**Brief C.V.**

1. **Personal data:**

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| **Name** | **Mohamed Lotfy Rabeh Mohamed Lotfy Gomaa** |
|  |  |
| **Academic degree**  **and Specialty** | **Ph.D. in Optical Communications** |

1. **Education:**

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| --- | --- | --- |
| **Institution** | **Degree obtained** | **Year** |
| **I**nstitut **N**ational **P**olytechnique de **G**renoble - **I.N.P.G. (National Polytechnique Institute of Grenoble - FRANCE )** | **Doctor Engineer (Ph.D.)** | **1984** |
| Institut National Polytechnique de Grenoble **I.N.P.G. (National Polytechnic Institute of Grenoble - FRANCE )** | **Master** | **1982** |
| College of Engineering - Ain Shams University- Cairo | **B.Sc.** | **1978** |

1. **Languages:**

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| --- | --- | --- | --- |
| **Language** | **Reading** | **Speaking** | **Writing** |
| **Arabic** | Excellent | Excellent | Excellent |
| **English** | Excellent | Excellent | Excellent |
| **French** | Excellent | Excellent | Excellent |

1. **Positions:**

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| --- | --- | --- | --- | --- |
|  | **From - to** | **Organization** | **Country** | **Position** |
| **1** | **1985-1988** | **National Polytechnique Institute of Grenoble** | **France** | **Assistant and Associate Professor** |
| **2** | **1988-1991** | **College of eng. Shobra -**  **Banha Univ.** | **Egypt** | **Assistant Prof.** |
| **3** | **1991-1993** | **On leave to Yarmouk University – Irbid - JORDAN** | **Jordan** | **Assistant and Associate Prof.** |
| **4** | **1993-1997** | **On leave to Telecom College – Riyadh – Saudi Arabia** | **Saudi Arabia** | **Associate Prof.** |
| **5** | **1997 - Now** | **College of eng. Shobra -**  **Banha Univ.** | **Egypt** | **Associate Prof.** |

1. **Courses taught at under graduate level:**

**Electronic Engineering – Electronic Circuits – Electromagnetic Waves – Microwave Engineering – Transmission Lines - Antenna Theory - Optical Electronics – Optical Communications – Electrical Engineering Materials - Basic Electronics – Electronic Measurements – Communication Systems -**

1. **Courses taught at Post graduate level:**

**Theory of planar optical waveguide - Numerical Techniques in guided wave optics - Optical Communication Systems and Components - Theory of Optical Fibers.**

1. **Some PhD and MSc. Supervision:**

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| **Title** | **Thesis** | **Year completed or in progress** |
| 1. Integrated Optics Echelon of Michelson for multiplexing and demultiplexing of optical signals. | PhD  (France) | 1988 |
| 1. Integrated planar grating for wavelength division multiplexing. | PhD  (France) | 1988 |
| 1. Electromagnetic compatibility and non-ionizing radiation | PhD  (Ain Shams Univ.) | 2008 |
| 1. Losses in plastic optical Fibers | MSc  (Ain Shams Univ.) | 2000 |
| 1. Losses in Fiber Optic Connectors | MSc  (Ain Shams Univ.) | 2003 |
| 1. Genetic Algorithms for Robust and Low Cost 2D/3D Ultrasonic Beacon-based Positioning System. | MSc  (Banha Univ.) | 2005 |
| 1. Spatial Wavelength Division Multiplexing of optical Beams at a Planar Dielectric Interface. | MSc  (Ain Shams Univ.) | 2007 |
| 1. Optimization of Antennas Beam Forming for mobile Communications. | MSc  (Banha Univ.) | 2012 |
| 1. Microstrip Patch antennas for mobile Communications. | PhD  (Banha Univ.) | In Progress |

**8. System Design and Consultation Experience:**

* **Design of Satellite Optical payloads (Remote Sensing Organization - Egypt).**
* **Consultation on Radiation Effects of Mobile Communications Antennas in main base stations, (Public Prosecution).**

**9. Scholarships:**

**One year from the French government to pursue the MSc. in France (Academic year 1981/1982).**

**10. Grants for Projects:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Funding organization** | **Project title** | **Role** | **Year** |
| National Center For Telecommunications Studies. (France) - **C**entre **N**ational d'**É**tudes des **T**elecommunications (**CNET**) , Lanion – Paris, France | Experimental and theoretical Evaluation of an Integrated Optical Numerical Aperture Adaptor | **Group**  **Leader** | **1985-1986** |

**11. Attended Workshops, Symposiums, and Conferences**

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| --- | --- |
| **Name of Workshops, Symposiums, and Conferences** | **Year** |
| 1. Workshop on Recent advances in Integrated Optics (Limoges- France) | **1982** |
| 1. Conference on Optical Communications and Integrated Optics (Grenoble- France) | **1983** |
| 1. Symposium on ion-exchange techniques in LinBO3.   (Nice – France) | **1983** |
| 1. Workshop on Numerical Techniques in Integrated Optical Devices (Grenoble – France) | **1984** |
| 1. Symposium on the applications of Photon Drag Effect in Optical Measurements (Grenoble-France) | **1985** |
| 1. Workshop on Diffractive Optical elements (Lyon- France) | **1986** |
| 1. Symposium on Second Harmonic Generation and Four-Wave Mixing in Crystalline Structures and Waveguides (Marseille – France) | **1987** |
| 1. Workshop on Fast Switching integrated optical devices (Grenoble – France) | **1987** |
| 1. Workshop on single-mode fiber long haul links and optical solitons (Grenoble – France) | **1988** |
| 1. Military College conference for Radio Sciences (Cairo-Egypt) | **1989** |
| 1. Conference of College of Electronic Engineering – Menoufeyah | **1987** |

**12. List of Publications:**

**1- International Journals:**

1. **“A Novel Technique for an Integrated Optical Wavelength Demultiplexer”, CiiT International Journal of Networking and Communication Engineering, Vol. 6, No. 9 (2014), p. 363-369, (**[**http://ciitresearch.org/dl/index.php/nce/article/view/NCE112014003**](http://ciitresearch.org/dl/index.php/nce/article/view/NCE112014003)**)**
2. **“Optimization of MUSIC algorithm for angle of arrival estimation in wireless communications”, Mahmoud Mohanna, Mohamed L. Rabeh, Emad M. Zieur and Sherif Hekal, NRIAG Journal of Astronomy and Geophysics, 2013,Vol.2, Issue 1, p.116–124. (http://www.sciencedirect.com/science/article/pii/S209099771300031X)**
3. **“Tri-band microstrip antenna design for wireless communication applications”, Gehan Sami, Mahmoud Mohanna and Mohamed L. Rabeh, NRIAG Journal of Astronomy and Geophysics, 2013, Vol.2, Issue 1, p.39–44. (**[**http://www.sciencedirect.com/science/article/pii/S2090997713000242**](http://www.sciencedirect.com/science/article/pii/S2090997713000242)**)**
4. **“Discrimination between landmine and mine-like targets using wavelets and spectral analysis”, Mahmoud A. Mohana, Abbas M. Abbas, Mohamed L. Gomaa and Shereen M. Ebrahim, NRIAG Journal of Astronomy and Geophysics, 2013, Vol.2, Issue 1, p.54–66.**
5. **"Employing Genetic Algorithms for Robust and Low Cost 2D/3D Ultrasonic Beacon-based Positioning System", G. Sami, A. Hafez, Mohamed Rabeh, A. Mohamed,** **ICGST-ARAS Journal, Int. Journal on Automation Robotics and Autonomous System, Vol.6 , issue.1, April, 2007.**
6. **"A novel technique for making grating demultiplexers in integrated Optics", Lotfi Rabeh Gomaa, G.H.Chartier and A.S.Samra,** [**Journal of Physics D: Applied Physics**](http://iopscience.iop.org/0022-3727/)[**Volume 23**](http://iopscience.iop.org/0022-3727/23)[**Number 10**](http://iopscience.iop.org/0022-3727/23/10)**, 1990, pp.1298-130. (**[**http://iopscience.iop.org/0022-3727/23/10/005**](http://iopscience.iop.org/0022-3727/23/10/005)**).**
7. **"Beam propagation method applied to a step discontinuity in dielectric planar waveguides", Lotfi Rabeh Gomaa, IEEE Transactions on Microwave Theory and Techniques, Vol.36, No.4, April 1988, p.791-792.**

**(**[**http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=3593**](http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=3593)**).**

1. **"Evaluation Theorique des Performances d'un Multiplexeur en Longueur d'onde utilisant des Guides Optiques Planaires", Mohamed Lotfi Gomaa and Germain Chartier, Comptes Rendus de l'Academie des Sciences de Paris, (Proceedings of the Academy of Sciences of Paris), Vol.300, Series II, No.15, 1985, pp.727-730. (online at:** [**http://visualiseur.bnf.fr/CadresFenetre?O=NUMM-5811424&I=1054&M=tdm**](http://visualiseur.bnf.fr/CadresFenetre?O=NUMM-5811424&I=1054&M=tdm)**) and download from:** [**ftp://ftp.bnf.fr/581/N5811424\_PDF\_1\_1076.pdf**](ftp://ftp.bnf.fr/581/N5811424_PDF_1_1076.pdf) **)**
2. **"Etude Experimentale du Multiplexage Optique en Longueur d'onde Utilisant des Guides Optiques Planaires", Mohamed Lotfi Gomaa and Germain Chartier, Comptes Rendus de l'Academie des Sciences de Paris, (Proceedings of the Academy of Sciences of Paris), Vol.301, Series II, No.11,1985, pp.775-778.**
3. **"Etude Theorique des Jonctions-Y Multimodales Actives par la Methode du Faisceau Propage", Mohamed Lotfi Gomaa and Germain Chartier, Comptes Rendus de l'Academie des Sciences de Paris, (Proceedings of the Academy of Sciences of Paris), Vol.302, Series II, No.8,1986, pp.537-542.**

**2- Local Journals:**

**11- "Vision-Based Navigation Algorithm for an Indoor Mobile Robot", Doaa A.Fatah, Ashraf M.Hafez and M.Lotfy Rabeh, Engineering Research Journal (Shoubra), No.4, June 2005, pp.43-50.**

**12- "A Generalized Optimization Technique For Step Discontinuity In Planar Optical Waveguides", M.L.Rabeh, A.S.Samra and O.A.Oraby, Minufiya Journal Of Electronic Engineering Research, Vol.15 – No.1, January 2005, pp.13-20.**

**13- "Effect of Modal Dispersion on the Optimization of the Reflection Coefficient of Corrugated Planar Optical Waveguides", M.L.Rabeh, A.S.Samra and O.A.Oraby, Minufiya Journal Of Electronic Engineering Research, Vol.14 – No.1&2, January-July 2004, pp.105-114.**

**14- "Analysis of a Propagating Gaussian Light Beam Incident at the Critical Angle on a Dielectric Interface by the BPM", Lotfi Rabeh Gomaa, Bulletin of the Faculty of Engineering, Assiut University, Vol. 28, No.2, May 2000, pp.73-83.**

**15- "Perturbed Spectrum Technique For Wave Propagation in Planar Optical Waveguides", Lotfi Rabeh Gomaa, Bulletin of the Faculty of Engineering, Assiut University, Vol.25, No.1, January 1997, pp.105-110.**

**16- "An Efficient Reflection Grating Beam Splitter in Planar Integrated Optics", L.R.Gomaa and A.S.Samra, Mansoura Engineering Journal (MEJ), Vol.19, No.4, December 1994, pp.93-100.**

**17- "A Novel Integral Equation Approach for Wave Propagation in Inhomogeneous Dielectric Slabs", Lotfi Rabeh Gomaa, Bulletin of the Faculty of Engineering, Ain Shams University, Vol.27, No.2, June 1992.**

**18- "Experimental and Theoretical Investigation of the Ion-Masking Effect in Glass Waveguides Fabricated by the Double-Ion Exchange Technique", Lotfi Rabeh Gomaa, G.Chartier and A.S.Samra, Bulletin of the Faculty of Engineering, Ain Shams University, Vol.27, No.2, June 1992.**

**3- International and Local conferences:**

**19- "Cutoff Wavelength Determination of Planar Graded Index Optical Waveguides by the Perturbation Technique", M.L.Gomaa and G.Chartier, Second International Conference On Microelectronic Engineering, Menoufiyah, Egypt, 20-24 December, 1987.**

**20- "Double Lithium-Silver Ion Exchange in Glass Substrate", O.Oraby, A.S.Samra, L.Gomaa and G.Chartier, Second International Conference On Microelectronic Engineering, Menoufiyah, Egypt, 20-24 December, 1987.**

**21- "Double Potassium-Silver Ion Exchange in Glass Substrate", A.S.Samra, O.Oraby, L.Gomaa and G.Chartier, Second International Conference On Microelectronic Engineering, Menoufiyah, Egypt, 20-24 December, 1987.**

**22- "Modes of Strongly Guiding Curved Dielectric Slabs", A.H. Moeshed, M.L. Gomaa and M.H. Ahmed, 33rd Midwest Symposium on Circuits and Systems", Co-sponsored by the IEEE Circuits and Systems Society, Alberta, Canada, August 12-15, 1990.**

**23- "Beam Propagation Method Applied to Single and Double Step Discontinuity in Planar Optical Waveguides", Lotfi Rabeh Gomaa, Eigth National Conference on Radio Science, Military Technical College, Cairo, Feb. 12-15, 1991.**