

George Panotopoulos

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Summary

Broad background in Electrical Engineering. Proven ability to lead teams of technical contributors. Strong track record of innovation (10 granted/filed patents). Demonstrated ability to contribute in new areas within short periods of time.

Education

Caltech

Pasadena, CA

Jul 02 Ph.D. in Electrical Engineering
Minor: Financial Economics • GPA: 4.2/4.3
Doctoral thesis: "Holographic Information Systems"

Jun 98 M.S. in Electrical Engineering • GPA: 4.0/4.3

National Technical University of Athens

Athens, Greece

Jun 97 Diploma in Electrical and Computer Engineering • GPA: 9.6/10
Diploma thesis:
"Design, Fabrication and Characterization of a Mode Locked Fiber Laser"

Experience

Oct 06 - present

OptiSolar Hayward, CA

Senior Electrical Engineer

Lead small teams that successfully designed and brought to manufacturing

- A fully automated, high throughput photovoltaic panel test system with integrated dielectric withstand test capabilities.
- A fully automated, high throughput laser barcode marking system for photovoltaic modules

Responsible for compliance to test standards and production line integration.

Developed and implemented test methods used to troubleshoot photovoltaic module production line.

Developed analytical and simulation tools for solar plant planning and performance forecasting.

Supported modeling, measurement and data acquisition efforts for a number of development teams.

Dec 05 - Oct 06

Avago Technologies US Advanced R&D Center, San Jose, CA

Research Scientist

Lead the development of algorithms for Color Rendering Index (CRI) optimization and color-point stabilization for *Multi-color LED Solid State Illumination Systems*.

Initiated and drove interaction with Malaysia-based project team to abstract and absorb components of the existing color-point stabilization system. The new algorithms have been transferred successfully to the corresponding product division. They allow the optimization of numerous parameters beyond the color-point (e.g., CRI, power efficiency), making this the only such system affording this degree of flexibility.

Made contributions to a number of R&D projects aimed at establishing new product lines and supporting division needs, including LED light extraction enhancement, optical navigation, camera stabilization, and point-of-care diagnostics.

Dec 03- Nov 05
Aug 02-Dec 03

Agilent Laboratories, Palo Alto, CA

*Member of Technical Staff
Postdoctoral Fellow*

Lead Engineer for Optical Design and Integration for the MAUI project, a multimillion-dollar DARPA program on high-density optical interconnects for high-performance computing. Our team demonstrated the world's highest bandwidth-density optical interconnect to date. In collaboration with IBM, we also delivered a comprehensive study of the integration of optical interconnects into high-performance computer systems.

- Designed CWDM optical multiplexers, demultiplexers, and transceivers for datacom fiber link.
- Developed metrology system and code for verification of manufactured optics compliance with design specifications.
- Designed and implemented evaluation and test systems for 48-channel optical components.
- Developed and supervised implementation of cleanroom processes for optical component post-manufacture processing.
- Ensured specification compatibility across array of optical, mechanical, and electronic components of the MAUI project, whose project team comprised 5 full-time engineers, and at times involved up to 15 technical contributors.
- Supervised the development of an automated VCSEL parameter evaluation system.
- Consulted on optics aspects of projects related to chemical analysis and remote sensing, within Agilent Laboratories.

Mar 98-Jul 02

Caltech, Pasadena, CA

Research Assistant

Performed theoretical and experimental research and simulations for a number of DARPA and NSF sponsored projects:

- Designed and implemented tunable WDM filters using volume holograms.
- Demonstrated integration of VLSI chip and holographic memory in a compact module.
- Devised and characterized an algorithm for classification of cursive digits using tree-like neural networks.

Sep 01-Dec 01

Physikalisches Institut, Universität Bonn

Invited Researcher

- Measured and modeled the temperature dependence of absorption in photorefractive iron-doped lithium niobate crystals.
- Investigated the electrooptic properties of Lithium Niobate crystals at extremely high external electric fields.

Publications

Journals

6 refereed publications in the areas of optical interconnects, holography, and photorefractive materials.

Conferences

14 presentations at international conferences and workshops, 3 invited talks.

Patents

1 granted and 9 pending applications in the areas of optical interconnects, holographic communications components, remote sensing, human-machine interfaces, and solid-state illumination.

Personal

Citizenship

Greek • US Permanent resident • Unrestricted EU Employment Authorization.

Languages

Greek (native) • French (fluent) • English (fluent)