

IOANNIS (Yannis) KARAMITSOS, Ph.D., CEH, CBP

Curriculum Vitae

Rochester Institute of Technology
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1. EDUCATION

- 2013 **Ph.D.** in Computer Science, University of Sunderland, UK
Thesis title: *“Quality of service (QoS) in Optical Burst Switching Networks”*
- 2006 **Research Methods Certificate (RMC)**, Aston University, UK
The modules were: RMC I: Basic skills within the Management Research process, RMC II: The Philosophy of Management Research, RMC III: Qualitative and Quantitative Research Design and Analysis and RMC IV: Communication and Advanced Research skills

Qualifying Report: *“Setting performance targets in the broadband provider’s context using Data Envelopment Analysis”*
- 2003 **MSc.** in Telematics Management University of Krems, Austria
Thesis title: *“Emerging trends in broadband networks using VDSL technology”*
- 1991 **BSc** in Electronic Engineering, University of Rome “La Sapienza”, Italy
Thesis title: *“Non-convex square programming methods for the solution of combined optimization problems”*

2. EXECUTIVE EDUCATION

- 2019 **Certificate: Artificial Intelligence: Implications for business strategy**
Massachusetts Institute of Technology (MIT)
Boston, USA
- 2018 **Blockchain Strategy Certificate** (Grade: 70.5%)
Oxford Said University
Oxford, UK

- 2015 Certificate: **Tackling the challenge of Big Data**
Massachusetts Institute of Technology (MIT)
Boston, USA
- 2014 Certificate: **Driving Business Impact Program**
Columbia Business School
New York, USA

3 ACADEMIC POSITIONS

Present Academic Positions

- 2020-Present **Assistant Professor**
Department of Data Analytics/City Sciences
Rochester Institute of Technology (RIT), Dubai, UAE

Previous Academic Positions

- 2016- 2020 **Adjunct Professor**
Department of Computer Science
Rochester Institute Technology (RIT), Dubai, UAE
- 2017- 2018 **Adjunct Professor**
University of Nicosia, Cyprus
- 2004-2008 **Senior Researcher**
Athens Institute Technology
Peania, Athens, Greece

4 PROFESSIONAL POSITIONS

- 2010-2020 Regional Director Technology Consultancy IMEAR
Orange Business Services, Dubai, UAE
- 2007-2010 Chief Technology Officer (CTO)
On Telecoms, Athens, Greece
- 2006-2007 Business Developer Director
Huawei, Athens Greece

2005-2007	VP of R&D Itokk Communications, Vancouver, Canada
1992-2004	Head of R&D Wireline Senior Product Manager Intracom, Peania, Greece

5 ACADEMIC TEACHING EXPERIENCE

At undergraduate level, I have taught combinations in Security, Information Technology, Human Computer Interaction User Interface, Project Management and Advanced Networking courses. At graduate level, I have taught combinations in Data Mining, AI, Cloud Computing, Cryptography, Cryptocurrency, Blockchain to MSc students.

Academic Leadership Positions

- Co-designed a new course structure (Enterprise Infrastructure in Data Analytics) with a redistribution of classroom and on-line learning for the graduate students.
- Prepared Digital Transformation Lab including IoT, AI, Blockchain, Security, Cloud and Computing for the Emiratis students sponsored by ICT Fund.
- Devised and implemented learning objectives, assessments, lesson plans and activities to meet targets for new Master Program in Data Analytics.
- Charge for the program delivery such as module offering including syllabus and materials for graduate and undergraduate students.
- Delivered a high-quality learning experience to students which was met with consistently positive feedback by independent faculty evaluation.

Rochester Institute Technology (RIT)- Dubai Campus

Dubai, UAE

Teaching

Fall 2016 - Present

• Graduate Courses Taught

- 1) Data Driven Decision Making (ISTE780) (Spring'22, Spring'21, Spring'20)
- 2) Context and Trends in Data Analytics (PROF 705) (Spring'21, Spring'20)
- 3) Enterprise Infrastructure for Data Analytics (PROF 741) (Fall'19, Spring'20, Fall'20, Fall 21, Spring 2022)
- 4) Foundation of Data Analytics. (PROF 740) (Fall'18, Spring'19, Fall'21, Spring'21, Spring'22)
- 5) Scholarship in Information Technology. (ISTE 605) (Fall'18, Spring'19, Spring'21, Fall'21)
- 6) Enterprise Computing. (NSSA 602) (Fall'17, Fall'18)
- 7) Digital Transformation towards smart city. (PROF 799) (Summer'17, Fall'18, Fall'19, Fall'20)
- 8) Advanced Wireline Networks Technologies. (NSSA 610) (Spring'17)

- **Undergraduate Courses Taught**

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| 1) Information Security (CSEC102) | (Fall'20) |
| 2) Mechanics of Programming (CSCI 243) | (Fall'16, Fall'17) |
| 3) Project Management (NSSA 370) | (Spring'17) |
| 4) Software Modeling Requirements (ISTE 340) | (Spring'17) |
| 5) Designing the user experience (ISTE 260) | (Fall'16, Fall'17) |
| 6) Professional Diploma in Innovation towards Smart Cities | (Fall'17) |

Research Mentorship

Graduated MSc Students

At Rochester Institute Technology (RIT)-Dubai Campus

- “Secure Fleet Management (S²FM)”.
- “Private Blockchain verified Certificate system on Hyperledger Fabric”.
- “The Implementation of ISO certificates on the Blockchain”.
- “Robotic System for House Project Inspection and Analysis”.
- “Sentiment Analysis on Social Media Data Streams to improve the multimodal transportation services using natural language processing (NLP)”.
- “Blockchain applications in UAE courts”.
- “Happiness meter and areas of improvement in UAE federal government entities using data analytics”.
- “School Bus Data Analytics and Optimization”.
- “Epidemics Modeling using Data Analytics”.
- “Forensic Memory Classification using deep recurrent neural networks”.
- “The use of NLP in suggestion similarity detection”.
- “Utilizing existing resources (farms/lands) to promote food safety and establish additional source of income.”.
- “Email content classification using a text mining approach.
- “Bounced Fraud Cheque using Data Analytics.
- “IoT Government Enabled Framework”.
- “Insights into students mental health using Data Analytics
- “ DevOps and Agile for Machine Learning systems (DevMLOps)”
- “Predicting infant mortality rates in Abu Dhabi, UAE”
- “The benefits of data analytics for implementing Project-based-learning in higher education in UAE.
- “Insight into employees’ attrition reasons using data analytics”
- “Customer Complaints Analytics using Machine Learning Algorithms”
- “Predicting and enabling employee daily performance for DEWA-HV design department”.
- “Influencing customers’ buying behavior through recommender engines”.

- “Evaluating Mobile Application solution to centralized transportation industry in United Arab Emirates”
- “Using Machine Learning to detect anomalies in the telecommunication network”
- “Smart Property Evaluation using Predictive Analytics”
- “Demand prediction on ITSM processes using timeseries”
- “Predictive Analytics of Aluminum Logs on a Continuous Homogenizer”
- “Customer allocation targeted for broadband services in an African country”
- “Pain detection using facial expressions”
- E-commerce store recommender system”
- Students’ attitudes towards the testing of cosmetics on animals using sentiment analysis”
- “Recommendation engine for substituting retired employee”
- Establishing KPIs and initiatives classifying model based on performance datasets for a digital health system”
- “Prediction consumer behavior using data analytics”
- “Evaluating how Bird Strike in airplane is a serious problem in US airports using data analytics
- “Smart Home Assistive Technology”

Current MSc Students

At Rochester Institute Technology (RIT)-Dubai Campus

- “On line categorization of short text banking transactions using descriptive analytics”, Expected Graduation date Dec, 2021
- “Sentiment analysis for Amazon Reviews”, Expected Graduation date Dec, 2021

At University of South Eastern Philippines

- “Data Envelopment Analysis for Telecom Operators in Philippines”. Expected projected graduation date: December 2020.

University of Nicosia

Nicosia, Cyprus

Teaching

• Graduate Courses taught:

- 1) COMP530- Cryptographic Systems Security (Spring 2018)
- 2) DFIN524- Blockchain Applications (Spring 2018)

Research Interests

Current research area concerns on data mining, machine learning, AI, cryptography, blockchain, quantum post computing, next generation cloud networks, Big Data and Analytics, Internet of Things (IoT), Data Center technologies, Optical communications, Software defined networks (SDN), Smart building services, Operations Management and Smart Cities under the ICT and non-ICT convergence.

6 ACADEMIC RESEARCH EXPERIENCE

Athens Technology Center (AIT Greece)

May 2002 – June 2008

Researcher

Projects:

- 1) Perform research on Optical Burst Switching (OBS) technology. Comparison with OPS and OCS technologies, and study the impact of linear impairments in OBS networks.
- 2) Developed of algorithms, protocols, architectures and transport schemes for evolving high-speed communication systems and networks such as CDWM, and DWDM.
- 3) Research on new optical transport technologies (OTN, SDN)

7 PROFESSIONAL RESEARCH EXPERIENCE

INTRACOM

R&D Wireline Division

Athens, Greece

Sept 1994-2000

During this period, the main activities of R&D department were developed narrowband and broadband cards and systems. Defines architectures, establishes vendor relationships, designs boards and FPGAs, and takes products through regulatory compliance into volume production. EU and Intracom Company funded the following projects

Projects:

- 1) **Narrowband platform for leased lines and broadband services. CPE units for the end users.**

Designed the system's first board, Quad ISDN BRI. Defined the Motorola 68000 embedded processor core and wrote software drivers used on all subsequent board designs using National/HPC Microcontrollers communication. Consolidated multi-chip ISDN to 3DS0 conversion logic by designing single Xilinx FPGA reducing legacy two-board solutions to a single line card.

- 2) **Designed various xDSL products.**

Researched DSL vendors based on density, power, features and technical support. Designed HDSL and SDSL Line Card and integrated third party firmware for Central Office and Remote Terminal applications using HDSL/SHDSL routers.

- 3) **ATM products.**

Designed OC-12 ATM Uplink, Quad ATM DS3 Line Card and Host Processor board. Researched and selected PMC-Sierra optical and wired data communication PHYs, Motorola 8240 PowerPC, Mindspeed SAR, MMC switch fabric, LVDS backplane links and Intel CPCI bridges.

- 4) **DSLAM platform and ADSL routers/units.**

- 5) **“Network Leased Lines Deployment using xPON technologies”-OTE project.**

8 GRANTS AWARDS

ICT Fund- Dubai UAE

2017-2020

“Digital Transformation Lab”. Principal Investigator, in collaboration with University RIT Dubai, budget of 4million AED.

COST291, “Towards Digital Optical Networks”

2005-2010

The project is funded by the EU and is focusing on optical processing for digital network performance, novel network architectures as well as a unified control plane, network resilience and service security, budget of 3 million Euros.

9 PROFESSIONAL EXPERIENCE

Orange Business Services (OBS),

Dubai, UAE

Regional Director Technology IMEAR

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Feb 2017 to 2020

Orange Labs Cairo Egypt

Member of DSOA Innovation Advisory Board

Feb 2016 to Present

Mentor Smart bootcamp DSOA

Mentor member of DSOA 10x Academy (3rd Cohort)

As Regional Technology Director was collaborated with Dubai Government defining the overall AI, Data Science, Blockchain strategy with other stakeholders. Main duties are:

- Responsible for disruptive technologies such as Machine Learning, Blockchain and Artificial Intelligence.
- Lead a team of experienced Machine Learning Engineers alongside Data Scientists and Data Engineers for building machine learning models to deploy and apply these models to different data platforms.
- Developed and designed ML predictive analytics models end to end for vertical industries.
- Select appropriate data sets, prepare training data, perform statistical analyses, and develop ML applications.
- Work a strategic attribution modelling project.
- Work for providing data architect solutions using AWS and Azure ML services.
- Preparing data lakes and pipelines using AWS and Azure platforms.
- Responsible for the cybersecurity framework and consulting assessment for Orange customers.
- Responsible for defining Blockchain use case (Smart Contract) and Proof of Concept for DSOA and UAE Government Institutions.
- Defined and approved technology platforms (Hyperledger Fabric, Apla and Ethereum).
- Designed Smart Contracts User Requirements for Procurement dept. for DSOA
- Lead vertical segment for IT security assessment and penetration/vulnerability tests for Orange customers.
- Responsible for a team of 10 people for IT audit into different security layers (network, servers and organisation). Our team use open source tools / scripts for the tests. For example, tools such as Nessus, Whisker, Hping2 and Brutus we used for vulnerability tests.
- Designed and implemented in South Africa Orange an established and dedicated IT security Lab for carrying out similar penetration testing projects. There are two types of test facility-

Windows based and Linux based environmental to probe / scan the target IT systems. Using our Labs, we carry out Black box tests, External Penetration Tests and Web application tests remotely for our customers operating in the IMEAR region.

- Developed consulting methodology and value proposition.
- Prepared business opportunities assessment collecting and analyzing client's requirements.

-Digital Transformation Technologist-Government & Airlines Oct. 2016 to Feb 2017

As digital transformation technologist collaborated with UAE public entities such as DSOA, Dubai Economy, and Dubai Land to conceptualize and implement digital and solution engagement. Defined a complete end-to-end digital enablement road-map. Conducted multiple digital innovation workshops to identify digital disruptions and the business and technology transformation approach. Customized and integrated various smart solutions / products with business value proposition and a very high ROI.

Delivered a complete digital transformation customer journey for airlines with SITA application. The main transformation was outside focusing to the customer experience. We developed a digital transformation assessment with a DT matrix transformation.

Responsible for disruptive technologies such as Blockchain, IoT and Artificial Intelligence. Responsible for defining Blockchain use case (Smart Contract) and PoC for DSOA.

I am part of Orange Business Services' Consulting and Transformation practice, where I lead teams to delivers projects that range from high-profile strategic studies through to the implementation and integration of new large-scale initiatives.

-Managing Consultant for Smart Cities and Smart Services Oct 2010-Sept 2016

-Member of Smart City Initiative and Member of City Protocol in Dubai.

Hold multifaceted responsibility within senior management role, tasked with providing critical direction, strategic leadership and delivering to full construction of two Smart Cities (ITCC and KAFD) in Riyadh. Actively manage numerous concurrent contracts with the Saudi Telecom Company (STC) while maintaining ongoing effort to obtain new engagements. Leverage expertise in project management, communications, negotiations, business development and team leadership.

- Engagement providing consulting and strategy in Digital Silicon Oasis for Smart city innovation.
- Participated as solution architect for the Tecom RFP in Smart City open data, and STC for big data integration.
- Directed and approved IT Data Center solution and the migration to Cloud Computing and Big Data.
- Define M2M and IoT strategies for the integration into smart city services.
- Responsible for the preparation of standardization for Smart Cities and the indexes how to qualify a Smart City.
- Managing and delivering large and complex Real Estate projects for Smart Cities (ITCC and KAFD) in Riyadh with a total budget amount of \$15B.
- Close liaison with the client Real Estate Company - Rayadah Investment Company (RIC), so as to understand complex business requirements, identify opportunities and develop strategic alliances.
- Innovation in the form of Smart City Solutions delivering technologies, products and services that meet the dual challenge of reducing greenhouse gas emissions and delivering more efficient services.
- Defined Strategy Roadmap for Smart City Vision and Innovation for ITCC and KAFD.

- Defined the business and operational model; participated in the negotiations for the definition of revenue share model between the client and the telecom incubator.
- Responsible for defining Facility Management Strategy in ITCC and KAFD smart cities.
- Responsible for the preparation of RFPs and vendor evaluation for Smart Cities.
- Responsible for the delivery on time and within budget the network infrastructure (FTTx and GPON) with CISCO equipment; Service platforms (Voice, Data, and IPTV/VoD); UCC solutions (telepresence, videoconferencing); OSS tools (provisioning, management, monitoring, reporting); and Services Creation.
- Supervised, approved and delivered the technical design and build phase to subsequent implementation for the two smart cities projects KAFD and ITCC in Riyadh.
- Supervised and approved ELV integration systems and applications (smart metering, ELV systems).

On Telecoms, Inc

-CTO

-Network Operations Manager

Athens Greece

May 2008-Oct 2010

Feb 2007- May 2008

Huawei Technologies, Plc

-VP Business Development

Athens Greece

Jan 2006-Feb 2007

Itokk Communications

-VP of R&D

Vancouver, Canada

Jan 2005-Jan 2007

Intracom Holdings

-Senior Product Manager

-Head of R&D Wireline Electronic Engineer

Athens Greece

Jun 2000-Dec 2004

Jan 1992-May 2000

10 PUBLICATIONS

Books: 2

[B2] **Ioannis Karamitsos**, “Theory of Interior points methods for optimization (2020) – under review publication (Italian version).

[B1] **Ioannis Karamitsos**, “Broadband Access Network: VDSL Technology, ISBN:3659252581, publisher: LAP LAMBERT ACADEMIC PUBLISHING (2012).

Referred Book Chapters: 4

[BC4] **Ioannis Karamitsos** and Charalambos Manifavas. “*Blockchain in Supply Chain management*”. In I. Papaefstathiou and A. Hatzopoulos (eds), *Heterogenous Cyber Physical Systems of System*, chapter 3, pp.61-95. ISBN 9788770222020, Rivers Publishers Series in Circuit and Systems (Mar 2021).

[BC3] **Ioannis Karamitsos** and Mohamed Salama. “*Digital Transformation in the Event Industry*”. In Mohamed Salama, editor, *Event Project Management*, chapter 12. ISBN: 9781911635734, Oxford: Goodfellow Publishers (2021) (<https://dx.doi.org/10.23912/978191635734-4778>)

[BC2] **Ioannis Karamitsos**, Charalambos Manifavas, and Amer Muhiedin. “*The Influence of Big Data and IoT on Smart Cities*”. In Wael A. Samad and Elie Azar (eds), *Smart Cities in Gulf*, chapter 9, pp.151-172. ISBN 9789811320101, Palgrave Macmillan, Singapore (2019).

[BC1] **Ioannis Karamitsos**, Mohamed Salama and Mohamed El Gindy. “*Blockchain: A Disruptive Technology in the Sustainable Economic System*”. In Mohamed Salama, editor, *Principles of Sustainable Project Management*, chapter 7. ISBN: 9781911396857, Oxford: Goodfellow Publishers ISBN: 9781911396857 (2018).

Referred Journal Publications: 21

[J21] **Ioannis Karamitsos**, Ilham Seladji, and Sanjay Modak “A Modified CNN Network for Automatic Pain Identification Using Facial Expressions”, in *Journal of Software Engineering and Applications*, vol.14, pp.400-417, August 2021.

[J20] Maria Papadaki, **Ioannis Karamitsos**, and Marinos Themistocleous, “ViewpointCovid-19 digital test certificates and Blockchain” in *Journal of Enterprise Information Management*, vol.34 No.4, pp.993-1003, July 2021, (<https://doi.org/10.1108/JEIM-07-2021-554>) [Q1, SJR:0.8, IF:3.23].

[J19] Maria Papadaki and **Ioannis Karamitsos** “Blockchain Technology in Middle East and North Africa Region” in *Information Technology for Development*, March 2021, (<https://doi.org/10.1080/02681102.2021.1882368>) [Q1, IF:2.733]

[J18] Maria Papadaki, **Ioannis Karamitsos**, Marinos Themistocleous, and Cornelius Ncube, “Blockchain as a Service (BCaaS): A value modeling approach in the Education Business

Model” in MDPI Information 2020, Vol.11, No. 363, (submitted for review), December 2020, [Q3, SJR: 0.39, Scopus: 2.4].

[J17] **Ioannis Karamitsos**, Saeed Albarhami and Charalampos Apostolopoulos, “Applying DevOps Practices of Continuous Automation for Machine Learning” in MDPI Information 2020, Vol.11, No. 363, July 2020 (<https://doi.org/10.3390/info11070363>) [Q3, SJR:0.35; Scopus:2.4]

[J16] **Ioannis Karamitsos**, Aishwarya Afzulpurkar and Theodore Trafalis, “Malware Detection for Forensic Memory using Deep Recurrent Neural Networks”, in Journal of Information Security, vol.11, No.2, pp.103-120 ,April 2020 (<https://doi.org/10.4236/jis.2020.112007>) [IF:2.43].

[J15] **Ioannis Karamitsos**, Saeed Albarhami and Charalampos Apostolopoulos, “Tweet Sentiment Analysis (TSA) for Cloud Providers using Classification Algorithms and Latent Semantic Analysis”, in Journal of Data Analysis and Information Processing (JDAIP), vol.7, No.4, pp. 276-294, November 2019 (<https://doi.org/10.4236/jdaip.2019.74016>) [IF: 1.24].

[J14] **Ioannis Karamitsos**, Maria Papadaki and Nedaa Baker Al Barghuthi, “Design of the blockchain smart contract: A Use Case for Real Estate”, in Journal of Information Security (JIS), vol.9, No.3, July 2018 (<https://doi.org/10.4236/jsis.2018.93013>) [IF: 2.43].

[J13] **Ioannis Karamitsos**, and Christos Apostolopoulos, “Optical Trends in Data Centers Architectures for Smart Cities”, International Journal of Information Technology (IJIT), Springer, vol (53), 2017 (<https://doi.org/10.1007/s41870-017-0053-4>)

[J12] **Ioannis Karamitsos** and Chris Bowerman, “A Resource Reservation Protocol with Linear Traffic Prediction for OBS Networks,” In: Advances in Optical Technologies, vol. 2013, Article ID 425372, 2013, ISSN:16876407, DOI: 10.1155/2013/425372 (acceptance rate 26%) [Scopus List, SJR:0.92]

[J11] **Ioannis Karamitsos** and Al-Arfaj Khalid, "Bandwidth allocation (BA-DBA) algorithm for xPON networks”, In: International Journal of Computers Applications (IJCA), vol. 50, no.12, July 2012, ISSN:0975-8887.

[J10] Al-Arfaj Khalid and **Ioannis Karamitsos**, “A Bibliography Survey of Maintenance Scheduling Techniques for Power Generators”, In: Global Journal of Researchers in Engineering, vol. XII, issue (1), March 2012, ISSN:0975-5861

[J9] **Ioannis Karamitsos**, Al-Arfaj Khalid, and C. Apostolopoulos, “A fuzzy model for evaluation IP Carriers: A case study of Greek ISP”, In: International Journal of Soft Computing 6 (2): 33-39, 2011, ISSN: 1816-9503, DOI: 10.3923/ijscmp.2011.33.39.

[J8] **Ioannis Karamitsos**, C. Apostolopoulos, and M. Al-Bugami, “Benefits Management Process Complements other project management methodologies” Journal of Software

Engineering and Applications, Vol.3, No.9, 2010, pp.839-8442010, DOI: 10.4236/jsea.2010.39097 [IF:1.53]

[J7] Mavroidis Athanasios, **Ioannis Karamitsos**, and Saletti Paola, "Qualification and provisioning of xDSL broadband lines using a GIS approach", In: International Journal of Computer Systems Science, vol.52, pp.554-557, March 2009

[J6] Charalambos Apostolopoulos and **Ioannis Karamitsos**, "The Success of IT projects using the Agile Methodology", In: 1st International Workshop on Requirements Analysis (IWRA2008), pp.13-20, London, UK, March, December 6th-7th, 2008

[J5] **Ioannis Karamitsos** and Orfanidis Konstantinos, "An Analysis of Blackouts for electric power transmission systems", in PWASET Transactions of Engineering, Computing and Technology, Vol.12, March 2006, pp.289-292, ISSN 1305-5313

[J4] **Ioannis Karamitsos** and Orfanidis Konstantinos, "Blackouts in electric power transmission systems", In: WSEAS Journal, Transactions on Systems, Vol.5, Issue 5, pp. 1176-1180, May 2006, ISSN 1109-2777.[IF:0.184, Q4]

[J3] **Ioannis Karamitsos** "New switching method for Optical Networks", In: Hellenic Association of Greek Engineers and Informatics, Vol.5, pp. 19-23, November-January 2005.

[J2] **Ioannis Karamitsos**, and Varthis Evangelos, "A survey of Reservation schemes for Optical Burst Switching (OBS)", In: WSEAS Journal, Trans on Circuits and Systems, Vol.2, Issue 2, pp. 395-400, April 2003, ISBN 1109-2734 [IF:0.113, Q4]

[J1] Varthis Evangelos and **Ioannis Karamitsos**, "Saturation Analysis of Burst Acknowledgement Mechanism of IEEE 802.11e MAC Protocol over Infrared Wireless LANs". In: WSEAS Journal, Trans on Communications, Vol.2, Issue 2, pp. 142-147, April – July 2003, ISBN 1109-2742 [IF:0.119, Q4]

Refereed Conference Publications: 19

[C19] Maria Papadaki, Nikolaos Bakas, Edward Ochieng, **Ioannis Karamitsos**, and Richard Kirkham, "Big data from social media and scientific literature databases reveals relationships among risks management, project management and project success", in 6th Annual University of Maryland Project Management Symposium, Maryland, USA, May, 2019; PM World Journal, Vol VIII, Issue VIII, September 2019, ISSN 2330-4480.

[C18] **Ioannis Karamitsos**, and Afzulpurkar Aishwarya, "The Influence of Artificial Intelligence in the healthcare applications", in the Proceedings of the 9th Gulf Research Meeting, Cambridge, UK, 16-18 July, 2019.

[C17] **Ioannis Karamitsos** and Charalambos Manifavas, "Blockchain Smart Contracts: A new approach for trading local energy markets", in the Proceedings of the International Conference in Innovative Applied Energy (IAPE), Oxford, UK, 14-15 March 2019

[C16] **Ioannis Karamitsos**, George Tsaramiris, and Apostolopoulos Charalampos, "Smart Parking: An IoT application for Smart City", in the Proceedings of the 10th INDIACom-2016 International Conference, pp.2271-2275, 16th – 18th March, 2016, INDIA. [SJR:0.15]

[C15] **Ioannis Karamitsos**, and Apostolopoulos Christos, "Study of flow streams as a performance parameter for Data Centers". In International Conference on Innovations in Information Technology 2015 (IIT'15), pp.269-272, 1st – 3rd Nov, 2015, Dubai, UAE (**Best Application Oriented Paper Award**), (DOI:10.1109/INNOVATIONS.2015.7381546) [SJR:0.153]

[C14] **Ioannis Karamitsos**, and Margaret-Mary Nelson, "The impact of organisational models for non-core business services in the FM". In 8th International Facility Management Congress, pp: 17-34, 19th - 20th Nov 2015, Vienna, Austria.

[C13] **Ioannis Karamitsos**, and Khalid Al-Arfaj, "Optimizing AHP incomplete comparisons using D-optimal design". In 23rd International Conference on Multiple Criteria Decision Making (MCDM 2015), pp.62, 2nd – 7th August 2015, Hamburg, Germany.

[C12] **Ioannis Karamitsos**, Fahad Ali Alsaighi and Apostolopoulos Christos, "Future and Trends in Optical Transport Networks". In Proceeding 22nd IEEE TELFOR 2014, pp.593-596, 25th -17th 2014, Belgrade, Serbia, (DOI: 10.1109/TELFOR.2014.7034479). [SJR:0.20]

[C11] **Ioannis Karamitsos**, Khalid Al-Arfaj and Apostolopoulos Charalampos, "D-optimal designs approach for AHP Incomplete comparisons". In Proceeding 7th International Conference on Software, Knowledge, Information Management and applications, (SKIMA 2013), 18-20 December 2013, Chiang Mai, Thailand.

[C10] **Ioannis Karamitsos** and Apostolopoulos Charalambos, "Convergence: Smart Home into Cloud". In 10th IEEE International Conference Wireless and optical communications networks (WOCN 2013), 26-28 July 2013, Bhopal, India, ISSN: 2151-7681, PRINT ISBN: 978-1-4673-59997-9, DOI: 10.1109/WOCN.2013.6616254. [SJR:0.13]

[C9] Apostolopoulos. C, **Ioannis Karamitsos** and Apostolopoulos H., "Measuring the Operational Efficiency using Data Envelopment Analysis of a Greek Internet Service Provider". In 1st Balkan Conference in Operation Research (BALCOR 2011), Thessaloniki, Greece, 21st -23rd September, 2011.

[C8] **Ioannis Karamitsos** and A. Mavroidis, "Study of TCP over OBS with Physical Impairments". In Proc. 5th IEEE-GCC Conference, Kuwait, 15th -17th March, 2009. (DOI:10.1109/IEEEGCC.2009.5734270).

[C7] **Ioannis Karamitsos**, Katerina Vagelatou, and Gianna Koliopanou, "Group Tone Spectrum Management Algorithm (GTSM) for VDSL2 technology", in Proc. 3rd International Conference on Systems and Networks Communications (ICSNC'08), pp. 98-102, Silema, Malta, October 26th -31st, 2008 (DOI:10.1109/CSNC.2008.61).

[C6] **Ioannis Karamitsos** and Alexandros Prosmiris, “Very High Bit Rate Digital Subscriber Line (VDSL2) technology for triple play services”. In Proc. Conference on Communications, Computer, and Power (ICPPP’07), Muscat, Oman, February 19-21, 2007

[C5] **Ioannis Karamitsos** and Orfanidis Konstantinos, “An analytical approach for Dynamic Voltage Stability Analysis in Power Systems”. In Proc. 5th WSEAS International Conference on Applications of Electrical Engineering (AEE’06), Prague, Czech Republic, March 12-14, 2006.

[C4] **Ioannis Karamitsos**, Tzanakaki Anna, and Tomkos Ioannis, “Study of Physical Effects as a Performance parameter in an Optical Burst Switched Networks”. In Proc. ICTON 2005, MoA1, TU B.1.6, pp.228-231, Barcelona, Spain, 3-7 July, 2005 (DOI:10.1109/ICTON.2005.1505792).

[C3] **Ioannis Karamitsos**, “Analytical model for Optical Burst Switching (OBS) networks with Linear Impairments”. In Proc. 2nd IEEE-IFIP International Conference on Wireless & Optical Communications networks (WOCN 2005), pp. 192-195, Dubai, UAE, March 6-8, 2005. (DOI:10.1109/WOCN.2005.1436017).

[C2] **Ioannis Karamitsos**, and Varthis Evangelos, “Impact of Linear Transmission Impairments on Optical Burst Switching (OBS) Networks”. In Proc. 1st IEEE-IFIP International Conference on Wireless & Optical Communications networks (WOCN 2004), Muscat, Oman, June 7-9, 2004.

[C1] **Ioannis Karamitsos**, and Varthis Evangelos, “Routing mechanisms for IP over OBS-WDM optical networks”. In Proc. 12th IEEE Mediterranean Electro-technical Conference (MELECON 2004), vol. II, pp.523-527, Dubrovnik, Croatia, May 12-15, 2004. (DOI:10.1109/MELECON.2004.1346981)

Invited Magazine Articles

[m4] **Karamitsos Ioannis** “Blockchain- Building Block of Smart Cities”. In: CommsMEA Magazine, pp.19, August 2017 (<https://www.highbeam.com/doc/1G1-501880467.html>)

[m3] **Karamitsos Ioannis** “5G: Next Generation Mobile”. In: CommsMEA Magazine, pp.44, January 2017 [\[Link\]](#)

[m2] **Karamitsos Ioannis** “New switching method for Optical Networks”, [Greek]. In: ZTE Technologies, vol.12, no.12, pp.10-11, December 2010.

[m1] **Karamitsos Ioannis** “New switching method for Optical Networks”, [Greek]. In: Hellenic Association of Greek Engineers and Informatics, Vol.5, pp. 19-23, November-January 2005.

Theses

[t3] **Karamitsos, Ioannis**, 2013. QoS Methods in Optical Switched Networks. PhD dissertation, University of Sunderland, UK.

- [t2] **Karamitsos Ioannis**, 2003. Emerging trends in broadband networks using VDSL technology, Master's thesis, University of Krems-Danube, Austria
- [t1] **Karamitsos Ioannis**, 1991. Non-convex square programming methods for the solution of combined optimization problems, Bachelor's thesis, University of Rome, La Sapienza, Italy

11 INVITED TALKS

- Karamitsos, I.** 2020. "How Blockchain and Data Analytics can accelerate the smart economy", Blockchain for Business Conference, Boussias Conference, Athens, December 2, 2020.
- Karamitsos, I.** 2019. "UAE Artificial Intelligence (AI) strategy aligning with DSOA AI initiative" Dubai, UAE, June 2019.
- Karamitsos, I.** 2018. "Blockchain-Smart Contract Development for Smart Cities/ Real Estate", Unicom Blockchain Summit, Dubai, UAE, November 2018.
- Karamitsos, I.** 2018. "Smart Contracts on Blockchain the next wave of smart services", Decentralized Conference, Athens, Greece, November 2018.
- Karamitsos, I.** 2018. "The role of Blockchain as a disruptive technology in the Smart Cities", Heriot Watt Dubai Campus, Industry week, Dubai, UAE, October 2018.
- Karamitsos, I.** 2018. "Bringing the blockchain revolution to healthcare in Cyprus: An opportunity and an inevitability, University of Nicosia, Cyprus, March 2018
- Karamitsos, I.** 2017. "Blockchain and Smart Contracts Building Blocks for Smart Cities", Decentralized Conference, Limassol, Cyprus, November 2017.
- Karamitsos, I.** 2017. "The Influence of Big Data and IoT into Smart Cities", 8th Gulf Research Meeting, Cambridge, UK, August 2017.
- Karamitsos, I.** 2017. "Blockchain: A disruptive technology for smart cities", DTEC, Dubai, UAE, May 2017 (<http://www.mediaoffice.ae/en/media-center/news/22/5/2017/osis.aspx>)
- Karamitsos, I.** 2017. "The Role of Artificial Intelligence for building smarter and risk averse cities" a joint talk with Prof. Spyros Makridakis, The British University in Dubai (BUID), Dubai, UAE, May 2017 (<http://buid.ac.ae/The-Role-of-Artificial-Intelligence-for-Building-Smarter-and-Risk-Aversive-Cities>)
- Karamitsos, I.** 2017. Blockchain Smart Contracts, DSOA, Dubai, UAE, March 2017.
- Karamitsos, I.** 2017. Blockchain Technology, DSOA, Dubai, UAE, March 2017.
- Karamitsos, I.** 2016. IoT into Smart Cities, Rochester Institute Technology University, Dubai Campus, Dubai, UAE, June 2016.
- Karamitsos, I.** 2015. Research Business Methods, MBA, University of Philippines, Riyadh, KSA.
- Karamitsos, I.** 2015. The Impact of organizational models for non-core business services in the FM, University of Wien, Austria, March 2015.
- Karamitsos, I.** 2015. Study of flow streams as a performance parameter for Data Centers. UAE University, Al-Ain, UAE, February 2015.
- Karamitsos, I.** 2013. Smart Cities in Saudi Arabia, Boussias Conference, Athens, Greece, February 2013
- Karamitsos, I.** 2006. TCP/IP over OBS with physical impairments, University of the Aegean, Greece, November 2006.
- Karamitsos, I.** 2004. Physical impairments on optical burst switched networks, University of

the Aegean, Greece, October 2004.

Karamitsos, I. 2003. Optical Burst Switching, University of the Aegean, Greece, September 2003.

12 AWARDS

- **Heriot Watt Dubai Award, 2018.** Recognizes my contribution in Industry Week
- **DSOA Innovation Award, 2018.** Recognizes “Innovation Mentoring”
- **Innovations Conference (IIT’15) Award, 2015.** Recognizes” Best Solution Application paper”
- **Orange Business Services Award, 2011.** Recognizes “Best Customer Satisfaction”
- **Huawei Technologies, Award, 2005.** Recognizes “Best European Employee”

13 PROFESSIONAL MEMBERSHIPS

- | | |
|--|------|
| • Hellenic Blockchain Hub (HBH) | 2018 |
| • British Blockchain Association (BBA) | 2018 |
| • Member of City Protocol Task Force | 2015 |
| • Member of CIB Task Group (TG88) Smart City Committee | 2013 |
| • Member of Canadian Operation Research Society (CORS) | 2009 |
| • Member of Project Management Institute (PMI) | 2004 |
| • Member of IEEE | 1997 |
| • Member of the Technical Chamber of Greece | 1992 |
| • Member of the Greek Society of Informatics | 1994 |

14 CERTIFICATIONS

BLOCKCHAIN

- Certified Blockchain Professional (CBP)- ECC03964155447 (2018)
- Blockchain Expert –Blockchain Council (2017)
- IBM Blockchain for developers (2017)
- Bitcoin Certification Exam, Udemy, (2017)

SECURITY

- Certified Ethical Hacker (CEH v9) certificate ECC26807037274 (2016)
- ISO 27002- EXIN (2016)

CLOUD COMPUTING

- IBM Certified Infrastructure Cloud Solution (2012)
- IBM Certified Solution Advisor-Cloud Computing Architecture (2011)

CISCO

- CCNA Data Center (2014)
- ITIL v.3 Foundation Certificate (2011)

ISACA

- COBIT 5 Foundation (2015)

IT GOVERNANCE

- Six Sigma Yellow Belt (2015)

- TOGAF 9 Foundation (2013)
- SCRUM MASTER (2012)

PROJECT MANAGEMENT

- PRINCE Foundation (2014)

15 TRAINING

- AWS Machine Learning (2019)
- AWS Solution Architect (2019)
- Nvidia Jetson (2019)
- Complete Bitcoin Course- Coursera, 2017
- Coursera Seminar, “R Programming”, MIT by Prof. Bertsekas, 2015
- CISSP (2017)
- ESTIMADA training- Abu Dhabi, UAE, 2015
- LEED training – RIC, Riyadh, KSA, 2014
- Coursera Seminar, “Machine Learning”, Stanford University, online, 2014
- Certificate of Completion, “How to build a Startup”, Stanford University, 2012
- Certificate of Completion, “Effective Business Writing”, Ohio University, 21/3/2005, Ohio, USA
- Intracom Seminar, “Basic Project Management”, 28/6/04-01/07/04, Peania, Greece
- AIT Course, “Optical Networks” by I. Tomkos, 2/4/03-17/7/03, Peania, Greece
- AIT Course, “Advanced Topics on Digital Signal Processing” by Prof. A. Constandines, Imperial College, 2/4/03-17/7/03, Peania, Greece
- AIT, “Short course on Digital Communications” by Prof. J. Proakis, 7/7/03-11/7/03, Peania, Greece
- Eurocom Seminar, “LLMS /NBMS Management Systems”, 5/5/03-9/5/03, Athens
- Eurocom Seminar, “Unix Administration”, 31/3/03-4/4/03, Athens, Greece
- Eurocom Seminar, “NBS Element”, 17/3/03-21/3/03, Athens, Greece
- Marconi Seminar, “MV41C Leased Lines Network Manager Operations”, 11/7/00-14/7/00, Genoa, Italy
- Marconi Seminar, “MD202 DXC 1/0 Operations and Maintenance”, 20/6/00-23/6/00, Genoa, Italy
- Marconi Seminar, “Network Management System of Marconi Multiplexer products”, 15/3/99-19/9/99, Genoa, Italy
- Marconi Seminar, “Network Management System of Hellascom Network”, 22/9/97-25/9/97, Genoa, Italy
- Eurocom Seminar, “Introduction in Internet”, 27/11/95-29/11/95, Athens, Greece
- Eurocom Seminar, “XMP-1 Flexible Multiplexer”, 25/9/95-6/10/95, Athens, Greece
- TEE Seminar in Design of the production systems, 21/10/93-27/10/93, Athens, Greece
- NTUA Specialization in Design and Management of Computer networks, 1/10/92-22/12/92, National Technical University of Athens, Greece

16 PROFESSIONAL ACTIVITIES

Journals

Editorial Board Member

- International Journal of Computer Network & Communications (IJCNC)
- International Journal of Multimedia & its Applications (IJMA)
- Conferences and Workshops: Program Committee and Reviewer Member

Program Committee Member

The First International Conference on Networks & Communications (NetCoM-2009) 27-29 December 2009-2017, Chennai, India

The First International Workshop on Computer Networks & Communications (CoNeCo-2009-2017), April 1-3, Dong Hoi City, Vietnam

The First International Workshop on Wireless & Mobile Networks (WiMon-2009), March 23-25, 2009 Athens, Greece

The First International workshop on Grid Computing (GridCom- 2009), May 10-13, 2009, Rabat, Morocco

The First International Workshop on Wireless & Mobile Networks (WiMo-2009), July 7-10, 2009 Brisbane, Australia

Technical Program Committee Member

The 4th International Conference on Systems and Network Communications (ICSNC 2009) – Porto, Portugal

Reviewer Member

MDPI Open Journal

Open Journal of Mobile Computing and Cloud Computing

1st Asian Conference on Intelligent Information and Database Systems (ACIIDS 2009)