



University of Cyprus
Graduate School



DOCTORAL THESIS
OF GRADUATES
UNIVERSITY OF CYPRUS (ABSTRACTS)
JUNE 2018

ABSTRACTS OF PHD THESIS 2018

The Senate of the University of Cyprus unanimously decided, on the 28th March and 12th of June 2018, to award 41 Ph.D. titles on the graduate ceremony on the 29th of June 2018.

In this edition the research subject of the PhD student is presented in a short summary.

The information is presented in alphabetical order by Department.

ABSTRACTS OF PHD THESIS 2018

NAME/SURNAME	DEPARTMENT	TITLE OF THESIS/ ABSTRACT
Constantinos Vassiliades	Architecture	<p><i>Building Integration of Active Solar Systems: Addressing all Scales of Intervention and Ensuring their Active and Passive Integration Viability in the Eastern Mediterranean Region.</i></p> <p><i>Supervisor: Andreas Savvides, Assistant Professor</i></p> <p>This thesis addresses the integration of photovoltaics (BIPV - Building Integrated Photovoltaics) and solar thermal systems (BISTS – Building Integrated Solar Thermal Systems) into building shells and in the urban space. Its ultimate goal is to critically present the range of typologies and the plurality of available alternatives in a way that maximizes both their active and passive functions, and result to the definition of the design and manufacturing principles, that should govern a contemporary building integrated active solar system.</p>

ABSTRACTS OF PHD THESIS 2018

Kristis C. Alexandrou

Architecture

Hybrid Cable Bending-Active Structures

Supervisor: Marios C. Phocas, Associate Professor

This thesis refers to the investigation of alternative self-stressed hybrid structural system assemblies, based on application of elastic members. It provides insight in nonlinear form-finding processes, structural analysis and load-deformation behaviour of dissimilar configurations. The work is based on prototypes analyses approach of single- and multi-segment configurations of differentiated spans.

Natasa Christou

Architecture

REBOOTING ARCHITECTURAL PRACTICE: Generating Inter[Actions] in between

Supervisor: Nadia Charalambous, Assistant Professor

This research is about broadening our understanding of the role of the architect in the contemporary, complex world. Currently, the foundations of how the economy is progressing is fundamentally changing. This research explores the possibility to shift the traditional mentality of designing— in which works rely on a client's specifications – to an entrepreneurial mentality in which architects 'discover' problems and opportunities to design for.

ABSTRACTS OF PHD THESIS 2018

Emmanuel Chibuike
Nwankwo

Biological Sciences

Patterns of phenotypic and genetic variation in Pogoniulus Tinkerbirds and Their Role in Interactions at Contact Zones

Supervisor: Alexander N. G. Kirschel, Assistant Professor

Species delimitation are based on phenotypic characters or molecular phylogenetics, but little is known on the role of traits important in reproductive isolation. My study compared variation in several phenotypic and genotypic characters in Pogoniulus tinkerbirds. I found that song divergence plays a critical role in mediating reproductive isolation.

Thomas G. Hadjikyriakou

Biological Sciences

Breeding success, wintering ecology and migratory behaviour of Eleonora's falcon (Falco eleonoraé Gén , 1839)

Supervisor: Alexander N. G. Kirschel, Assistant Professor

Eleonora's falcon is a migratory raptor bird species which breeds primarily along the Mediterranean sea and overwinters predominantly in Madagascar. In this work I studied the ecology of the species throughout its annual cycle, i.e at the breeding grounds, along migratory routes and at wintering areas.

ABSTRACTS OF PHD THESIS 2018

Kyriakoula Kyriakou

Byzantine and Modern
Greek Studies

The characters and their functions in the narrative greek folk songs. From the characters to the worldview.

Supervisor: Michalis Pieris, Professor

The general research framework of this thesis is set by the narrative Greek demotic songs with a special research focus on the presence of characters and their functions in the text. The thesis aims at demonstrating that the characters are associated with elements of the wider worldview of the poet.

Pantelis Boukalas

Byzantine and Modern
Greek Studies

Love and Nation. The Races, the Religions and Folk Poetry of Love

Supervisor: Alexandra Samouil, Associate Professor

The thesis investigates the attitude of Greek folk poetry towards the love desire that manifests between people belonging to different races or different religions. More specifically, it focuses on the approach of folk songs concerning the love relationships between Greeks and Black people, Arvanites/Albanians, Bulgarians, Tsigganoi/Roma, Franks, Jews and Turks.

ABSTRACTS OF PHD THESIS 2018

Panayiotis Petrides

Computer Science

Improving the Performance of Single and Multi-Application Workloads on Heterogeneous Clustered Many-Core Platforms

Supervisor: Pedro Trancoso, Associate Professor

The increasing number of devices on a chip allow manufacturers to explore new designs such as including in the same chip cores of different characteristics. The benefits will come also with challenges in exploiting the performance both for single and multi-application workloads. This thesis studies different techniques to address the identified challenges of applications performance when executing on heterogeneous many-core processors.

Hariton Efstathiades

Computer Science

Online Social Networks Analysis: Extracting Insights and Evolution Trends

Supervisor: Marios D. Dikaiakos, Professor

This thesis presents research efforts in the area of Online Social Networks analysis. We propose state-of-the-art frameworks and techniques for data collection, and introduce effective methodologies for users locations' identification. Furthermore, we analyze the Twitter graph and present insights on the evolution patterns. We then study the influential factors on the sentiment in Online Social Networks and present our results by analyzing different categories of users.

ABSTRACTS OF PHD THESIS 2018

Elena Savva

Economics

Empirical Effects of Commodity and Income Tax Reforms

Supervisor: Panayiota Lyssioutou, Associate Professor

Taxes constitute the main source of revenue for countries while the tax system has important implications on social welfare; hence it has heavily drawn economists' attention. The present thesis focuses on specific tax policy reforms which occurred in the Republic of Cyprus in order to empirically examine important research points that have always triggered the interest of both policy makers and academics.

Vassilios Papastavrou

Education

The Role of Different Curriculum Representations According to GoodLad. Investigating the New Curriculum of Environmental Education/Education for Sustainable Development in Cyprus

Supervisor: Mary Ioannidou-Koutsellini, Emeritus Professor

This research explores the new curriculum of Environmental Education/E.S.D through the model of Goodlad (1979) and describes what is the ideal curriculum, to what degree it reflects to the formal, how the formal is perceived and operated/taught by educators and how pupils live it in aspects of experiences and results.

ABSTRACTS OF PHD THESIS 2018

Galatia Kallitisi

Education

Gendering of Childhood: «Beauty» Practices and Discourses

Supervisor: Miranda Christou, Assistant Professor

This PhD dissertation investigates processes of gendering during childhood by analyzing children's "beauty" discourses. This dissertation is based on an ethnographic approach. The dissertation's theoretical framework relies on feminist perspectives on beauty and on theoretical approaches that point out the construction of gendered subjectivities.

Androula Ioannou

Education

***The Relationship Between Transformational Leadership and Primary Education
Teacher's Job Satisfaction, Motivation to Learn, Trust to the Leader and Commitment
to their Job***

Supervisor: Maria Eliophotou Menon, Professor

The study examined the relationship of transformational leadership with teachers' motivation to learn, job satisfaction commitment and trust to their leader. Qualitative and quantitative research were used. It was found that transformational leadership explains trust to the leader in bigger degree than the other variables. Maybe there are effects from other variables.

ABSTRACTS OF PHD THESIS 2018

Androulla Petridou

Education

The characters and their functions in the narrative greek folk songs. From the characters to the worldview.

*Supervisor: Athanasios Gagatsis, **Professor***

The primary aim was to develop a theoretical model of the structure and the development of the preschool children's geometrical figure apprehension, and especially perceptual apprehension of geometrical figure. Moreover, this study was to investigate the impact of operational apprehension and gestures on children's perceptual apprehension of geometrical figure.

Georgios P. Georgiou

Education

Perception and Production of Greek vowels by Egyptian Arabic learners of Greek as a second language

*Supervisor: Mary Ioannidou- Koutsellini, **Emeritus Professor***

The thesis investigates the perception and production of Greek vowels by native speakers of Egyptian Arabic who permanently live in Cyprus and learn Greek as a second language. Furthermore, it examines the effect of pedagogical intervention on the improvement regarding the perception and production of Greek vowels by the aforementioned learners.

ABSTRACTS OF PHD THESIS 2018

Floria N. Valanidou

Education

Curriculum Studies and Comparative Education

Supervisor: Mary Ioannidou-Koutsellini, Emeritus Professor

The study developed a well-planned teacher professional development programme in teaching for critical thinking based on an integrated approach. Comparisons between and within groups and multilevel modelling techniques revealed the positive impact of the intervention on both the improvement of students' critical thinking and the quality of teaching for critical thinking. Findings provide evidence regarding the impact of teacher professional development on student learning.

Lambros Stefanou

Education

Examining the Contribution of a Professional Development Program to Generalist Teachers' Content Knowledge and Student Achievement: The Case of Basketball

Supervisor: Niki Tsaggaridou, Associate Professor

The present study sought to develop reliable and valid scales to measure teachers' CK and students' achievement in basketball, and in doing so, to investigate the contribution of a content-focused professional development program to both teacher and student outcomes. This exploration revealed several key findings.

ABSTRACTS OF PHD THESIS 2018

Sylvana Savva

Education

Curriculum and Instruction

Supervisor: Mary Ioannidou-Koutsellini, Emeritus Professor

The research shows through the observations that the para-curriculum runs at the expense of the formal curriculum, both among pupils and between teachers and pupils. Moreover, through teacher questionnaires it shows that teachers have different perceptions about pupils with migrant biography.

Rodothea Hadjilouca

Education

Learning in Natural Sciences

Supervisor: Constantinos P. Constantinou, Professor

Four studies that investigated the role of philosophy of science in the design of teaching-learning sequences and the role of explicit epistemological discourse for improving elementary and secondary school student awareness about the interaction between science and technology. Respective novel teaching proposals were designed, implemented and evaluated.

ABSTRACTS OF PHD THESIS 2018

Apostolos I. Rikos

Electrical and Computer
Engineering

Distributed Weight Balancing in Directed Topologies

*Supervisor: Christoforos N. Hadjicostis, **Professor***

We present a distributed algorithm which solves the problem of weight balancing over a directed graph. We extend its operation in the presence of transmission delays, packet drops, upper/lower weight constraints, and upper/lower weight constraints in the presence of transmission delays and packet drops over the communication links.

Foivia Nikolaou

Electrical and Computer
Engineering

Investigation of Physiological Variability Effects on fMRI Functional Connectivity

*Supervisor: Georgios Mitsis, **Assistant Professor***

The main goal of the present thesis was to investigate the relation between DFC patterns and the time-varying properties of simultaneously recorded physiological signals (end-tidal CO₂, RVT and HR/HRV) using signal processing, seed-based analysis, ICA and graph theoretical tools, as well as resting-state fMRI measurements from 12 healthy volunteers.

ABSTRACTS OF PHD THESIS 2018

Yiannis Tofis

Electrical and Computer
Engineering

Enhancing the Primary Frequency Reserves with Advanced Underfrequency Load Shedding Schemes

Supervisor: Georgios Mitsis, Assistant Professor

In this Ph.D. thesis newly and innovating load shedding scheduling schemes have been proposed which are robust to consecutive disturbances. Moreover, the effect of total response time of the proposed schemes with regards to the amount of load to be shed as well as their impact on the sustainability and life time of the rotating masses of the system have been quantified.

George Th. Michaeloudes

English Studies

Formative Assessment in EFL Primary Schools in Cyprus

*Supervisor: Dina Tsagari, Professor Oslo Metropolitan University
Charalambos Charalambous, Assistant Professor*

The present empirical study focuses on the investigation of Formative Assessment of English as a Foreign Language in Cypriot primary schools. Through the use of classroom observations, stimulated recalls, semi-structured interviews, and questionnaires, the findings revealed that teachers used extensively major Formative Assessment techniques to assess and promote learners' achievement.

ABSTRACTS OF PHD THESIS 2018

Cécile Kalifa

History and Archaeology

La défense de l' île de Chypre sous la domination franque de 1192 à 1489

Supervisor: Angel Nicolaou-Konnari, Assistant Professor

The dissertation examines the organization of the defense of the insular kingdom of Cyprus under the rule of the dynasty of the Lusignans (1192-1489), last outpost of the Latin West in the Eastern Mediterranean for the protection of the crusader states in Syria and Palestine. Adopting a number of models (mainly the Byzantine, the feudal and that of the Military Orders), the island's army took its final form during the thirteenth century and this form was preserved almost unchanged until the end of the Frankish rule.

George A. Angeletopoulos

History and Archaeology

The Role played by the Turkish Newspaper Hürriyet in Promoting the Cyprus Issue as a "National Cause" for Turkey (1948-1955)

Supervisor: Petros Papapolyviou, Associate Professor

Based on approximately 1.300 clippings of all thematic categories, this dissertation focuses on the ways that the Turkish newspaper Hürriyet attempted systematically to attract the attention of both the Turkish public opinion as well as the successive Turkish governments to the existence of a Cyprus Issue between the years 1948-1955. It concludes that the specific newspaper was fully aware of its roles as an opinion maker, as an agenda setter and as a gatekeeper with respect to the concomitant flow of information.

ABSTRACTS OF PHD THESIS 2018

Stavros Kontogiorgis

Mathematics and Statistics

Group Analysis of Systems of Evolution Equations

Supervisor: Christodoulos Sophocleous, Professor

The present thesis focus on the application of Lie groups on differential equations. Specifically, we obtain a-priori restrictions on the form of the generator, for systems of evolution equations. We apply these restrictions on group classification for two special classes of systems of evolution equations. We also present equivalence transformations, similarity reductions and nonclassical reductions. Finally, similar results for a system in three independent variables have been found.

Chrysovalantis Voutouri

Mechanical and
Manufacturing Engineering

Computational and experimental analyses of cancer mechano-pathology

Supervisor: Triantafyllos Stylianopoulos, Assistant Professor

Initially, we measured mechanical stresses in solid tumors. Thereafter, we tested the hypothesis that alleviation of these mechanical stresses repurposing clinically approved anti-fibrotic drugs can be used in combination with chemotherapy to improve treatment efficacy. Finally, we developed mathematical models for the study of the mechanisms of angiogenesis in brain tumors.

ABSTRACTS OF PHD THESIS 2018

Stelios Christodoulou

Psychology

Critical thinking and comprehension of argumentative texts: Contribution of text's and factors

Supervisor: Irene-Anna Diakidoy, Professor

The main purpose of the research was to examine the contribution of various individual differences variables on the comprehension of argumentative texts and the critical evaluation of arguments' quality in a sample of children. The contribution of argument schema knowledge and the interconnection between comprehension and critical thinking were highlighted.

Chrysanthi Leonidou

Psychology

***Cognitive and affective mechanisms of illness anxiety:
How do illness-anxious individuals process interoceptive and exteroceptive health-threatening cues?***

Supervisor: Georgia Panayiotou, Associate Professor

The current dissertation project examined how individuals with a range of illness anxiety levels emotionally respond to information perceived as threatening for physical health, and how this is influenced by focusing attention on somatic sensations and attentional bias to such information.

ABSTRACTS OF PHD THESIS 2018

Chara A. Demetriou

Psychology

Are Children with Limited Proposal Emotions Emotionally Blind? Eye Gaze and Facial Emotional Expressions. The Implementation of Three Intervention Programs

Supervisor: Kostas A. Fanti, Associate Professor

Current empirical work has focused on understanding the development of psychopathic traits to explain the severe emotional and behavioral problems early in development. The current study supports the inability of this population to fixate on the eye region and their difficulties in identifying the emotion expressed and adapt their behavior.

Christos Michaelides

Psychology

Constructing and updating spatial representations: A developmental approach

Supervisor: Marios Avraamides, Associate Professor

The study experimentally assessed the ability of children (6-,7-,8-,9-,10-,11-year olds) and adults (19-,35-,60-year old), to construct and update spatial representations. The study examined (1) how accurate were spatial memories for layouts containing multiple objects, (2) how well the existing spatial memories were updated with participants' self-movement, and (3) how resilient spatial memories were to disorientation.

ABSTRACTS OF PHD THESIS 2018

Froso Souroulla Kay

Psychology

Integrating Theories of Sexual Violence: Incorporating the Clinical Symptoms of the Pathway Model into the Confluence Model

Supervisor: Panayiotis Stavrinides, Assistant Professor

The study aimed at integrating the Confluence Model of male-toward-female sexual violence and the clinical symptoms of the Pathway Model. An online community sample of 421 heterosexual males was recruited and completed a battery of 18 questionnaires. Findings highlighted the crucial role of Hostile Masculinity and Attitudes supporting violence.

Christiana Andreou

Psychology

Scientific Models, Mental Models and Science Teaching

Supervisor: Athanasios Raftopoulos, Professor

Demetris Portides, Associate Professor

The concept of scientific model and the functions and roles of models in science are an important and maybe necessary component of science learning. This idea is supported by arguments drawn from philosophy of science, psychology, epistemology and from science education. The philosophical analysis that is suitable for science education is that of models as mediators and a didactic sequence in line with this analysis is presented.