

Curriculum Vitae

## **Dimitrios J. Vergados**

Associate Professor  
Distributed Computing Systems and Data Communications  
Department of Informatics  
Faculty of Sciences  
University of Western Macedonia

Kastoria, October 14, 2024

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## 1. Personal Data

**Name:** Dimitrios J. Vergados

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**Telephone:** +30 697 4916816

**Email:** dvergados@uowm.gr

**Nationality:** Greek and USA

**Date of Birth:** December 24, 1980

**Gender:** Male

## 2. Academic Positions / Work Experience

**Associate Professor,** June 2023 - Today, Department of Informatics, University of Western Macedonia, topic: "Distributed Computing Systems and Data Communications".

**Assistant Professor,** October 2018 - June 2023, Department of Informatics, University of Western Macedonia, topic: "Distributed Computing Systems and Data Communications".

**Postdoctoral Researcher,** July 2014 - Today, National Technical University of Athens, School of Electrical and Computer Engineering, and University of Patras, Department of Computer Engineering and Informatics, Research, Software Development, Participation in research project, (in 2016 the research group was moved from the University of Patras to the National Technical University of Athens).

**Adjunct Lecturer,** September 2011 - June 2012, October 2013 - June 2014 and October 2017 - June 2018, Technological Educational Institution of Western Macedonia, Department of Computer Engineering.

**Postdoctoral Researcher,** October 2012 - September 2013, Norwegian University of Science and Technology (NTNU) Norway, Department of Telematics.

**IT Manager / Software Engineer** April 2011 - August 2011, Motion Group S.A.

**Adjunct Lecturer,** September 2010 - February 2011, University of Western Macedonia, Department of Computer and Communications Engineering.

**Adjunct Lecturer,** February 2010 - August 2010, Ionian University, Department of Informatics.

**Postdoctoral Researcher**, April 2009 - September 2013, National Technical University of Athens, School of Electrical and Computer Engineering, and University of Piraeus, Department of Informatics.

**Postgraduate Researcher**, October 2003 - April 2009, National Technical University of Athens, School of Electrical and Computer Engineering

## 3. Education

**Postdoctoral Studies:** Department of Telematics, Norwegian University of Science and Technology (NTNU), Norway, 2012-20213, Supervisor: Yuming Jiang

**PhD:** School of Electrical and Computer Engineering, National Technical University of Athens, 2009, dissertation: "Algorithms, performance evaluation and optimizations in wireless networks", Supervisor: Vassili Loumos

**Diploma:** School of Electrical and Computer Engineering, National Technical University of Athens, 2003

## 4. Teaching Experience

### 4.1. Undergraduate

#### 2023 - 2024, Associate Professor

Fall Semester, Department of Informatics, University of Western Macedonia:

- Distributed Systems, 5th semester
- Internet Programming, 5th semester

Spring Semester, Department of Informatics, University of Western Macedonia:

- Operating Systems, 2nd semester
- Computer Networks, 4th semester

#### 2022 - 2023, Assistant Professor

Fall Semester, Department of Informatics, University of Western Macedonia:

- Distributed Systems, 5th semester
- Internet Programming, 5th semester

Spring Semester, Department of Informatics, University of Western Macedonia:

- Operating Systems, 2nd semester
- Computer Networks, 4th semester

**2021 - 2022, Assistant Professor**

Fall Semester, Department of Informatics, University of Western Macedonia:

- Distributed Systems, 5th semester
- Internet Programming, 5th semester
- Internet Technologies, 7th semester

Spring Semester, Department of Informatics, University of Western Macedonia:

- Operating Systems, 2nd semester
- Computer Networks, 4th semester

**2020 - 2021, Assistant Professor**

Fall Semester, Department of Informatics, University of Western Macedonia:

- Distributed Systems, 5th semester
- Internet Programming, 5th semester

Spring Semester, Department of Informatics, University of Western Macedonia:

- Operating Systems, 2nd semester
- Computer Networks, 4th semester

**2019 - 2020, Assistant Professor**

Fall Semester, Department of Informatics, University of Western Macedonia:

- Distributed Systems, 5th semester
- Internet Programming, 5th semester

Spring Semester, Department of Informatics, University of Western Macedonia:

- Operating Systems, 2nd semester
- Internet Applications, 6th semester

**2018 - 2019, Assistant Professor**

Fall Semester, Department of Informatics, University of Western Macedonia:

- Distributed Systems, 5th semester
- Internet Programming, 5th semester
- Internet Technologies, 7th semester

Spring Semester, Department of Informatics, University of Western Macedonia:

- Operating Systems, 2nd semester
- Internet Applications, 6th semester
- Telecommunications, 6th semester
- Wireless Mobile Communications, 6th semester

**2017 - 2018, Adjunct Lecturer**

Fall Semester, Department of Informatics, University of Western Macedonia:

- Distributed Systems, 5th semester
- Internet Programming, 5th semester
- Internet Technologies, 7th semester

Spring Semester, Department of Informatics, University of Western Macedonia:

- Operating Systems, 2nd semester
- Internet Applications, 6th semester
- Telecommunications, 6th semester
- Wireless Mobile Communications, 6th semester

### **2013 - 2014, Adjunct Lecturer**

Fall Semester, Department of Informatics, University of Western Macedonia:

- Distributed Systems, 5th semester
- Internet Programming, 5th semester
- Internet Technologies, 7th semester

Spring Semester, Department of Informatics, University of Western Macedonia:

- Operating Systems, 2nd semester
- Internet Applications, 6th semester
- Telecommunications, 6th semester
- Wireless Mobile Communications, 6th semester

### **2011 - 2012, Adjunct Lecturer**

Fall Semester, Department of Informatics, University of Western Macedonia:

- Distributed Systems, 5th semester
- Internet Programming, 5th semester
- Internet Technologies, 7th semester

Spring Semester, Department of Informatics, University of Western Macedonia:

- Operating Systems, 2nd semester
- Internet Applications, 6th semester
- Telecommunications, 6th semester
- Wireless Mobile Communications, 6th semester

### **2010 - 2011, Adjunct Lecturer**

Fall Semester, Department of Computer and Communications Engineering, University of Western Macedonia:

- Design and Analysis of Communication Protocols, 7th semester
- "Microwave Communications", 7th semester.

### **2009-2010, Adjunct Lecturer**

Spring Semester, Department of Informatics, Ionian University:

- Computer Networks I, 4th semester

- Distributed Systems, 6th semester

## 4.2. Postgraduate

### 2018 - today

MSC “Advanced Information Technologies and Services”, Department of Informatics, University of Western Macedonia, and Department of Informatics, University of Piraeus in the following specializations:

1. Contemporary Telecommunication Systems, Internet Technologies, Internet of Things, and System Security.
2. Information and Communication Technologies in Education

in the following courses:

- Wireless and Mobile Communication Technologies
- Advanced Topics in Computer Architecture
- Information Systems in the Internet, e-Commerce and Innovation
- Design and Development of Educational Software
- New Technology Tools and Educational Software
- Technologies and Programming in the World Wide Web
- Contemporary Networks and Services
- Advanced Digital Design

### 2020 - today

MSC: “Digital Culture, Smart Cities and Internet of Things”, Department of Informatics, University of Piraeus in the following courses:

- Software for Smart Cities, Software for IoT and Applications
- Sensor Networks
- M2M Communications
- Software for Smart Cities
- Software for Internet of Things (IoT) and Applications
- Mobile Applications, Edge Computing, and Future Networks

## 4.3. PhD supervision

6 PhD candidates

**2020 - today:** George Gkagkas, Paraskeyi Rapotika

**2021 - today:** Cleopatra Gkola, Alexandra Karava

**2023 - today** Eleni Iasonidou, Eygenia Marneri

**2023 - today** Agni Fitziou

## 4.4. Postdoctoral fellows

1 Postdoctoral fellow

**2021 - 2023:** Nikolaos Efthymiopoulos

#### **4.5. Diploma theses supervision**

**Postgraduate Diploma Theses** supervision of more than 10 diploma theses in postgraduate programs

**Undergraduate theses** supervision of more than 30 undergraduate theses

### **5. Administrative / Management work**

**2023 - today,** Head of the Department of Informatics, University of Western Macedonia

**2023 - today,** Member of the University Senate, University of Western Macedonia

**2018 - today,** Member of the assembly of the Department of Informatics, University of Western Macedonia

**2019 - today,** Representative of the Department of Informatics to the Research Committee (ELKE) of the University of Western Macedonia

**2020 - today,** Director of the "Telecommunications, Networks and Distributed Systems" Laboratory, in the Department of Informatics, School of Sciences, University of Western Macedonia, ΦΕΚ τ.Β' 1921\_19-5-2020, αρ 5890

**2020 - today,** Member of the "Team of Internal Evaluation" (OMEA) for the Department of Informatics, University of Western Macedonia

**2020 - 2021,** Responsible for the Distance Learning procedures of the Department of Informatics, University of Western Macedonia

**2018 - today,** Participation in the evaluation committees for the adjunct lectures for the Department of Informatics, University of Western Macedonia

**2018 - today,** Participation in various committees, including qualifying exams, receiving equipment, etc

**2021 - 2022,** Competition Implementation Committee for a research project with a budget of 1,449,451.00€

### **6. Research work**

Dimitrios J. Vergados active in the field of Distributed Computing Systems and Data Communications. He has published 82 research papers, that are listed in Appendix A and include:



- 29 articles in international peer reviewed scientific journals, which include IEEE Transactions (3), IEEE journals/magazines (5), ACM (1), Elsevier (5), Springer (6), Wiley (1), and others.
- 50 articles in international scientific conferences, which include IEEE Infocom, IEEE Globecom, IEEE VTC, IEEE ICC, IEEE Percom, and others.
- 3 book chapters.

The published work of Dimitrios J. Vergados, at the moment of this document's creation, has been cited as follows:

- According to the Scopus database: 1262 citations, h-index=18.
- According to the Google Scholar database: 1814 citations, h-index=21.

## **7. Funded Research Projects**

### **7.1. EU funded projects**

- Senior Researcher, EMPYREAN: Trustworthy, Cognitive and AI-Driven Collaborative Associations Of IoT Devices And Edge Resources For Data Processing, Horizon Europe, HORIZON-CL4-2023-DATA-01-04
- Senior Researcher, SERRANO: Transparent application deployment in a secure, accelerated and cognitive cloud continuum, Horizon 2020, H2020-ICT-2020-2
- Senior Researcher, MARSAL: Machine Learning-Based, Networking and Computing Infrastructure Resource Management of 5G and Beyond Intelligent Networks, Horizon 2020, H2020-ICT-2020-2
- Senior Researcher, FLEXGRID: A novel smart grid architecture that facilitates high RES penetration through innovative markets towards efficient interaction between advanced electricity grid management and intelligent stakeholders, Horizon 2020, H2020-LC-SC3-2019-ES-SCC
- Senior Researcher, Development of (e-) bicycle tourism, in a nature conscious and sustainable way, to promote local biodiversity (e-natura), Interreg IPA Cross-border Cooperation Programme "Greece - Albania 2014-2020"
- Senior Researcher, 5G-PHOS: 5G integrated Fiber-Wireless networks exploiting existing photonic technologies for high-density SDN-programmable network architectures, Horizon 2020, H2020-ICT-2016-2
- Senior Researcher, Social Energy: A Gaming and Social Network Platform for Evolving Energy Markets' Operation and Educating Virtual Energy Communities, Horizon 2020, H2020-ICT-2016-1
- Senior Researcher, ORCHESTRA: Optical peRformanCe monitoring enabling dynamic networks using a Holistic cross-layEr, Self-configurable Truly flexible appRoAch, Horizon 2020, H2020-ICT-2014-1
- Senior Researcher, NEPHELE: eNd to End scalable and dynamically reconfigurable oPtical arcHitecture for application-awarE SDN cLoud datacentErS, Horizon 2020, H2020-ICT-2014-1
- Senior Researcher, VIMSEN: Virtual Microgrids for Smart Energy Networks, FP7, FP7-ICT-2013-11
- Senior Reresearcher, ERCIM "Alain Bensoussan": "Marie Curie Co-funding of Regional,

National and International Programmes” (COFUND) της Ευρωπαϊκής Επιτροπής - Πρόγραμμα ABCDE no 246016

- Researcher, INHOME: An Intelligent Interactive Services Environment for Assisted Living at Home, FP6, FP6-2005-IST-6
- Researcher, UNITE: Virtual distributed test-bed for optimization and coexistence of heterogeneous systems, FP6-IST, IST-2004-2.4.5
- Researcher, BELIEVE 2007, Design, development and support of applications in the context of the research project BELIEVE

## **7.2. National Projects**

- Senior Researcher, Support for Internalization actions of the University of Western Macedonia
- Senior Researcher, “Smart Digital Twin for Ship Engines”
- Work Package Leader, WP7, “Development of New Innovative Energy Technologies with Low Carbon Footprint for the Enhancement of Excellence in the Region of Western Macedonia
- Senior Researcher, “Vehicular 5G Network Architecture with Edge Computing for the Support of Innovative Services”
- Researcher - “Energy Efficient Optical Network Planning and Operation” - EEONPO
- Researcher in the program “Support of companies for employing personnel of high scientific education”, with code 591 and title “Open Automation Education Systems”
- Researcher - “Measurement of E/M radiation in the environment and documentation of measurements, validation of their results, and publishing results” with code B.198
- Researcher - “Development of Innovative sensor systems offering distributed intelligence - MEMSENSE”, priority axis: deliverable 12 “System Specification for Energy Autonomy of Intelligent Sensors, Literature Research, Methodology Design”, and deliverable 3 “IP block with digital circuits and relevant Energy Management algorithms” Design and development of simulation software, for validation and performance evaluation of energy management algorithms in autonomous wireless sensors. Implementation of energy management algorithms in an embedded system.
- Researcher - “Development and performance evaluation of algorithms for providing Quality of Service in Wireless Broadband Networks” supported by the “Reinforcement Program of Human Research Manpower” (PENED 2003),
- Researcher - “Development of Dynamic Models for Optimal Management of Urban Waste through the Internet”, work supported by the Greek General Secretariat of Research and Technology (GSRT) under “Environment - Pythagoras”
- Researcher - “Support of Computer and Communication studies employing electronic educational material based on specialized multimedia software and simulation”, funded by the School of Electrical and Computer Engineering of the NTUA.

## **8. Distinctions**

- Best Paper Award for the Faculty of Sciences, University of Western Macedonia, for the year 2020,

## Appendix A. Publications

### A.1. Publications in Scientific Journals

- [J1] K. Seklos, K. Steriotis, N. Efthymiopoulos, P. Makris, G. Tsaousoglou, **D. J. Vergados**, and E. Varvarigos. "On the design of the architecture of Distribution Level Flexibility Markets." In: *Elsevier Electric Power Systems Research* 236 (Nov. 2024), p. 110934. ISSN: 0378-7796. DOI: <https://doi.org/10.1016/j.epsr.2024.110934>. URL: <https://www.sciencedirect.com/science/article/pii/S0378779624008204>.
- [J2] G. Gkagkas, **D. J. Vergados**, A. Michalas, and M. Dossis. "The Advantage of the 5G Network for Enhancing the Internet of Things and the Evolution of the 6G Network." In: *MDPI Sensors* 24.8 (Apr. 2024). ISSN: 1424-8220. DOI: 10.3390/s24082455. URL: <https://www.mdpi.com/1424-8220/24/8/2455>.
- [J3] **D. J. Vergados**, A. Michalas, A.-A. A. Boulogeorgos, S. Nikolaou, N. Asimopoulos, and D. D. Vergados. "Adaptive Virtual Reality Streaming: A Case for TCP." In: *IEEE Transactions on Network and Service Management* 21.2 (Apr. 2024), pp. 1518–1533. DOI: 10.1109/TNSM.2023.3328770.
- [J4] N. I. Miridakis, E. T. Michailidis, A. Michalas, E. Skondras, **D. J. Vergados**, and D. D. Vergados. "Performance of uplink NOMA with user mobility under short packet transmission." In: *Springer Wireless Personal Communications* 122.3 (Feb. 2022), pp. 2273–2283.
- [J5] N. Efthymiopoulos, P. Makris, G. Tsaousoglou, K. Steriotis, **D. J. Vergados**, A. Khaksari, L. Herre, V. Lacort, G. Martinez, E. L. Lorente, et al. "FLEXGRID—A novel smart grid architecture that facilitates high-RES penetration through innovative flexibility markets towards efficient stakeholder interaction." In: *Open Research Europe* 1.128 (Oct. 2021), p. 128.
- [J6] E. T. Michailidis, N. I. Miridakis, A. Michalas, E. Skondras, **D. J. Vergados**, and D. D. Vergados. "Energy Optimization in Massive MIMO UAV-Aided MEC-Enabled Vehicular Networks." In: *IEEE Access* 9 (Aug. 2021), pp. 117388–117403.
- [J7] E. T. Michailidis, N. I. Miridakis, A. Michalas, E. Skondras, and **D. J. Vergados**. "Energy optimization in dual-RIS UAV-aided MEC-enabled internet of vehicles." In: *MDPI Sensors* 21.13 (July 2021), p. 4392.
- [J8] E. Skondras, E. T. Michailidis, A. Michalas, **D. J. Vergados**, N. I. Miridakis, and D. D. Vergados. "A network slicing framework for uav-aided vehicular networks." In: *MDPI Drones* 5.3 (July 2021), p. 70.
- [J9] E. Skondras, A. Michalas, **D. J. Vergados**, E. T. Michailidis, N. I. Miridakis, and D. D. Vergados. "Network Slicing on 5G Vehicular Cloud Computing Systems." In: *MDPI Electronics* 10.12 (June 2021), p. 1474.
- [J10] **D. J. Vergados**, K. Kralevska, Y. Jiang, and A. Michalas. "Local voting: A new distributed bandwidth reservation algorithm for 6TiSCH networks." In: *Elsevier Computer Networks* 180 (Oct. 2020), p. 107384.
- [J11] I. Mamounakis, N. Efthymiopoulos, **D. J. Vergados**, G. Tsaousoglou, P. Makris, and E. M. Varvarigos. "A pricing scheme for electric utility's participation in day-ahead and real-time flexibility energy markets." In: *IEEE Journal of Modern Power Systems and Clean Energy* 7.5 (Sept. 2019), pp. 1294–1306.

- [J12] I. Mamounakis, N. Efthymiopoulos, P. Makris, **D. J. Vergados**, G. Tsaousoglou, and E. M. Varvarigos. "A novel pricing scheme for managing virtual energy communities and promoting behavioral change towards energy efficiency." In: *Elsevier Electric Power Systems Research* 167 (Feb. 2019), pp. 130–137.
- [J13] **D. J. Vergados**, N. Amelina, Y. Jiang, K. Kravlevska, and O. Granichin. "Toward optimal distributed node scheduling in a multihop wireless network through local voting." In: *IEEE Transactions on Wireless Communications* 17.1 (Oct. 2017), pp. 400–414.
- [J14] V. Gkamas, K. Christodoulouopoulos, **D. J. Vergados**, and E. Varvarigos. "Energy – minimized design of IP over flexible optical networks." In: *Wiley International Journal of Communication Systems* 30.7 (May 2017), e3032.
- [J15] **D. J. Vergados**, I. Mamounakis, P. Makris, and E. Varvarigos. "Prosumer clustering into virtual microgrids for cost reduction in renewable energy trading markets." In: *Elsevier Sustainable Energy, Grids and Networks* 7 (Sept. 2016), pp. 90–103.
- [J16] **D. J. Vergados**, A. Michalas, A. Sgora, D. D. Vergados, and P. Chatzimisios. "FDASH: A fuzzy-based MPEG/DASH adaptation algorithm." In: *IEEE Systems Journal* 10.2 (June 2015), pp. 859–868.
- [J17] N. Amelina, A. Fradkov, Y. Jiang, and **D. J. Vergados**. "Approximate consensus in stochastic networks with application to load balancing." In: *IEEE Transactions on Information Theory* 61.4 (Apr. 2015), pp. 1739–1752.
- [J18] A. Sgora, **D. J. Vergados**, and D. D. Vergados. "A survey of TDMA scheduling schemes in wireless multihop networks." In: *ACM Computing Surveys (CSUR)* 47.3 (Apr. 2015), pp. 1–39.
- [J19] I. Lykourantzou, **D. J. Vergados**, and Y. Naudet. "Improving wiki article quality through crowd coordination: A resource allocation approach." In: *IGI International Journal on Semantic Web and Information Systems (IJSWIS)* 9.3 (July 2013), pp. 105–125.
- [J20] **D. J. Vergados** and G. I. Stassinopoulos. "Adaptive duty cycle control for optimal stochastic energy harvesting." In: *Springer Wireless personal communications* 68.1 (Jan. 2013), pp. 201–212.
- [J21] **D. J. Vergados**, A. Sgora, D. D. Vergados, D. Vouyioukas, and I. Anagnostopoulos. "Fair TDMA scheduling in wireless multihop networks." In: *Springer Telecommunication Systems* 50.3 (July 2012), pp. 181–198.
- [J22] I. Lykourantzou, **D. J. Vergados**, and A. Napoli. "Collective intelligence-based resource allocation to optimise knowledge and innovation harnessing in corporate environments." In: *Inderscience International Journal of Organisational Design and Engineering* 3 2.2 (June 2012), pp. 167–188.
- [J23] **D. J. Vergados**, D. D. Vergados, and M. Koutsogiannaki. "Capacity optimization in TDMA ad-hoc networks." In: *Springer Wireless Personal Communications* 62.3 (Feb. 2012), pp. 687–713.
- [J24] I. Lykourantzou, **D. J. Vergados**, E. Kapetanios, and V. Loumos. "Collective Intelligence Systems: Classification and Modeling." In: *Academy Publisher Journal of emerging technologies in web intelligence* 3.3 (Dec. 2011), pp. 217–226.
- [J25] I. Lykourantzou, K. Papadaki, **D. J. Vergados**, D. Polemi, and V. Loumos. "CorpWiki: A self-regulating wiki to promote corporate collective intelligence through expert peer matching." In: *Elsevier Information Sciences* 180.1 (Jan. 2010), pp. 18–38.
- [J26] **D. J. Vergados**, D. D. Vergados, and C. Douligeris. "DPS: An architecture for VBR scheduling in IEEE 802.11 e HCCA networks with multiple access points." In: *Springer Mobile Networks and Applications* 14.6 (Dec. 2009), pp. 744–759.
- [J27] N. A. Pantazis, **D. J. Vergados**, D. D. Vergados, and C. Douligeris. "Energy efficiency in wireless sensor networks using sleep mode TDMA scheduling." In: *Elsevier Ad Hoc Networks* 7.2 (Mar. 2009), pp. 322–343.

- [J28] **D. J. Vergados**, N. A. Pantazis, and D. D. Vergados. "Energy-efficient route selection strategies for wireless sensor networks." In: *Springer Mobile Networks and Applications* 13.3 (Aug. 2008), pp. 285–296.
- [J29] D. D. Vergados, **D. J. Vergados**, C. Douligeris, and S. L. Tombros. "QoS-aware TDMA for end-to-end traffic scheduling in ad hoc networks." In: *IEEE Wireless Communications* 13.5 (Oct. 2006), pp. 68–74.

## A.2. Publications in Book Chapters

- [B1] A. Chilwan, N. Amelina, Z. Mao, Y. Jiang, and **D. J. Vergados**. "Consensus Based Report-Back Protocol for Improving the Network Lifetime in Underwater Sensor Networks." In: *Advances in Communication Networking*. Ed. by Y. Kermarrec. Cham: Springer International Publishing, 2014, pp. 26–37. ISBN: 978-3-319-13488-8.
- [B2] A. Sgora, **D. J. Vergados**, and D. D. Vergados. "Efficient Fair TDMA Scheduling In Wireless Multi-Hop Networks." In: *Artificial Intelligence and Innovations 2007: from Theory to Applications*. Ed. by C. Boukis, A. Pnevmatikakis, and L. Polymenakos. Boston, MA: Springer US, 2007, pp. 279–286. ISBN: 978-0-387-74161-1.
- [B3] N. A. Pantazis, **D. J. Vergados**, and D. D. Vergados. "Increasing Intelligent Wireless Sensor Networks Survivability by Applying Energy-Efficient Schemes." In: *Artificial Intelligence Applications and Innovations - AIAI 2006*. Ed. by I. Maglogiannis, K. Karpouzis, and M. Bramer. Boston, MA: Springer US, 2006, pp. 657–664. ISBN: 978-0-387-34224-5.

## A.3. Publications in International Scientific Conferences

- [C1] T. Dimitriou, E. Skondras, C. Hitiris, C. Gkola, I. S. Papapanagiotou, **D. J. Vergados**, G. Fasoula, S. Koumantakis, A. Michalas, and D. D. Vergados. "Study of Dimensionality Reduction and Clustering Machine Learning Algorithms for the Analysis of Ship Engine Data." In: *16th EAI International Conference on Wireless Internet (EAI WiCON 2023)*. Ed. by L. A. Maglaras and C. Douligeris. Vol. 527. Piraeus, Greece: Springer Nature Switzerland, Dec. 2023, pp. 82–96. ISBN: 978-3-031-58053-6.
- [C2] T. Dimitriou, E. Skondras, C. Hitiris, C. Gkola, I. S. Papapanagiotou, **D. J. Vergados**, S. I. Papapanagiotou, S. Koumantakis, A. Michalas, and D. D. Vergados. "Supervised Machine Learning Algorithms for the Analysis of Ship Engine Data." In: *16th EAI International Conference on Wireless Internet (EAI WiCON 2023)*. Ed. by L. A. Maglaras and C. Douligeris. Vol. 527. Piraeus, Greece: Springer Nature Switzerland, Dec. 2023, pp. 97–109. ISBN: 978-3-031-58053-6.
- [C3] T. Dimitriou, E. Skondras, C. Hitiris, C. Gkola, I. S. Papapanagiotou, **D. J. Vergados**, C. Vergopoulos, S. Koumantakis, A. Michalas, and D. D. Vergados. "Ship Engine Data Analysis for the Application of Machine Learning Algorithms." In: *8th South-East Europe Design Automation, Computer Engineering, Computer Networks and Social Media Conference (SEEDA-CECNSM 2023)*. Piraeus, Greece, Nov. 2023, pp. 1–6. DOI: 10.1109/SEEDA-CECNSM61561.2023.10470590.
- [C4] L. Mitsiou, S. Trevlakis, A. Tsiolas, **D. J. Vergados**, A. Michalas, and A.-A. A. Boulogeorgos. "Can graph neural network-based detection mitigate the impact of hardware imperfections?" In: *International Balkan Conference on Communications and Networking (BalkanCom 2023)*. Istanbul, Turkey, June 2023. DOI: 10.1109/BalkanCom58402.2023.10167895.

- [C5] K. Seklos, N. Efthymiopoulos, A. Michalas, T. Dimitriou, **D. J. Vergados**, and D. D. Vergados. "Distribution grid compatible renewable energy through optimal exploitation of bottom up flexibility." In: *14th International Conference on Information, Intelligence, Systems and Applications (IISA 2023)*. IEEE. Volos, Greece, June 2023, pp. 1–7.
- [C6] N. Efthymiopoulos, K. Steriotis, P. Makris, G. Tsaousoglou, K. Seklos, K. Smpoukis, M. Efthymiopoulou, **D. J. Vergados**, and E. Varvarigos. "Flexgrid - development and comparison of distribution network flexibility market architectures." In: *The 26th International Conference and Exhibition on Electricity Distribution (CIRED 2021)*. Geneva, Switzerland: IET Digital Library, Sept. 2021.
- [C7] G. Gkagkas, **D. J. Vergados**, and A. Michalas. "The advantage of the 5G network for enhancing the Internet of Things." In: *6th South-East Europe Design Automation, Computer Engineering, Computer Networks and Social Media Conference (SEEDA-CECNSM 2021)*. IEEE. Preveza, Greece, Sept. 2021, pp. 1–7.
- [C8] E. Skondras, A. Michalas, **D. J. Vergados**, E. T. Michailidis, and N. I. Miridakis. "A Network Slicing Algorithm for 5G Vehicular Networks." In: *12th International Conference on Information, Intelligence, Systems and Applications (IISA 2021)*. IEEE. Chania, Crete, Greece, July 2021, pp. 1–7.
- [C9] P. Makris, **D. J. Vergados**, I. Mamounakis, G. Tsaousoglou, K. Steriotis, N. Efthymiopoulos, and E. Varvarigos. "A Novel Research Algorithms and Business Intelligence Tool for Progressive Utility's Portfolio Management in Retail Electricity Markets." In: *IEEE PES Innovative Smart Grid Technologies Europe (ISGT-Europe 2019)*. IEEE. Bucharest, Romania, Sept. 2019, pp. 1–5.
- [C10] **D. J. Vergados**, K. Kravetska, A. Michalas, and D. D. Vergados. "Evaluation of HTTP/DASH adaptation algorithms on vehicular networks." In: *Global Information Infrastructure and Networking Symposium (GIIS 2018)*. IEEE. Thessaloniki, Greece, Oct. 2018, pp. 1–5.
- [C11] P. Makris, N. Efthymiopoulos, **D. J. Vergados**, E. Varvarigos, V. Nikolopoulos, J. Pappagiannis, A. Pomazanskyi, B. Irmischer, K. Stefanov, K. Pancheva, et al. "SOCIALENERGY: a gaming and social network platform for evolving energy markets' operation and educating virtual energy communities." In: *5th IEEE International Energy Conference (ENERGYCON 2018)*. IEEE. Limassol, Cyprus, June 2018, pp. 1–6.
- [C12] I. Mamounakis, N. Efthymiopoulos, G. Tsaousoglou, **D. J. Vergados**, P. Makris, and E. Varvarigos. "A novel pricing scheme for virtual communities towards energy Efficiency." In: *5th IEEE International Energy Conference (ENERGYCON 2018)*. IEEE. Limassol, Cyprus, June 2018, pp. 1–6.
- [C13] K. Kravetska, **D. J. Vergados**, Y. Jiang, and A. Michalas. "A load balancing algorithm for resource allocation in IEEE 802.15. 4e networks." In: *23rd IEEE International Conference on Pervasive Computing and Communications Workshops (PerCom Workshops 2025)*. IEEE. Athens, Greece, Mar. 2018, pp. 675–680.
- [C14] I. Mamounakis, **D. J. Vergados**, P. Makris, and E. Varvarigos. "Communication costs versus smart grid system performance for energy prosumers' participation in liberalized electricity markets: A trade-off analysis." In: *XXXIInd General Assembly and Scientific Symposium of the International Union of Radio Science (URSI GASS 2017)*. IEEE. Montreal, Canada, Aug. 2017, pp. 1–4.
- [C15] I. Mamounakis, **D. J. Vergados**, P. Makris, E. Varvarigos, and N. D. Doulamis. "Renewable energy prosumers clustering towards target aggregated prosumption profiles based on recursive predictions." In: *12th IEEE Power and Energy Society PowerTech Conference (POWERTECH 2017)*. IEEE. Manchester, UK, June 2017, pp. 1–6.
- [C16] **D. J. Vergados**, N. Amelina, Y. Jiang, K. Kravetska, and O. Granichin. "Local voting: Optimal distributed node scheduling algorithm for multihop wireless networks." In: *IEEE*

- Conference on Computer Communications Workshops (INFOCOM WKSHPS 2017)*. IEEE. Atlanta, GA, USA, May 2017, pp. 1014–1015.
- [C17] G. Sauba, J. Van Der Burgt, M. Varvarigos, P. Makris, I. Mamounakis, and **D. J. Vergados**. “VIMSEN—New energy management tool for RES aggregators.” In: *IEEE International Conference on Emerging Technologies and Innovative Business Practices for the Transformation of Societies (EmergiTech 2016)*. IEEE. Mauritius, Aug. 2016, pp. 124–129.
- [C18] I. Mamounakis, **D. J. Vergados**, P. Makris, and E. Varvarigos. “A virtual microgrid aggregator platform for distributed and small-scale RES prosumers’ management.” In: *IEICE Information and Communication Technology Forum (ICTF 2016)*. Patras, Greece, July 2016, pp. 6–8.
- [C19] I. Mamounakis, **D. J. Vergados**, P. Makris, E. Varvarigos, and T. Mavridis. “A virtual microgrid platform for the efficient orchestration of multiple energy prosumers.” In: *19th Panhellenic Conference on Informatics (PCI 2015)*. Athens, Greece, Oct. 2015, pp. 191–196.
- [C20] **D. J. Vergados**, A. Michalas, A. Sgora, and D. D. Vergados. “A fuzzy controller for rate adaptation in MPEG-DASH clients.” In: *25th Annual IEEE International Symposium on Personal, Indoor, and Mobile Radio Communication (PIMRC 2014)*. IEEE. Washington DC, USA, Sept. 2014, pp. 2008–2012.
- [C21] **D. J. Vergados**, A. Michalas, A. Sgora, and D. D. Vergados. “A control-based algorithm for rate adaption in MPEG-DASH.” In: *5th International Conference on Information, Intelligence, Systems and Applications (IISA 2014)*. IEEE. Chania, Crete, Greece, July 2014, pp. 438–442.
- [C22] I. Lykourantzou, **D. J. Vergados**, K. Papadaki, and Y. Naudet. “Guided crowdsourcing for collective work coordination in corporate environments.” In: *5th International Conference on Computational Collective Intelligence (ICCCI 2013)*. Springer, Berlin, Heidelberg. Craiova, Romania, Sept. 2013, pp. 90–99.
- [C23] I. Lykourantzou, W. Mtalaa, **D. J. Vergados**, and Y. Naudet. “Guiding wiki crowds through resource scheduling.” In: *6th Multidisciplinary International Scheduling Conference on Theory and Applications (MISTA 2013)*. Ghent, Belgium, Aug. 2013, pp. 27–30.
- [C24] **D. J. Vergados**, A. Sgora, A. Michalas, D. D. Vergados, J.-P. Laulajainen, and Y. Jiang. “A QoE-driven adaptation scheme for video content delivery in LTE networks.” In: *The Tenth International Symposium on Wireless Communication Systems (ISWCS 2013)*. VDE. Ilmenau, Germany, Aug. 2013, pp. 1–5.
- [C25] I. Lykourantzou and **D. J. Vergados**. “Optimizing Crowd Performance through Collective Intelligence-Based System Design: An Application on Social Network Information Diffusion.” In: *Seventh International Workshop on Semantic and Social Media Adaptation and Personalization (SMAP 2012)*. IEEE. Luxembourg, Luxembourg, Dec. 2012, pp. 17–22.
- [C26] **D. J. Vergados**, A. Michalas, A. Sgora, and D. D. Vergados. “An adaptive video transmission algorithm to improve quality of experience over lte access networks.” In: *16th Panhellenic Conference on Informatics (PCI 2012)*. IEEE. Piraeus, Greece, Oct. 2012, pp. 240–244.
- [C27] K. Magklara, A. Sgora, D. D. Vergados, and **D. J. Vergados**. “QoE-Based Scheduling in WiMAX Networks.” In: *Signal Processing and Multimedia Applications (SIGMAP)*. Rome, Italy, July 2012, pp. 369–373.
- [C28] I. Lykourantzou, **D. J. Vergados**, and A. Napoli. “Collective intelligence based algorithms for the coordination and harnessing of the corporate crowd’s innovation potential.” In: *Collaborative Innovation Networks Conference (COINs 2011)*. Basel, Switzerland, Oct. 2011.

- [C29] **D. J. Vergados**, A. Sgora, D. D. Vergados, and P. Chatzimisios. "Joint per-flow scheduling and routing in wireless multihop networks." In: *IEEE Symposium on Computers and Communications (ISCC 2011)*. IEEE. Kerkyra (Corfu), Greece, June 2011, pp. 213–217.
- [C30] **D. J. Vergados**, A. Sgora, and D. D. Vergados. "Energy and throughput efficiency in wireless multihop networks." In: *IEEE Global Telecommunications Conference Workshops (IEEE Globecom Workshops 2010)*. IEEE. Miami, Florida, USA, Dec. 2010, pp. 1276–1280.
- [C31] **D. J. Vergados**, I. Lykourantzou, and E. Kapetanios. "A resource allocation framework for collective intelligence system engineering." In: *International Conference on Management of Emergent Digital EcoSystems (MEDES'10)*. Bangkok, Thailand, Oct. 2010, pp. 182–188.
- [C32] D. Kandris, **D. J. Vergados**, D. D. Vergados, and A. Tzes. "A routing scheme for congestion avoidance in wireless sensor networks." In: *6th IEEE Conference on Automation Science and Engineering (CASE 2010)*. Toronto, Canada, Aug. 2010.
- [C33] I. Lykourantzou, **D. J. Vergados**, and V. Loumos. "Collective intelligence system engineering." In: *International Conference on Management of Emergent Digital Ecosystems (MEDES'09)*. Lyon, France, Oct. 2009, pp. 134–140.
- [C34] **D. J. Vergados**, M.-Y. Manolaraki, and D. D. Vergados. "Evaluation of broadcast scheduling algorithms for ad-hoc TDMA networks." In: *1st International Conference on Wireless Communication, Vehicular Technology, Information Theory and Aerospace & Electronic Systems Technology (Wireless VITAE 2009)*. IEEE. Aalborg, Denmark, May 2009, pp. 394–398.
- [C35] N. A. Pantazis, D. D. Vergados, N. I. Miridakis, and **D. J. Vergados**. "Power control schemes in wireless sensor networks for homecare e-health applications." In: *1st international conference on Pervasive Technologies Related to Assistive Environments (PETRA 2008)*. Athens, Greece, July 2008, pp. 1–8.
- [C36] **D. J. Vergados**, N. A. Pantazis, D. D. Vergados, and C. Douligeris. "Topological Dependence and Fault Tolerance in TDMA Based Power Conservation for WSNs." In: *International Conference on Wireless Information Networks and Systems (WINSYS 2008)*. Porto, Portugal, July 2008, pp. 53–58.
- [C37] A. Sgora, **D. J. Vergados**, and D. D. Vergados. "On per-flow fairness and scheduling in wireless multihop networks." In: *IEEE International Conference on Communications Workshops (ICC Workshops 2008)*. IEEE. Beijing, China, May 2008, pp. 217–221.
- [C38] A. Sgora, **D. J. Vergados**, D. D. Vergados, I. Tinnirello, I. Anagnostopoulos, and D. Vouyioukas. "Joint routing and per-flow fairness in wireless multihop networks." In: *3rd International Symposium on Wireless Pervasive Computing (ISWPC 2008)*. IEEE. Santorini, Greece, May 2008, pp. 707–711.
- [C39] D. D. Vergados, **D. J. Vergados**, A. Sgora, D. Vouyioukas, and I. Anagnostopoulos. "Enhancing fairness in wireless multi-hop networks." In: *3rd international conference on Mobile multimedia communications (MobiMedia '07)*. Nafpaktos, Greece, Aug. 2007, pp. 1–6.
- [C40] **D. J. Vergados**, N. A. Pantazis, and D. D. Vergados. "Enhanced route selection for energy efficiency in wireless sensor networks." In: *3rd international conference on Mobile multimedia communications (MobiMedia '07)*. Nafpaktos, Greece, Aug. 2007, pp. 1–6.
- [C41] **D. J. Vergados**, M. Koutsogiannaki, D. D. Vergados, V. Loumos, and N. Pantazis. "Enhanced End-to-End TDMA for wireless ad-hoc networks." In: *12th IEEE Symposium on Computers and Communications (ISCC 2007)*. IEEE. Aveiro, Portugal, July 2007, MW–39.
- [C42] **D. J. Vergados**, M. Koutsogiannaki, and D. D. Vergados. "Optimizing end-to-end TDMA scheduling in ad-hoc networks on random topologies." In: *6th Mediterranean Ad Hoc Networking Workshop (Med-Hoc-Net 2007)*. Vol. 71. Corfu, Greece, June 2007, p. 78.



- [C43] **D. J. Vergados**, D. D. Vergados, and I. Maglogiannis. "Applying wireless diffserv for qos provisioning in mobile emergency telemedicine." In: *49th IEEE Global Telecommunications Conference IEEE (IEEE Globecom 2006)*. IEEE. San Francisco, USA, Nov. 2006, pp. 1–5.
- [C44] D. D. Vergados, D. Vouyioukas, N. A. Pantazis, I. Anagnostopoulos, **D. J. Vergados**, and V. Loumos. "Decision support algorithms and optimization techniques for personal homecare environment." In: *6th International Special Topic Conference on Information Technology In Biomedicine (ITAB 2006)*. Ioannina, Greece, Oct. 2006.
- [C45] **D. J. Vergados**, D. D. Vergados, and N. Pantazis. "An Energy Efficiency Scheme for Wireless Sensor Networks." In: *International Conference on Telecommunications & Multimedia (TEMU 2006)*. Heraklion, Crete, Greece, July 2006.
- [C46] N. A. Pantazis, D. D. Vergados, and **D. J. Vergados**. "Power control schemes in tactical wireless sensor networks." In: *12th European Wireless Conference 2006-Enabling Technologies for Wireless Multimedia Communications (EW 2006)*. VDE. Athens, Greece, Apr. 2006, pp. 1–7.
- [C47] D. D. Vergados, **D. J. Vergados**, and C. Douligeris. "A new approach for TDMA scheduling in ad-hoc networks." In: *10th IFIP International Conference on Personal Wireless Communications (PWC'05)*. Colmar, France, Aug. 2005, pp. 279–286.
- [C48] **D. J. Vergados**, D. D. Vergados, and A. Sgora. "Jitter analysis of the IEEE 802.11 DCF access mode." In: *61st IEEE Vehicular Technology Conference (VTC2005-Spring)*. Vol. 2. IEEE. Stockholm, Sweden, May 2005, pp. 1342–1345.
- [C49] D. D. Vergados, C. Gizelis, and **D. J. Vergados**. "The 3G wireless technology in tactical communication networks." In: *60th IEEE Vehicular Technology Conference (VTC2004-Fall)*. Vol. 7. IEEE. Los Angeles, CA, USA, Sept. 2004, pp. 4883–4887.
- [C50] D. D. Vergados and **D. J. Vergados**. "Synchronization of multiple access points in the IEEE 802.11 point coordination function." In: *60th IEEE Vehicular Technology Conference (VTC2004-Fall)*. Vol. 2. IEEE. Los Angeles, CA, USA, Sept. 2004, pp. 1073–1077.