

CURRICULUM VITAE

**Dimitrios K. Koukopoulos PhD, MSc, DIC, DEng
Computer and Informatics Engineer**

**Assistant Professor
Department of Cultural Heritage Management and New Technologies
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STUDIES

2003: *Ph.D.*

Department of Computer Engineering and Informatics, University of Patras, Greece

1999: *M.Sc. in Communications and Signal Processing*

Department of Electrical and Electronic Engineering, Imperial College of Science, Technology and Medicine, University of London, United Kingdom

1998: *Diploma of Engineering (5 years course)*

Department of Computer Engineering and Informatics, University of Patras, Greece

RESEARCH INTERESTS

- Cultural informatics
- Network quality of service with emphasis on heterogeneous multimedia networks
- Security and trust management in multimedia and cultural environments
- Algorithms
- Parallel and distributed computing
- Information systems with emphasis on management and dissemination of cultural products and activities
- E-commerce

PROFESSIONAL ACTIVITY - RESEARCH

2000 – 2003: Research and Development Computer and Informatics Engineer, Research Academic Computer Technology Institute, Greece

1998: Research and Development Computer and Informatics Engineer, Research Academic Computer Technology Institute, Greece

ACADEMIC ACTIVITY

2013-today: Assistant Professor, Department of Cultural Heritage Management and New Technologies, University of Patras

2011-2012: Visiting Lecturer for M.Sc. Thesis, M.Sc. in Graphical Arts-Multimedia, Greek Open University.

2009-2013: Lecturer, Department of Cultural Heritage Management and New Technologies, University of Western Greece

2008-2009: Lecturer, Department of Cultural Heritage Management and New Technologies, University of Ioannina

2006-2008: Assistant Professor, Department of Information Technology Applications in Management and Economics, Technological Educational Institute of Ionian Islands, Greece

2004-2007: Visiting Lecturer, Department of Cultural Heritage Management and New Technologies,
University of Ioannina

RESEARCH PROJECTS

1. *Ionian Music Archive*, 2012-2013. E.U., Greek Public Sector.
2. *Ανάπτυξη Εκπαιδευτικού Υλικού στο Τμήμα Οικολογίας και Περιβάλλοντος του ΤΕΙ Ιονίων Νήσων*, 2007. ΕΠΕΑΕΚ II.
3. *A Platform for Risk Analysis of Security Critical Systems (CORAS)*, 2003. E.U., IST.
4. *Critical Resource Sharing for Cooperation in Complex Systems (CRESCO)*, 2003. E.U., IST FET 2001-33135.
5. *NEW BET*, 2003. OPAP.
6. *CRYPTOGEN*, 2003. OPAP.
7. *Fundamental Aspects of Global Computing (FLAGS)*, 2002-2003. E.U., IST Programme FP5 IST/FET STREP Project IST 33116.
8. *Efficiency and Performance of Distributed Systems*, 2002. Public Sector, Greece-Cyprus.
9. *Time to Market Reduction via Statistical Information Management (TITOSIM)*, 2001. E.U., Growth GRD1-2000-25724.
10. *European Indicators, Cyberspace and the Science Technology System (EICSTES)*, 2001. E.U., IST.
11. *Algorithms and Complexity in Future Technologies (ALCOM-FT)*, 2000-2001. E.U., IST Programme FP5 IST/FET Project Number IST-1999-14186.
12. *An Authentication and Protection Innovative Software (ASPIS)*, 2000-2001. E.U., IST Programme.
13. *Algorithms for Mobile and Wireless Networks (ALKAD)*, 2000-2001. Public Sector, Greece.
14. *Risc Planning Process (RPP)*, 2000. E.U., Brite/EuRam.
15. *XS E-commerce Services (XS)*, 1998. Private Sector, Greece.

SELECTED PUBLICATIONS

Journals

1. D. Koukopoulos , and G. Styliaras, "Design of Trustworthy Smartphone-based Multimedia Services in Cultural Environments," *Journal of Electronic Commerce Research*, DOI 10.1007/s10660-013-9112-5, Springer, 2013.
2. D. Koukopoulos, "Instability Behaviour of Heterogeneous Multimedia Networks under Dynamic Adversarial Attacks," *Journal of Mathematical and Computer Modelling, Special Issue*, Vol. 57, pp. 2671-2684, Elsevier, 2013.
3. G. Styliaras, and D. Koukopoulos, "Educational Scenarios with Smartphones in Cultural Heritage Sites and Environments," *Journal of Educational Multimedia and Hypermedia*, Vol. 21, No.3, pp. 285-315, AACE, 2012.

4. D. Koukopoulos, and G. D. Styliaras, "Security in Collaborative Multimedia Web-based Art Projects," *Journal of Multimedia*, Vol. 5, No. 5, pp. 404-416, 2010.
5. D. Koukopoulos, "The Impact of Dynamic Adversarial Attacks on the Stability of Heterogeneous Multimedia Networks," *Journal of Computer Communications*, Vol. 33, pp. 1695-1706, 2010.
6. D. Koukopoulos, "Stability in Heterogeneous Multimedia Networks under Adversarial Attacks," *Journal of Universal Computer Science*, Vol. 14, No. 2, pp. 444-464, 2009.
7. D. Koukopoulos, M. Mavronikolas, and P. Spirakis, "Performance and Stability Bounds for Dynamic Networks," *Journal of Parallel and Distributed Computing*, Vol. 67, pp. 386-399, 2007.
8. D. Koukopoulos, M. Mavronikolas, and P. Spirakis, "The Increase of the Instability of Networks due to Quasi-Static Link Capacities," *Journal Theoretical Computer Science*, Vol. 381, pp. 44-56, 2007.
9. D. Koukopoulos, M. Mavronikolas, S. Nikolettseas, and P. Spirakis, "The Impact of Network Structure on the Stability of Greedy Protocols," *Special Issue of the Journal Theory of Computing Systems*, Vol. 38, Issue 4, pp. 425-460, 2005.
10. D. Koukopoulos, and Y. Stamatou, "A Watermarking Scheme for MP3 Audio Files," *International Journal of Signal Processing*, Vol. 2, No. 3, pp. 206-213, 2005.
11. D. Koukopoulos, "An Adversarial Construction of Instability Bounds in LIS Networks," *International Journal of Information Technology*, Vol. 2, No. 3, pp. 176-181, 2005.

Invited Journals

1. D. Koukopoulos, "Instability Behaviour of Heterogeneous Multimedia Networks," E-Letter IEEE Communications Society Multimedia Communications Technical Committee, Vol. 6, No. 3, pp. 42-44, March 2011.

Conferences

1. D. Koukopoulos, "The Impact of FIFO Compositions with Other Protocols on the Stability of Multimedia Networks Facing Dynamic Adversarial," *5th International Conference on Multimedia Information Networking and Security*, IEEE, pp. 575-578, 2013.
2. A. Balia, and D. Koukopoulos, "A Secure Collaborative Multimedia Learning Scheme in Cultural Environments," *Proc. of the 4th International Conference on Information, Intelligence, Systems and Applications*, pp. 44-48, IEEE, 2013.
3. D. Koukopoulos, and G. Styliaras, "Secure Smartphone-Based Multimedia Guiding Services in Cultural Environments" *Proc. of the 2011 3rd International Conference on Multimedia Information Networking and Security*, pp. 604-608, IEEE Computer Press, 2011.
4. D. Koukopoulos, "How Unstable can be a Heterogeneous Multimedia Network under Adversarial Attacks that Change Dynamically Link Slowdowns," *Proc. of the 2nd International Conference on Multimedia Information Networking and Security*, pp. 439-443, IEEE Computer Press, 2010.
5. D. Koukopoulos, "The Impact of Dynamic Adversarial Attacks on the Stability of Heterogeneous Multimedia Networks," *Proc. of the International Conference on Multimedia Information Networking and Security*, pp. 439-443, IEEE Computer Press, 2009.
6. D. Koukopoulos, and G. D. Styliaras, "Security in Collaborative Multimedia Art Communities," *CD-ROM Proc. of the 4th Euro-American Conference on Telematics and Information Systems*, paper 9, ACM, 2009.
7. D. Koukopoulos, "Stability of Heterogeneous Multimedia Networks Against Adversarial Attacks," *Proc. of the 3rd International Conference on Communication and Networking*, pp. 1259-1263, IEEE Computer Press, 2008.

8. D. Koukopoulos, S.D. Nikolopoulos, L. Palios, and P. Spirakis “Optimal Algorithms for Detecting Network Stability,” *Proc. of the 6th International Workshop on Algorithms and Complexity*, Vol. 4921, pp. 188-199, Springer-Verlag, 2008.
9. M. Chroni, D. Koukopoulos, and S.D. Nikolopoulos, “An Experimental Study of Stability in Heterogeneous Networks,” *Proc. of the 6th International Workshop on Experimental Algorithms*, Vol. 4525, pp. 189-202, Springer-Verlag, 2007.
10. D. Koukopoulos, and S.D. Nikolopoulos, “Heterogenous Networks Can Be Unstable at Arbitrarily Low Injection Rates,” *Proc. of the 6th International Conference on Algorithms and Complexity*, Vol. 3998, pp. 93-104, Springer-Verlag, 2006.
11. D. Koukopoulos, “The Impact of Dynamic Link Slowdowns on Network Stability,” *Proc. of the 8th International Symposium on Parallel Architectures, Algorithms and Networks*, pp. 340-345, IEEE Computer Press, 2005.
12. D. Koukopoulos, “Auction Scenarios of Cultural Products over the WWW,” *Proc. of the 10th Panhellenic Conference in Informatics*, Vol. 3746, pp. 166-176, Springer-Verlag, 2005.
13. D. Koukopoulos, M. Mavronicolas, and P. Spirakis, “Performance and Stability Bounds for Dynamic Networks,” *Proc. of the 7th International Symposium on Parallel Architectures, Algorithms and Networks*, pp. 239-246, IEEE Computer Press, 2004.
14. D. Koukopoulos, M. Mavronicolas, and P. Spirakis, “Instability of Networks with Quasi-Static Link Capacities,” *Proc. of the 10th International Colloquium on Structural Information and Communication Complexity*, Vol. 17, pp. 179-194, Carleton Scientific, 2003.
15. D. Koukopoulos, M. Mavronicolas, S. Nikolettseas, and P. Spirakis, “The Impact of Network Structure on the Stability of Greedy Protocols,” *Proc. of the 5th Italian Conference on Algorithms and Complexity*, Vol. 2653, pp. 251-263, 2003.
16. D. Koukopoulos, M. Mavronicolas, S. Nikolettseas, and P. Spirakis, “On the Stability of Compositions of Universally Stable, Greedy, Contention-Resolution Protocols,” *Proc. of the 16th International Symposium on DIStributed Computing*, Vol. 2508, pp. 88-102, Springer-Verlag, 2002.
17. D. K. Koukopoulos, and Y. C. Stamatiou, “Enhanced Security Watermarking and Authentication based on Watermark Semantics,” *CD-ROM Proc. of the 4th International Conference on Advances in Infrastructure for e-Business, e-Education, e-Science and e-Medicine on the Internet*, paper 34, IEEE Computer Press, 2002.
18. S. M. Armeni, D. Christodoulakis, D. K. Koukopoulos, and Y. C. Stamatiou, “Ethnic Aspects of Security on Information Systems,” *Proc. of the IX International Conference Crimea 2002 Electronic Resources and the Social Role of Libraries in the Future*, ReLIS:ili:crimtw:y:2002:v:1:i:1:p:2, 2002.
19. D. Koukopoulos, S. Nikolettseas, and P. Spirakis, “Stability Issues in Heterogeneous and FIFO Networks under the Adversarial Queuing Model,” *Proc. of the 8th International Conference on High Performance Computing*, Vol. 2228, pp. 3-14, 2001.
20. D. Koukopoulos, S. Nikolettseas, and P. Spirakis, “Stability Behavior of FIFO Protocol in the Adversarial Queuing Model,” *Post-Proc. of the 8th Panhellenic Conference in Informatics*, Vol. 2563, pp. 464-479, Springer-Verlag, 2001.

21. D. K. Koukopoulos, Y. C. Stamatiou, "A Compressed-Domain Watermarking Algorithm for Mpeg Layer 3," *Proc. of the Multimedia and Security Workshop at ACM Multimedia*, pp. 7-10, ACM-Press, 2001.
22. S. K. Tzelepi, D. K. Koukopoulos, and G. Pangalos, "A Flexible Content and Context-based Access Control Model for Multimedia Medical Image Database Systems," *Proc. of the Multimedia and Security Workshop at ACM Multimedia*, pp. 52-55, ACM-Press, 2001.
23. J. Diaz, D. Koukopoulos, S. Nikolettseas, M. Serna, P. Spirakis and D. Thilikos, "Stability and Non-Stability of the FIFO protocol," *Proc. of the 13th Annual ACM Symposium on Parallel Algorithms and Architectures*, pp. 48-52, ACM-Press, 2001.
24. C. Bouganis, D. Koukopoulos and D. Kalles, "A Real Time Auction System over the WWW," *Proc. of the International Conference on Communication Networks and Distributed Systems Modeling and Simulation*, pp. 31-36, 1999.

Book Chapters

1. D. Koukopoulos, "Trust and Stability in Heterogeneous Multimedia Networks," in the book *Trust Modeling and Management in Digital Environments: from Social Concept to System Development*, Ed. Yan Zhang, Information Science Reference, New York, USA, pp. 378-420, 2010.
2. D. Koukopoulos, and Y. Stamatiou, "Digital Audio Watermarking Techniques for MP3 Audio Files," in the book *Digital Audio Watermarking Techniques and Technologies: Applications and Benchmarks*, Eds. N. Cvejic, and T. Seppanen, Information Science Reference, New York, USA, pp. 205-228, 2008.

Books

- Eds. G. Styliaras, D. Koukopoulos, and F. Lazarinis, *Handbook of Research on Technologies and Cultural Heritage: Applications and Environments*, Information Science Reference, New York, USA, ISBN: 13:9781609600440, 2011.

OTHER ACADEMIC ACTIVITIES

Member of Journal Committees/Guest Editors

- Review of Mediterranean Cultural Heritage Management, TEI of Ionian Island.
- The Scientific World Journal, Hindawi Publishing Corporation, Guest Editor.

Member of Technical Program Committees

- 2013 International Conference on Multimedia Information Networking and Security (MINES 2013), China, Nov. 2013.
- 4th International Conference on Computer and Communication Technology (ICCCT 2013), India, Sept. 2013.
- 4th International Workshop on Wireless Networks and Multimedia (WNM-2013), Australia, Jul. 2013.
- 4th International Conference on Information, Intelligence, Systems and Applications (IISA 2013), Greece, Jul. 2013.

- 2013 FTRA International Conference on Advanced IT, engineering and Management, (FTRA AIM 2013) Korea, Feb. 2013.
- Communications and Information Systems Security Symposium at GlobeCom 2012, Anaheim, CA, USA, Dec. 2012.
- 3rd IEEE International Conference on Computer and Communication Technology (ICCCCT 2012), Allahabad, India, Nov. 2012.
- 2012 International Conference on Multimedia Information Networking and Security (MINES 2012), China, Nov. 2012.
- 8th IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob 2012), Spain, Oct. 2012.
- 2012 Summer FTRA International Symposium on Advances in Cryptography, Security and Applications for Future Computing (ACSA-Summer), Vancouver, Canada, June 2012.
- 2012 FTRA International Conference on Advanced IT, engineering and Management, (FTRA AIM 2012) Korea, Feb. 2012.
- 6th International Conference on Frontier of Computer Science and Technology (FCST 2011), China, Nov. 2011.
- International Conference on Computer Convergence Technology (ICCCCT 2011), Korea, Oct. 2011.
- 7th IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob 2011), China, Oct. 2011.
- 2nd IEEE International Conference on Computer and Communication Technology, India, Sept. 2011.
- 2011 FTRA International Symposium on Advances in Cryptography, Security and Applications for Future Computing (ACSA-11), Korea, Dec. 2011.
- 2011 International Conference on Multimedia Information Networking and Security (MINES 2011), China, Nov. 2011.
- 2011 IEEE 73rd Vehicular Technology Conference (VTC2011), Budapest, May 2011.
- 2010 FTRA International Symposium on Advances in Cryptography, Security and Applications for Future Computing (ACSA-10), Korea, Dec. 2010.
- 6th IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob 2010), Canada, Oct. 2010.
- 2010 International Conference on Multimedia Information Networking and Security (MINES 2010), China, Nov. 2010.
- 2009 International Conference on Multimedia Information Networking and Security (MINES 2009), China, Nov. 2009.

Special Session Chair

- Special Session co-chairs G. Styliaras, and D. Koukopoulos, “Multimedia Systems for Culture,” 4th International Conference on Information, Intelligence, Systems and Applications (IISA 2013), IEEE, Piraeus, Greece, July 2013.
- Special Session co-chairs D. Koukopoulos, and G. Styliaras, “Applications and Security in Cultural Heritage Environments,” International Conference on Multimedia Information Networking and Security (MINES 2010), IEEE, Wuhan, China, November 2010.

Member of Handbook Advisory Editorial Committee

- F. Lazarinis, S. Green, and E. Pearson, Handbook of Research on E-Learning Standards and Interoperability: Frameworks and Issues, *Information Science Reference*, New York, USA, ISBN: 13:9781609600440, 2011.

International Conferences and Journals Reviewer

- Journal of Theoretical Computer Science–TCS, Elsevier.
- Journal of Theory of Computing Systems–TOCS, Springer.
- Journal of Parallel and Distributed Computing-JPDC, Elsevier.
- Journal of Network and Computer Applications-JNCA, Elsevier.
- Wireless Personal Communications-WPC, Springer
- IEEE Journal on Selected Areas in Communications-IEEE JSAC, IEEE.
- Journal of Universal Computer Science - JUCS.
- ACM/Springer Multimedia Systems Journal.
- The Computer Journal-COMJ, Oxford Journal.
- Computer Communications Journal-JCOMCOM, Elsevier.
- International Journal of Communication Systems.
- Neurocomputing-NEWCOM, Elsevier.
- Principles of Distributed Computing-PODC.
- International Parallel and Distributed Processing Symposium-IPDPS.
- International Colloquium on Structural Information and Communication Complexity-SIROCCO 2002.
- 2013 International Conference on Multimedia Information Networking and Security-MINES 2013.
- 4th International Conference on Computer and Communication Technology-ICCCT 2013.
- 4th International Workshop on Wireless Networks and Multimedia-WNM-2013, 2013.
- 4th International Conference on Information, Intelligence, Systems and Applications -IISA 2013.
- 2013 FTRA International Conference on Advanced IT, engineering and Management-FTRA AIM 2013.
- 2012 FTRA International Conference on Advanced IT, engineering and Management- FTRA AIM 2012.
- 2012 International Conference on Multimedia Information Networking and Security -MINES 2012.
- 6th International Conference on Frontier of Computer Science and Technology-FCST2011.
- 2011 International Conference on Multimedia Information Networking and Security -MINES 2011.
- International Conference on Computer Convergence Technology-ICCCT 2011.

- 7th IEEE International Conference on Wireless and Mobile Computing, Networking and Communications-WiMob 2011.
- 2nd IEEE International Conference on Computer and Communication Technology, 2011.
- 2011 IEEE 73rd Vehicular Technology Conference-VTC2011.
- 2010 FTRA International Symposium on Advances in Cryptography, Security and Applications for Future Computing-ACSA-10.
- 2010 International Conference on Multimedia Information Networking and Security-MINES 2010.
- 6th IEEE International Conference on Wireless and Mobile Computing, Networking and Communications-WiMob 2010.
- 2009 International Conference on Multimedia Information Networking and Security -MINES 2009.

Lectures in Open Seminars

- 2013: D. Koukopoulos, “Culture and New Technologies,” Educational Seminar of Didactics to Mathematicians of Secondary Education in the Prefecture of Aitoloakarnania, Agrinio, February 2013.
- 2011: D. Koukopoulos, “Cultural Technology: Thoughts and Directions,” *Open Lectures Program 2010-2011*, Dept. Of Cultural Heritage Management and New Technologies, University of Western Greece, Agrinio, June 2011.
- 2006: D. Koukopoulos, “Algorithmic Techniques of Investigating Network Stability,” Dept. of Computer Science, University of Ioannina, Ioannina, May 2006.
- 2002: D. Koukopoulos, “On the Stability of Compositions of Universally Stable, Greedy Contention-Resolution Protocols,” CTI Seminars, Patras, October 2002.

Meeting Organisation

- Member of organizing committee of one-day meeting “Information Society-Modern trends and applications,” TEI of Ionian Islands, Lefkada 2007.

Participation in Summerschools/Seminars

- 2001: *2nd Max-Planck Advanced Course on the Foundations of Computer Science (ADFOCS2001)*, Max-Planck Institute fur Informatic, 4/9/01-8/9/01, Saarbrucken, Germany.
- 2000: *1st European Summerschool on Trends in Computer Science*, Department of Computer Science, University of Twente, 3/7/00-7/7/00, Berg En Dal, Netherlands.

Member of Scientific Associations

- Technical Chamber of Greece
- Alumni Association of Computer Engineering and Informatics Department of the Patras University, Greece
- Alumni Association of Imperial College