



Dr. Ahmed Nabih Zaki Rashed



Employment History:

Dr. in Electronic and Electrical Communication Engineering Department , Faculty of Electronic Engineering, Menoufia University.

MSc.: University of Menoufia, 11/6/2005.

Ph.D. : University of Menoufia, 7/11/2010.

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Research Interests : In the area of Optical Communication Systems and all communication systems, all communication networks.

Dr. Ahmed Nabih Zaki Rashed is interested in the area of optical communications (Optical Sources, Detectors, Optical amplifiers, Optical cables, Optical networks, Optical measurements, Optical connectors, Different propagation phenomena in different optical channels, etc.). Other areas of interest are: The digital communication systems, communication networks, electronics field computer networks, planning networks, digital circuits, optical signal processing, digital filters, all types of communications, control systems and the computer software using different languages and different techniques.

- Computer Skills:

- ✚ Microsoft Office (Word, Excel, Power point, Access, Outlook).
- ✚ International Computer Driving Licence, (ICDL) Certificate.
- ✚ Software Applications: MATLAB, and Fortran Programming.

- List of Publications for MSc. Thesis:

- [1] Farag Z. El-Halafawy, Abd Elnaser A. Mohamed, Abd Elfattah A. Saad, and **Ahmed Nabih Zaki Rashed***, "Polymer Optical Fibers in High Speed Optical Communication Systems", Proc. Of the 4th International Conference on Electrical Engineering, ICEENG, Military Technical College, Kobry Elkobbah, pp. 1-12, 23-25 Nov., Cairo, Egypt, 2004.
 - [2] Farag Z. El-Halafawy, Abd Elnaser A. Mohamed, Abd Elfattah A. Saad, and **Ahmed Nabih Zaki Rashed***, "Performance of Polymer and Germania Doped Silica Optical Fibers in Advanced Communication Systems", Menoufia Journal of Electronic Engineering Research MJEER, Vol. 15, No. 2, pp. 99-112, July 2005.
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- List of Publications for PH. D Thesis:

- [1] Abd El-Naser A. Mohammed, Abd El-Fattah A. Saad, and **Ahmed Nabih Zaki Rashed***, "High Channel Arrayed Waveguide Grating (AWG) in Wavelength Division Multiplexing Passive Optical Networks (WDM-PONs)," IJCSNS International Journal of Computer Science and Network Security, Vol. 9, No. 1, pp. 253-259, Jan. 2009.
- [2] Abd El-Naser A. Mohammed, Abd El-Fattah A. Saad, and **Ahmed Nabih Zaki Rashed*** and Mahomud Eid, "Characteristics of Multi-Pumped Raman Amplifiers in Dense Wavelength Division Multiplexing (DWDM) Optical Access Networks," IJCSNS International Journal of Computer Science and Network Security, Vol. 9, No. 2, pp. 277-284, Feb. 2009.
- [3] Abd El-Naser A. Mohammed, Abd El-Fattah A. Saad, and **Ahmed Nabih Zaki Rashed***, "Estimated Optimization Parameters of Arrayed Waveguide Grating (AWG) for C-Band Applications," International Journal of Physical Sciences, Vol. 4, No. 4, pp. 149-155, Apr. 2009.
- [4] Abd El-Naser A. Mohammed, Abd El-Fattah A. Saad, and **Ahmed Nabih Zaki Rashed***, "Matrices of the Thermal and Spectral Variations for the fabrication Materials Based Arrayed Waveguide Grating Devices," International Journal of Physical Sciences, Vol. 4, No. 4, pp. 205-211, Apr. 2009.
- [5] Abd El-Naser A. Mohammed, Gaber E. S. M. El-Abyad, Abd El-Fattah A. Saad, and **Ahmed Nabih Zaki Rashed***, "High Transmission Bit Rate of A thermal Arrayed Waveguide Grating (AWG) Module in Passive Optical Networks," IJCSIS International Journal of Computer Science and Information Security, Vol. 1, No. 1, pp. 13-22, May 2009.
- [6] Abd El-Naser A. Mohammed, Abd El-Fattah A. Saad, and **Ahmed Nabih Zaki Rashed***, "Thermal Sensitivity Coefficients of the Fabrication Materials Based A thermal Arrayed Waveguide Grating (AWG) in Wide Area Dense Wavelength Division Multiplexing Optical Networks," International Journal of Engineering and Technology (IJET), Vol. 1, No. 2, pp. 131-139, June 2009.
- [7] Abd El-Naser A. Mohammed, Abd El-Fattah A. Saad, and **Ahmed Nabih Zaki Rashed***, "Applications of Arrayed Waveguide Grating (AWG) in Passive Optical Networks," IJFGCN International Journal of Future Generation Communication and Networking, Vol. 2, No. 2, pp. 25-36, June 2009.
- [8] Abd El-Naser A. Mohammed, Abd El-Fattah A. Saad, and **Ahmed Nabih Zaki Rashed***, "Spectral and Thermal Sensitivities of Inorganic-Organic Fabrication

Materials Based Arrayed Waveguide Grating (AWG) in Active and Passive Optical Networks (PONs)” International Journal of Intelligent Information Technology Application (IJIITA), Vol. 2, No. 3, pp. 91-98, June 2009.

Also accepted in IASTED IEEE International Conference on Wireless and Optical Communications (WOC 2009), 6-8 July 2009 in Bnaff, Alberta, Canada.

- [9] Abd El-Naser A. Mohammed, Mohammed M. E. El-Halawany, **Ahmed Nabih Zaki Rashed***, and Mohamoud M. Eid “Recent Applications of Optical Parametric Amplifiers in Hybrid WDM/TDM Local Area Optical Networks,” IJCSIS International Journal of Computer Science and Information Security, Vol. 3, No. 1, pp. 14-24, July 2009.
- [10] Abd El-Naser A. Mohammed, Gaber E. S. M. El-Abyad, Abd El-Fattah A. Saad, and **Ahmed Nabih Zaki Rashed***, “Low Loss A thermal Arrayed Waveguide Grating (AWG) Module for Passive and Active Optical Network Applications,” International Journal of Communication Networks and Information Security (IJCNIS), Vol. 1, No. 2, pp. 27-34, Aug. 2009.
- [11] Abd El-Naser A. Mohammed, Abd El-Fattah A. Saad, and **Ahmed Nabih Zaki Rashed***, “Spectral Sensitivity Coefficients of the Based Materials for A thermal Arrayed Waveguide Grating (AWG) in WDM Optical Access Networks,” Journal of Information and Communication Technology, Vol. 2, No. 2, pp. 88-95, 2009.
- [12] Abd El-Naser A. Mohammed and **Ahmed Nabih Zaki Rashed***, “Comparison Performance Evolution of Different Transmission Techniques with Bi-Directional Distributed Raman Gain Amplification Technique in High Capacity Optical Networks,” International Journal of Advanced Engineering and Applications, Vol. 1, No. 1, pp. 1-9, Jan. 2010. **[Awarded as Best Paper]**.
- [13] Abd El-Naser A. Mohammed, Mohammed M. E. El-Halawany, **Ahmed Nabih Zaki Rashed***, and Amina M. El-Nabawy “Transmission Performance Analysis of Digital Wire and Wireless Optical Links in Local and Wide Areas Optical Networks,” IJCSIS International Journal of Computer Science and Information Security, Vol. 3, No. 1, pp. 106-115, July 2009.
- [14] Abd El-Naser A. Mohammed and **Ahmed Nabih Zaki Rashed***, “Ultra Wide Band (UWB) of Optical Fiber Raman Amplifiers in Advanced Optical Communication Networks,” Journal of Media and Communication Studies, Vol. 1, No. 4, pp. 56-78, October 2009.
- [15] Abd El-Naser A. Mohammed, Mohammed A. Metawe'e, **Ahmed Nabih Zaki Rashed***, and Mohamoud M. Eid “Distributed Optical Raman Amplifiers in Ultra High Speed Long Haul Transmission Optical Fiber Telecommunication Networks,” IJCNS International Journal of Computer and Network Security, Vol. 1, No. 1, pp. 1-8, October 2009.
- [16] Abd El-Naser A. Mohammed, **Ahmed Nabih Zaki Rashed***, and Mahmoud M. Eid, “Important Role of Optical Add Drop Multiplexers (OADMs) With Different Multiplexing Techniques in Optical Communication Networks,” International Journal of Computing, Vol. 9, No. 2, pp. 152-164, 2010.

- List of Publications After PH. D Thesis:

- [1] Abd El-Naser A. Mohammed, Mohamed A. metawe'e, Ahmed Nabih Zaki Rashed, and Amina E. M. El-Nabawy "Unguided Nonlinear Optical Laser Pulses Propagate in Waters With Soliton Transmission Technique," International Journal of Multidisciplinary Sciences and Engineering (IJMSE), Vol. 2, No. 1, pp. 1-10, March 2011.
- [2] Abd El-Naser A. Mohammed, Mohamed M. E. El-Halawany, Ahmed Nabih Zaki Rashed, and Mohamoud M. Eid "Optical Add Drop Multiplexers with UW-DWDM Technique in Metro Optical Access Communication Networks," Nonlinear Optics and Quantum Optics, Vol. 42, No. 2, pp. 145–159, October 2011.
- [3] Abd El-Naser A. Mohammed, Abd El-Fattah A. Saad, Ahmed Nabih Zaki Rashed, and Hazem M. Hageen "Low Performance Characteristics of Optical Laser Diode Sources Based on NRZ Coding Formats under Thermal Irradiated Environments," International Journal of Computer Science and Telecommunications (IJCST), Vol. 2, No. 2, pp. 20-30, April 2011.
- [4] Abd El-Naser A. Mohammed, Mohamed M. E. El-Halawany, Ahmed Nabih Zaki Rashed, and Sakr Hanafy "High Performance of Plastic Optical Fibers within Conventional Amplification Technique in Advanced Local Area Optical Communication Networks," International Journal of Multidisciplinary Sciences and Engineering (IJMSE), Vol. 2, No. 2, pp. 34-42, May 2011.
- [5] Abd El-Naser A. Mohammed, Nabil Ayad, Ahmed Nabih Zaki Rashed, and Hazem M. Hageen "Speed Response and Performance Degradation of High Temperature Gamma Irradiated Silicon PIN Photodiodes," International Journal of Computer Science and Information Security (IJSIS), Vol. 9, No. 5, pp. 268-275, May 2011.
- [6] Abd El-Naser A. Mohammed, Ahmed Nabih Zaki Rashed, and Mohammed S. F. Tabour "Transmission Characteristics of Radio over Fiber (ROF) MillimeterWave Systems in Local Area Optical Communication Networks," International Journal of Advanced Networks and Applications, Vol. 2, No. 6, pp. 876-886, May/June 2011.
- [7] Abd El-Naser A. Mohammed, Nabil Ayad, Ahmed Nabih Zaki Rashed, and Hazem M. Hageen "Harmful Neutrons Irradiation and Thermal Effects on Soliton Transmission Bit Rates of Vertical Cavity Surface Emitting Lasers," Nonlinear Optics and Quantum Optics, Vol. 42, No. 2, pp. 161–173, October 2011.
- [8] Abd El-Naser A. Mohamed, Mohamed A. Metawe'e, Ahmed Nabih Zaki Rashed, Amira I. M. Bendary, "Recent Progress of LiNbO₃ Based Electrooptic Modulators with Non Return to Zero (NRZ) Coding in High Speed Photonic Networks," International Journal of Information and Communication Technology Research, Vol. 1, No. 2, pp. 55-63, June 2011.
- [9] Abd El-Naser A. Mohammed, Mohamed M. E. El-Halawany, Ahmed Nabih Zaki Rashed, and Mohammed S. F. Tabour "High Transmission Performance of Radio over Fiber Systems over Traditional Optical Fiber Communication Systems Using Different Coding Formats for Long Haul," International Journal of Computer Science and Telecommunications (IJCST), Vol. 2, No. 3, pp. 29-42, June 2011.
- [10] Ahmed Nabih Zaki Rashed, "New Trends of Forward Fiber Raman Amplification for Dense Wavelength Division Multiplexing (DWDM) Photonic Communication Networks," International Journal of Soft Computing, Vol. 6, No. 2, pp. 26-32, 2011.

- [11] Ahmed Nabih Zaki Rashed, "High Transmission Bit Rate of Multi Giga Bit per second for Short Range Optical Wireless Access Communication Networks" International Journal of Advanced Science and Technology, Vol. 32, pp. 23-32, July 2011.
- [12] Abd El-Naser A. Mohammed, Mohamed M. El-Halawany, Ahmed Nabih Zaki Rashed, and Hazem M. Hageen, "Harmful Proton Radiation Damage and Induced Bit Error Effects on the Performance of Avalanche Photodiode Devices" International Journal of Multidisciplinary Sciences and Engineering (IJMSE), Vol. 2, No. 4, pp. 27-36, July 2011.
- [13] Ibrahim M. El-dokany, Abd El-Naser A. Mohamed, Ahmed Nabih Zaki Rashed, and Amina M. El-Nabawy, "Upgrading Efficiency and Improvement of the Performance of Broadband Wireless Optical Access Communication Networks" International Journal of Communication Networks and Information Security (IJCNIS), Vol. 3, No. 2, pp. 149-162, August 2011.
- [14] El-Sayed A. El-Badawy, Abd El-Naser A. Mohammed, Ahmed Nabih Zaki Rashed, "Rapid Progress of Transmission Bit Rates for Multi Users for Cost Planning of Passive Optical Network (PON) Standards," International Journal of Science and Technology (IJST), Vol. 1, No. 1, pp. 1-11, July 2011.
- [15] Abd El-Naser A. Mohamed, Ahmed Nabih Zaki Rashed, Sakr A. S. Hanafy, and Amira I. M. Bendary "Electrooptic Polymer Modulators Performance Improvement With Pulse Code Modulation Scheme in Modern Optical Communication Networks," International Journal of Computer Science and Telecommunications (IJCST), Vol. 2, No. 6, pp. 30-39, September 2011.
- [16] Abd El-Naser A. Mohamed, Hamdy A. Sharshar, Ahmed Nabih Zaki Rashed, and Sakr A. S. Hanafy, "High Transmission Data Rate of Plastic Optical Fibers Over Silica Optical Fibers Based Optical Links for Short Transmission Ranges," International Journal of Computer Science and Telecommunications (IJCST), Vol. 2, No. 6, pp. 61-72, September 2011.
- [17] Abd El-Naser A. Mohammed, Ahmed Nabih Zaki Rashed, and Mohamoud M. A. Eid, "Rapid Progress of A Thermal Arrayed Waveguide Grating Module for Dense Wavelength Division Multiplexing Applications," International Journal of Advanced Networks and Applications, Vol. 3, No. 2, pp. 1044-1052, Sep./Oct. 2011.
- [18] Abd El-Naser A. Mohammed, Ahmed Nabih Zaki Rashed, Mohammed S. Tabour, and Sakr A. S. Hanafy, "Radio over Fiber Communication Systems over Multimode Polymer Optical Fibers for Short Transmission Distances under Modulation Technique," International Journal of Science and Technology (IJST), Vol. 1, No. 2, pp. 60-68, August 2011.
- [19] Ahmed Nabih Zaki Rashed, "Transmission Characteristics and Performance Analysis of Silica doped and Plastic Optical Fibers in Optical Communication systems," IJCEM International Journal of Computational Engineering & Management, Vol. 14, No. 1, pp. 18-32, October 2011.
- [20] Abd El-Naser A. Mohammed, Nabil Ayad, Ahmed Nabih Zaki Rashed, and Hazem M. Hageen, "Transient behavior and transmission bit rates analysis of optoelectronic integrated devices laser diode (LD) and light emitting diode (LED) under amplification and ionizing irradiation environments," Journal of Electrical and Electronics Engineering Research, Vol. 3, No. 7, pp. 121-133, September 2011.
- [21] Ahmed Nabih Zaki Rashed, "Speed Performance Degradation of Electrooptic Modulator Devices by Neutrons Irradiations at High temperature Effects," IJCEM

International Journal of Computational Engineering & Management, Vol. 14, No. 1, pp. 1-8, October 2011.

- [22] Ahmed Nabih Zaki Rashed, "Transmission Performance Evaluation of Optical Add Drop Multiplexers (OADMs) in Optical Telecommunication Ring Networks," American Journal of Engineering and Technology Research, Vol. 11, No. 10, pp. 12-21, October 2011.
- [23] Abd El-Naser A. Mohammed, Ahmed Nabih Zaki Rashed, and Mohamoud M. Eid "Ultra Wide Wavelength Multiplexing/Demultiplexing Conventional Arrayed Waveguide Grating (AWG) Devices for Multi Band Applications," International Journal of Recent Trends in Electrical & Electronics Engineering (IJRTE), Vol. 1, No. 2, pp. 10-23, September 2011.
- [24] El-Sayed A. El-Badawy, Abd El-Naser A. Mohammed, Ahmed Nabih Zaki Rashed, and Mohammed S. Tabour, "New Trends of Radio over Fiber Communication Systems for Ultra High Transmission Capacity," International Journal of Electronics & Communication Technology (IJECT), Vol. 2, No 3, pp. 182-190, September 2011.
- [25] Ahmed Nabih Zaki Rashed, "Ultra High Transmission Capacity of Undersea Optical Fiber Cables for Upgrading UW-WDM Submarine Systems," Canadian Journal on Electrical and Electronics Engineering Vol. 2, No. 10, pp. 481-490, October 2011.
- [26] Ahmed Nabih Zaki Rashed, "Ultra High Speed LiNbO₃ and Polymer Electrooptic Modulators in Lightwave Optical Access Communication Networks," International Journal of Advanced Science and Technology, Vol. 35, pp. 41-60, October 2011.
- [27] Abd El-Naser A. Mohamed, Mohamed Metwae'e, Ahmed Nabih Zaki Rashed, and Amira I. M. Bendary "Ultra High Speed Semiconductor Electrooptic Modulator Devices for Gigahertz Operation in Optical Communication Systems," International Electrical Engineering Journal, Vol. 2, No. 3, pp. 560-570, 2011.
- [28] Ahmed Nabih Zaki Rashed, "Optical Add Drop Multiplexer (OADM) Based on Dense Wavelength Division Multiplexing Technology in Next Generation Optical Networks," American Journal of Engineering and Technology Research, Vol. 11, No. 11, pp. 48-61, November 2011.
- [29] Abd El-Naser A. Mohamed, Hamdy A. Sharshar, Ahmed Nabih Zaki Rashed, and Amina El-Nabawy, "Integrated Service Quality Enhancement of Wireless Optical Communication Systems for long Haul Transmission Distances," Canadian Journal on Electrical and Electronics Engineering, Vol. 2, No. 12, pp. 557-570, December 2011.
- [30] Abd El-Naser A. Mohammed, Ahmed Nabih Zaki Rashed, and Mohamoud M. Eid "Ultra Wide Wavelength Multiplexing/Demultiplexing Conventional Arrayed Waveguide Grating (AWG) Devices for Multi Band Applications," International Journal of Computer Science and Information Technology & Security (IJCSITS), Vol. 1, No. 2, pp. 71-82, December 2011.