

## Academic Personnel Short Profile

|                             |  |
|-----------------------------|--|
| <b>University:</b>          | Frederick University   |
| <b>Reg. ID:*</b>            | 23   |
| <b>Surname:</b>             | Komodromos   |
| <b>Name:</b>                | Michael  |
| <b>Rank:</b>                | Professor  |
| <b>School:</b>              | Engineering  |
| <b>Department:</b>          | Electrical Engineering, Computer Engineering and Informatics |
| <b>Scientific Domain:**</b> | Digital Signal Processing and Photonics                      |

*\*Registration ID as provided by the University*

*\*\* Field of Specialization*

### Academic qualifications (list by highest qualification)

| Qualification | Year | Awarding Institution  | Department             | Thesis title              |
|---------------|------|-----------------------|------------------------|---------------------------|
| PhD           | 1993 | Iowa State University | Electrical Engineering | Optimal FIR Filter Design |
| MSc           | 1990 | Iowa State University | Electrical Engineering | Frequency Synthesis       |
| BSc           | 1988 | Iowa State University | Electrical Engineering | -                         |

### Employment history – List by the three (3) most recent

| Period of employment |       | Employer | Location | Position            |
|----------------------|-------|----------|----------|---------------------|
| From                 | To    |          |          |                     |
| 2007                 | Today | FU       | Nicosia  | Professor           |
| 1994                 | 2007  | FIT      | Nicosia  | Associate Professor |

| <b>Key <u>refereed</u> journal papers, monographs, books, conference publications etc. List the five (5) more recent and other ten (10) selected – categories may overlap. (max total 15)</b> |             |   |   |   |             |              |
|---|-------------|---|---|---|-------------|--------------|
| <b>Ref. Number</b>  | <b>Year</b> | <b>Title</b>  | <b>Other authors</b>  | <b>Journal / Conference/ Publisher</b>                                  | <b>Vol.</b> | <b>Pages</b> |
| 1   | 2018        | Improvements on the cross correlation algorithm used for tracking fractional Bragg grating wavelength shifts in multimode fibres                  | Theodosiou A., Kalli K.   | Optical Fiber Technology  | 36          |              |
| 2   | 2018        | Carbon Cantilever Beam Health Inspection Using a Polymer Fiber Bragg Grating Array  | Theodosiou, A. Kalli, K.  | Journal of Lightwave Technology   | 36          |              |
| 3   | 2017        | Plane-by-Plane Femtosecond Laser Inscription Method for Single-Peak Bragg Gratings in Multimode CYTOP Polymer Optical Fiber                       | Theodosiou A., Lacraz A., Stassis A., Kalli K.                          | Journal of Lightwave Technology   | 35          |              |
| 4   | 2017        | Optical beam shaping design through optimization of a radial phase mask   | Agarwal S. Jolivot, S Mohammed,W.                                       | ECTI-CON 2017   | -           |              |
| 5   | 2017        | Accurate and Fast Demodulation Algorithm for Multipeak FBG Reflection Spectra Using a Combination of Cross Correlation and Hilbert Transformation | Theodosiou, A. Kalli, K.  | Journal of Lightwave Technology   | 35          |              |
| 6   | 2017        | Demonstration of Polarization-Independent Surface Plasmon Resonance Polymer Waveguide for Refractive Index Sensing                                | Viphavakit, C., Patchoo, W., Boonruang, S., Mohammed, W.,Rahman, B.M.A. | Journal of Lightwave Technology   | 35          |              |
| 7   | 2017        | Health monitoring of carbon cantilever using femtosecond laser inscribed FBG array in gradient-index CYTOP polymer fibre                          | Theodosiou, A., Kalli, K  | Proceedings of SPIE - The International Society for Optical Engineering | -           |              |
| 8   | 2017        | Dynamic damage detection of a cantilever carbon beam using a FBG array inscribed  | Theodosiou, A., Kalli, K.   | International Conf on POF Proceedings                                   | -           |              |

|    |      |   |   |   |    |  |
|----|------|---|---|---|----|--|
|    |      | in polymer gradient index multimode CYTOP fibre   |   |   |    |  |
| 9  | 2016 | Modified fs-Laser Inscribed FBG Array for Rapid Mode Shape Capture of Free-Free Vibrating Beams   | Theodosiou A., Lacraz A., Polis M., Stassis, A.                                 | EEE Photonics Technology Letters  | 28 |  |
| 10 | 2016 | Surface plasmon resonance-enhanced light interaction in an integrated ormocomp nanowire   | Viphavakit, C. Boonruang, S. Themistos C., Mohammed W. Rahman B.M.A.            | Optical and Quantum Electronic  | 48 |  |
| 11 | 2016 | Comparative study of multimode CYTOP graded index and single-mode silica fibre Bragg grating array for the mode shape capturing of a free-free metal beam             | Theodosiou A., Polis M., Lacraz A., Stassis, A.                                 | Proceedings of SPIE - The International Society for Optical Engineering | -  |  |
| 12 | 2015 | Optimization of a horizontal slot waveguide biosensor to detect DNA hybridization   | Viphavakit, C., Themistos, C., Kalli, K., Rahman, B.M.A.                        | Applied Optics  | 54 |  |
| 13 | 2014 | Characterization of polymer nanowires fabricated using the nanoimprint method   | Viphavakit, C., Atthi, N., Boonruang, S. Rahman, B.M.A.                         | Proceedings of SPIE - The International Society for Optical Engineering | -  |  |
| 14 | 2012 | Superstructure Fiber Gratings Via Single-Step Femtosecond Laser   | Koutsides C., Davies E., Kalli K., Allsop T, Webb D, and Zhang L                | <i>Journal Of Lightwave Technology</i>                                  | 30 |  |
| 15 | 2011 | Spectral characteristics and thermal evolution of long period gratings in photonic crystal fibre fabricated by NIR femtosecond laser using point-by-point inscription | T. Allsop, K. Kalli, G. Smith, K. Zhou, J. Petrovic , D. J. Webb and I. Bennion | Journal of Optical Society of America, B                                | 28 |  |

| Research Projects. List the five (5) more recent and other ten (10) selected – categories may overlap (max total 15) |           |   |                               |                                    |
|--|-----------|---|-------------------------------|------------------------------------|
| Ref. Number  | Date      | Title   | Funded by                     | Project Role*                      |
| 1  | 2013-2017 | <b>Tripod:</b> Training and Research Involving Polymer Optical Devices  | FP7                           | Associate Partner                  |
| 2  | 2011-2015 | <b>Strong-Ties:</b> Strengthening Training and Research through Networking and Globalization of Teaching in Engineering Studies | FP7                           | Project Partner                    |
| 3  | 2009-2013 | <b>Fluidics:</b> Development of nanoscale-optic and micro-fluidic devices using femtosecond laser                               | Research Promotion Foundation | Research Partner                   |
| 4  | 2006-2009 | <b>Polyfiltro:</b> Prototype Polymer Optical Bragg Filter Based on Laser Inscription, Proton Lithography and Nano-coatings      | Research Promotion Foundation | Project and Scientific Coordinator |
| 5  | 2006-2009 | <b>Sonocardio:</b> Feasibility Study for the Treatment of Heart Arrhythmias Using Therapeutic Ultrasound Guided by MRI          | Research Promotion Foundation | Partner – Researcher               |
| 6  | 2004-2009 | <b>Femto:</b> Novel Grating Structures in Fiber Optics Using Femtosecond Laser  | Research Promotion Foundation | Project partner – Researcher       |
| 7  | 2004-2007 | <b>Optopes:</b> Specialized Optical Filters in Photonic Crystal Fibers  | Research Promotion Foundation | Project partner – Researcher       |
| 8  | 2003-2005 | <b>Polyfiltro:</b> Optical Filters Using Bragg Gratings in Polymer Optical Fibers   | Research Promotion Foundation | Project partner – Researcher       |
| 9  | 2001-2003 | <b>Ultrasound II:</b> Therapeutic ultrasound guided with MRI imaging  | Research Promotion Foundation | Project partner – Researcher       |

\*Project Role: i.e. Scientific/Project Coordinator, Research Team Member, Researcher, Assistant Researcher

| <b>Consulting Services and/or Participation in Councils / Boards/ Editorial Committees.<br/>List the five (5) more recent and other five (5) selected. (max total 10)</b> |               |  |                                     |                       |
|---|---------------|--|-------------------------------------|-----------------------|
| <b>Ref. Number</b>  | <b>Period</b> | <b>Organization</b>  | <b>Title of Position or Service</b> | <b>Key Activities</b> |
| 1   | 2014 - Today  | ABET   | Program Evaluator                   |                       |
| 2   | 2010 – Today  | SPIE Optics:<br>Microstructured Optical<br>Fibers  | Program Committee Member            |                       |
| 3   | 2017 - Today  | CENELEC-<br>ETSI Smart and<br>Sustainable Cities and<br>Communities  | Committee Member                    |                       |
| 4   | 2017 - Today  | Committee CYS/MC 13 -<br>Electrical and Electronic<br>Equipment and Electrical<br>and Electronic Medical<br>Device | Committee Member                    |                       |
| 5   | 2016 –2019    | EAC  | Member of Board of Directors        |                       |
| 6   | 2017 – 2020   | Cyprus Employers and<br>Industrialists Federation  | Member of Board of Directors        |                       |

| <b>Awards / International Recognition (where applicable). List the five (5) more recent and other five (5) selected.<br/>(max total 10)</b> |             |                           |                            |
|---|-------------|---------------------------|----------------------------|
| <b>Ref. Number</b>  | <b>Date</b> | <b>Title</b>              | <b>Awarded by:</b>         |
| 1   | 1993        | Research Excellence Award | Iowa State University      |
| 2   | From 2011   | IEEE Senior Member        | IEEE                       |
| 3   | From 2015   | OSA Senior Member         | Optical Society of America |