

POST-DOC 0718							
RIF PROPOSAL NUMBER	TITLE	COORDINATOR	HOST ORGANIZATION	PARTNER ORGANIZATION	PROGECT BUDGET	RIF FUNDING	PUBLISHABLE SUMMARY
Life Sciences							
POST-DOC/0718/0025	Cypriot Prickly Pear: characterization, differentiation of botanical and geographical origin and creating new product	Artemis Louppis	MC ANALYSIS CENTER LTD	University of Cyprus	€229.008,87	€160.000,00	The general objective of this proposal is the promotion of the cultivation and exportation of prickly pear (Opuntia) in Cyprus through the a) physicochemical, organoleptic and antimicrobial characterization of the Cypriot prickly pear, b) the classification of the Cypriot Prickly pear vs those from other Mediterranean countries and c) the development of a new alcoholic beverage based on prickly pears. This objective targets to a) promote an agriculture product that is cultivated in dry climates, thus, it is compatible with the dry climate of Cyprus which will become in the next few years even dryer due to the climate changes from the "greenhouse effect", b) obtain direct economic benefit due to water savings from the promotion of cultivation of prickly pear and from exportations of the prickly pear and their finished products from the process of prickly pear feedstock, c) combine the expertise of a company and a university resulting in the transfer of knowledge and to advance scientifically the company, d) obtain direct economic benefit to the company from the exploitation of the new knowledge that will be developed in the project, e) involve a highly trained in industry post.doc. fellow with rich publication record to an advance technological project and finally f) increase the income of producers and create a market, both local and international directly benefitting the country's economy.
Social Sciences and Humanities							
POST-DOC/0718/0196	A fully automated early warning system for financial institution» και ακρωνύμιο «DeepStress	Sotirios Chatzis	Cyprus University of Technology		€ 120,000.00	€ 120,000.00	The recent financial crisis amplified the need for rigorous stress testing in order to prevent any future adverse shocks for the financial system. Although new methodologies introduced are more enhanced with statistical tools and offer a more broad view of the risk underlying the daily financial activities, they still fail to capture the current globalization of the financial system and the interconnection among financial institutions. Current stress testing frameworks still suffer from employing advance statistical techniques, like deep learning, that capture better the nonlinear nature of adverse economic shocks. Furthermore usually stress testing exercises look at solvency and liquidity risk as separate shocks and usually lack of second round effects modeling like systemic contagion risk. Finally current stress testing methodologies attempt to simulate a financial system using several modelling parts making the final integration a challenging task with significant estimation errors. In this proposal we introduce DeepStress, a new generation of stress testing framework based on the combination of deep learning and stress testing methodologies. Our vision is to create a state of the art paradigm capable to simulate real world scenarios in a holistic way modelling the interaction of the financial system with the real economy, either for use on standalone basis or on a systemic level. This projects aims to ameliorate major inefficiencies in current stress testing frameworks by introducing a new architecture for stress testing using deep learning algorithms for each module of functionality. Our aim is to provide an out of the box statistical tool for regulatory authorities and banks ready for use to perform automatic forecasting routines on all levels and across all possible of macroeconomic scenarios without the need of any additional modelling. The proposed framework can serve as a robust early warning system to prevent or increase awareness for future financial crises and predict individual banks insolvencies.