that advance knowledge in the corresponding scientific field. The work for the above subject entails carrying out high level research that produces original results that advance knowledge in the corresponding scientific field.

Qualifications: Candidates must hold an undergraduate degree in Computer Science, Computer Engineering, Electrical Engineering or a relevant field. The application of each candidate should include a detailed CV along with a brief description of their research interests (maximum 2 pages) written in English.

Financial Support: Depending on their field of expertise and qualifications, candidates may be offered teaching assistant positions in the department for lab-based courses. Moreover, funding is currently available through on-going research projects.

Research Advisor: Lambros Lambrinos, Assistant Professor, lambros.lambrinos@cut.ac.cy

* In exceptional cases candidates without a postgraduate degree can be admitted in the doctoral program, with a unanimous positive decision of the Departmental Council. However, this implies that a number of additional ECTS from postgraduate courses must be completed.

- **Two (2) positions in the research field of “.Social representations of Refugees/Economic/Migrants/Diaspora minorities and Technology”.**

The suggested field covers research on Social Representations for technology used by individuals/people who move in space. Refugees, economic migrants, diaspora minorities are set in complex multimedia environments, formed by the combination of traditional and new media, which play a significant role in everyday life.

Supervision

Dissertations will be supervised by Angeliki Gazi, PhD Assistant Professor in the Department of Communication and Internet Studies (angeliki.gazi@cut.ac.cy).

Candidates' Qualifications

Candidates must hold a recognized diploma (bachelor) and master degree in Communication Studies/Psychology/Media/Internet Studies or other relevant subject (Sociology). Fluency in Greek and English is essential. Sufficient knowledge of French language will be further appreciated as a qualification. Candidates should be able to deliver their doctoral thesis either in Greek or English.

Priority will be given to candidates with:

- Sufficient knowledge of qualitative and quantitative research methods in Social Sciences.
- Prior research experience in relevant subjects.
- Experience in drafting research proposals.

Applications of candidates should be accompanied by a description (up to two pages) of their research interests in English or in Greek or in French.

Funding for doctoral candidates

For the above position there is scope for engaging the PhD candidate in teaching seminars or other related research programs, given that his specialty fits the department's needs and interests.

Information:

From the Department Secretary

Tel.: 25002453, Fax: 25829091

DEPARTMENT OF MULTIMEDIA AND GRAPHIC ARTS

- **Two (2) posts that relate to any of the following two broad areas:**
 - a) «Design for Social Change», «Design Thinking for Social Change», “Social Entrepreneurship”
 - b) “Design education”, “Technology-enhanced learning in Art and Design”

Candidates for this post should possess:

1. A Bachelor’s Degree and a postgraduate Degree of Master’s level from accredited Universities in Educational Research, Educational Technology, Art and Design Education or other areas that relate to design for social change.
2. Ability to work independently on research projects.
3. Excellent knowledge of the English language.
4. Prior experience in submitting research proposals, participation in research programs

and research experience related to the above topics will be considered as an advantage.

Beyond the requirements that the university requests to apply for the doctoral programme, your application must include (in English) a letter of interest or statement of purpose, that explains/describes why you wish to undertake the specific studies, your research objectives and other relevant information (2-3 pages).

The successful applicant(s) will be associated with the intervention lab: Art + Design: elearning lab - Design for social change (www.elearningartdesign.org), and will be actively involved in the activities associated with: <http://www.ipadesinhe.org>, and <http://www.worlddesigndaycyprus.org> (1-2 days per week).

In parallel to the doctoral study, the successful applicant may be employed in related projects. In addition, he/she may be assigned teaching duties at the Department of Multimedia and Graphic Arts, with appropriate reimbursement.

For any queries that relate to this doctoral offer, please contact Dr. Nicos Souleles (nicos.souleles@cut.ac.cy).

- **Two (2) posts in the topic «Museum Studies»**

Suggested themes:

1. Visitor photography in museums
2. Museums and national identity
3. Subject suggested by the applicant

Qualifications: A Bachelor's degree and a postgraduate degree of Master's level from accredited Universities in museum studies, sociology, anthropology or any related field. Ability to work independently on research projects. Very good knowledge of English language. Experience with qualitative and quantitative research methodologies and previous participation in research programs will be considered an advantage.

Note: Besides the paperwork required by the postgraduate studies office, your application should include a 2-3 pages initial research proposal related to the theme and your interests.

Financial Support: In parallel to studies, the successful candidate may be involved in research related projects. Also the successful candidate may be assigned teaching-related duties at the Department of Multimedia and Graphic Arts with appropriate reimbursement.

Research Advisor of the Post: Assistant Professor, Dr. Theopisti Stylianou-Lambert, theopisti.stylianou@cut.ac.cy

- **One (1) post in the area of “Human Computer Interaction”**

Human Computer Interaction for this post is as defined by the research priorities of the Cyprus Interaction Lab (<http://www.cyprusinteractionlab.com/>)

Candidates for this post should possess:

- Postgraduate Degree of Master's level from accredited Universities in Computer Science or Multimedia or Internet Studies or Sociology or any related field
- Ability to organize and carry out research work independently.
- Very good knowledge of English language.
- Prior experience in submitting research proposals or participating in research programs will be considered as an additional qualification.

The successful candidates will be assigned to the "Cyprus Interaction Lab" (<http://www.cyprusinteractionlab.com/>) and the Social Computing Research Center (SCRC - <http://www.socialcomputing.eu/>) of Cyprus University of Technology. In parallel with their studies the successful candidates may be employed in currently active research programs and will be assigned teaching-related duties at the Department of Multimedia and Graphic Arts with appropriate reimbursement. In addition the successful candidates may have the opportunity to carry out part of their research work abroad through sponsored exchange programs. For more information about the post and employment opportunities please contact:

Prof. Panayiotis Zaphiris
Director, Cyprus Interaction Lab,
Dept. of Multimedia and Graphic Arts
panayiotis.zaphiris@cut.ac.cy
Tel: +357 25002385

- **Two (2) posts in the topics:**
 - (a) Visual Computing/ Computer Graphics or**
 - (b) Virtual Reality for Well being or**
 - (c) Exploiting Virtual Reality as Placebo or**
 - (d) Study Brain Conflicting Sensory Input Through Virtual Reality or**
 - (e) Virtual Reality and BCI**

Candidates for this post should possess:

1. A Bachelor's Degree **and** a postgraduate Degree of Master's level* from accredited Universities in Computer Science, Computer Engineering, or other related field.
2. Deep knowledge of Computer Graphics and Virtual Reality concepts
3. Excellent programming skills
4. Excellent knowledge of a game engine (e.g. Unity)
5. For topic (a):
 - excellent knowledge of C/C++ programming language
- For topics (b), (c), (d) and (e):
 - academic knowledge or personal interest in cognitive psychology or neuroscience
6. Ability to work independently on research projects
7. Excellent knowledge of English language (spoken and written)
8. The following will be considered as additional qualifications:

For topic (a):

- experience in programming using OpenGL
- experience in GPU programming

For topics (b), (c), (d) and (e):

- knowledge of a 3D modelling software
- knowledge of statistical analysis

For all topics:

- experience in submitting research proposals and/or participation in research projects

* In cases where the candidate demonstrates EXCEPTIONAL academic performance; holding a postgraduate degree may not be a strict requirement to apply for this position. (Even though it is highly recommended)

For these positions:

- *applications are accepted only for full time studies*
- *candidates should include with their application, a research statement relevant to the topic they apply. The research statement should be 1-2 pages in length and written in English.*
- *to submit the relevant documents proving possession of the required qualifications as they are described above.*

The successful candidate(s) will be affiliated with the research lab of Department of Multimedia and Graphic Arts, Microsoft Computer Games and Emerging Technologies (GET Lab – <http://getlab.org>) and will take part in the research activities of the lab.

The successful candidate(s) may be assigned teaching-related duties, with appropriate reimbursement, at the Department of Multimedia and Graphic Arts, based on the needs of department per academic year or/and research responsibilities at GET Lab.

Successful candidate(s) with excellent academic qualifications and performance may be hired as researchers at research projects that GET Lab is involved.

For more information in *academic* matters:

Dr. Despina Michael Grigoriou

Director, GET Lab - Microsoft Computer Games and Emerging Technologies Research Lab

Assistant Professor, Department of Multimedia and Graphic Arts

Cyprus University of Technology

Email.: despina.grigoriou@cut.ac.cy

Tel.: +357 25002226

For information regarding *applications submission*: <http://www.cut.ac.cy>

• **One (1) post in the area of “Social Computing”** and specifically in the areas of:

1. Technology-enhanced learning
2. Advanced Technologies for Learning
3. Social aspects of computing

Candidates for this post should possess:

- Postgraduate Degree of Master’s level from accredited Universities in Education, Computer Science, Educational Technology or any related field
- Very good knowledge of English language.
- Ability to organize and carry out research work independently.
- Prior experience in submitting research proposals or participating in research programs will be considered as an additional qualification.

The successful candidates will be assigned to the “Cyprus Interaction Lab” (<http://www.cyprusinteractionlab.com/>) of Cyprus University of Technology. In parallel with their studies the successful candidates may be employed in currently active research programs and will be assigned teaching-related duties at the Department of Multimedia and Graphic Arts with appropriate reimbursement. In addition the successful candidates may have the opportunity to carry out part of their research work abroad through sponsored exchange programs. For more information about the post and employment opportunities please contact:

Andri Ioannou, PhD

Assistant Professor, Department of Multimedia and Graphic Arts

Cyprus University of Technology

email: andri.i.ioannou@cut.ac.cy tel. +357 2500 2276, +357 2500 2059

• **One (1) post in the area of “Educational Robotics”:**

Candidates for this post should possess:

- Postgraduate Degree of Master’s level from accredited Universities in Education, Computer Science, Educational Technology or any related field
- Very good knowledge of English language.
- Ability to organize and carry out research work independently.
- Prior experience in submitting research proposals or participating in research programs will be considered as an additional qualification.

The successful candidates will be assigned to the “Cyprus Interaction Lab” (<http://www.cyprusinteractionlab.com/>) of Cyprus University of Technology. In parallel with their studies the successful candidates may be employed in currently active research programs and will be assigned teaching-related duties at the Department of Multimedia and Graphic Arts with appropriate reimbursement. In addition the successful candidates may have the opportunity to carry out part of their research work abroad through sponsored exchange programs. For more information about the post and employment opportunities please contact:

Andri Ioannou, PhD

Assistant Professor, Department of Multimedia and Graphic Arts

Cyprus University of Technology (Cyprus) | www.cut.ac.cy

email: andri.i.ioannou@cut.ac.cy tel. +357 2500 2276, +357 2500 2059

Information:

From the Department Secretary

Tel.: 25002530

DEPARTMENT OF ELECTRICAL ENGINEERING, COMPUTER ENGINEERING AND INFORMATICS

- **One (1) post in the following topic: Statistical Machine Learning Models for Analysis of Structured Data**

The goal of this thesis is the development of novel Statistical Machine Learning methodologies, capable of extracting useful inferences from structured high-dimensional data. Specifically, we aim at statistical methods that mimic the operation of the cortex, with applications to: (i) natural language processing, and learning of associations with visual experiences; (ii) social network analysis for behavioral prediction; (iii) human skill inference and mimicking, for instance in the context of video game engines.

This Thesis requires knowledge of high-level programming languages (e.g. Python), as well as affinity with Data Science.

For more Information and discussion on the topic and research, potential candidates can contact Dr. Sotiri Chatzi at sotirios.chatzis@cut.ac.cy, Phone: +357-25002041.

- **One (1) post in the following topic: Natural Language Processing Models for Prediction of Trends in Public Opinion, the Economy, and International Relationships**

The goal of this Thesis is to develop novel statistical machine learning methodologies for trend prediction based on the analysis of live text in real time; here, live text refers to posts in online social networks, news-sites, and other related sources of information. Great emphasis will be put on achieving robustness of the developed methods to outliers, as well as on the self-adaptivity of the developed methods to the dynamic evolution of the implied meanings of lingual patterns.

This Thesis requires knowledge of high-level programming languages (e.g. Python), as well as affinity with Data Science.

For more Information and discussion on the topic and research, potential candidates can contact Dr. Sotiri Chatzi at sotirios.chatzis@cut.ac.cy, Phone: +357-25002041.

- **One (1) position in the following field: New techniques for data storage and archiving of massive and complex amounts of 2D/3D/4D Cultural assets**

Cultural Heritage (CH) is an integral element of Europe and vital for the creation of a common European identity. The rapid growth of technology has led to mass digitization of cultural assets, requiring for their cost-effective preservation, documentation, protection and presentation in online digital libraries. The aim is to shed light, through technological innovation and digital media, on all aspects of cultural heritage, both tangible (books, newspapers, photographs, drawings, manuscripts, costumes, maps, objects, archaeological sites, monuments) and intangible (eg, music, performing arts, folklore, theater), as well as their semantic interrelations, and finally enhancing their added value by reusing them in the fields of education, tourism industry, advertising and art.

The proposed research will focus on (a) the study and analysis of massive and complex amounts of multimedia 3D/4D data, (b) study and analysis of data storage and archiving in multimedia digital libraries, (c) the development of innovative methodologies for harvesting of such data sets in digital libraries, taking into account object's semantic signatures, and finally, (d) the development of innovative methodologies for reuse of such complex structures from digital libraries.

For more Information and discussion on the topic and research, potential candidates can contact Dr. Marinos Ioannides at marinos.ioannides@cut.ac.cy.

- **One (1) position in the following field: Holistic Heritage Management**

Heritage Management is a multiparametric field facing nowadays a variety of challenges. The progressive expansion of the term of Cultural Heritage (CH) has led to a type of management of it (CH), which goes beyond the conservation and restoration of cultural assets. A wide spectrum of values, a variety of involved stakeholders, multiple, even conflicting, objectives, are only some of the challenges CH is facing. Even nowadays involved authorities and stakeholders act within their own narrow spectrum without taking into consideration a number of other interrelated parameters; an attitude which not rarely results to fragmented and not so beneficial interventions. The proposed project aims to approach Heritage Management in a holistic way; As a "procedure" of management, starting from the phase of data acquisition, but also as a "result", leading to concrete actions; As an embracement not only of the lifecycle of the cultural asset, but also of the lifecycle of the human, starting at his early schooling age, since human is the provider but also the user of CH. For the achievement of this goal a continuous shift between different scientific domains, the skilful management of differentiated input and its transformation into new information and knowledge, exploitable by various sectors, becomes crucial. For this reason it is needed: a broad educational background on Arts and Culture, the tools and the methodological thinking of engineering as well as the pedagogical techniques, in order for CH to become an actual "public asset".

Required Qualifications: A BSc and MSc degree in Architecture, an MSc in the field of Cultural Heritage as well as pedagogical education. Prior research experience or specialization in Cultural Heritage and Education will be considered an advantage.

For more Information and discussion on the topic and research, potential candidates can contact Dr. Marinos Ioannides at marinos.ioannides@cut.ac.cy.

- **One (1) position in the following field: Applying Machine Learning methods in processing Cultural Heritage assets**

Cultural Heritage is the legacy of a nation from previous generations, for which efforts are made maintain their present status but also to safeguard its future existence. Nowadays, the technological outbreak has led to the development of intelligent systems, which can actively contribute in areas like the documentation, preservation and promotion of Cultural Heritage. Machine Learning constitutes an integral part of intelligent systems as it is a category of artificial intelligence, which enables modern computer systems to "learn" to develop and adapt their function upon exposure to new data.

The proposed research will be focused on the development of machine learning methods for their use in cultural applications. As part of the research activities will be the study of existing machine learning methods (supervised, non-supervised, reinforcement) which are currently used for the classification of cultural assets over time.

Required Qualifications: Applicants should have a BSc and an MSc degree in Computer Science, Science of Electrical Engineering or other related field. Previous research experience in the study and the application of machine learning in Cultural Heritage sector will be considered an asset.

For more Information and discussion on the topic and research, potential candidates can contact Dr. Marinos Ioannides at marinos.ioannides@cut.ac.cy.

- **One (1) position in the following field: Networks on-Chip (NoCs)**

The topic concentrates on any or combination of the following specific areas of research under the theme of networks on-chip: Traffic modeling (mathematical and/or statistical), application mapping and workload distribution, cache coherence, micro-architectural enhancements towards NoC performance enhancement, many-core systems, power and thermal management, reliability, optical interconnects, 3D stacking and topology exploration.

Candidates should possess a Bachelor's Degree and a Master's-level postgraduate degree from accredited Universities or should possess a 5-year cycle of studies Degree from a Polytechnic School in the field of Computer Science or Electrical Engineering with a preferred specialization in one of the following areas of concentration: Computer Architecture, Networks, Digital Systems. Any research experience work related to the subject of the announced position will be considered an advantage.

For more Information and discussion on the topic and research, potential candidates can contact Dr. Vassos Soteriou at vassos.soteriou@cut.ac.cy.

- **One (1) position in the following field: Interconnection Networks**

The topic concentrates on any or combination of the following specific areas of research under the theme of interconnection networks: Router micro-architecture, power consumption and thermal management, performance enhancements, adaptive routing, optical interconnects, hierarchical topologies, traffic modeling, benchmarking, reliability issues.

Candidates should possess a Bachelor's Degree and a Master's-level postgraduate degree from accredited Universities or should possess a 5-year cycle of studies Degree from a Polytechnic School in the field of Computer Science or Electrical Engineering with a preferred specialization in one of the following areas of concentration: Computer Architecture, Networks, Digital Systems. Any research experience work related to the subject of the announced position will be considered an advantage.

For more Information and discussion on the topic and research, potential candidates can contact Dr. Vassos Soteriou at vassos.soteriou@cut.ac.cy

- **One (1) position in the following field: Big Data Analytics Systems in Heterogeneous Computer Clusters**

Description: Modern enterprises continuously collect massive amounts of data (“Big Data”) into dedicated clusters or private clouds with the goal of analyzing the data and extracting deep insights that will guide their business decisions and processes. As computing clusters grow in size, they are increasingly becoming heterogeneous in nature, both in the compute tier (e.g., CPUs with different capacities and number of cores) and in the storage tier (e.g., presence of hard drives, SSDs, and NVRAM on several nodes). Heterogeneity, if not addressed appropriately, is shown to have detrimental effects on the overall system performance. The PhD Candidate will study the heterogeneity aspects of distributed computing, develop algorithms to address the related challenges, and implement the solutions into an open-source distributed analytics platform.

Requirements: Undergraduate and postgraduate degrees in Computer Science or related field. The ideal candidate should enjoy working on cutting-edge systems research problems and have good software development skills. Familiarity with MapReduce platforms and cloud computing would be considered a plus.

Funding: The candidates with the appropriate qualifications can be funded as participants in funded research projects or as teaching assistants.

Advisor: Dr. Herodotos Herodotou, Lecturer, herodotos.herodotou@cut.ac.cy, <http://www.cut.ac.cy/eecei/staff/herodotos.herodotou/>

- **One (1) position in the following field: Performance Isolation in Multitenant Distributed Systems**

Description: The consolidation of servers into private data centers as well as the popularization of cloud computing means that a single instance of software can serve hundreds of users (tenants) at the same time. This multitenancy enables cost reduction for the cloud service provider which it can pass on as savings to the tenants. However, resource sharing raises several performance concerns due to the interactions among the workloads of the various tenants. Misbehaving or high-demand tenants, for example, can overload the shared service and disrupt other well-behaved tenants, leading to unpredictable performance and violating service-level agreements (SLAs). The PhD Candidate will study the problem of performance isolation in distributed environments, develop algorithms to address the related challenges, and implement the solutions into an open-source distributed analytics platform.

Requirements: Undergraduate and postgraduate degrees in Computer Science or related field. The ideal candidate should enjoy working on cutting-edge systems research problems and have good software development skills. Familiarity with distributed platforms and cloud computing would be considered a plus.

Funding: The candidates with the appropriate qualifications can be funded as participants in funded research projects or as teaching assistants.

Advisor: Dr. Herodotos Herodotou, Lecturer, herodotos.herodotou@cut.ac.cy,
<http://www.cut.ac.cy/eecei/staff/herodotos.herodotou/>

- **One (1) post in the following topic: Night Cooling Systems: Modeling and monitoring systems**

Required Qualifications: BSc and/or MSc in Electrical Engineering or Physics, or any other related subject. Strong mathematical background will be considered an advantage.

For more Information and discussion on the topic and research, potential candidates can contact Dr. Paul Christodoulides at paul.christodoulides@cut.ac.cy.

- **One (1) post in the following topic: Heat transfer in microfluidics and their influence on microstructure optical fibers**

Required Qualifications: BSc and/or MSc in Electrical Engineering or Physics, or any other related subject. Strong mathematical background will be considered an advantage.

For more Information and discussion on the topic and research, potential candidates can contact Dr. Kyriacos Kalli at kyriacos.kalli@cut.ac.cy or Dr. Paul Christodoulides at paul.christodoulides@cut.ac.cy.

- **1-2 PhD position(s) in 1-2 of the following items:**
 1. **Wireless Sensor Networks for Environmental Monitoring**
 2. **Wireless Sensor Networks for Indoor Air Quality Monitoring and Control**
 3. **Wireless Sensor Networks for Smart Cities**
 4. **Wireless Sensor Networks for Plume Tracking**

Wireless Sensor Networks (WSNs) are a fairly new technology that can potentially provide an interface between the physical world and computers allowing the latter to vanish into the background. Recent advances in wireless communications and electronics have enabled the development of low-cost, low-power, multi-functional sensor nodes that are small in size and communicate untethered in short distances. These tiny sensor nodes which consist of sensing, data processing, and communicating components, leverage the idea of sensor networks. A WSN is often composed of a large number of spatially distributed sensor nodes that collaborate in order to achieve some higher level task. A relatively recent concept that deserves further research is using smartphones interfaced with appropriately chosen sensors for forming such a WSN. They have a wide variety of applications including military sensing, infrastructure security, environment and habitat monitoring, industrial sensing, building and structure monitoring, and traffic control.

The proposed research is expected to be based on ideas and techniques from a variety of different fields including Wireless Communication Systems, Computer Networks, Collaborative Signal and Information Processing and Computational Intelligence. The offered positions will concentrate on the development of new algorithms and techniques that facilitate the adaptation and real-time deployment of WSNs for the considered monitoring application. The developed algorithms should feature low computational complexity, distributed implementation and fault tolerance in order to address the limitations of WSNs in terms of energy and bandwidth and the harsh conditions of operation. The successful applicants are expected to perform real-time experiments in

order to verify the performance of their algorithms using the WSN platform at the Cyprus University of Technology.

Required qualifications: BSc (required) and MSc (preferably) in Electrical Engineering and/or Computer Science. Prior research experience or specialization in WSNs related topics will be considered an advantage.

For more Information and discussion on the topic and research, potential candidates can contact Dr. Michalis Michaelides at michalis.michaelides@cut.ac.cy.

- **One (1) position in the following field: Analysis and Control of Large Scale Networks**

Systems and control theory is associated with methodologies that try to optimally satisfy appropriate performance criteria for a system of interest. This has led to many tools that are in widespread use in areas such as industrial process control, military applications, as well as in biology and physics. In a continuously evolving large scale network such as the Internet and power distribution networks, many of the more conventional methodologies come, however, to a halt and need to be appropriately refined and extended. It would be, for example, unrealistic to carry out a new design whenever a new computer/router enters the internet or a new generator becomes part of a power network. For these reasons many of the existing implementations are based on ad hoc approaches with no guarantees for the entire interconnection, thus often leading to inefficient designs with disastrous effects such as congestion collapse in the Internet or blackouts in power grids.

The proposed project aims to develop systematic methodologies that are relevant for the analysis and decentralized control of large scale networks. Various benchmark examples will be used throughout this study, such as stability issues in data network protocols as well as management and control schemes in modern power systems and smart grids.

Required Qualifications: A BSc degree will be needed in Electrical Engineering or a related area such as Mathematics, Computer Science, Physics or Mechanical Engineering. Strong mathematical skills will be an advantage.

For more Information and discussion on the topic and research, potential candidates can contact Dr. Ioannis Lestas at ioannis.lestas@cut.ac.cy.

- **One (1) position in the following field: Modern Power Systems and Smart Grids**

Electrical energy systems are undergoing radical transformations in order to increase efficiency. These transformations are enabled by the integration of distributed energy resources, advanced information technologies, as well as new market and regulatory policies. While the introduction of such new mechanisms and technologies opens exciting possibilities for more efficient operation of power systems, it necessarily implies a deviation from traditional methodologies, and inevitably drives current systems to their limits. The aim of this project is to address a number of important such challenges that are crucial for the operation of modern electricity networks in an efficient and secure manner, using advanced methodologies from optimization and control theory.

A significant problem within this context that will first be addressed is that of optimal power flow in a power distribution network. This is associated with finding an optimal operating point for a power system, subject to various operational constraints in the powers and voltages within the network. Throughout the project it will be investigated how this problem can be efficiently solved by means of distributed schemes that are guaranteed to converge to the optimal solution. Given the increasing complexity of modern power systems, which are continuously expanding with distributed energy resources, such distributed schemes decrease the complexity, and increase the robustness to faults, relative to a centralized implementation, while also providing a natural framework for pricing power support between regions. Related problems that will be investigated include those of voltage and frequency stability in power systems and how some recent methodologies can provide such stability guarantees in a large scale network. Finally, the problem of dynamic pricing in electricity markets will be addressed. In particular, it will be investigated how the fact that prices are usually set out on predicted demand can lead to an increase in volatility, if the underlying pricing policies are not appropriately designed.

Required Qualifications: A BSc degree will be needed in Electrical Engineering or a related area such as Mathematics, Computer Science, Physics or Mechanical Engineering.

For more Information and discussion on the topic and research, potential candidates can contact Dr. Ioannis Lestas at ioannis.lestas@cut.ac.cy.

- **One (1) position in the following field: Optimization and Control in Communication Networks**

Many important problems in communication networks such as Internet congestion control, multi-path routing, power control in wireless networks aim to achieve a prescribed network performance by means of appropriate protocols. The aim of the project is to address such problems using systematic approaches from optimization and control.

Required Qualifications: A BSc degree will be needed in Electrical Engineering or a related area such as Mathematics, Computer Science, Physics or Mechanical Engineering.

For more Information and discussion on the topic and research, potential candidates can contact Dr. Ioannis Lestas at ioannis.lestas@cut.ac.cy.

- **One (1) position in the following field: Advanced Mathematical Approaches in Systems and Control Theory**

This position is appropriate for a student with a background in mathematics or physics (or an engineer with theoretical interests) who would be interested in developing and making use of advanced mathematical methodologies to address important engineering problems in dynamical systems, optimization and feedback control theory.

A number of possible projects are available that are based on either deterministic or stochastic approaches. These will be appropriately formulated depending on the background of the applicant and benchmark examples will be studied within the areas of

communications, power systems, and biological networks. A background in control is not a prerequisite as this will be studied as part of the project.

Required Qualifications: A BSc degree will be needed in Mathematics or Electrical Engineering or a related area such as Physics, Computer Science, or Mechanical Engineering.

For more Information and discussion on the topic and research, potential candidates can contact Dr. Ioannis Lestas at ioannis.lestas@cut.ac.cy.

- **One (1) position in the following field: Evaluation of an MR compatible brain biopsy of a 6-D robot**

Evaluation of a robotic system develop at CUT in an in vitro brain model. Evaluation of the system inside MRI environment. Develop the method for frameless needle biopsy in the brain. Animal experiments for verification of the system. Software development for the MRI guidance of the biopsy procedure.

Required qualifications: MSc in Electrical Engineering or Physics, with B.Sc. only will be asked to take MSc courses.

For more Information and discussion on the topic and research, potential candidates can contact Dr. Christakis Damianou at christakis.damianou@cut.ac.cy.

- **One (1) post in the following topic: Social Networks: Geometry and Dynamics**

Traditional or on-line Social Networks (e.g., Facebook, Twitter, Web of Trust, Terrorist Networks, etc.) can be mapped to geometric spaces that lie hidden beneath their observable topologies. These geometric spaces are called “hidden”, as they play the role of an underlying coordinate system, not readily observable by examining the network topology. Nodes closer in the underlying space are connected in the observable network topology with higher probability.

The PhD candidate will focus in studying the properties of these underlying geometric spaces and the spatial dynamics of network nodes in these spaces. It is anticipated that important fundamental and practical questions will be addressed through this PhD thesis such as: (i) what are the laws governing the “motion” of network nodes in these spaces? (ii) Can this motion be modeled using classical mechanics laws, e.g., Newton’s laws of motion or stochastic versions of it? (iii) Is this motion chaotic or can be predicted? (iv) Given that we can predict this motion, can we predict the future structure and evolution of real social networks?

This position falls under the general scientific areas of Network Science, Data Science, and Predictive Analytics. The ideal candidate should like networks. He/she should also like mathematics and statistics.

Advisor: Dr. Fragkiskos Papadopoulos
(<http://www.cut.ac.cy/eecei/staff/f.papadopoulos/>.)

For more information about the position and funding possibilities the interested candidates can contact directly the advisor, email: f.papadopoulos@eecei.cut.ac.cy.

- **One (1) post in the following topic: Geometric Analysis and Dynamics of Brain Networks**

Mapping the structural and functional connections of the human brain is one of the great scientific challenges of the 21st century, and real data with unprecedented resolution in space and time are being made publicly available for the first time (<http://www.humanconnectome.org/>). In this context, a great deal of recent research studies *brain dynamics*; the dynamics of the functional brain connectivity, i.e., the functional connections and disconnections taking place in the brain, at rest, during various tasks, or during abnormal behaviors, such as epileptic seizures. Furthermore, it has been recently recognized that the brain's structural and functional systems have features common to other complex networks found in nature and society.

The PhD candidate will focus on: (i) data extraction and graph-theoretic analysis of brain network data from the human connectome project; (ii) mapping of these network data into different geometric spaces; (iii) studying the spatial dynamics of network nodes in these spaces; (iv) identifying laws/processes that can potentially describe these spatial dynamics; and (v) use the discovered laws to predict brain network dynamics.

This position falls under the general scientific areas of Network Science, Data Science, Brain Science, and Predictive Analytics. The ideal candidate should like networks. He/she should also like mathematics (especially statistics), and aspects of neuroscience. The research will take place in collaboration with researchers from the Department of Bioengineering at McGill University, Canada.

Advisor: Dr. Fragkiskos Papadopoulos (<http://www.cut.ac.cy/eecei/staff/f.papadopoulos/>.)

For more information about the position and funding possibilities the interested candidates can contact directly the advisor, email: f.papadopoulos@eecei.cut.ac.cy.

Information:

From the Department Secretary

Tel.: 25002533

DEPARTMENT OF MECHANICAL ENGINEERING AND MATERIAL SCIENCE AND ENGINEERING

- **One (1) position in Mechanical Engineering in the topic:**
Design of a parabolic trough solar collector system with thermal storage for application in industry.

The position is open for full time students only. The successful candidate will receive a grant for the first thirty-two months as a graduate research associate with subsequent funding subject to availability of funds. The candidate should hold an undergraduate and a Masters degree (or equivalent accredited degrees) in the field of Mechanical or Energy Engineering. The candidate should have an exceptional academic record with a very

strong mathematical background. Also computer literacy and programming skills are essential. Knowledge of computational fluid dynamics (CFD) software, TRNSYS for modeling of solar systems, and good knowledge of solar energy engineering and heat transfer will be considered as an advantage.

Specifically the candidate will be involved in the collection of experimental data from a pilot unit of a parabolic trough collector with thermal storage that will be installed in an industry, to the analysis of the data and for the derivation of conclusions. Additionally, as part of the PhD and with the use of suitable software, systems of this type with different types of storage devices will be modelled and simulated for the parametric analysis and for the comparison with the experimental data. It is expected that the results of this PhD work will determine the suitability and applicability of this type of systems under the prevailing weather conditions in existing industries of Cyprus and for the optimum type of system for application in Cyprus.

One (1) position in the Mechanical Engineering and Material Science and Engineering Department in the following topics:

- Perovskite Photovoltaic Materials and Devices

The position is open for a full-time student only with exceptional academic and experimental skills. The successful candidate will receive a grant as a graduate research assistant in research projects.

For more information, the interested candidates can contact Professor Stelios Choulis (main supervisor) at (+357) 25002605, or at stelios.choulis@cut.ac.cy, as well as visit the website of Molecular Electronics and Photonics research unit at www.cut.ac.cy/mep.

For more information, the interested candidates should contact Ass. Professor Soteris A. Kalogirou (tel: (+357) 25002621, e-mail: soteris.kalogirou@cut.ac.cy).

Information:

From the Department Secretary

Tel.: 25002606

DEPARTMENT OF CIVIL ENGINEERING AND GEOMATICS

- **One (1) post in the field of “Ubiquitous and Collaborative Positioning”**

Description: Development of novel positioning methodologies using heterogeneous sensor measurements and signals to enhance navigation performance in open, closed and hybrid spaces.

Basic Requirements:

- Dipl. Ing. or B.Sc.+M.Sc./M.Eng. in one of the following fields: geomatic, civil, electrical or mechanical engineering, or informatics.
- Basic knowledge of positioning methodologies, navigation or Location-based Services
- Ability to program in C/C++ and MATLAB (algorithm prototyping),
- Proficient use of English Language

Desired Requirements:

- Ability to program navigation sensors (either directly or by means of third-party software e.g. LabView),
- Ability to program smartphones and tablets,
- Development of internet applications and services,
- Programming in C# or Java or Objective-C or Swift.

Research advisor: Dr. Chris Danezis, Lecturer, chris.danezis@cut.ac.cy

- **One (1) post in the field of «*Satellite Geodesy*»**

Basic Requirements:

- Dipl. Ing. or B.Sc.+M.Sc./M.Eng. in Geomatic or Civil Engineering with specialization in Geodesy (a mark of at least 70% is required),
- Experience in the use of geodetic equipment (i.e. GNSS receivers, digital levels etc).
- Good Knowledge of satellite positioning methodologies, and geodetic infrastructure (coordinate reference systems and frames, CORS networks etc),
- Experience in programming Matlab.

Desired Requirements:

- Ability to program in C/C++ or Python,
- Unix/Linux shell scripting,
- Ability to use research or commercial GNSS-processing software (e.g. Bernese GNSS, GAMIT/GLOBK, GIPSY, NAPEOS, TEQC, Novatel GrafNet, etc.)
- Experience in Atmospheric Monitoring using GPS/GNSS techniques.

Research advisor: Dr. Chris Danezis, Lecturer, chris.danezis@cut.ac.cy

- **Two (2) positions in any of the following subjects:**
 1. Smart monitoring and management of offshore oil and gas operations and infrastructure systems
 2. Smart monitoring and management with applications in energy efficiency of buildings
 3. Smart monitoring and management of infrastructure systems
 4. Safety and environmental protection of Offshore Oil and Gas Operations

Research advisor: Professor Toula Onoufriou, t.onoufriou@cut.ac.cy

- **Two (2) positions in any of the following subjects:**
 1. Remote Sensing in Archaeology
 2. Remote Sensing in the Environment
 3. Remote Sensing Geomatics for forestry fires and floods

4. Marine Spatial Planning
5. Atmospheric remote sensing
6. Microwave remote sensing and radar systems

Research advisor: Professor Diofantos Hadjimitsis, d.hadjimitsis@cut.ac.cy

- **One (1) position in the field of “Geostatistics and Spatial Analysis in Engineering and the Geosciences”**

Description: Development of methodologies for the estimation and analysis of the spatial distribution of geospatial variables by integrating heterogeneous data, capitalizing on cutting-edge geoinformation technologies and addressing geocomputation and big data problems. Applications of the above methodologies to the solution of problems in engineering and the geosciences, including problems of environmental characterization and the evaluation of natural resources (renewable or not).

Required Qualifications:

- Engineering diploma or bachelor’s or postgraduate degree in one of the following fields: Civil, Geomatic Engineering or Environmental Engineering, or alternatively Geosciences, (Geo)Informatics or Statistics
- Experience in applications and methodologies of Geographic Information Systems
- Ability to program in Matlab, R or Python
- Proficient use of English Language

Desired Qualifications:

- Experience in the implementation of research projects and applications in the field of geostatistics and spatial analysis, as well as geomatics/geoinformatics
- Experience in software development for geospatial applications and analyses
- Programming in C/C++ or Java

Research Advisor: Dr. Phaedon Kyriakidis, Professor, phaedon.kyriakidis@cut.ac.cy

- **One (1) position in the field of “Spatial Analysis and Geoinformatics in Archaeology”**

Description: Harnessing cutting-edge geoinformatics technologies for the development of a digital atlas on prehistoric Bronze Age settlements in Cyprus and the Aegean. Development of spatial analysis methodologies for establishing semantic links between the above settlements during the Bronze Age, focusing on the identification of plausible sea routes. Analysis and modeling of emerging spatial networks, as well as simulation of trade intensity based on hypotheses and information on vessel characteristics of that era.

Required Qualifications:

- Engineering diploma or bachelor’s or postgraduate degree in one of the following fields: Geomatic or Naval Engineering or (Geo)Informatics, or Archaeology, Geography
- Experience in applications and methodologies of Geographic Information Systems
- Proficient use of English Language

Desired Qualifications:

- Experience in the implementation of research projects and applications in the field of geoinformatics and spatial analysis in Archaeology
- Ability to program in Matlab, R or Python

Research Advisor: Dr. Phaedon Kyriakidis, Professor, phaedon.kyriakidis@cut.ac.cy

Information:

Department Secretary

Tel: 25002542

DEPARTMENT OF NURSING

- One (1) position in: **Quality in midwifery care: development and quality assurance of a midwife led unit**

The candidate should hold a Bachelor in Nursing and a Midwifery degree as well as an MSc in Health Policy or Healthcare Management. The candidate should be fluent in Greek language and have a very good knowledge of English language, of computer and a working experience in the field and research experience in human resource management.

- One (1) position in: **Quality in Public Health: exploration of the factors that correlated with the HPV vaccine coverage**

The candidate should hold a Bachelor in Health Science (mainly health visitor) as well as an MSc in Public Health. The candidate should be fluent in Greek language and have a very good knowledge of English language, of computer and a working experience in the field (mainly in School Health) and research experience in teenagers' sexual health.

Supervisor: Vasilios Raftopoulos, Associate Professor

- One (1) post in the field of '**Cardiology Nursing**' in the topic: "**Management of the caregivers' needs who care of people with heart failure**" and social support

Candidates must be registered nurses with a Postgraduate degree at Master's level in advanced nurse practice (intensive or cardiology care). Candidates need to have good computer skills (Microsoft Office, Statistical Analysis Software), as well as to have excellent Greek and English language skills and relevant clinical experience. Prior research experience in heart failure and social support, will be considered as an advantage.

Information: Ekaterini Lambrinou, Assistant Professor, Email:

ekaterini.lambrinou@cut.ac.cy

- Two (2) posts in the field of "**Oncology Nursing**" or "**Palliative Nursing**"

Candidates should hold an accredited Bachelor's Degree in Health Sciences and a Postgraduate Degree at Master's level. Very good command of the Greek and English languages as well as competence in the use of computers and the statistical package SPSS or SAS/STAT are required. Prior professional and research experience related to the

published themes will be considered as an advantage. For more information, please contact: Dr A. Charalambous, Assistant Professor at andreas.charalambous@cut.ac.cy

- One (1) post in the topic area:
“Rationing- Missed Nursing Care: An international and Multidimensional problem”

Candidates should hold an accredited Bachelor’s Degree in Health Sciences (e.g. Nursing, Medicine, Psychology, Physiotherapy, Pharmacology and other related areas). Additional requirements include: very good command of English, familiarity with health research methodology and competence in statistical data analysis. Prior involvement in related research projects, scientific publications/ conference presentations as well as clinical experience will be considered an advantage.

The person who will be selected will join the group working on the subject which is funded by the European Programme COST (<http://www.cost.eu/>), with the Acronym RANCARE (http://www.cost.eu/COST_Actions/ca/CA15208). For more information, please contact Dr Evridiki Papastavrou, Assistant Professor, at e.papastavrou@cut.ac.cy

- Two (2) posts in the field of **“Intensive Care Nursing - Post-ICU Syndrome”**

Candidates should hold a Bachelor’s degree in Nursing and a Postgraduate degree at Master’s level, both from accredited Universities. Candidates need to have good computer skills (Microsoft Office, Statistical Analysis Software), as well as to have excellent Greek and English language skills. Prior research experience will be considered as an advantage.

Information: Dr M. Mpouzika, Lecturer, meropi.mpouzika@cut.ac.cy

- One (1) post in the field of **“Mental Health Nursing” in the following topic:**

1. Suicidal Ideation in Relation to Depression, Life Stress and Personality among Cypriot university students or

2. Predictors of suicidal ideation in a Cypriot university students: Roles of anger, self-esteem, and depression

Qualifications: Candidates should hold an accredited Bachelor’s degree in Nursing or in a related field of Humanities and an accredited Postgraduate Degree at Master’s levels, preferably in Mental Health Nursing or in a field related to Mental Health, and particularly in the topics under investigation. Certified proficiency skills in English, certified training in Biostatistics-Research Methodology and use of the statistical package SPSS are required. Prior research experience and publications in peer-reviewed journals will be considered an advantage.

Information: Dr Sokratis Sokratous Assistant Professor, sokratis.sokratous@cut.ac.cy

- One (1) post in the field of **“Epidemiology”** in the topic of **«Health Literacy – social gradient and health behaviours»**

Candidates should hold an accredited Bachelor’s Degree in Nursing, or Health Sciences and a Postgraduate Degree at Master’s level, preferably in Health Promotion, Community Nursing/ Health Care, Nursing/Medical Education, Epidemiology, Public Health or other related field. Very good command of the English language, familiarity with the principles of systematic review and search strategies, familiarity with the concepts and principles in Health Research Methodology, Epidemiology and Biostatistics, good computer skills and

familiarity with statistical packages (e.g. SPSS, STATA, R) are required. Prior experience in population-based research and/or community health needs assessment will be considered an advantage. For more information, please contact Dr. Christiana Nicolaou, Assistant Professor, at c.nicolaou@cut.ac.cy.

- One (1) post in the field of “Surgical Nursing” or “Organizational culture and coping strategies on surgical wards at public/private hospital”

Candidates should hold an accredited Bachelor’s Degree in Health Sciences (e.g. Nursing, Medicine) and a Postgraduate Degree at Master’s level. Additional requirements include: very good command of English, familiarity with health research methodology and competence in statistical data analysis. Prior involvement in related research projects, scientific publications/ conference presentations as well as clinical experience will be considered an advantage.

For more information, please contact Dr Pavlos Sarafis, Assistant Professor, at pavlos.sarafis@cut.ac.cy

- One (1) post in the topic area: “The preparedness and training of civil servants in disaster and health crisis management.”

Candidates should hold an accredited Bachelor’s Degree in Health Sciences (e.g. Nursing, Medicine) and a Postgraduate Degree at Master’s level. Additional requirements include: very good command of English, familiarity with health research methodology and competence in statistical data analysis. Prior involvement in related research projects, scientific publications/ conference presentations as well as clinical experience will be considered an advantage.

For more information, please contact Dr Pavlos Sarafis, Assistant Professor, at pavlos.sarafis@cut.ac.cy

Information:

From the Department Secretary

Tel.: 25002012

DEPARTMENT OF REHABILITATION SCIENCES

- One (1) position on the topic «Cognitive and Linguistic profiling of Primary Progressive Aphasia»

Candidates are expected to have a Bachelor’s and Master’s degree from an accredited University in Speech Pathology, Psychology or Neurolinguistics or related disciplines. Applicants should be fluent in English. Previous relevant research experience is highly valued.

Information:

Associate Professor, Maria Kambanaros, maria.kambanaros@cut.ac.cy, Tel. 25002098
Departmental Secretary, Mrs. Eleni Petrou Tel.: 25 002486

