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● WORK EXPERIENCE

01/04/2020 – CURRENT – Arta, Greece

ASSISTANT PROFESSOR – DEPARTMENT OF INFORMATICS AND TELECOMMUNICATIONS OF THE UNIVERSITY OF IOANNINA

01/07/2008 – CURRENT – Patras, Greece

POSTDOC RESEARCHER – COMPUTER TECHNOLOGY INSTITUTE AND PRESS "DIOPHANTUS"

- 01/07/2008-31/12/2009: Research on security Work Package for the following EU funded projects:
- **FRONTS** (Foundations of Adaptive Networked Societies of Tiny Artefacts FP7 ICT/FET STREP Project ICT-215270) project.
- [Promote, Mobilize, Reinforce and Integrate Wireless Sensor Networking Research and Researchers: Towards Pervasive Networking of WBC and the EU](#), FP7 ICT/REGPOT Support Action ICT-205494
- [Algorithmic Principles for Building Efficient Overlay Computers](#) FP6 IST/FET Integrated Project IST-015964
- 15/2/2010-31/12/2010: Research and Development Security tools for increasing pupils trustworthiness in ICT in National Funded Project "E-services for increasing user's trustworthiness"
- 10/01/2011-28/2/2015: Research and development of the two pilots of the [Attribute Based Credentials for Trust](#) Project (FP7-ICT-2009-5-Grant Agreement n°257782).
- 21/07/2017-31/12/2017: Research and development for extending the Anonymous Credential Platform to complementary e-services
- 29/5/2019-31/7/2021: Research and development for utilizing Identity Management Demonstrator at CyberSec4Europe project that is a pilot for a future European Cybersecurity Competence Network

Information and communication

01/08/2002 – 02/01/2008 – PATRA, Greece

RESEARCH ENGINEER – COMPUTER TECHNOLOGY INSTITUTE AND PRESS "DIOPHANTUS"

2002-2004: IT Security Engineer in the Computer Technology Institute and Press "Diophantus"

- Design and Development Cryptographically Secure Pseudorandom Generators for OPAP National Lottery, R&D Engineer CTI-Research Unit 1.

- Research on Foundational Aspects of Global Computing -FLAGS-FP5 IST/FET STREP Project IST-33116

2005: IT Security MSc Researcher in the Computer Technology Institute and Press "Diophantus"

- Development, testing and cryptographically evaluation of pseudorandom generators for HYPERGEN project

2005-2008: IT Security MSc Researcher in the Computer Technology Institute and Press "Diophantus"

- Research on security Work Package for AEOLUS project (Algorithmic Principles for Building Efficient Overlay Computers)

30/09/2006 – 30/09/2014 – Messolonghi, Greece

ASSISTANT LECTURER – DEPARTMENT OF APPLIED INFORMATICS IN MANAGEMENT & FINANCE OF TECHNOLOGICAL EDUCATION INSTITUTE

01/09/2008 – 30/09/2012 – Agrinio, Greece

ASSISTANT LECTURER – DEPARTMENT OF MANAGEMENT OF CULTURAL ENVIRONMENT AND NEW TECHNOLOGIES OF UNIVERSITY OF WESTERN GR

25/09/2017 – 31/12/2020 – Ioannina, Greece

POST-DOC RESEARCHER – ELKE (SPECIAL ACCOUNT FOR RESEARCH FUNDS) UNIVERSITY OF IOANNINA

- **25/09/2017-30/06/2020** BALKAN-MEDITERRANEAN CENTRE FOR ENTREPRENEURSHIP AND INNOVATION (BALKANMED INNOVA)
- **2/03/2018-1/09/2019** Social Network Based and doctoral Education on Industry 4.0 (TIPHYS)
- **01/10/2008-01/08/2020** **GIENAHS**. Grasping Innovation in Europe through a closer iNterAction between Heis and Sme

- **08/1/2020-30/08/2020 TrackMyHealth** proposes an integrated system of monitoring and support of individuals

● EDUCATION AND TRAINING

01/10/1996 – 25/04/2002 – B' Building, University Campus 26504, Patras Greece, PATRA, Greece

B.SC. IN COMPUTER ENGINEERING & INFORMATICS – Department of Computer Engineering and Informatics of Patras University

<https://www.ceid.upatras.gr/>

01/10/2002 – 30/06/2005 – B' Building, University Campus 26504, Patras Greece, PATRA, Greece

M.SC. IN FOUNDATIONS OF COMPUTER SCIENCE – Department of Computer Engineering and Informatics of Patras University

<https://www.ceid.upatras.gr/>

08/08/2005 – 18/07/2008 – B' Building, University Campus 26504, PATRA, Greece

PHD IN CRYPTOGRAPHY AND CRYPTANALYSIS – Department of Computer Engineering and Informatics of Patras University

<https://www.ceid.upatras.gr/>

● PUBLICATIONS

Realizing virtual reality learning environment for industry 4.0

<https://www.sciencedirect.com/science/article/pii/S2212827119301398> – 2019

Electronic National Lotteries

2004

E. Konstantinou, V. Liagkou, P. Spirakis, Y. Stamatiou, M. Yung, Electronic National Lotteries, in Financial Cryptography - FC 2004, LNCS Vol. 3110 (Springer-Verlag, 2004), pp. 147-163.

Trust Engineering: from requirements to system design and maintenance — a working national lottery system experience

2005

E. Konstantinou, V. Liagkou, P. Spirakis, Y. Stamatiou, M. Yung, Trust Engineering: from requirements to system design and maintenance — a working national lottery system experience, in Information Security Conference - ISC 2005, LNCS Vol. 3650 (Springer-Verlag, 2005), pp. 44-58.

The threshold behaviour of the fixed radius random graph model and applications to the key management problem of sensor networks

2005

- V. Liagkou, E. Makri, P. Spirakis, Y.C. Stamatiou, The threshold behaviour of the fixed radius random graph model and applications to the key management problem of sensor networks, in International Workshop on Algorithmic Aspects of Wireless Sensor Networks, Algosensors-2006, , pp. 130-139 2005

Design, Analysis and Performance Evaluation of Group Key Establishment in Wireless Sensor Networks

2007

Chatzigiannakis, E. Konstantinou, V. Liagkou and P. G. Spirakis, "Design, Analysis and Performance Evaluation of Group Key Establishment in Wireless Sensor Networks". Electr. Notes Theor. Comput. Sci. 171(1), pp. 17-31 (2007)

Trust in global computing systems as a limit property emerging from short range random interactions

2007

V. Liagkou; E. Makri; P. Spirakis; Y.C. Stamatou, "Trust in global computing systems as a limit property emerging from short range random interactions", on Proc. of IEEE International Conference ARES (2007) , pp. 741-748.

Agent-based Distributed Group Key Establishment in Wireless Sensor Networks

2007

Chatzigiannakis, E. Konstantinou, V. Liagkou and P. Spirakis, "Agent-based Distributed Group Key Establishment in Wireless Sensor Networks", on Proc of the 3rd IEEE International Workshop on Trust, Security, and Privacy for Ubiquitous Computing (TSPUC 2007)

On the asymptotic behaviour of formal logic based trust models

2007

Liagkou, Vasiliki, Makri, Effie, Spirakis, Paul and Stamatou, Yannis, On the asymptotic behaviour of formal logic based trust models, in: 11th Panhellenic Conference on Informatics with international participation (PCI), pages 141-150, New Technologies Publications, Patras, Greece, 2007.

The "Digital Territory" as a complex system of interacting agents, emergent properties and technologies

2007

V. Liagkou, E. Makri, P. Spirakis and Y.C. Stamatou, Yannis, "The "Digital Territory" as a complex system of interacting agents, emergent properties and technologies", on Proc of the European Conference on Complex Systems 2007, pp51-57.

A Trusted Architectural Model for Interconnecting Testbeds of Wireless Sensor Networks

2008

Chatzigiannakis, Ioannis, Liagkou, Vasiliki and Spirakis, Paul, A Trusted Architectural Model for Interconnecting Testbeds of Wireless Sensor Networks, in: 50th International Symposium ELMAR-2008, IEEE, Zadar, Croatia, 2008.

A Probabilistic Key Agreement Scheme for Sensor Networks without Key Predistribution,

2011

- V. Liagkou, E. Makri, P. Spirakis and Y.C. Stamatou, A Probabilistic Key Agreement Scheme for Sensor Networks without Key Predistribution, in: International Conference on Global Security Safety and Sustainability (ICGS3 2011) and 4th International Conference on e-Democracy 2011, 2011

A Secure Data Management Model for Cultural Organizations, in: 2010 International Conference on Multimedia Information Networking and Security

2010

V. Liagkou and P. Spirakis, A Secure Data Management Model for Cultural Organizations, in: 2010 International Conference on Multimedia Information Networking and Security (MINES 2010), pages 616-620, IEEE Computer Society, 2010

Can formalism alone provide an answer to the quest of a viable definition of trust in the WWW society?

2009

V. Liagkou, P. Spirakis and Y.C. Stamatou, Can formalism alone provide an answer to the quest of a viable definition of trust in the WWW society?, in: The 3rd International Conference on E-DEMOCRACY: "Next Generation Society: Technological and Legal Issues", Springer, 2009.

An experimental study and the statistical behaviour of combined random number generators

2003

E. Konstantinou, v. Liagkou, Y. Stamatou, "An experimental study and the statistical behaviour of combined random number generators", Recent Advances in Statistical Designs and Related Combinatorics 2003, Short abstract, Athens 2003.

A Trustworthy Architecture for Managing Cultural Content

2011

V. Liagkou, "A Trustworthy Architecture for Managing Cultural Content", Journal of Mathematical and Computer Modelling, 2011, "ISSN:0895-7177",doi:10.1016/j.mcm.2011.07.025.

"A Probabilistic Key Agreement Scheme for Sensor Networks without Key Predistribution

2011

- V. Liagkou, E. Makri, P. Spirakis, and Y.C. Stamatou, "A Probabilistic Key Agreement Scheme for Sensor Networks without Key Predistribution.", 7th International Conference on Global Security Safety and Sustainability (ICGS3 2011) and 4th International Conference on e-Democracy 2011

Privacy preserving course evaluations in Greek higher education institutes: an e-Participation case study with the empowerment of Attribute Based Credentials

2012

- V. Liagkou, G. Metakides, A. Pyrgelis¹, C. Raptopoulos, P. Spirakis, and Y.C. Stamatou, "Privacy preserving course evaluations in Greek higher education institutes: an e-Participation case study with the empowerment of Attribute Based Credentials", Annual Privacy Forum 2012.

Barriers and Incentives for setting-up Industrial Ph. D. in Greece

<https://mgdl.library.upatras.gr/iisa/article/download/3323/3550> – 2020

Barriers and Incentives for setting-up Industrial Ph. D. in Greece
N Krikis, V Liagkou, C Stylios, M Mali

Information, Intelligence, Systems and Applications 1 (1), 11-15

VR Training for Security Awareness in Industrial IoT

https://link.springer.com/chapter/10.1007/978-3-030-28464-0_53 – 2019

VR Training for Security Awareness in Industrial IoT
V Liagkou, C Stylios

Working Conference on Virtual Enterprises, 604-612

Randomized and Set-System Based Collusion Resistant Key Predistribution Schemes

https://link.springer.com/chapter/10.1007/978-3-030-20951-3_28 – 2019

Randomized and Set-System Based Collusion Resistant Key Predistribution Schemes (Brief Announcement)
V Liagkou, P Spirakis, YC Stamatou

International Symposium on Cyber Security Cryptography and Machine Learning pp.324-327,2019

Attack detection for healthcare monitoring systems using mechanical learning in virtual private networks over optical transport layer architecture

<https://www.mdpi.com/2079-3197/7/2/24/pdf> – 2019

Attack detection for healthcare monitoring systems using mechanical learning in virtual private networks over optical transport layer architecture, Vasiliki Liagkou, Vasileios Kavvadas, Spyridon K Chronopoulos, Dionysios Tafiadis, Vasilis Christofilakis, Kostas P Peppas, Computation 7 (2), 24,2019

Introducing VR technology for increasing the digitalization of SMEs

<https://www.sciencedirect.com/science/article/pii/S2405896319310468> – 2019

Introducing VR technology for increasing the digitalization of SMEs
V Liagkou, C Stylios

IFAC-PapersOnLine 52 (13), 451-456

A Case Study of a Virtual Training Environment

2019

A Case Study of a Virtual Training Environment, V Liagkou, C Stylios, Advances in Manufacturing II, 352-367

Realizing virtual reality learning environment for industry 4.0

<https://www.sciencedirect.com/science/article/pii/S2212827119301398>
2019

Realizing virtual reality learning environment for industry 4.0, V Liagkou, D Salmas, C Stylios, Procedia CIRP 79, 712-717

Handling Privacy and Concurrency in an Online Educational Evaluation System

<https://pdfs.semanticscholar.org/6745/b0f07eab3b0dbad66fbde89c96f092b20595.pdf> – 2019

Handling Privacy and Concurrency in an Online Educational Evaluation System, V Liagkou, C Stylios, A Petunin
Baltic Journal of Modern Computing 7 (1), 86-98

A trustworthy and privacy preserving model for online competence evaluation system

https://link.springer.com/chapter/10.1007/978-3-319-91446-6_32 – 2018

A trustworthy and privacy preserving model for online competence evaluation system
V Liagkou, C Stylios

International conference on dependability and complex Systems, 338-347

VR training model for exploiting security in LPWAN,

<https://www.sciencedirect.com/science/article/pii/S2212827119301362> – 2018

VR training model for exploiting security in LPWAN, V Liagkou, D Salmas, C Stylios, 12th CIRP Conference on Intelligent Computation in Manufacturing Engineering

Providing End-to-End Secure Communication in Low-Power Wide Area Networks (LPWANs)

http://livrepository.liverpool.ac.uk/3021477/1/paper_8.pdf – 2018

Providing End-to-End Secure Communication in Low-Power Wide Area Networks (LPWANs)

PG Spirakis, I Chatzigiannakis, V Liagkou

LNCS

Providing end-to-end secure communication in low-power wide area networks

https://link.springer.com/chapter/10.1007/978-3-319-94147-9_8 – 2018

Brief announcement: Providing end-to-end secure communication in low-power wide area networks

I Chatzigiannakis, V Liagkou, PG Spirakis, International Symposium on Cyber Security Cryptography and Machine Learning

Preliminary receiver operating characteristic analysis on voice handicap index of laryngeal inflammation in Greek patients

https://www.scirp.org/html/6-2460495_84872.htm – 2018

Preliminary receiver operating characteristic analysis on voice handicap index of laryngeal inflammation in Greek patients, Dionysios Tafiadis, Meropi E Helidoni, Spyridon K Chronopoulos, Evangelia I Kosma, Vasiliki Liagkou, Louiza Voniati, Nafsika Ziavra, George A Velegraki, International Journal of Otolaryngology and Head & Neck Surgery 7 (03), 115

An E-competence evaluation portal for software engineering master course

<https://ijits-bg.com/contents/IJITS-SP1-2017/2017-SP-03.pdf> – 2017

An E-competence evaluation portal for software engineering master course, V Liagkou, C Stylios
Int. J. Inf. Technol. Secur 9, 27-38

Course evaluation in higher education: the patras pilot of ABC4Trust

https://link.springer.com/chapter/10.1007/978-3-319-14439-9_7 – 2015

Course evaluation in higher education: the patras pilot of ABC4Trust, Yannis Stamatjoui, Zinaida Benenson, Anna Girard, Ioannis Krontiris, Vasiliki Liagkou, Apostolos Pyrgelis, Welderufael Tesfay, Attribute-based Credentials for Trust, 197-239

User acceptance of privacy-ABCs: an exploratory study

https://link.springer.com/chapter/10.1007/978-3-319-07620-1_33

User acceptance of privacy-ABCs: an exploratory study, Z Benenson, A Girard, I Krontiris, V Liagkou, K Rannenber, Y Stamatiou, International Conference on Human Aspects of Information Security, Privacy, and Trust, pp 375-376

Understanding and Using Anonymous Credentials

<http://scholar.google.com/scholar?cluster=16474466228753591372&hl=en&oi=scholar> – 2013

Understanding and Using Anonymous Credentials, Zinaida Benenson, Ioannis Krontiris, V Liagkou, K Rannenber, Alexander Schopf, Dominik Schröder, Yannis Stamatiou, Proc. 9th Symposium on Usable Privacy and Security (SOUPS 2013)

● PROJECTS

10/01/2011 – 28/02/2015

ABC4Trust Attribute-based Credentials for Trust

<https://www.abc4trust.eu/>

ABC4Trust is an EU-funded research and development project advancing the federation and interchangeability of technologies supporting trustworthy and at the same time privacy-preserving Attribute-based Credentials (Privacy-ABCs). In order to learn more about the project and Privacy-ABC technologies, click on the 'About ABC4Trust' tab on the left-hand side.

Core of the project are the two application pilots. The Swedish school pilot deploys Privacy-ABCs for a communication network within a school in Söderhamn, Sweden. The Greek university pilot uses Privacy-ABCs to allow students anonymous evaluation of lectures .

On this website, you can further find the project's research results in the project reports (so-called deliverables), articles and other contributions such as talks at conferences. Under the news tab you will find up-to-date information on the current state of the project and overviews of events related to ABC4Trust in the events tab.

If you cannot find the information you are looking for and for all other enquiries, feel free to contact us under the information provided in the contact tab.

29/05/2019 – 31/07/2021

CyberSec4Europe

<https://cybersec4europe.eu/>

CyberSec4Europe is a pilot for a future European Cybersecurity Competence Network – a new digital ecosystem built of a network of centres of cybersecurity expertise, with a central hub. As a research project, CyberSec4Europe is working towards harmonising the journey from the development of software components that fit the requirements identified by a set of short- and long-term roadmaps, leading to a series of consequent recommendations. These are tied to the project's real-world demonstration use cases that address cybersecurity challenges within the vertical sectors of digital infrastructure, finance, government and smart cities, healthcare and transportation. CyberSec4Europe's **main objective** is to pilot the consolidation and future projection of the cybersecurity capabilities required to secure and maintain European democracy and the integrity of the Digital Single Market. CyberSec4Europe has translated this broad objective into measurable, concrete steps: three policy objectives, three technical objectives and two innovation objectives.

02/02/2008 – 31/01/2011

Foundations of Adaptive Networked Societies of Tiny Artefacts FP7 ICT/FET STREP Project ICT-215270

<http://ru1.cti.gr/index.php/list-of-completed-projects/8-fronts-foundations-of-adaptive-networked-societies-of-tiny-artefacts>

The aim of this project is to establish the foundations of adaptive networked societies of small or tiny heterogeneous artifacts. We intend to develop an understanding of such societies that will enable us to establish their fundamental properties and laws, as well as, their inherent trade-offs. We will approach our goal by working on a usable quantitative theory of networked adaptation based on rigorous and measurable gains. We also intend to apply our models, methods, and results to the scrutiny of large scale simulations and experiments, from which we expect to obtain valuable feedback. The foundational results and the feedback from simulations and experiments will form a unifying framework for adaptive nets of artifacts that hopefully will enable us to come up with a coherent working set of design rules for such systems. In a nutshell, we will work towards a science of adaptive organization of pervasive networks of small or tiny artifacts.

01/02/2008 – 28/08/2010

Promote, Mobilize, Reinforce and Integrate Wireless Sensor Networking Research and Researchers: Towards Pervasive Networking of WBC and the EU FP7 ICT/REGPOT Support Action ICT-205494

<http://ru1.cti.gr/index.php/list-of-completed-projects/48-prosense-promote-mobilize-reinforce-and-integrate-wireless-sensor-networking-research>

The overall objective of the project is to improve the research potential and capability of selected WBC research centres and to develop them into wireless sensor networking centres of excellence capable of driving the research agenda and serving as a seed for development of other similar centres in the region. The main course of action will be to leverage already achieved results and continue building established relationship between the WBC and the EU institutions and researchers through collaboration on specific use cases with high significance for socio-economic needs of the WB countries. Two use cases, one for each WBC centre, have been selected as particularly interesting and beneficial for the WBC region: personal health monitoring systems (including systems for support of independent living) and emergency/disaster recovery applications. These use cases are the common theme of all project activities that are organized in such a way to address and explore the most important research issues relevant to the selected use cases. This will be achieved on one side through an active and organized exchange of researchers and on the other side through exchange of scientific know-how and RTD results at a series of workshops and seminars. The said activities will reinforce the research potential of the WBC and the EU's convergence partners, providing a sustainable research platform for future needs of the region and the wider EU community.

01/09/2005 – 28/02/2010

Algorithmic Principles for Building Efficient Overlay Computers FP6 IST/FET Integrated Project IST-015964

<http://ru1.cti.gr/index.php/list-of-completed-projects/4-aeolus>

The goal of this project is to investigate the principles and develop the algorithmic methods for building such an overlay computer that enables this efficient and transparent access to the resources of an Internet-based global computer.

01/01/2002 – 31/12/2004

Foundational Aspects of Global Computing FP5 IST/FET STREP Project IST-33116

<http://ru1.cti.gr/index.php/list-of-completed-projects/9-flags-foundational-aspects-of-global-computing>

The aim of the project is to provide a unifying scientific framework and a coherent set of design rules, for global systems resulting from the integration of autonomous interacting entities, dynamic multi-agent environments and ad-hoc mobile networks. The focus will be on the issues of co-operation and antagonism, stability and fault-tolerance, as well as communication and motion in such global systems.

01/08/2002 – 31/08/2005

KINO-Hypergen-Cryptogen

<https://www.opap.gr/en/diadikasia-kliroseon>

In this project I designed, developed and implemented powerful secure cryptographic protocols for the implementation of a national e-lottery. Design and implementation of secure and robust protocol and system for a national electronic lottery. We developed a protocol that has been implemented in a real nationwide electronic lottery environment that requires frequent drawings per day with strict drawing times. We implemented a number generation process and we used several interacting cryptographic primitives that ensure the credibility of the process. Each element of the generation combines various independent technologies concurrently to assure cryptographic robustness. We provided protection against various manipulations of the process assuring the necessary security level. We designed extensive real-time auditing facilities. We incorporated security mechanisms (since cryptography alone is never a complete security solution).

GIENAHS

www.gienahs.eu

The GIENAHS project aims to improve interaction and cooperation between European Higher Education Institutions and Small and Medium-sized Enterprises, which continue to face major challenges in organizing R & D, although they are the main driving force of the European economy