Curriculum Vitae

Dr. Nikolaos Dimokas

A. Personal	
Name:	Nikolaos
Surname:	Dimokas
Father name:	Christos
Mother name:	Apostolina
Date of birth:	26/04/1978
Place of birth:	Giannitsa
Nationality:	Greek
Marital status:	Married, children 2
Address:	Alexandrou Delmouzou, Kastoria
e-mail:	ndimokas@uowm.gr

B. EDUCATION

- Ph.D. in Computer Science (Excellent),
  Department of Informatics, Aristotle University, Thessaloniki, Greece.
  January 2006 to April 2009. Degree awarded in February 2010.
  Thesis title: Efficient Data Retrieval in Distributed Wireless Sensor Networks.
  Advisor: prof. Yannis Manolopoulos.
- M.Sc. in Computer Science,
  Computer Science Department, University of Crete, Heraklion, Greece.
  February 2002 to March 2004. Degree awarded in July 2004.
  Thesis title: Data Management and Sharing in Peer-to-Peer Networks.
  Advisor: prof. Dimitris Plexousakis.
- B.Sc. in Computer Science,
  Computer Science Department, University of Crete, Heraklion, Greece.
  September 1996 to June 2001. Degree granted in December 2001.
  Thesis title: Design and implementation of a multithreaded server.
  Advisor: prof. Dimitris Plexousakis.

C. LANGUAGE CERTIFICATES

- English Language Certificate.   Knowledge: Good
- German Language Certificate.   Knowledge: Good

D. PROFESSIONAL EXPERIENCE

- From 09/2020 to 12/2022 I worked as a collaborating faculty member at Hellenic Institute of Transport of the Centre for Research and Technology Hellas with participation in the following research projects:
    - *Modify Drivers' behaviour to Adapt for Lower Emissions (MODALES)*. Funded by European Commission. MODALES proposes a user-centric approach to addressing all of the challenges which on the one hand enhance low-emission practices and on the other hand suppress high-emission behaviour by researching, developing and testing a number of innovative and complementary solutions in four key areas (namely, Driver, Retrofits, EOBD and Inspection) in order to substantially reduce vehicle emissions from three main sources (i.e. powertrain, brake wear and tyre wear).
    - *Nanoparticle Emissions from the transport sector: Health and policy impacts (nPETS)*. Funded by European Commission. nPETS aims to study the life of the sub 100 nm emissions from its creation to its potential path to human beings and animals. nPETS contributes to better public health policies by developing new knowledge in the area of transport generated nanoparticle emissions and their toxicology. The project develops innovative methods for quantification of toxicity in the field for all transport modes. Today there are no existing methods for measuring these sub 100 nm particle emissions from various individual sources. An average of 50% reduction in sub 100 nm particle number is expected due to a better understanding of the emission sources per transport mode.
    - *PracticAl and Effective tools to moNitor and Assess CommErciAl drivers fitness to drive (PANACEA)*. Funded by European Commission. PANACEA aims to develop a holistic pre-, during and roadside monitoring and assessment system of driving ability. Additionally, it creates a way to assess physical, cognitive, and physiological Fitness-to-Drive (commercial drivers). PANACEA project aims also to deliver cloud-based countermeasures and coaching tools to deploy solutions to drivers, operators, and enforcement.
- From 10/2011 to 06/2020 I worked as a post doctoral researcher at Hellenic Institute of Transport of the Centre for Research and Technology Hellas with participation in the following research projects:
    - *My TRAvel Companion (MyTRAC)*. Funded by European Commission.
    - *Optimal fuel consumption with Predictive PowerTrain control and calibration for intelligent Truck (OPTITRUCK)*. Funded by European Commission.
    - *Adaptive ADAS to support incapacitated drivers Mitigate Effectively risks through tailor made HMI under automation (ADAS&ME)*. Funded by European Commission.
    - *Open social transport network for urban approach to carpooling (SocialCar)*. Funded by European Commission.
    - *INdependent LIving support Functions for the Elderly (INLIFE)*. Funded by European Commission.
    - *Cloud Platforms lead to open and universal access for people with disabilities and for all (Cloud4All)*. Funded by European Commission
    - *Interdisciplinary Research Collaboration (CERTH) in the field of Energy and Environment (KRIPIS)*. Funded by Greek General Secretariat for Research and Technology

- *Remote health and social care for independent living of isolated elderly with chronic conditions (REMOTE)*. Funded by European Commission
- *UNIVERsal open platform and reference Specification for Ambient Assisted Living (universAAL)*. Funded by European Commission
- *Remote health and social care for independent living of isolated elderly with chronic conditions (REMOTE)*. Funded by European Commission

- From 03/2007 to 03/2008 I worked as a research and development engineer at the Department of Informatics of Aristotle University of Thessaloniki with participation in the project:
  - Reforming the course programme of the Department of Informatics. Funded by Greek General Secretariat for Research and Technology.
- From 12/2006 to 12/2007 I worked as a research and development engineer at the Virtual Trip ltd with participation in many commercial projects.
- From 10/2005 to 12/2006 I worked as a research and development engineer at the Department of Informatics of Aristotle University of Thessaloniki with participation in the project:
  - Data Management in Mobile Ad Hoc Networks. Funded by Greek General Secretariat for Research and Technology.
- From 08/2001 to 12/2005 I worked as a research and development engineer at the Institute of Computer Science of the Foundation of Research and Technology Hellas with participation in the projects:
  - *Cyclades*. An Open Collaborative Archive Environment, Funded by European Commission.
  - *Ubi Erat Lupa*. Funded by European Commission.
  - *ECTourism* - An Electronic Commerce System for the Provision of Tourism Services over Internet. Funded by Greek General Secretariat of Research and Technology.
  - *GR-Hostmaster* Domain Names.

E. TEACHING EXPERIENCE

- Since July 2020 I have been working as an Assistant Professor at the Department of Informatics, University of Western Macedonia. Courses taught:
  - Compilers
  - Computability and Complexity
  - Databases
  - Object-oriented Application Development with Java
- From 10/2019 to 06/2020 I worked as an Adjunct (contracted) Assistant Professor at the Department of Electrical and Computer Engineering, University of Western Macedonia. Courses taught:
  - Mobile Computing
  - Data Mining
  - Advanced Topics on Databases
- From 10/2018 to 06/2019 I worked as an Adjunct (contracted) Assistant Professor at the Department of Engineering Informatics and Telecommunications, University of Western Macedonia. Courses taught:
  - Mobile Computing

- Data Mining
- Advanced Topics on Databases
- From 10/2017 to 06/2018 I worked as an Adjunct (contracted) Assistant Professor at the Department of Engineering Informatics and Telecommunications, University of Western Macedonia. Courses taught:
  - Mobile Computing
  - Advanced Topics on Databases
- From 10/2015 to 02/2017 I worked as an Adjunct (contracted) Assistant Professor at the Department of Engineering Informatics and Telecommunications, University of Western Macedonia. Courses taught:
  - Mobile Computing
- From 02/2014 to 02/2015 I worked as an Adjunct (contracted) Lecturer at the Department of Engineering Informatics and Telecommunications, University of Western Macedonia. Courses taught:
  - Mobile Computing
  - Object Oriented Programming I
- From 10/2011 to 07/2012 I worked as an Adjunct (contracted) Lecturer at the Department of Engineering Informatics and Telecommunications, University of Western Macedonia. Courses taught:
  - Distributed Systems
  - Advanced Database Systems
- From 10/2010 to 06/2011 I worked as an Adjunct (contracted) Lecturer at the Department of Engineering Informatics and Telecommunications, University of Western Macedonia. Courses taught:
  - Distributed Grid Systems
  - Mobile Computing
- From 10/2010 to 07/2011 I worked as a Teaching Associate at the Department of Informatics, Technological Educational Institute of Thessaloniki. Courses taught:
  - Programming Languages II
  - Information Systems
- From 03/2010 to 07/2010 I worked as a Teaching Associate at the Department of Informatics, Technological Educational Institute of Thessaloniki. Courses taught:
  - Software Quality Assurance
  - Information Systems
- From 10/2008 to 07/2009 I worked as a Teaching Assistant at the Department of Automation, Technological Educational Institute of Thessaloniki. Courses taught:
  - Programming Languages II
  - Information Retrieval and Analysis
- From 10/2007 to 07/2008 I worked as a Teaching Assistant at the Department of Automation, Technological Educational Institute of Thessaloniki. Courses taught:
  - Programming Languages II
  - Computer applications
- From 10/2006 to 07/2007 I worked as a Teaching Assistant at the Department of Automation, Technological Educational Institute of Thessaloniki. Courses taught:
  - Programming Languages I
  - Programming Languages II

F. RESEARCH INTERESTS

My research interests lie in the area of Data Management, Databases, Information Systems and Distributed Systems. In particular, my research focuses on:
- Data Management
  - Data Management (indexing, clustering, caching, cache consistency) and Data Dissemination
- Information Systems
- Mobile Computing
- Information Retrieval
  - Social Network Analysis
- Distributed Systems over Wireless Networks (MANETs, WSNs, VANETs)
  - Data Retrieval/Dissemination in Wireless Sensor Networks, Vehicle2Vehicle communications
  - Caching, replication, prefetching
- Complex Networks Storage and Quering
- Ambient intelligence framework services and their personalization, with emphasis on elderly and disabled users

G. PUBLICATIONS

Journals and Magazines (international refereed)

[JNL08] **N. Dimokas**, D. Margaritis, M. Gaetani, K. Koprubasi, E. Bekiaris, "A Big Data Application for Low Emission Heavy Duty Vehicles", **Transport and Telecommunication Journal**, 21(4), pp. 265-274, 2020. doi: https://doi.org/10.2478/ttj-2020-0021

[JNL07] F. Diederichs, A. Knauss, M. Wilbrink, Y. Lilis, E. Chrysochoou, A. Anund, A. Bekiaris, S. Nikolaou, S. Finér, L. Zanovello, P. Maroudis, S. Krupenia, A. Absér, **N. Dimokas**, C. Apoy, J. Karlsson, A. Larsson, E. Zidianakis, A. Efa, H. Widlroither, D. Teichmann, H. Sanatnama, A. Wendemuth. "Adaptive Transitions for Automation in Cars, Trucks, Busses and Motorcycles", **IET Intelligent Transport Systems**, 2020.

[JNL06] M. Panou, K. Touliou, **N. Dimokas**, K. Kalogirou, E. Bekiaris. "A Tool for Assessing Elderly Drivers with MCI", **International Journal of Transportation Systems**, vol. 2, pp. 31-36, 2017.

[JNL05] D. Katsaros, **N. Dimokas**, L. Tassiulas, "Social Network Analysis Concepts in the Design of Wireless Ad Hoc Networks Protocols", submitted in journal the special issue of **IEEE Network magazine** on "Network Science", vol. 24, no. 6, pp. 23-29, November/December, 2010.

[JNL04] **N. Dimokas**, D. Katsaros, L. Tassiulas, Y. Manolopoulos, "High Performance, Low Complexity Cooperative Caching for Wireless Sensor Networks", **ACM Wireless Networks**, vol. 17, no. 3, pp. 717-737, April, 2011.

[JNL03] **N. Dimokas**, D. Katsaros and Y. Manolopoulos, "Cache Consistency in Wireless Multimedia Sensor Networks", **Ad Hoc Networks (Elsevier)**, Vol.8, No.2, pp.214--240, 2010.

[JNL02] **N. Dimokas**, D. Katsaros and Y. Manolopoulos, "Energy-Efficient Distributed Clustering in Wireless Sensor Networks", **Journal of Parallel and Distributed Computing (Academic Press/Elsevier)**, Vol.70, N.4, pp. 371-383, 2010.

[JNL01] **N. Dimokas**, D. Katsaros and Y. Manolopoulos, "Cooperative Caching in Wireless Multimedia Sensor Networks", **ACM Mobile Networks and Applications**, Vol.13, No.3-4, pp.337-356, Aug. 2008.

Conference Proceedings (international refereed)

[CNFe20] **N. Dimokas**, P. Spanidis, I. Tsetsinas, I. Gkragkopoulos, M. Gemou and P. Karvelis, "Cooperative Intelligent Transport Systems Solution: a Cooperative Safety Application", **Proceedings of the 7th South-East Europe Design Automation, Computer Engineering, Computer Networks and Social Media Conference (SEEDA-CECNSM)**, Ioannina, Greece, September 23-25, 2022.

[CNFe19] D. Mpouziotas, E. Mastrapas, **N. Dimokas**, P. Karvelis and E. Glavas, "Object Detection for Low Light Images", **Proceedings of the 7th South-East Europe Design Automation, Computer Engineering, Computer Networks and Social Media Conference (SEEDA-CECNSM)**, Ioannina, Greece, September 23-25, 2022.

[CNFe18] P. Dimitriadis, **N. Dimokas** and Petros Karvelis, "Safe Driving Mobile Application using Gamification", **Proceedings of the 7th South-East Europe Design Automation, Computer Engineering, Computer Networks and Social Media Conference (SEEDA-CECNSM)**, Ioannina, Greece, September 23-25, 2022.

[CNFe17] M. Louta, F. Papathanasiou, P. Damos, N. Ploskas, M. Dasygenis, T. Kyriakidis, **N. Dimokas**, V. Balafas, A. Chatzisavvas, I. Karampelia, E. Karantoumanis, N. Mantas, V. Lazaridis, I. Vandikas, K. Stergiou, P. Angelidis and E. Tsikos, "Intelligent Pesticide and Irrigation Management in Precision Agriculture: The case of VELOS Project", **Proceedings of the 10th International Conference on ICT in Agriculture, Food and Environment (HAICTA)**, Athens, Greece, September 22-25, 2022.

[CNFe16] **N. Dimokas**, D. Margaritis, S. Faye, R. Camino, O. Alankuş and E. Ozatay, "A Mobile Computing based Tool for Low-Emission Driving", **Proceedings of the 6th Conference on Sustainable Urban Mobility (CSUM)**, Skiathos, Greece, August 31 - September 2, 2022.

[CNFe15] P. Spanidis, **N. Dimokas**, M. Panou, G. Christainas, A. Salamanis and D. Kehagias, "An Innovative Mobile Application for Booking Parking Spots", **Proceedings of the 6th Conference on Sustainable Urban Mobility (CSUM)**, Skiathos, Greece, August 31 - September 2, 2022.

[CNFe14] R. Camino, S. Faye, **N. Dimokas**, D. Margaritis, "Low-Emission Driving Assistants: Experience from MODALES", **Proceedings of the 14th ITS European Congress**, Toulouse, France, May 30 – June 1, 2022.

[CNFe13] I. Symeonidis, **N. Dimokas**, I. Gragopoulos, I. Tsetsinas, E. Chrysochoou, K. Touliou, G. Valenti, F. Biral, M. Gemou, E. Bekiaris, "SAFESTRIP: Hardware in the Loop motorcycle simulator experiment for C-ITS applications", **Proceedings of the 13th International Motorcycle Conference**, Cologne, Germany, October 5-6, 2020.

[CNFe12] **N. Dimokas**, D. Margaritis, M. Gaetani, A. Favenza. A Cloud-Based Big Data Architecture for an Intelligent Green Truck. In: Nathanail E.G., Adamos G., Karakikes I. (eds) Advances in Mobility-as-a-Service Systems. CSUM 2020. **Advances in Intelligent Systems and Computing**, vol 1278. Springer, 2020.

[CNFe11] F. Diederichs, A. Knauss, M. Wilbrink, Y. Lilis, E. Chrysochoou, A. Anund, A. Bekiaris, S. Nikolaou, S. Finér, L. Zanovello, P. Maroudis, S. Krupenia, A. Absér, **N. Dimokas**, C. Apoy, J. Karlsson, A. Larsson, E. Zidianakis, A. Efa, H. Widlroither, D. Teichmann, H. Sanatnama, A. Wendemuth. "An HMI Framework for Driver/Rider States Adaptive Transitions and ADAS", **Proceedings of the 25th ITS World Congress**, Copenhagen, Denmark, September 17-21, 2018.

[CNFe10] **N. Dimokas**, K. Kalogirou, P. Spanidis, D. Kehagias. "A Mobile Application for Multimodal Trip Planning", **Proceedings of the 9th International Conference on Information, Intelligence, Systems and Applications (IISA)**, Zakynthos, Greece, July 23-25, 2018.

[CNFe09] K. Kalogirou, **N. Dimokas**, M. Tsami, D. Kehagias. "Smart Mobility Combining Public Transport with Carpooling: An iOS Application Paradigm", **Proceedings of the 16th IEEE International Conference on Smart City (SmartCity-2018)**, Exeter, UK, June 28-30, 2018.

[CNFe08] **Nikos Dimokas**, Kostas Kalogirou, Pavlos Spanidis, Evangelos Bekiaris. "Building Adaptive User Interface using Cloud Computing", **Proceedings of the Second International Conference on Computer Science, Computer Engineering, and Social Media (CSCESM)**, Lodz, Poland, September 21-23, 2015.

[CNFe07] **Nikos Dimokas**, Kostas Kalogirou, Pavlos Spanidis, Ioannis Symeonidis, Evangelos Bekiaris. "Auto-Personalization from User Needs and Preferences in Cloud Computing: A Mobile Application Paradigm", **Proceedings of the 6th International Conference on Information, Intelligence, Systems and Applications (IISA)**, Corfu, Greece, July 06-08, 2015.

[CNFe06] **Nikos Dimokas**, Dimitrios Katsaros. "Detecting Energy-Efficient Central Nodes for Cooperative Caching in Wireless Sensor Networks", **Proceedings of the 27th IEEE International Conference on Advanced Information Networking and Applications (AINA)**, Barcelona, Spain, March 25-28, 2013.

[CNFe05] **N. Dimokas**, K. Kalogirou, P. Spanidis and E. Bekiaris, "Safety and Security at Home", **Proceedings of the eChallenges Conference (e-2012)**, Lisboa, Portugal, October 2012.

[CNFe04] **N. Dimokas**, D. Katsaros, L. Tassiulas and Y. Manolopoulos, "High Performance, Low Overhead Cooperative Caching for Wireless Sensor Networks", **Proceedings of the 10th IEEE International Symposium on a World of Wireless Mobile and Multimedia Networks (WoWMoM)**, Kos Island, Greece, June 2009.

[CNFe03] **N. Dimokas**, D. Katsaros, and Y. Manolopoulos, "Cooperative Caching in Wireless Multimedia Sensor Networks", **Proceedings of the 3rd ACM SIGMM International Mobile Multimedia Communications Conference (MobiMedia)**, ACM Press, pp. 377-382, Nafpaktos, Greece, August 27-29, 2007.

[CNFe02] **N. Dimokas**, D. Katsaros and Y. Manolopoulos, "Node Clustering in Wireless Sensor Networks by Considering Structural Characteristics of the Network Graph", **Proceedings of the 4th IEEE International Conference on Information Technology : New Generations (ITNG)**, IEEE Press, pp. 122-127, Las Vegas, Nevada, USA, April 2-4, 2007.

[CNFe01] D. Katsaros, **N. Dimokas** and Y. Manolopoulos, "Generalized Indexing for Energy-Efficient Access to Partially Ordered Broadcast Data in Wireless Networks", **Proceedings of the 10th IEEE International Database Engineering and Applications Symposium (IDEAS)**, IEEE Press, pp. 89-96, Delhi, India, December 11-14, 2006.

Chapters in Books (international refereed)

[CHPe02] **N. Dimokas**, D.Katsaros, P. Bozanis and Y. Manolopoulos, "Predictive Location Tracking in Cellular and in Ad Hoc Wireless Networks", chapter in book **Mobile Intelligence: when Computational Intelligence Meets Mobile Paradigm**, (Laurence T. Yang and Agustinus Borgy Waluyo, eds.), John Wiley & Sons, Inc, chapter 8, pp.163--190, 2010.

[CHPe01] **N. Dimokas**, D. Katsaros and Y. Manolopoulos, "Cooperative Caching in Wireless Multimedia Sensor Networks", chapter in book **Cooperative Wireless Communications**, (Yan Zhang, Hsiao-Hwa Chen, Mohsen Guizani, eds.),CRC Press (Taylor & Francis Group), chapter 16, pp.371--390, 2009.

Conference Proceedings (national refereed)

[CNFg02] **N. Dimokas**, N. Mittas, A. Nanopoulos and L. Angelis, "A Prototype System for Educational Data Warehousing and Mining", **Proceedings of the 12th Panhellenic Conference on Informatics (PCI)**, Samos Island, Greece, pp.199-203, Aug 2009.

[CNFg01] Γ. Δημόκας, Κ. Κίττας, Ν. Κατσούλας, **Ν. Δημόκας**, 2007, "Βαθμονόμηση και επιβεβαίωση προσομοιώματος του μικροκλίματος του θερμοκηπίου κατά τη χειμερινή περίοδο". **Πρακτικά του 5ου Εθνικού Συνεδρίου Γεωργικής Μηχανικής, ΕΓΜΕ**, pp. 453-461.

Dissertations

[DIS03] **N. Dimokas,** "Efficient Data Retrieval in Distributed Wireless Sensor Networks", **PhD thesis**, Department of Information, Aristotle University of Thessaloniki, February 2010.

[DIS02] **N. Dimokas,** "Data sharing and management of relational data in Peer to Peer Networks", **MSc dissertation**, Computer Science Department, University of Crete, May 2004.

[DIS01] **N. Dimokas**, "Design and implementation of a multi-threaded server", **Dissertation**, Computer Science Department, University of Crete, July 2001.

H. RESEARCH VISIBILITY

Total citations (Google Scholar): **628**, h-index: 10
Total citations (Scopus): **363**, h-index: 9

I. RESEARCH DISTINCTIONS

- The following article:
  N. Dimokas, D. Katsaros, Y. Manolopoulos. "Energy-Efficient Distributed Clustering in Wireless Sensor Networks", Journal of Parallel and Distributed Computing (Academic Press/Elsevier), vol. 70, no. 4, pp. 371-383, April, 2010.
  appears in the TOP25 hottest articles list of the "Journal of Parallel and Distributed Computing (Academic Press/Elsevier)" for the following periods:
  - October-December 2009, ranked 11th,
  - January-March 2010, ranked 3rd,
  - April-June 2010, ranked 3rd,
  - July-September 2010, ranked 5th,
  - October 2009 - September 2010 (Academic Year), ranked 2nd,
  - October-December 2010, ranked 5th,
  - January-March 2011, ranked 10th,
  - April-June 2011, ranked 3rd,
  - July-September 2011, ranked 17th,
  - October-December 2011, ranked 15th,
  - January-December 2011 (full year), ranked 7th,
  - April-June 2012, ranked 17th,
  - July-September 2012, ranked 17th.
  - January-December 2012 (full year) ranked 15th,
  - Year 2008 to year 2013 ranked 15th,
  - January-March 2013 ranked 21th,

- The following article:
  N. Dimokas, D. Katsaros, Y. Manolopoulos. "Cache Consistency in Wireless Multimedia Sensor Networks", Ad Hoc Networks (Elsevier), vol. 8, no. 2, pp. 214-240, March, 2010.
  appears in the TOP25 hottest articles list of the journal "Ad Hoc Networks (Elsevier)" for the following periods:
  - October-December 2009, ranked 9th,
  - January-March 2010, ranked 22nd,
  - October 2009 - September 2010 (Academic Year), ranked 18th.

- The following article:
  D. Katsaros, N. Dimokas, L. Tassiulas, "Social Network Analysis Concepts in the Design of Wireless Ad Hoc Networks Protocols", submitted in journal the special issue of IEEE Network magazine on "Network Science", vol. 24, no. 6, pp. 23-29, November/December, 2010.

appears in the TOP10 hottest articles list of the journal "Network Magazine (IEEE)" for the following periods:

November 2010, ranked 6th,
December 2010, ranked 6th,
January 2011, ranked 3rd,
March 2011, ranked 9th,
April 2011, ranked 22nd,
June 2011, ranked 14th,
July 2011, ranked 10th.