



## MARIA ANAGNOSTI

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### Professional Experience

- **Alcatel Lucent Bell Labs, Paris, France** **October 2012 – till date**  
**Position:** Research Engineer in Integrated Photonic devices for Access Networks in Telecommunications.
  - Involved with conception, modeling, fabrication, device characterization and data analysis.
  - Devices of interest are state of the art pre-amplified photo-detectors and duplexers (Transmitter/Receiver, monolithically integrated) for fiber-optic access networks in Telecommunications.
- **NTT Basic Research Laboratories, Atsugi-shi, Japan** **January 2012 - August 2012**  
**Position:** Intern  
**Project Title:** *Fabrication and optical characterization of Rare-earth doped Silicon nanostructures.*
  - Fabricated, characterized and analyzed rare earth doped Silicon nano-structures for Laser and Optical Amplifier applications.
  - Results were reported in a peer reviewed research scientific journal (AIP Advances 3, 042107 (2013)).
- **XiO Photonics, Enschede, The Netherlands** **July 2010 - September 2010**  
**Position:** Summer Intern  
**Project Title:** *Heater optimization for low power consumption in Photonic Integrated Circuits.*
  - Performed a thorough literature survey of thermally tunable micro ring resonators used as an essential structure of a medical device for fluorescence microscopy.
  - Proposed a design with patterned holes in Si substrate to optimize the thermal efficiency of the heaters.
  - Developed stationary and time dependent thermal simulations. Significant reduction in power consumption was achieved.
- **One Laptop Per Child (OLPC), Non-profit organization, Tripoli, Greece** **April 2008 - June 2008**
  - As part of the Greek team associated with the OLPC project I voluntarily participated in the design and development of learning software to be used in imparting basic science education. The mission is to provide educational opportunities for the world's poorest children by giving each child one laptop, encouraging the self-empowered learning.

### Education

- **Dual Master Degree in Photonic Engineering (EMMP)** Distinction (EQV GPA 3.5/4)  
**Kungliga Tekniska Högskolan & Ghent University, Stockholm, Sweden & Ghent, Belgium** **August 2009 - July 2011**  
**Master Thesis:** *Coplanar transmission lines for high-speed photo-detectors integrated on Silicon-on Insulator substrate.*
  - My Master's thesis was carried out within the framework of the EU-projects BOOM (Terabit-on-chip) and WADIMOS (Wavelength Division Multiplexed Photonic Layer on CMOS). The objective was to optimize the high-speed performance of the evanescent PIN detectors and CMOS processed detectors for Telecommunications.
  - Performed simulations to optimize the RF transmission lines on the silicon Photonic ICs and integrated them with the detector.
  - Successfully designed, fabricated, characterized and analyzed the devices based on the results of my simulations.
  - The results were in good agreement with my initial hypothesis and simulations. Impedance optimization of the electrical output lines of the detectors led to an increase in the cut-off frequency (> 70 GHz).

▪ **Bachelor of Science and Technology in Telecommunications**

7.5/10 (EQV GPA 3.5/4)

**University of Peloponnese (UOP), Tripoli, Greece**

**September 2005 - June 2009**

**Thesis:** *Analytical modeling and evaluation of NRZ pulse dispersion penalty.*

- Developed an analytical model to study the dispersion effects and subsequent power penalty for NRZ (Non Return to Zero) pulse propagation through a given length of fiber, taking into account the finite bandwidth of a direct detection receiver.
- Proposed model was evaluated using numerical simulations (on VPI) to obtain the dispersion values penalty for NRZ pulses.
- Results agreed considerably well with the proposed theoretical solution.

**Awards and Achievements**

- Selected, in top 3%, for the highly competitive Vulcanus program under the EU-Japan industrial cooperation agreement 2012-2013. Awarded scholarship for attending intensive Japanese course (Naganuma school Tokyo).
- Completed Masters of Science in Photonics with Distinction.
- Awarded '*Erasmus Mundus*' scholarship by the European Commission for the master's program. I stood 3<sup>rd</sup> in overall European ranking.
- Graduated in the top 10% in the 4-year degree in Science and Technology of Telecommunications.
- Succeeded in managing my entire academic expenses since I was 16 years old, by working part time.

**Engineering skills**

- Proficiency in Data Analysis with Matlab/Simulink, Python, MS Project, Microsoft Office package, Mathematica, VPIphotonics, FIMMWAVE, Agilent ADS.
- Familiarity with MySQL and Network administration.
- Hands on experience in Business process flows in cleanroom, measurement setups.
- Operating systems: Mac OS X, MS Windows and Linux.

**Relevant Courses Completed**

- |   |   |
|---|---|
| - Project Management                    | - Optics  |
| - Fiber Optic Communications & Networks | - Bio technology                                      |
| - Computer Networks                     | - Physics and Chemistry of Nanostructures             |
| - Laser Engineering                     | - Technological Processes for Photonics & Electronics |

**Language Proficiency**

- Greek native proficiency.
- English full professional proficiency.
- French limited working proficiency.
- Dutch elementary proficiency.
- Japanese limited working proficiency.
  - Japanese Language course & seminars in Japanese savoir-faire.

The Naganuma School, *Tokyo, Japan*

**September 2011 - December 2011**

- Earned A2 level (CEFR) certification, successfully completing a 4-month intensive Japanese course.
- Followed Seminars on Japanese customs, Japanese business etiquette and culture.
- Delivered presentations to the Delegation of the EU to Japan center.
- Served the purpose of event planner for the European-Japanese participants of the programme.

**Interests and Extra-Curricular Activities**

- Matters such as traveling, cultural diversity and social psychology arouse my interest.
- Fan of jogging, martial arts and books about human behavior and psychology.
- Spending free time studying disciplines online that I didn't have the chance to pursue at university.

**References available upon request:**

- Prof. Richard Schatz, KTH, Stockholm, Sweden, +46 73 6672485, [rschatz@kth.se](mailto:rschatz@kth.se)
- Dr. Hiroo Omi, NTT Basic Research Laboratories, Atsugi, Japan, +81 46 240 3414, [omi.hiroo@lab.ntt.co.jp](mailto:omi.hiroo@lab.ntt.co.jp)
- Prof. Alexandros Stavdas, UOP, Tripoli, Greece, +30 271 0372207, [astavdas@uop.gr](mailto:astavdas@uop.gr)