

UCLAN CYPRUS COMPUTING LAB: RESEARCH PROFILE

PEOPLE

Irene Polycarpou, PhD – Assistant Professor in Computing
Nearchos, Paspallis, PhD – Lecturer in Computing
Josephina Antoniou, PhD – Lecturer in Computing
Panayiotis Andreou, PhD – Lecturer in Computing
Paris Kaimakis, PhD – Lecturer in Computing
Demetres Christofides, PhD – Lecturer in Mathematics
Andreas Siamarou, PhD – Academic Development Lead
Elias Allayiotis – PhD Research Scholar
Christos Karpasitis – PhD Research Scholar
Peter Yiatrou – PhD Research Scholar

RESEARCH AREAS

Educational Technologies – Leader: Irene Polycarpou

- Educational Software
 - Educational games for STEM subjects, Simulations for STEM subjects (e.g., virtual laboratories)
 - Instructional software for STEM subjects, Independent Learning software for STEM subjects
 - Practice software for STEM subjects, Interactive multimedia for education
 - E-learning
- Use of technologies (e.g., smart mobile devices, tablets, wikis, blogs, potcasts, videoconferencing, and social media) in education
 - Use of technologies to aid instruction of STEM concepts
 - Use of technologies to aid independent learning of STEM concepts
- K-12 education
 - Use of educational technologies for K-12 mathematics and science
 - Development of educational software for K-12 STEM subjects
- Computer Science Education
 - Computer science curriculum
 - Investigation into students difficulties with specific computer science concepts
 - Female participation in computer science
 - Recruitment and retention of female students into the field of computer science

Networks – Leader: Josephina Antoniou

- context-Aware Session Management/Radio Resource Management in mobile networks,
- computer & network security,
- wireless networks physical/link layer technology enhancements,
- modelling for decision-making (game theory, bayesian principles, cooperative strategies),
- topics in cloud computing:
 - Privacy Concerns & Tactical Decisions (content owner/content user)
 - Advanced content manipulation (creation, management, delivery).
- Wireless Sensor Networks:
 - Energy-efficient communication
 - Mobility; Fault Tolerance

Software Engineering & Distributed Systems – Leader: Nearchos Paspallis

- context-aware computing,
- self-adaptive systems,
- pervasive and mobile computing,
- assistive technology.

Data Management for Systems and Networks – Leader: Panayiotis Andreou

- Smartphone Networks
 - Smartphone Testbeds, User-centric Social Networks, Adaptive Interactive Systems
- Wireless Sensor Networks
 - Network-aware Query Optimization, In-network Aggregation, Storage
- E-Health and Ambient and Assisted Living
 - Virtual Collaborative Teams
 - ICT-services for Homecare

Computer Vision – Leader: Paris Kaimakis

- Markerless Motion Capture
 - Hand tracking for human-oriented computer interfaces
 - Upper human body tracking for game interaction

- Multi-Target Tracking
 - Urban road traffic surveillance
 - Maritime detection and tracking

Discrete Mathematics – *Leader: Demetres Christofides*

- extremal graph theory,
- random graphs,
- probabilistic methods.

RESEARCH EXPERIENCE

FP7 Participation

- FP7: Responsible Industry

Current Cost (European Cooperation in Science and Technology) Actions

- COST IC1304: *Autonomous Control for a Reliable Internet of Services (ACROSS)*
- COST IC1004: *Cooperative Radio Communications for Green Smart Environments, 2011-2015*

Past Experience (EU Projects, UK Projects)

- 1 FP5, 4 FP6, 3 FP7, 3 EPSRC

Simulators & software

- NS (Network Simulator) v.2,
- OPNET (OPTimal NETwork simulator)
- Mathematical Modelling Tools (Matlab/Maple)

CONTACT US

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