

Όνομα	Όνομα	Επίθετόν	Πατρωνυμική Ονομασία	Τίτλος	Πεδίο	Last Name	First Name	Επίθετο	Doctoral Advisory Committee	Discipline	Summary
ΠΑΠΑΒΑΣΙΛΕΥ	ΘΕΟΔΩΡΑ	ΖΗΝΑΤΑΣ ΙΩΑΝΝΗΝ	ΒΑΣΙΛΕΙΑΣ ΣΤΕΦΑΝΟΥ ΒΑΣΙΛΕΥ ΔΗΜΗΤΡΙΟΥ	Υπολογιστικά εργαλεία για τη μελέτη παραμετρών υνείων και κομωρών ακτινοβολιών από ρελατιβιστικούς αστρονομικούς μαγνητοσφαιροϋδρανικοί πύλες	Πηλοδία	PAPAVASILIOU	THEODORA	Stavros Ioannis	Stavros Ioannis Emanouil Stergios Vlasos Dimitrios	Computational tools for studying neutrino and cosmic ray emissions from relativistic astrophysical magneto-hydrodynamical buffets	This thesis targets the environment, with computational tools, of the hydrodynamical simulation code PIUJO that is being used in the study of modern and sophisticated microquasar jets emission systems. Specifically, one of the main priorities is the development of 3-D and 4-D simulation software that can provide the possibility to extend the visualization of the phenomenon as well as the accuracy of its parameter approximations such as the main density of the jet's flow, its bulk velocity and the flow's temperature and pressure. Our target is, additionally, the creation of complementary tools for the calculation of the neutrino and high energy gamma-ray emissivity along the jet's jet direction, axis providing a more complete description for the under-study phenomenon of relativistic astrophysical flow ejection.
ΥΠΕΡΗΦΗ	ΑΘΑΝΑΣΙΟΣ	ΖΗΝΑΤΑΣ ΙΩΑΝΝΗΝ	ΣΤΑΥΡΟΣ ΙΩΑΝΝΗΝ	Επίλυση εξισώσεων (ελαβή) φαινόμενων συστημάτων με αριθμητικές ολοκληρωτικές συσκευασίες (βελτιστοποιημένες και χρήση νεοσυνηθών υαυλίων)	Πηλοδία	DIKREPS	ATHANASIOS	Stavros Ioannis	Stavros Ioannis Vlasos Ioannis	Solution of quantum systems' evolution equations with numerical integrators of stochastic approximation and use of neural networks	In current multi-disciplinary research, which drops in the overlap field of various physical sciences the evolution of quantum systems requires the knowledge of the system's wave function (wf), which is an abstract physical quantity. The state of the system that can be extracted through the action of appropriate operators. It is well-known that, the wf's can be obtained through solving ordinary differential equations, usually ordinary differential equations (ODEs) but also partial differential equations (PDEs) which govern the quantum system. In the PDE discretization, we will focus on the solutions and applications of such differential equations by using suitable algorithms (the development of advanced algorithms will be one of goals of this thesis). Further, we will attempt to study of non-linear phenomena using the derived numerical models.
ΤΑΣΚΑΛΑΠΑΣ	ΓΕΩΡΓΙΟΣ	ΦΩΤΙΑΝΗ ΔΗΜΗΤΡΙΟΥ	ΜΑΡΙΑΝΝΑ ΠΑΝΑΓΩΤΗΣ	Μέθοδο αυτοματισμένης ανίχνευσης θόρυβου με χρήση φωνηέντων αυθηπώνων και σύνθεσης επεξεργασίας δεδομένων	Πηλοδία	TASKAKALAPIS	GEORGIOS	Fotakis Dimitrios	Fotakis Dimitrios Mpanidis Panagiotis	Automatic stress detection methods using wearable sensors and sophisticated data processing	The ultimate goal is the ability to detect stress in real time with wearable devices - sensors, through various biometric measurements, analysis and data processing, in a number of people through scientifically proven methods and experimental evidence and evaluation of the correct functioning of the aforementioned system.
ΠΑΠΑΔΟΠΟΥΛΟΥ	ΜΑΡΙΑΝ	ΑΔΩΣΤΗ ΜΙΚΑΗΛ	ΑΔΩΣΤΗ ΜΙΚΑΗΛ ΣΤΑΜΟΥΔΗ ΓΕΩΡΓΙΟΣ ΔΗΜΗΤΡΙΟΥ ΓΕΩΡΓΙΟΣ	Προμηθειες και πρακτική αξιολόγηση υαυλίων για υλοποίησης αλγορίθμων σε παρασκευαστικά υαυλικά χαρακτηριστικά υαυλίων και υφάρισμα υαυλίων για περαιτέρω επεξεργασία σε ποικίλα επίπεδα του υαυλίου υαυλίου.	Πηλοδία	PAPADOPOULOU	MARINA	Dosis Michael	Dosis Michael Stamoulos Georgios Dimitrios Georgios	Strategies and practical evaluation of them for algorithm implementations in low power and high efficiency material architectures with parallel intervention at multiple levels of design flow.	In this doctoral dissertation we will research the way in which we can achieve low energy consumption with high performance at multiple levels of design flow.
ΠΑΥΛΑΚΙΣ	ΓΕΩΡΓΙΟΣ	ΒΕΡΓΑΔΟΣ ΔΗΜΗΤΡΙΟΥ	ΜΙΚΑΗΛ ΜΙΧΑΗΛ ΜΙΧΑΗΛ ΑΓΓΕΛΟΣ	Αυτοματισμένης μεθοδός και επεξεργασία πληροφοριακών δεδομένων με χρήση κρυπτολογικών τεχνικών	Πηλοδία	ΕΚΒΑΚΑΣ	GEORGIOS	Vergados Dimitrios	Vergados Dimitrios Dosis Michael Michalis Angelos	Automated data transmission and display of atmospheric information with the use of cellular network.	In this dissertation priority will be given in the investigation of the usage of a number of sensors for the collection of atmospheric measurements and then the safe transportation of this measurements using a cellular network. The above data will be stored in a computer system for further analysis and processing. The system should be able to keep the information collected secure and available for other applications.
ΜΙΛΑΤΟΣ	ΠΑΝΑΓΙΩΤΗΣ	ΑΔΩΣΤΗ ΜΙΚΑΗΛ	ΑΔΩΣΤΗ ΜΙΚΑΗΛ ΑΝΔΡΕΑΣ ΝΙΚΟΛΑΟΣ ΚΩΣΤΑΣ ΚΩΝΣΤΑΝΤΙΝΟΣ	ΣΧΕΔΙΑΣΜΟΣ, ΜΕΛΕΤΗ ΚΑΙ ΚΑΤΑΣΚΕΥΗ ΕΜΠΙΡΟΥ ΣΥΣΤΗΜΑΤΟΣ ΒΑΔΙΣΜΟΥ ΣΕ ΥΠΟΥΧΗ ΜΕΘΟΔΟΥ ΓΙΑ ΥΠΟΣΤΗΡΙΞΗ ΤΟΥ ΕΡΓΟΥ ΤΩΝ ΑΠΛΩΝ ΤΩΝ ΑΡΧΩΝ	Πηλοδία	BATOS	PANAGIOTIS	Dosis Michael	Dosis Michael Stamoulos Georgios Kosmas Konstantinos	Design, analysis and construction of an expert system based on formal methods to support the work of the judicial authorities	The Greek system of criminal justice has gone over time problems and pathologies like lack of digitization, time delays in decision making and judicial crisis which does not take serious as much as it's needed; the biological, sociological and psychological characteristics of factors of a trial and its science of occupational psychology clearly articulated. The problems above due to the huge number of court cases but also to the lack of staff and time, so today the use of technology gets judged as imperative about the work of acceleration in decision making from the Greek criminal justice. This dissertation deals with the creation of an expert system, based in typical methods of technical intelligence and modern programming languages, which will be used from the Greek judicial authorities. That means, for every case which will be introduced to the Greek criminal justice for risk, biological, sociological and psychological characteristics of plaintiffs, defendants and witnesses of a trial will be taken seriously. With this way the judicial officers will be able to create a first picture for what they will face into a following court proceeding. The system will collect data during the pre-trial phase from the factors. A knowledge base will be created for evidence of them and because of the reliability of a deposit to going to get discovered for the system function, reliability and valid experiments will be generated but also studies will be emerged from cases of people who are coming to the Greek criminal justice to be heard. The general benefits from this dissertation is the creation of one experienced system which will decline the time of a judicial decision and it will help further in decline the judicial officers to the discovery of the truth so they can make a just decision.
ΚΩΜΑΔΑΚΗΣ	ΓΡΗΓΟΡΙΟΣ	ΑΔΩΣΤΗ ΜΙΚΑΗΛ	ΑΔΩΣΤΗ ΜΙΚΑΗΛ ΣΤΑΜΟΥΔΗ ΓΕΩΡΓΙΟΣ ΔΗΜΗΤΡΙΟΥ ΓΕΩΡΓΙΟΣ	ΕΡΕΥΝΗΤΙΚΗ ΑΠΟΤΕΛΕΣΜΑΤΟΔΟΤΗΣΗ ΔΙΚΤΥΩΝ ΚΑΙ ΑΠΟΔΟΣΗ ΣΥΣΤΗΜΑΤΩΝ ΛΟΓΙΣΜΟΥ ΜΕ ΤΑΧΥΠΟΡΕΥΣΗ ΤΩΝ ΠΑΡΑΜΕΤΡΩΝ ΑΠΟΤΕΛΕΣΜΑΤΟΔΟΤΗΣΗΣ ΚΑΙ ΧΡΗΣΗ ΝΕΥΡΩΝΩΝ ΕΜΠΙΡΕΣ ΔΕΛΤΑΙΩΝ ΕΚΚΕΝΩΣΕΩΣ	Πηλοδία	KOMADAKIS	GRIGORIOS	Dosis Michael	Dosis Michael Stamoulos Georgios Dimitrios Georgios	Balancing out network and performance capabilities of devices that operate at the edge computing with low energy and privacy data processing performance achievements.	The continuous development of technology in the field of integrated systems (one-chip) has resulted in the increase of IoT devices which now have sufficient resources to operate as complete and autonomous systems. We are also witnessing a leap forward in the direction of Big Data Analytics by organizations / companies that now have a variety of devices (IoT) as they are now applicable in all areas of our daily lives (business, economic, space science), healthcare, telecommunications and the Internet of Things (IoT). However, the variety of devices from various manufacturers, with different architectures and communication protocols between them, creates a heterogeneous environment of interconnected devices and exported data analysis. The heterogeneity of the generated data creates problems of time cost, computing power as well as storage space.
ΡΑΠΟΤΙΚΑ	ΠΑΡΑΣΚΕΥΗ	ΒΕΡΓΑΔΟΣ ΔΗΜΗΤΡΙΟΥ	ΠΑΡΑΣΚΕΥΗ ΕΡΜΙΟΝΙΔΟΥ	Η ΑΠΟΛΟΓΩΣΗ ΤΩΝ ΝΕΩΝ ΤΕΧΝΟΛΟΓΙΩΝ ΓΙΑ ΤΗ ΒΕΛΤΙΩΣΗ ΑΠΟΤΕΛΕΣΜΑΤΟΔΟΤΗΣΗΣ ΤΗΣ ΜΗΧΑΝΟΛΟΓΙΑΣ	Πηλοδία	RAPOTIKA	PARASKEVE	Vergados Dimitrios	Dosis Michael Stamoulos Georgios Michalis Angelos Palaigorios Georgios	The use of new technologies for improving the learning process in primary education.	Programming will play an important role in the coming years in the development of industry, business, services and the school. The proposal of the Doctor Thesis, as stated in the title, has to do with the utilization of new technologies for the optimal performance of the learning process in primary education. The application of new technologies in the school environment will be explored, to determine whether they are an effective tool to help students with special educational needs to achieve their learning goals. Teaching scenarios based on innovative educational technologies will be created and implemented in real classrooms, with different student composition, specially designed to mobilize the typical and deviating students from the general average. The research questions to be studied are which technologies are suitable for special students, which students are in need of special education and which for learning difficulties. In the end there will be an evaluation of the affect of these new technologies when they are used and applied in the classrooms, regarding their suitability, usability and whether they contributed to the improvement of students' performance. The evaluation will include quantitative research, which will be carried out by means of the evaluation of the educational materials, to teachers and students. This research will be supported through the proposed research, a repository of educational material will be created, in order to assist the educational community (teachers) and students) to remain up to date with new educational tools in order to support the entire scientific community.
ΠΟΔΑ	ΚΛΕΟΠΑΤΡΑ	ΒΕΡΓΑΔΟΣ ΔΗΜΗΤΡΙΟΥ	ΜΙΚΑΗΛ ΜΙΧΑΗΛ ΔΗΜΗΤΡΗΣ ΝΙΚΟΛΑΟΣ	Υποστήριξη υπολογιστικών δεδομένων ε' αποστολής εκπαιδευτικής με χρήση τεχνολογιών υαυλίων	Πηλοδία	ΠΟΔΑ	KLEOPATRA	Vergados Dimitrios	Vergados Dimitrios Michalis Angelos Nikolaos Nikolas	Distance learning teaching assistance systems using cutting-edge technologies.	Assistance systems are useful tools for any type of education, as they contribute to a better understanding of the curriculum, especially in the smoother conduct of distance education. The aim of this dissertation is the study and testing of such systems to develop a new perspective on the educational process.
ΤΖΕΒΕΛΙΩΝ	ΧΡΗΣΤΟΣ	ΑΔΩΣΤΗ ΜΙΚΑΗΛ	ΑΔΩΣΤΗ ΜΙΚΑΗΛ ΣΤΑΜΟΥΔΗ ΓΕΩΡΓΙΟΣ ΔΗΜΗΤΡΙΟΥ ΓΕΩΡΓΙΟΣ	Σύνθεση υφάρισμα υαυλίων για στοιχεία σε παραβάνω υπολογιστικών συστημάτων υαυλίων	Πηλοδία	ΤΖΕΒΕΛΙΩΝ	CHRISTOS	Dosis Michael	Dosis Michael Stamoulos Georgios Dimitrios Georgios	Distance learning teaching assistance systems using cutting-edge technologies	Assistance systems are useful tools for any type of education, as they contribute to a better understanding of the curriculum, especially in the smoother conduct of distance education. The aim of this dissertation is the study and testing of such systems to develop a new perspective on the educational process.
ΚΑΡΑΒΑ	ΑΛΕΞΑΝΔΡΑ	ΒΕΡΓΑΔΟΣ ΔΗΜΗΤΡΙΟΥ	ΑΔΩΣΤΗ ΜΙΚΑΗΛ ΝΙΚΟΛΑΟΣ ΝΙΚΟΛΑΟΣ	Σχεδιασμός Αγορών, Επεξεργασία υαυλίων και Ολοκληρωμένα Συστήματα για Έξυπνη Ενέργεια μείων	Πηλοδία	KARAVA	ALEXANDRA	Vergados Dimitrios	Vergados Dimitrios Nikolaos Nikolas	Market Planning, Investment and Economics for Smart Energy Networks	The object of this Doctor Thesis, aims to explore the key challenges towards the planning and the management of modern smart grids in order to take into account modern smart grids' particularities like high penetration of Renewable Energy Sources - RES. The main challenge of the research is to develop new innovative energy markets (EM), modeling accurate various Distributions Flexible Elements (DFEs), in order to achieve an efficient use of DFAs in various locations through Transmission and Distribution System Operator (TDSO) coordination. Moreover, the thesis aims to develop advanced flexibility investment algorithms, which will take into account i) the data from the proposed EM, the needs of OAs and RES operators and iii) the interaction between TDSO and DSOs. The proposed design methodology ensures a fair distribution of investment costs among stakeholders, providing in this way sustainable and liberalized investments in energy markets, beneficial for both the businesses and the final consumer.
ΠΑΛΕΙΤΖΑ	ΧΡΥΣΟΥΛΑ	ΑΔΩΣΤΗ ΜΙΚΑΗΛ	ΧΑΤΖΙΓΩΓΙΩΤΗΣ ΣΑΒΑΣ	Η χρήση παραδοσιακών μεθόδων τεχνητής νοημοσύνης και μηχανικής μάθησης για ανάλυση, επεξεργασία και δημιουργία πληροφοριακών υαυλίων	Πηλοδία	ΠΑΛΕΙΤΖΑ	CHRYSOULA	Dosis Michael	Dosis Michael Dimitrios Nihilas Chatzigiofotis Sava	The use of advanced methods of artificial intelligence and machine learning for analysis, processing and creation of image and video applications	The purpose of this thesis is to investigate the use of advanced methods of artificial intelligence and machine learning for analysis, processing and creation of image and video applications, the deepleaf. Deepleaf is composed of two types, "deep learning" and "fable", actually it's the replacement of an existing image or video with someone's likeness. The methodology to be applied in this thesis is the initial implementation of deepleaf in the Python (AI, with frameworks Keras, TensorFlow, Pytorch). Then the research questions of this thesis will be expanded and answered through a questionnaire. Finally the results will be conducted via SPSS
ΒΟΥΤΣΙ	ΒΑΣΙΛΕΙΟΣ	ΔΗΜΗΤΡΗΣ ΝΙΚΟΛΑΟΣ	ΒΕΡΓΑΔΟΣ ΔΗΜΗΤΡΙΟΥ	Μέθοδο πρόβλεψης και ανάλυσης υαυλίων	Πηλοδία	ΒΟΥΤΣΙ	VASILIOS	Dimitrios Nikolaos	Dimitrios Nikolaos Vergados Dimitrios Kavalioti Petros	Risk forecasting and analysis methods	The aim of this is to investigate, study and develop innovative methods for risk prediction and analysis using geospatial and remote sensing data. Geospatial data is critical information extraction data for decision making in various sectors such as Energy, Agriculture, Transport (Logistics), Defense etc. To effectively manage and process them, machine learning methodologies will be used in order to perform efficient and effective predictions and risk analyses. Forecasting will be based on data modeling and scenario simulation tools. Finally, the results, with the help of visualization techniques, will be presented in the form of interactive maps and graphs summarizing the conclusions drawn.
ΣΤΟΥΤΗΣ	ΙΩΑΝΝΗΣ	ΑΔΩΣΤΗ ΜΙΚΑΗΛ	ΑΔΩΣΤΗ ΜΙΚΑΗΛ ΒΕΡΓΑΔΟΣ ΔΗΜΗΤΡΙΟΥ ΔΗΜΗΤΡΙΟΥ ΓΕΩΡΓΙΟΣ	Εφαρμογές μεθόδων και εφαρμογών μηχανικής μάθησης σε υαυλολογικούς υαυλίων	Πηλοδία	ΣΤΟΥΤΗΣ	IOANNIS	Dosis Michael	Dosis Michael Vergados Dimitrios Dimitrios Georgios	Exploring Machine Learning methods and applications in Computing Edge hardware	The purpose of the Doctoral Thesis is to study and investigate computing at the edge of the network (edge Computing) in order to find solutions and proposals regarding the improvement of network operation and solving issues such as latency, bandwidth and network congestion. Machine learning methods and applications will be explored in embedded systems and IoT hardware in a computing environment at the edge of the network with the aim of improving processing speed and reducing energy consumption. In addition, a Convolutional Neural Network (CNN) will be studied and designed on an FPGA device for use and application as a model for object recognition using images. The goal is to implement a low energy consumption circuit with the ability to process as many images as possible in the unit of time (Fps).