ΟΙΚΟΝΟΜΙΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΘΗΝΩΝ

ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS

ΣΧΟΛΗ ΔΙΟΙΚΗΣΗΣ ΕΠΙΧΕΙΡΗΣΕΩΝ
SCHOOL OF BUSINESS

ΤΜΗΜΑ ΔΙΟΙΚΗΤΙΚΗΣ ΕΠΙΣΤΗΜΗΣ & ΤΕΧΝΟΛΟΓΙΑΣ
DEPARTMENT OF MANAGEMENT SCIENCE & TECHNOLOGY

ATHENS CENTER FOR ENTREPRENEURSHIP AND INNOVATION

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Social media AWARDS

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THE E-BUSINESS RESEARCH CENTER
ELTRUN
ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS

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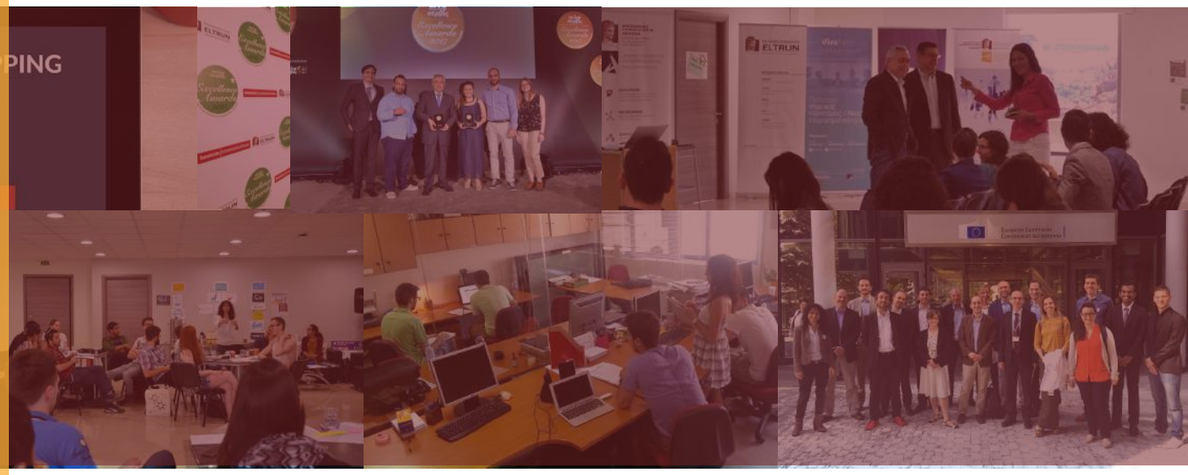

"Research is to see what everybody else has seen, and to think what nobody else has thought."

www.eltrun.gr

Director: Professor Georgios I. Doukidis (gjd@aueb.gr)

ELTRUN is the E-Business Research Center of the Athens University of Economics and Business (AUEB). The center currently consists of more than 25 researchers, including 5 members of the academic staff of AUEB, while there is close cooperation with academic staff of other institutions. Through the years, ELTRUN has successfully managed to produce state-of-the-art research and to complete more than 50 international research projectsm some of them funded by the ICT Program of the European Commission. In these international research projects, ELTRUN has collaborated closely with over 60 international companies such as: Microsoft, Nokia, Unisys, Sema, Sonera, Manesman, Procter&Gamble, Barilla, Oracle, Ericsson etc. and world-class Institutions such as LSE, INSEAD, MIT, Cologne, Esade, Erasmus, Cambridge, EPFL etc. The centre is also actively involved in various activities that are intended to increase awareness in the fields of E-Business. ELTRUN in organised in the following scientific groups.

Research Groups of ELTRUN

EBISE — E-Business Innovation,Strategy and Entrepreneurship

Group Director: Prof. Georgios I. Doukidis (gjd@aueb.gr)

Expertise:
- E-business strategy and innovation
- Business planning and exploitation
- Open Innovation
- Starting new ventures and entrepreneurial thinking
- Guidance, acceleration and support for new e-business ventures

SCORE — Demand Management, & Retail Analytics

Group Director: Assoc. Prof. Katerina Pramatari (k.pramati@aueb.gr)

Expertise:
- Business impact assessment of innovative technology applications (with a focus on Internet-of-Things)
- Supply chain innovation and collaboration
- Business-to-business electronic commerce
- Demand management and retail analytics
- Big Data & Business Analytics
- Gamificaton & innovative consumer services design

IMES — Interactive Marketing & Electronic Services

Group Director: Assoc. Prof. Adam Vrechopoulos (avrehop@aueb.gr)

Expertise:
- Electronic Retailing (e-Tailing) & Digital Marketing
- Electronic Customer Relationship Management (e-CRM)
- HCI & User/Consumer Behavior
- Personalization Methods and Techniques
- Online Marketing Research
- Marketing in Interactive Media (TV, Mobile Telephony)
- Efficient Consumer Response and Demand Management Technologies and Practices

IML — Intelligent Media Lab

Group Director: Assoc. Prof. George Lekakos (glekakos@aueb.gr)

Expertise:
- Digital Interactive Television Technologies and Applications
- Machine learning algorithms for personalization
- Adaptive and Adaptable hypermedia Systems
- Recommender systems and applications in marketing communication
- User-centric Interaction and Interface design
- Human factors in user modeling
- Emerging interactive media and cross-media applications

ADOPT — Algorithms and Discrete Optimization

Group Director: Ass. Prof. Yiannis Mourtos (mourtos@aueb.gr)

Expertise:
- Integration of Integer Programming and Constraint Programming methods, especially with respect to multiple all different predicates & stable matching problems
- Integer programming and combinatorial optimization, especially on multi-index assignment problems
- IS applications in warehousing and transport
- Productivity analysis for heterogeneous technologies and meta-technologies

Indicative Research Projects of ELTRUN

Consumer & Shopper Journey (Industry Funded research project,2010-2013)

The objective of the Shopper Journey project is to exploit information technology (IT) to deliver retail analytics and data processing capabilities by analyzing Point-of- Sale (POS) data and build on the knowledge generated to improve retail shoppability, i.e., retailers' innovative capacity to transform consumer needs and desires into actual purchases. By complementing insights generated by actual data with traditional consumer research approaches such as focus groups and surveys the Shopper Journey projects seeks to identify those store layout alternatives that have significant impacts not only not only store sales, but also on store patronage intentions. The Shopper Journey project seek to validate the retail shoppability recommendation by again utilizing IT as a means for research. Virtual as well as physical store layout alternatives will be examined with respect to their retail shoppability. The project has been awarded by ECR EUROPE.

Antecedents and Consequences of Shopper-Store Emotional Attachment (ECR Europe International Commerce Institute - Unilever Research Grant-2008)

This research project investigates the shopper-store emotional attachment phenomenon in the context of grocery retailing. Employing Structural Equation Modelling (SEM) techniques a model of emotional link antecedents (e.g. place attachment, brand trust, social and inner-self brand expressiveness, brand love, brand likeability, enjoyment) and consequences (e.g. word of mouth, propensity to leave, loyalty intentions, sales) is developed and empirically tested. Specifically, rooted in the theoretical framework of brand attachment, adult attachment and place attachment literatures, the project, employing a survey methodology, investigates service brand emotional attachment determinants, consequences, and the moderating effects of relationship anxiety. It further investigates whether sustainability/corporate responsibility practices constitute a predictor of emotional attachment in the grocery-retailer consumer dyad as well as whether emotional attachment mediates the effect of sustainability/ corporate responsibility practices on intense loyalty intentions.

Services & Initiatives of ELTRUN

Actions to Support Entrepreneurship

- Open Innovation Services (IDEA) to large entreprises
- International Student Competition on Digital Entrepreneurship Innovation and e-Business (www.ennovation.eu)
- Youth Entrepreneurship Summer Program
- Incubation Services for Startups

Executive Education and Training

- E-commerce for Beginners
- Online Marketing and Sales
- Design Thinking
- Executive Educational Program in Retai Innovation
- ICT Innovation and Entrepreneurship

Initiatives to Support E-Business and Digital Transformation

- Annual E-commerce and Social Media Surveys
- E-volution Awards
- Mobile Business Awards
- Trustmark for e-Commerce
- Supporting e-Invoicing road-map
- Retail Business Analytics
- IoT Services on the Supply Chain

U-TURN: Rethinking Urban Transportation through advanced tools and supply chain collaboration (MG-5.2-2014)

The U-TURN project aims at addressing freight urban distribution, focusing on food logistics. The project will contribute to our understanding of freight distribution in urban areas, especially addressing the special requirements and needs of food transportation, and will suggest innovative collaboration practices and tools towards achieving more efficient operations from both an environmental and cost perspective. The project will analyse existing freight urban flows, identify synergies and winning logistics sharing and collaboration strategies and will assess them in three ways: through comparative analysis based on actual market data, through simulation experimentation and via pilot execution in four different countries: Germany, UK, Italy and Greece. U-TURN will further contribute to the adoption of these strategies through managerial assessment, quantifiable benefits and the provision of tools, including a "smart" transport matching tool, a collaboration platform, a simulation tool and economic assessment model. The project aims to exploit the opportunities that currently exist for consolidation of transportation flows from food manufacturers to the various point-of-sales located in urban areas, as well as from local food producers and online retailers directly to consumers, and the high industrial interest behind this topic.

EU-XCEL: European Virtual Accelerator (H2020 - Small Project)

EU-XCEL was a Horizon 2020 and Startup Europe initiative which supports aspiring young tech entrepreneurs interested in co-founding new international information, communication and technology (ICT) startups through a new startup scrum training and mentored virtual accelerator initiative. Ultimately, the EU-XCEL European Virtual Accelerator was seeking to identify and empower aspiring young tech entrepreneurs to become 'incubator ready' with real products of promise in the areas of: Internet of Things; Health Informatics; Big Data;ICT4Development; Predictive Analytics; andE-/M-Commerce.
EU-XCEL has created an intensive, specially designed entrepreneurship programme which includes:
One week FREE intensive training and mentoring in one of our start-up scrums across Europe this summer (including FREE flights and accommodation) where EU-successful EU-XCEL applicants participate alongside some of the most promising and talented aspiring tech entrepreneurs in and commence the process of co-founding new startup ideas;
Provided access to online technical and business development supports through the EU-XCEL virtual accelerator where teams developed their startup ideas over a 12 week period passing milestones and submitting key deliverables en route;
Provided young entrepreneurs with the opportunity to pitch for investment and win a prize in the EU-XCEL Challenge Final in October 2016 in Munich, Germany.

SERAMIS: Sensor-Enabled Real-World Awareness for Management Information Systems (ICT-FP7-2013)

The SERAMIS project aspires to push the boundaries of current RFID implementations, thus turning them into powerful tools for intelligent information management. For this purpose, SERAMIS aims at covering the entire causal chain from the initial investment in an RFID data collection infrastructure to the impact of data processing on firm performance. The research scope encompassesthe development of models and methods for raw data cleansing, the extraction of business-relevant information, and the opportunities for innovating business processes on that basis. The project results will be evaluated in the context of real-world trials conducted in the productive environments of two leading European fashion retailers and innovators in RFID usage.

PLUG-IN Project (GSRT-Cooperation - 2011)

The purpose of PLUG-IN is to investigate, design, develop and pilot operate an integrated, scalable platform in order to publish, recover, compose, orchestrate and provide electronic services of added value to a company based on modern technologies and standards. PLUG-IN combines the disciplines of Software as a Service (Software-as-a- Service) and Synthesis Services (Enterprise Mashups, Service Composition) which are placed under «umbrella» of Internet Services (Internet of Services), and Operational Interoperability and Integration (Enterprise Interoperability, Enterprise Application integration).

Indicative Research Projects of ELTRUN

Community Airport Portal (GSRT-Cooperation - 2011)

The main objective of the project is the development of a dynamic web platform that offers out-of-the-box facilities for the design, administration and provision of services relevant to the airport community. The project aims to provide personalization capabilities for the travelers and to facilitate the availability and quality of services offered by the airport and enterprises operating in the airport environment. The main outcome of CAP is a platform offering user-friendly modules for the creation, provision and integration of services in the context of the airport environment. The system provides content management capabilities, a personalization and a recommendation system. In addition, the project contributes to the development of advanced business models, processes and decision support mechanisms that support the design and creation of new airport services.

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e-SAVE: Energy Efficiency in the Supply Chain through Collaboration, Advanced Decision Support and Automatic Sensing (ICT FP7-2011)

The e-SAVE project aims to develop the information infrastructure, applications and decision support tools to support operations and supply chain management and design decisions, taking into account environmental KPIs and the dynamic energy profile of products and processes. Furthermore, the project supports efficient information sharing and collaboration among supply chain partners in order to enable an end-to-end information flow, spanning a product's life cycle. Overall, the e-SAVE project aims to deliver a modular and extensible information, collaboration and management support infrastructure that does not only capture and deliver the data required for effectively monitoring energy use and other environmental Key Performance Indicators (KPIs), but also provides the management tools that utilize these KPIs and support managerial decisions and every day operations for improving energy and environmental performance. See more at: www.e-save.eu

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ARTISAN: Energy-aware enterprise systems for low-carbon intelligent operations (ICT FP7-2011)

The ARTISAN project envisions significant reductions (at least 10%) in energy consumption and CO2 emissions of the European Textile Industry by integrating data-capturing technologies, process-based energy measurement and real-time optimization of operations. It provides enterprise management systems with services for monitoring and operational decision making, available at each supply chain partner, and, additionally, trading services for energy and carbon permits forging collaboration across supply networks. Relying on a service-oriented architecture and data capturing through sensors and energy metering devices, the project supports services monitoring, reporting and analyzing energy performance and tools for evaluating overall energy efficiency based on productivity assessment. It further employs real-time optimization algorithms for planning and scheduling of supply chain processes and enterprise operations in terms of cost reductions and minimum consumption of energy.

Raising Awareness and Competitiveness of RFID in Europe (ICT FP7-2009)

RFID in Europe started as a European Union project (namely RACE networkRFID) with the objective to increase awareness and competitiveness of RFID in Europe. Today, it continues as a network linking the RFID industry, academia and the user community with the objective to: • Establish the market position for RFID technology in Europe • Promote best practices, case studies, reports, guidelines, services and events to increase awareness at National and European level. • Involve the widest possible audience of stakeholders in the public debate on RFID industry, public sector and civil society. RACE networkRFID is open to any company in Europe with an interest in RFID. It is a totally free membership organisation. • Provide a structure for initiating, developing and sustaining a large variety of support measures to promote the take-up of RFID with appropriate attention to associated automatic identification, data capture and communications technologies and their potential within application designs. • Focus attention upon SME business communities and the potential that exists within them for product, process and services innovation. RFID in Europe is open to any organization in Europe with an interest in RFID. It is a free member ship organization.

Indicative Research Projects of ELTRUN

iMEDIA: Intelligent Mediation Environment for Digital Interactive Advertising (IST-1999-11038)

The iMEDIA project aims to establish a business and technology framework for Suppliers, Advertisers and Consumers in the TV Advertising process. The proposed system will broadcast advertisements comprising video commercials and interactive content (optionally leading to external product catalogues), monitor (with consumer permission) the interactivity of viewers in order to measure the efficiency of the advertisements and products and finally offer personalised information through a TV set- top box in the consumer household. The applicability and acceptability will be demonstrated and assessed through trials with the involvement of real actors (RAI & ERT). The methodology involves requirements specification and gathering both from the end-users, domain experts, and surveys on particular aspects of the advertise domain; the specification of an overall system architecture and the initial design of its relevant components

MYGROCER: Mobile Shopping of Electronically Referenced Grocery Products (IST-2000-26239)

MyGROCER aims to exploit the opportunities that emerging telecommunication and electronic commerce technologies (e.g. WAP, WML, GPRS) and automatic product identification technologies offer to the retail sector. Innovative home replenishment methods will provide significant value to consumers' everyday life. The project is introducing valueadded services over the next generation access medium of e-Business i.e. Mobile Networks in order to exploit the high penetration of mobile communications in Europe and bring closer in the digital economy persons not familiar with computers. My Grocer's main objective is to introduceadvanced B2C oriented E-services upon intelligent mobile access devices, enabling full interactivity, personalization and automation of home replenishment activities for products in the grocery retail sector with clear future extent to the retailing sector in general. To this end, it will develop the necessary infrastructure for the products, the supermarkets and the "smart" homes, and a supportive mediation platform that will act as the gateway between retailers and consumers, providing personalised services to consumers and advanced marketing facilities to retailers.

SMART: Intelligent Integration of Supply Chain Processes and Consumer Services based on Unique Product Identification in a Networked Business Environment (ICT-FP6-2005)

The SMART research project aims to support intelligent business networking and consumer services based on effective and efficient information sharing and collaboration across supply chain partners, capitalizing on the fact that products are uniquely and automatically identified (at item, case or pallet level) with the use of RFID technology. Specific project objectives include: • To enable innovative in-store consumer services and new supply-chain collaboration scenarios which exploit the capabilities for unique-product identification and real time information The provision of reliable and real-time end-to-end information about product quality and history to supply chain partners as well as to educated consumers through innovative electronic services • The development of new decision-support algorithms and software tools, taking advantage of unique product identification capabilities and real-time information flows, to support supply chain processes • The establishment of a collaborative services repository to enable the open and dynamic integration of supply chain processes in a global environment.

ShopMate: The Beacon Enabled Store (Industry Funded Research Projec 2015-2017)

The aim of this project is to investigate how users react to the usage of new technologies and smart IoT applications. Also, it assesses the benefits that derive by the adoption of such solutions. For this purpose, a custom IoT-enabled solution has been developed using different tracking technologies (such as BLE beacons, GPS etc.) within a retail store. The exploitation of the implementation focuses on supporting proximity marketing actions and studying shoppers' behavior and moves within the store. In addition, using data mining and machine learning techniques we investigate shoppers in-store position, shoppers' paths and shoppers' missions to detect selling gaps. The project has been awarded by self service Excellence Awards 2017.

Indicative Research Projects of ELTRUN

TT: Transforming Transport (ICT-15-2016-2017)

Big Data will have a profound economic and societal impact in the mobility and logistics sector, which is one of the most-used industries in the world contributing to approximately 15% of GDP. Big Data is expected to lead to 500 billion USD in value worldwide in the form of time and fuel savings, and savings of 380 megatons CO2 in mobility and logistics. With freight transport activities projected to increase by 40 % in 2030, transforming the current mobility and logistics processes to become significantly more efficient, will have a profound impact. A 10% efficiency improvement may lead to EU cost savings of EUR 100 billion. Despite these promises, interestingly only 19 % of EU mobility and logistics companies employ Big Data solutions as part of value creation and business processes. The TransformingTransport project will demonstrate, in a realistic, measurable, and replicable way the transformations that Big Data will bring to the mobility and logistics market.

DISRUPT: Decentralised architectures for optimised operations via virtualized processes and manufacturing ecosystem collaboration (FOF-11 a-2016)

Industry 4.0 is the next developmental stage in the organisation of the manufacturing value chain. ICT-based systems will play a major role, mainly by creating a virtual copy of the physical world and facilitating decentralised structures through Cyber-Physical Systems (CPS). Over the IoT, CPS cooperate with each other and humans in real-time. Via the Internet-of-Services, internal and cross-organisational services are utilised by participants of the value chain. DISRUPT aims to spearhead the transition to the next-generation manufacturing by facilitating the vision of a "Smart Factory". The new era of manufacturing asks for flexible factories that can be quickly reprogrammed to provide faster time-to-market responding to global consumer demand, address mass-customisation needs and bring life to innovative products. The traditional automation pyramid seems unable to accommodate this transformation. Our concept is to DISRUPT that pyramid by utilising the capabilities offered by modern ICT to facilitate (i) in-depth (self-) monitoring of machines and processes, (ii) decision support and decentralised (self-) adjustment of production, (iii) effective collaboration of the different IoT-connected machines with tools, services and actors (iv) seamless communication of information and decisions from and to the plant floor and (v) efficient interaction with value chain partners. Within DISRUPT, each element of production is controlled via the IoT by its virtual counterpart.

ENTROPY: design of an innovative energy-aware it ecosystem for motivating behavioural changes towards the adoption of energy efficient lifestyles (EE-11-2014)

Taking into account the fact that buildings constitute the largest end-use energy consuming sector, the design and development of solutions targeted at reducing their energy consumption based on the adoption of energy efficient techniques and the active engagement of citizens/occupants is considered crucial. Innovative solutions have to be implemented upon properly understanding the main energy consuming factors and trends, as well as properly modeling and understanding the citizens' behaviour and the potential for lifestyle changes. The ENTROPY project addresses this challenge by building upon the integration of technologies that facilitate the deployment of innovative energy aware IT ecosystems for motivating end-users' behavioural changes and namely: (1) the Internet of Things that provides the capacity for interconnecting numerous devices and applying energy-efficient communication protocols, (2) the evolvement of advanced Data Modelling and Analysis techniques that support the realization of semantic models and knowledge extraction mechanisms and (3) the Recommendation and Gamification eras that can trigger interaction with relevant users in social networks, increase end users' awareness with regards to ways to achieve energy consumption savings in their daily activities and adopt energy efficient lifestyles as well as provide a set of energy efficient recommendations and motives.

CHARGED: CleAnweb Gamified Energy Disaggregation (H2020-EE-2015-2)

ChArGED addresses the energy consumption in public buildings and proposes a framework that aims to facilitate achieving greater energy efficiency and reductions of wasted energy in public buildings. The framework leverages IoT enabled, low-cost devices (NFC or iBeacons) to improve energy disaggregation mechanisms that provide energy use and -consequently- wastages at the device, area and end user level. These wastages are targeted by a gamified application that feeds personalized real-time recommendations to each individual end user. The design of the game follows a cleanweb approach and implements a novel social innovation process that is designed based on human inceptives factors and helps users to understand the environmental implications of their actions and adopt a greener, more active and responsible behaviour.
Efficient energy use renders its consumption predictable and this is exploited by the ChArGED
gamified application to optimize use of the micro-generated energy.