

## Κυπριανός Παπαδημητρίου PhD

Επισκέπτης Καθηγητής, Πανεπιστήμιο Νεάπολις Πάφου



διεύθυνση: Λεωφόρος Δανάης 2 , 8042, Πάφος

email: [k.papadimitriou@nup.ac.cy](mailto:k.papadimitriou@nup.ac.cy)

google scholar:

[https://scholar.google.gr/citations?user=z\\_PqLR4AAAAJ&hl=en&oi=ao](https://scholar.google.gr/citations?user=z_PqLR4AAAAJ&hl=en&oi=ao)

linkedin:

<https://www.linkedin.com/in/kyprianospapadimitriou/>

Έλαβε το διδακτορικό, το μεταπτυχιακό, και το δίπλωμα του από το Τμήμα Ηλεκτρονικών Μηχανικών και Μηχανικών Υπολογιστών του Πολυτεχνείου Κρήτης. Διδάσκει Αρχιτεκτονική Υπολογιστών και μαθήματα σχετικά με Υλικό Υπολογιστών (Computer Hardware). Αφού έλαβε το δίπλωμά του, εργάστηκε στη βιομηχανία στη σχεδίαση και υλοποίηση της 1ης γενιάς τεχνολογίας Bluetooth. Έλαβε χρηματοδότηση για την εμπορική αξιοποίηση της μεταπτυχιακής του έρευνας που αφορούσε την ανάπτυξη αλγορίθμων και συσκευής αναγνώρισης κινήσεων με εφαρμογή σε άτομα με κινητικά προβλήματα. Εργάστηκε ως διδακτικό προσωπικό στο Πολυτεχνείο Κρήτης, και ως επιστημονικός συνεργάτης στο Ινστιτούτο Τεχνολογίας και Έρευνας, Ηράκλειο, και στο Τεχνολογικό Εκπαιδευτικό Ινστιτούτο Κρήτης. Έχει πολλές επιστημονικές δημοσιεύσεις και 1 ευρεσιτεχνία στις ΗΠΑ. Έχει διατελέσει κριτής σε πλήθος επιστημονικών περιοδικών και συνεδρίων (ACM Transactions on Embedded Computing Systems, IEEE Transactions on VLSI Systems, IEEE Embedded Systems Letters, ELSEVIER Microelectronics Journal, IET Signal Processing, IEEE FPL, IEEE ReConFig, ARC, ReCoSoC).

### ΕΡΕΥΝΗΤΙΚΑ ΕΝΔΙΑΦΕΡΟΝΤΑ

Επικεντρώνονται στην περιοχή του Υλικού (Computer Hardware), με εξειδίκευση στην Αναδιατασσόμενη Λογική (FPGAs), Ενσωματωμένα Συστήματα, Μικροεπεξεργαστές, Επιτάχυνση Εφαρμογών, Αξιοπιστία Κυκλωμάτων, και On-Chip Διασυνδέσεις. Ένα άρθρο της διδακτορικής του έρευνας που δημοσιεύθηκε στο επιστημονικό περιοδικό ACM Transactions on Reconfigurable Technology and Systems (ACM Trets) το 2011, είναι στη λίστα των 3 άρθρων που έχουν αναφερθεί τις περισσότερες φορές σε άλλες δημοσιεύσεις (ετεροαναφορές), από την αρχή έκδοσης του περιοδικού (2008). Το ACM Trets είναι το μοναδικό επιστημονικό περιοδικό στην περιοχή της Αναδιατασσόμενης Λογικής.

### ΔΗΜΟΣΙΕΥΣΙΣ (2012-2018)

#### Άρθρα σε Επιστημονικά Περιοδικά με Κριτές

1. G. Charopoulos, I. Koidis, **K. Papadimitriou**, D. Pnevmatikatos, Run-Time Management of Systems with Partially Reconfigurable FPGAs, ELSEVIER, *Integration, the VLSI journal*, vol. 57, pp. 34-44, 2017.
2. D. Pnevmatikatos, **K. Papadimitriou**, T. Becker, P. Bohm, A. Brokalakis, K. Bruneel, C. Ciobanu, T. Davidson, G. Gaydadjiev, K. Heyse, W. Luk, X. Niu, I. Papaefstathiou, D. Pau, O. Pell, C. Pilato, M. D. Santambrogio, D. Sciuto, D. Stroobandt, T. Todman, E. Vansteenkiste, FASTER: Facilitating Analysis

- and Synthesis Technologies for Effective Reconfiguration, *ELSEVIER Journal on Microprocessors and Microsystems (MICPRO)* - Embedded Hardware Design, 39(4-5), pp. 321-338, 2015.
3. M.D. Grammatikakis, **K. Papadimitriou**, P. Petrakis, A. Papagrigoriou, G. Kornaros, I. Christoforakis, O. Tomoutzoglou, G. Tsamis, M. Coppola, Security in MPSoCs: A NoC Firewall and an Evaluation Framework, *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD)*, special issue on Hardware Security and Trust, 34(8), pp. 1344-1357, 2015.
  4. **K. Papadimitriou**, A. Dollas, S. Hauck, Performance of Partial Reconfiguration in FPGA Systems: A Survey and a Cost Model, *ACM Transactions on Reconfigurable Technology and Systems (TRETS)*, vol. 4, no. 4, pp. 36:1-36:24, December 2011 [in the top-3 cited articles of all time list of ACM TRETS].

### **Κεφάλαια Βιβλίων**

5. M. Grammatikakis, H. Ahmadian, M. Coppola, S. Kavvadias, A. Mouzakitis, **K. Papadimitriou**, A. Papagrigoriou, P. Petrakis, V. Piperaki, M. Soulié, G. Tsamis, Chip-Level Communication Services, *Book Chapter in Distributed Real-Time Architecture for Mixed-Criticality Systems*, Taylor & Francis, 2018.
6. **K. Papadimitriou**, S. Thomas, A. Dollas, An FPGA-based Real-time System for 3D Stereo Matching, Combining Absolute Differences and Census with Aggregation and Belief Propagation, *Springer Book, extended versions of selected papers (after peer-review) from the 21st IFIP/IEEE International Conference on Very Large Scale Integration (VLSI-SoC)*, pp. 168-187, 2013.

### **Εργασίες σε Πρακτικά Επιστημονικών Συνεδρίων με Κριτές**

7. S. Khan, **K. Papadimitriou**, G. Buttazzo, K. Kalaitzaikis, A Reconfigurable PID Controller, in the Proceedings of *International Symposium on Applied Reconfigurable Computing (ARC)*, Santorini, Greece, May 2018.
8. P. Petrakis, M. Abuteir, M. D. Grammatikakis, **K. Papadimitriou**, R. Obermaisser, Z. Owda, A. Papagrigoriou, M. Soulle, M. Coppola, On-Chip Networks for Mixed-Criticality Systems, in the Proceedings of *27th Annual IEEE International Conference on Application-specific Systems, Architectures and Processors (ASAP)*, London, UK, July 2016.
9. M. D. Grammatikakis, **K. Papadimitriou**, P. Petrakis, M. Coppola, M. Soulle, Address Interleaving for Low-cost NoCs, in the Proceedings of *International Symposium on Reconfigurable Communication-centric Systems-on-Chip (ReCoSoC)*, Tallinn, Estonia, June 2016.
10. G. Tsamis, S. Kavvadias, A. Papagrigoriou, M. Grammatikakis, **K. Papadimitriou**, Efficient Bandwidth Regulation at Memory Controller for Mixed Criticality Applications, in the Proceedings of *International Symposium on Reconfigurable Communication-centric Systems-on-Chip (ReCoSoC)*, Tallinn, Estonia, June 2016.
11. **K. Papadimitriou**, P. Petrakis, M. D. Grammatikakis, M. Coppola, Security Enhancements for Building Saturation-free, Low-Power NoC-based MPSoCs, in the Proceedings of *IEEE Workshop on Security and Privacy in Cybernetics (SPiCy)*, in conjunction with the *IEEE Conference on Communications and Network Security (CNS)*, pp. 594-600, Florence, Italy, September 2015.
12. G. Charitopoulos, D. Pnevmatikatos, M.D. Santambrogio, **K. Papadimitriou**, D. Pau, A Run-Time System for Partially Reconfigurable FPGAs: The case of STMicroelectronics SPEAr board, in the Proceedings of *Symposium on Parallel Computing with FPGAs (ParaFPGA)*, in conjunction with the *International Conference on Parallel Computing (ParCo)*, pp. 553-562, Edinburgh, UK, September 2015.
13. G. Charitopoulos, I. Koidis, **K. Papadimitriou**, D. Pnevmatikatos, Hardware Task Scheduling for Partially Reconfigurable FPGAs, *HiPEAC Workshop on Reconfigurable Computing (WRC)*, Amsterdam, Netherlands, January 2015.

14. M. D. Grammatikakis, **K. Papadimitriou**, P. Petrakis, A. Papagrigoriou, G. Kornaros, I. Christoforakis, M. Coppola, Security Effectiveness and a Hardware Firewall for MPSoCs, in the Proceedings of *6th IEEE International Workshop on Multicore and Multithreaded Architectures and Algorithms (M2A2)*, in conjunction with the *16<sup>th</sup> IEEE International Conference on High Performance Computing and Communications (HPCC)*, pp. 1032-1039, Paris, France, August 2014.
15. C. Vatsolakis, **K. Papadimitriou**, D. Pnevmatikatos, Enabling Dynamically Reconfigurable Technologies in Mid Range Computers Through PCI Express, *HiPEAC Workshop on Reconfigurable Computing (WRC)*, Vienna, Austria, January 2014.
16. G. Rematska, **K. Papadimitriou**, A. Dollas, A Low-Cost Embedded Real-Time 3D Stereo Matching System for Surveillance Applications, in the Proceedings of *IEEE International Symposium on Monitoring and Surveillance Research (ISMSR)*, in conjunction with the *IEEE International Conference on Bioinformatics and Bioengineering (BIBE)*, Chania, Greece, November 2013.
17. S. Thomas, **K. Papadimitriou**, A. Dollas, Architecture and Implementation of Real-Time 3D Stereo Vision on a Xilinx FPGA, in the Proceedings of *IFIP/IEEE International Conference on Very Large Scale Integration (VLSI-SoC)*, pp. 186-191, Istanbul, Turkey, October 2013 [nominated for best paper award; selected amongst 6 papers out of 249 submissions].
18. C. B. Ciobanu, **K. D. Papadimitriou**, D. N. Pnevmatikatos, G. N. Gaydadjiev, FASTER Run-Time Reconfiguration Management, in the Proceedings of *ACM 27th International Conference on Supercomputing (ICS) Oregon*, pp. 463-464, US, June 2013.
19. **K. Papadimitriou**, D. Pnevmatikatos, A. Dollas, C. Koulamas, S. Aggelidakis, P. Chatzidakis, L. Vasilikiotis, M. Emmanouilidou, Developing RFID-based Systems for Security in Marine Transportations, in the Proceedings of *Panhellenic Conference on Informatics (PCI)*, pp. 50-55, Athens, GR, October 2012.
20. D. Pnevmatikatos, T. Becker, A. Brokalakis, K. Bruneel, G. Gaydadjiev, W. Luk, **K. Papadimitriou**, I. Papaefstathiou, O. Pell, C. Pilato, M. Robart, M. D. Santambrogio, D. Sciuto, D. Stroobandt, T. Todman, FASTER: Facilitating Analysis and Synthesis Technologies for Effective Reconfiguration, in the Proceedings of *Euromicro Conference on Digital System Design (DSD)*, pp. 234-241, Cesme, Izmir, Turkey, September 2012.

#### **Εργασίες σε Πρακτικά Επιστημονικών Συνεδρίων μετά από Πρόσκληση**

21. G. Charitopoulos, I. Koidis, **K. Papadimitriou**, D. Pnevmatikatos, Hardware Task Scheduling for Partially Reconfigurable FPGAs (invited), in the Proceedings of *International Symposium on Applied Reconfigurable Computing (ARC)*, pp. 487-498, Bochum, Germany, April 2015.
22. G. Charitopoulos, **K. Papadimitriou**, D. Pnevmatikatos, Run-Time Hardware Task Scheduling for Partially Reconfigurable FPGAs, in the poster session of *International Summer School on Advanced Computer Architecture and Compilation for High-Performance and Embedded Systems (ACACES)*, July 2014.
23. D. N. Pnevmatikatos, T. Becker, A. Brokalakis, G. N. Gaydadjiev, W. Luk, **K. Papadimitriou**, I. Papaefstathiou, D. Pau, O. Pell, C. Pilato, M. D. Santambrogio, D. Sciuto, D. Stroobandt, Effective Reconfigurable Design: The FASTER Approach (invited, EU-funded projects session), in the Proceedings of *International Symposium on Applied Reconfigurable Computing (ARC)*, pp. 318-323, Vilamoura, Portugal, April 2014.
24. M. D. Santambrogio, C. Pilato, D. Pnevmatikatos, **K. Papadimitriou**, D. Stroobandt, D. Sciuto, The FASTER Vision for Designing Dynamically Reconfigurable Systems (invited), in the Proceedings of *IEEE International Conference on IC Design and Technology (ICICDT)*, pp. 5-8, Pavia, Italy, May 2013.
25. **K. Papadimitriou**, C. Pilato, D. Pnevmatikatos, M. D. Santambrogio, C. Ciobanu, T. Todman, T. Becker, X. Niu, T. Davidson, G. Gaydadjiev, W. Luk, D. Stroobandt, Novel Design Methods and a Tool

- Flow for Unleashing Dynamic Reconfiguration (invited), in the Proceedings of *IEEE/IFIP International Conference on Embedded and Ubiquitous Computing (EUC)*, pp. 391-398, Paphos, CY, December 2012.
- 26. M. D. Santambrogio, D. Pnevmatikatos, **K. Papadimitriou**, C. Pilato, G. Gaydadjiev, D. Stroobandt, T. Davidson, T. Becker, W. Luk, D. Sciuto, Smart Technologies for Effective Reconfiguration: The FASTER Approach, in the Proceedings of *IEEE International Workshop on Reconfigurable Communication-centric Systems-on-Chip (ReCoSoC)*, York, UK, July 2012.
  - 27. **K. Papadimitriou**, C. Vatsolakis, D. Pnevmatikatos, Acceleration of Computationally-Intensive Kernels in the Reconfigurable Era (invited), in the Proceedings of *IEEE International Workshop on Reconfigurable Communication-centric Systems-on-Chip (ReCoSoC)*, York, UK, July 2012.