

# John Liaperdos

Assistant Professor – Department of Digital Systems – University of the Peloponnese

## personal information

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| name           | John              |
| surname        | Liaperdos         |
| date of birth  | 19/01/1970        |
| place of birth | Sydney, Australia |

## contact information

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| postal address | University of the Peloponnese, School of Economy and Technology,<br>Department of Digital Systems, Valiotis building, Kladas, 231 00, Sparta, Greece |
| tel.           | +30 27310 82240 (ext. 507)   |
| fax            | +30 27310 82279  |
| email          | <a href="mailto:i.liaperdos@teipel.gr">i.liaperdos@teipel.gr</a>   |
| www            | <a href="https://liaperdos.gr/en">https://liaperdos.gr/en</a>  |

## education

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| 2014 | <b>PhD degree</b><br>Thesis title: <i>Testing and performance calibration techniques for integrated RF circuits</i> | National and Kapodistrian University of Athens |
| 1996 | <b>MSc degree</b><br>in Electronics and Telecommunications  | National and Kapodistrian University of Athens |
| 1993 | <b>BSc degree</b><br>in Physics   | National and Kapodistrian University of Athens |

## academic experience

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|---------------------|---|
| May 2019 – today    | <b>University of the Peloponnese, School of Economy and Technology, Department of Digital Systems</b><br><i>Assistant Professor</i>                       |
| Apr 2016 – May 2019 | <b>Technological Educational Institute of Peloponnese, School of Applied Technology, Department of Computer Engineering</b><br><i>Assistant Professor</i> |
| Jun 2013 – Apr 2016 | <b>Technological Educational Institute of Peloponnese, School of Applied Technology, Department of Computer Engineering</b><br><i>Lecturer</i>            |

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|---------------------|---|
| Aug 2008 – Jun 2013 | <b>Technological Educational Institute of Kalamata, Department of Information Technology and Telecommunications</b><br><i>Lecturer</i>      |
| Feb 2008 – Jul 2008 | <b>Technological Educational Institute of Kalamata, Department of Information Technology and Telecommunications</b><br><i>Lab Assistant</i> |

## teaching

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|                       |   |
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| undergraduate courses | <b>academic year 2018–2019</b><br>Electric circuits<br>Analog electronics<br>Digital electronics<br>Digital logic design<br>Design of analog integrated circuits<br>Design of digital integrated circuits and systems<br>Integrated circuit testing |
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## research

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### books

1. Lessons in Digital Electronics  
John Liaperdos, *Hellenic Academic Libraries Link, Sparta, 2016, ISBN: 978-960-603-510-4*  
(in Greek)
2. Introduction to Electronics  
John Liaperdos, *Hellenic Academic Libraries Link, Sparta, 2015, ISBN: 978-618-82124-8-0*  
(in Greek)
3. Electronics for Informatics and Telecommunications, Theory and Lab Experiments, Volume A': Analog Electronics  
John Liaperdos, *Sparta, 2011*  
(in Greek)

### publications

### book chapters

1. "Machine Learning in Alternate Testing of Integrated Circuits"  
J. Liaperdos, A. Arapoyanni, and Y. Tsiatouhas  
*in Machine Learning Paradigms: Applications of Learning and Analytics in Intelligent Systems*  
G. A. Tsihrintzis, M. Virvou, E. Sakkopoulos, and Lakhmi C. Jain (eds)  
*Springer International Publishing, Cham, 2019, ISBN: 978-3-030-15628-2*

### international journals

1. State Reduction for Efficient Digital Calibration of Analog/RF Integrated Circuits  
J. Liaperdos, A. Arapoyanni, and Y. Tsiatouhas  
*Analog Integrated Circuits and Signal Processing 90.1 (Jan. 2017) pp. 65–79*
2. On the Efficiency of the Shortened Error Correcting Codes  
I. Liaperdos, I. Paraskevas, and S. M. Potirakis  
*International Journal of Electrical Engineering Education 50.2 (Apr. 2013) pp. 201–212*
3. A Built-In Voltage Measurement Technique for the Calibration of RF Mixers  
J. Liaperdos, A. Arapoyanni, and Y. Tsiatouhas  
*IEEE Transactions on Instrumentation and Measurement 62.4 (Apr. 2013) pp. 732–742*

4. A Test and Calibration Strategy for Adjustable RF Circuits  
J. Liaperdos, A. Arapoyanni, and Y. Tsiatouhas  
*Analog Integrated Circuits and Signal Processing* 74.1 (Jan. 2013) pp. 175–192
5. Adjustable RF Mixers' Alternate Test Efficiency Optimization by the Reduction of Test Observables  
J. Liaperdos, A. Arapoyanni, and Y. Tsiatouhas  
*IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems* 32.9 (Sept. 2013) pp. 1383–1394
6. Automatically Updated Soundmaps as a tool for environmental monitoring: Research in progress  
I. Paraskevas, S. M. Potirakis, I. Liaperdos, and M. Rangoussi  
*Soundscape The Journal of Acoustic Ecology* 11.1 (2011) pp. 57–58
7. Development of Automatically Updated Soundmaps for the Preservation of Natural Environment  
I. Paraskevas, S. M. Potirakis, I. Liaperdos, and M. Rangoussi  
*Journal of Environmental Protection* 2 (Dec. 2011) pp. 1388–1391

### international conferences

1. Improved Alternate Test Accuracy Using Weighted Training Sets  
J. Liaperdos, A. Arapoyanni, and Y. Tsiatouhas  
*31st Conference on Design of Circuits and Integrated Systems (DCIS)*, 2016
2. Optimized Built-In Self-Calibration of RF SoCs  
J. Liaperdos, A. Arapoyanni, and Y. Tsiatouhas  
*5th International Conference on Modern Circuits and Systems Technologies (MOCAS)*, 2016
3. A Method for the Estimation of Defect Detection Probability of Analog/RF Defect-Oriented Tests  
J. Liaperdos, A. Arapoyanni, and Y. Tsiatouhas  
*18th IEEE/ACM Conference on Design, Automation and Test in Europe (DATE)*, 2015
4. Fast Deployment of Alternate Analog Test Using Bayesian Model Fusion  
J. Liaperdos, H.-G. Stratigopoulos, L. Abdallah, Y. Tsiatouhas, A. Arapoyanni, and X. Li  
*18th IEEE/ACM Conference on Design, Automation and Test in Europe (DATE)*, 2015
5. Sound-maps of Environmentally Sensitive Areas Constructed from Wireless Acoustic Sensors Network Data  
E.T. Michailidis, J. Liaperdos, N.A. Tatlas, S.M. Potirakis, and M. Rangoussi  
*5th International Conference on Materials and Applications for Sensors and Transducers (IC-MAST)*, 2015
6. A Method to Adjust the Accuracy of Analog/RF Alternate Tests  
J. Liaperdos, A. Arapoyanni, and Y. Tsiatouhas  
*28th Conference on Design of Circuits and Integrated Systems (DCIS)*, 2013
7. Testing Wireless Transceivers' RF Front-Ends Utilizing Defect-Oriented BIST Techniques  
L. Dermentzoglou, J. Liaperdos, A. Arapoyanni, and Y. Tsiatouhas  
*19th IEEE International Conference on Electronics, Circuits, and Systems (ICECS)*, 2012
8. A Test Technique and a BIST Circuit to Detect Catastrophic Faults in RF Mixers  
I. Liaperdos, L. Dermentzoglou, A. Arapoyanni, and Y. Tsiatouhas  
*6th International Conference on Design and Technology of Integrated Systems in nanoscale era (DTIS)*, 2011
9. Fault Detection in RF Mixers Combining Defect-Oriented and Alternate Test Strategies  
I. Liaperdos, L. Dermentzoglou, A. Arapoyanni, and Y. Tsiatouhas  
*26th Conference on Design of Circuits and Integrated Systems (DCIS)*, 2011
10. Building a Low-Cost Network for Power Quality Monitoring with Open-Source Hardware Nodes  
I. Liaperdos, I. Paraskevas, S. Potirakis, and M. Rangoussi  
*7th Mediterranean Conference and Exhibition on Power Generation, Transmission, Distribution and Energy Conversion (MedPower)*, 2010
11. Detection of Transient Events using the Hartley Phase Cepstrum for Improved Power Quality  
I. Paraskevas, A. Kokkosis, I. Liaperdos, and M. Rangoussi  
*7th Mediterranean Conference and Exhibition on Power Generation, Transmission, Distribution and Energy Conversion (MedPower)*, 2010
12. A High Speed Low Power CMOS Clock Driver Using Charge Recycling Technique  
I. Bouras, Y. Liaperdos, and A. Arapoyanni  
*Proc. IEEE Int. Symposium on Circuits and Systems (ISCAS)*, 2000

### national conferences

1. A Method to Reduce Misclassification Errors in Alternate Analog/RF Integrated Circuit Tests

J. Liaperdos, A. Arapoyanni, and Y. Tsiatouhas

*3rd Pan-Hellenic Conference on Electronics and Telecommunications (PACET), 2015*

2. An Alternate Test Strategy for Differential RF Mixers

I. Liaperdos, L. Dermentzoglou, A. Arapoyanni, and Y. Tsiatouhas

*2nd Pan-Hellenic Conference on Electronics and Telecommunications (PACET), 2012*

### other publications

1. A flexible hardware basis for sensor network nodes with wireless communication capabilities

S. Despotopoulos, E. Kyriakis-Bitzaros, I. Liaperdos, D. Nicolaidis, I. Paraskevas, S. Potirakis, M. Rangoussi, and N.-A. Tatlas

*International Scientific Conference eRA-7, Special Session on Smart electronic systems in sensing & control applications, 2012*

2. Pattern recognition for the development of Sound Maps for environmentally sensitive areas

S. Despotopoulos, E. Kyriakis-Bitzaros, I. Liaperdos, D. Nicolaidis, I. Paraskevas, S. Potirakis, M. Rangoussi, and N.-A. Tatlas

*International Scientific Conference eRA-7, Special Session on Smart electronic systems in sensing & control applications, 2012*

3. A distributed microelectronic system for environmental monitoring with emphasis on sound mapping

M. Rangoussi, S.M.Potirakis, N.-A.Tatlas, E.Kyriakis-Bitzaros, I.Paraskevas, and I.Liaperdos

*International Scientific Conference eRA-6, Archimedes III Session, 2011*

### projects

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| VIOLIN      | <b>Visible Light Communications (VLC) in Communications, Marketing, Transport, Logistics, Cultural and Tourist Industries</b><br>(Nov 2018 – today) |
| eSoundMaps  | <b>ARCHIMEDES III, “A Distributed Microelectronic System for Environmental Monitoring with Emphasis on Sound Mapping”</b><br>(2013 – 2015)          |
| KALAMAdaTA  | <b>Implementation of the electronic journal of the Library of TEI-Kal</b><br>(Mar 2013)   |
| EPET-II 476 | <b>Development of Industrial Microelectronics Products</b><br>(1995 – 1996)   |

## academic service

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### program committee member

- 3rd Panhellenic Conference on Electronics and Telecommunications (2015)
- 10th Panhellenic Conference of Informatics Teachers (2016)

### peer-review activities

Reviewer, journals:

- International Journal of Electronics
- Analog Integrated Circuits and Signal Processing
- Journal of Electronic Testing: Theory and Applications

Reviewer, conferences and symposia:

- IEEE European Test Symposium (2015)
- 3rd Panhellenic Conference on Electronics and Telecommunications (2015)

## positions of responsibility

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|---------------------|---|
| Sep 2016 – Nov 2017 | <b>Technological Educational Institute of Peloponnese, School of Applied Technology</b><br>Associate Dean   |
| Sep 2016 – Nov 2017 | <b>Technological Educational Institute of Peloponnese, School of Applied Technology, Department of Computer Engineering</b><br>Head of Department   |
| Sep 2008 – Aug 2011 | <b>Technological Educational Institute of Kalamata, Department of Information Technology and Telecommunications</b><br>Associate Head of Department |

## other activities

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- Member, IEEE

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July 9, 2019