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## Qualifications

PhD, Physical layer analysis and migration strategies towards dynamically reconfigurable networks, National Technical University of Athens

1 Oct 2000 → 19 Dec 2005

Award Date: 7 Mar 2006

MSc, Modelling of switching performance of Semiconductor Optical Amplifiers, National Technical University of Athens

25 Sept 1995 → 17 Jul 2000

Award Date: 17 Jul 2000

## Employment

### Professor

Aston Institute of Photonic Technologies (AiPT)

College of Engineering and Physical Sciences

3 Jun 2024 → present

### Associate Professor at Aston Institute of Photonic Technologies

College of Engineering and Physical Sciences

Birmingham, United Kingdom

1 Aug 2019 → present

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1 Oct 2000 → 19 Dec 2005

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## Research outputs

### Online digital compensation of pump dithering induced phase and amplitude distortions in transmission links with cascaded fibre-optical parametric amplifiers

Nguyen, L. H., Boscolo, S. & Sygletos, S., 8 Apr 2024, In: Optics Express. 32, 8, p. 13467-13477 11 p.

### Online digital compensation of phase and amplitude distortions in cascaded FOPA transmission links

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### Training strategies for learned Volterra MIMO equalizers in WDM systems

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### Learned Volterra Equalization for WDM Systems

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**Machine learning enabled digital compensation of phase-to-amplitude distortion in fibre-optical parametric amplifier based transmission links**

Nguyen, L. H., Boscolo, S. & Sygletos, S., 18 Oct 2023, In: EPJ Web of Conferences. 287, 2 p., 13022.

**Digital signal processing for optical phase conjugation assisted coherent systems**

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**Machine learning enabled compensation of phase-to-amplitude distortion in OPC systems**

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**A Novel Learned Volterra-based Scheme for Time-domain Nonlinear Equalization**

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**Mitigation of Nonlinear Effects in Optical Communications using Digital and Optical Techniques**

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**Convolutional Neural Networks with Multiple Layers per Span for Nonlinearity Mitigation in Long-Haul WDM Transmission Systems**

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**Digital compensation of residual pump dithering in optical phase conjugation of high-order QAM**

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**A Reconfigurable OADM Architecture for High-Order Regular- and Offset- QAM based OFDM Super-Channels**

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**Nonlinearity Compensation Techniques Using Machine Learning**

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**224-Gb/s Carrier-recovery-free Doubly Differential 2ASK-8PSK for Short-reach Optical Networks**

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**Performance Improvement of Nyquist DP-16QAM Over 600km System Using ANN-enhanced Post-equalization**

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**Multilevel Amplitude Regeneration of PAM-4 Signals using a Nonlinear Optical Loop Mirror**

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**Nonlinear Compensation Using Digital Back-Propagation in Few-Mode Fibre Spans with Intermediate Coupling**

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**Training-Aided Channel Estimation and Equalization in SDM Systems with MISO Pre-convergence under Strong Coupling**

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**Amplifier-free 200-Gb/s tandem SSB doubly differential QPSK signal transmission over 80-km SSMF with simplified receiver-side DSP**

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**Comparison of Nonlinear Compensation Techniques for 400-Gb/s Coherent Multi-Band OFDM Super-Channels**

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**All-optical multilevel regeneration in nonlinear optical loop mirror**

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**On the Feasibility of Mode-Division Multiplexed Transmission over Few-Mode Fibres**

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**Semi-analytical modelling of linear mode coupling in few-mode fibers**

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**Numerical modelling of multimode fibre-optic communication lines**

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Rosa, P., Tan, M., Le, S. T., Phillips, I. D., Ania-Castañón, J. D., Sygletos, S. & Harper, P., 1 Jun 2015, In: *IEEE Photonics Technology Letters*. 27, 11, p. 1189-1192 4 p.

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