



CURRICULUM VITAE



Prof Mohammed Ajiya
Department of Electrical Engineering,
Faculty of Engineering,
Bayero University, Kano

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Education

Year of Award	Degree Type	Institution
2011	Postgraduate Certificate in Advance Studies in Academic Practice	Newcastle University, Uk
2010	PhD (Optical Communication Engineering)	University Putra Malaysia
2000	Master Of Engineering (Electrical)	Bayero University, Kano
1994	Engineering (Electrical)	Bayero University, Kano

Areas of Research Interest

Optical Communications, Optical Fiber Lasers, Optical Amplification, Optical
Sensors, Nonlinear Optics.

Rank/Position

Current Rank: Professor

Position: Director, Centre for Information Technology



Appointments

Date	Position	Employer
1/10/2016	Professor	Bayero University, Kano
1/10/2013	Associate Professor	Bayero University, Kano
1/10/2010	Senior Lecturer	Bayero University, Kano
1/10/2005	Lecturer I	Bayero University, Kano
2/1/2004	Lecturer II	Bayero University, Kano
06/2002	GM/CEO Bauchi Plastics Company	Bauchi State Government
06/2000	GM/CEO Arewa Ceramics Limited	Bauchi State Government
04/1994	Manager, Production and Engineering	Arewa Ceramics Limited
03/1987	Supervisor, Engineering	Arewa Ceramics Limited
09/1984	A.T.O. (Electrical) BSDB	Bauchi State Government

Membership of Professional Bodies

1. Registered Engineer, Council for the Regulation of Engineering in Nigeria (COREN) – **Reg. # R9877**
2. Member, Nigerian Society of Engineers (MNSE) – **Reg. # 11139**
3. Fellow, Institute of Industrialist and Corporate Administrators of Nigeria (FIICA)
4. Member, Institute of Electrical and Electronics Engineers, USA (MIEEE) – **Reg. # 90579863**
5. Member, Society of Photo – Optical Instrumentation Engineers of America, (MSPIE) – **Reg. # 3234000**
6. Member, Optical Society of America (MOSA) – **Reg. # 968953**
7. Thomson Reuters Researcher – **ID # A-5670-2012**
8. Fellow, The Higher Education Academy, United Kingdom (FHEA) – **Recognition Reference # - PR064048**
9. Open Access Academy: Open Researcher and Contributor ID, **OCID – ID # 0000-0002-6135-7738**



Selected Publications

a. Journal Papers

S/N	Paper Information	Indexed
1	<i>M. Ajiya</i> , J. A. Oladapo, N. A. M. Ahmad Hambali “Lasing Threshold Characteristics of Multi-wavelength Brillouin-Erbium Laser in the L-band Region Assisted by Delay Interferometer” <i>Journal of Nonlinear Optical Physics & Materials</i> , Vol 25, No.2, pp 1650024-1 – 9, 2016	Scopus
2	N A M Ahmad Hambali, <i>M Ajiya</i> and M M Shahimin “Threshold reduction via circulating spontaneous Brillouin scattering in single-wavelength ring-cavity fiber laser utilizing pre-amplification technique” <i>Journal of Optics</i> , In-press	Scopus
3	R. S. Shargh, N. A. M Ahmad Hambali, <i>M. Ajiya</i> and M. A. Mahdi “Effect of Large Effective Area Fiber length on the Performance of Forward-Backward Scattering Combination Multiwavelength Brillouin- Raman Fiber Laser” <i>Journal of Optics</i> , Vol. 17, No. 10, pp 105507-1 – 6, 2015	Scopus
4	M. Ali Toor, N. A. M. Ahmad Hambali, <i>M. Ajiya</i> and Z. Yusoff “Double Brillouin Frequency Shifted L-band Multi-wavelength Brillouin Raman fiber laser utilizing dual laser cavity” <i>Journal of Optics</i> , Vol. 17, No. 2, pp 025502-1 – 5, 2015	Scopus
5	N. A. M. Ahmad Hambali, M. Ali Toor, Z. Yusoff and <i>M. Ajiya</i> “L-band multi-wavelength Brillouin–Raman fiber laser utilizing the reverse-S-shaped section” <i>Journal of Nonlinear Optical Physics & Materials</i> , Vol. 23, No. 2, pp 1450026-1 – 10, 2014	Scopus
6	W.KH. Almusfer, M.H. Al-Mansoori, M.Z. Jamaludin, F. Abdullah, <i>M. Ajiya</i> and M.A. Mahdi “Widely Tunable C+L Bands Multiwavelength BEFL with Double-Brillouin Frequency Shifts” <i>IEEE Photonics Journal</i> , Vol. 4, No. 5, pp 1720 – 1727, 2012	Scopus
7	M.H. Al-Mansoori, <i>M. Ajiya</i> and M.A. Mahdi “L-Band Multiwavelength BEFL with Amplified FiberLoop Mirror” <i>IEEE Photonics Journal</i> , Vol. 4, No. 2, pp 483 – 490, 2012	Scopus
8	N.A.M. Ahmad Hambali, M.H. Al-Mansoori, <i>M. Ajiya</i> , A.A.A. Bakar, S. Hitam, and M.A. Mahdi “Multi – Wavelength Brillouin – Raman Ring – Cavity Fiber Laser with 22 – GHz spacing ” <i>Laser Physics</i> , Vol. 21, No. 8, pp 1618 – 1624, 2011	Scopus
9	<i>M. Ajiya</i> , M. A. Mahdi and M. H. Al-Mansoori, “Widely tunable linear-cavity multiwavelength fiber laser with distributed Brillouin scattering,” <i>Chinese Optics Letters</i> , Vol. 9, No. 3, pp 1 – 3, 2011	Scopus
10	H. A. Al-Asadi, M. H. Al-Mansoori, <i>M. Ajiya</i> , S. Hitam, M. I. Saripan, and M.A. Mahdi “Effects of pump recycling technique on stimulated Brillouin scattering threshold: A theoretical model”, <i>Optics Express</i> , Vol. 18, No. 21, pp 22339 – 22347, 2010	Scopus
11	A. W. Al Alimi, M. H. Al Mansoori, A. F. Abas, M. A. Mahdi, <i>M. Ajiya</i>	Scopus



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- Ajiya*, and F. R. Mahamd Adikan. “Efficient Technique for Intracavity Loss Optimization in a Dual_Wavelength Erbium_Doped Fiber Laser”, *Journal of Laser Physics*, Vol. 20, No. 11, pp 2001 – 2005, 2010
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- 12 N.A.M. Ahmad Hambali, M.A. Mahdi, M.H. Al-Mansoori, M.I. Sariipan, A.F. Abas, and *M. Ajiya*, “ Effect of output Coupling Ratio on the Performance of Ring- Cavity Brillouin Fiber Laser” *Journal of Laser Physics*, Vol. 20, No. 7, pp 1618 – 1624, 2010 **Scopus**
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- 13 N.A.M. Ahmad Hambali, M.A. Mahdi, M.H. Al-Mansoori, M.I. Sariipan, A.F. Abas, and *M. Ajiya*, “Single-wavelength ring-cavity Brillouin-Raman fiber laser” *Laser Physics Letters*, Vol. 7, No.6, pp 454 – 457, 2010 **Scopus**
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- 14 *M. Ajiya*, M. A. Mahdi and M. H. Al-Mansoori, S. Hitam and M. Mokhtar, “Seamless Tuning Range based-on Available Gain Bandwidth in multiwavelength Brillouin Fiber,” *Optics Express*, Vol. 17, No. 8, pp 5944 – 5952, 2009 **Scopus**
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- 15 *M Ajiya*, M. A. Mahdi and M. H. Al-Mansoori, S. Hitam and M. Mokhtar, “Reduction of Stimulated Brillouin Scattering Threshold Through pump Recycling technique” *Laser Physics Letters*, Vol. 6, No. 7, pp 535 – 538, 2009. **Scopus**
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- 16 A. W. Al-Alimi, M. H. Al-Mansoori, A. F. Abas, M. A. Mahdi, F. R. M. Adikan and *M. Ajiya*, “A stabilized tunable dual wavelength erbium-doped fiber laser with equal output power” *Journal of Laser Physics*, Vol. 19, No. 8, pp 1850 – 1853, 2009 **Scopus**
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- 17 *M Ajiya*, M. A. Mahdi and M. H. Al-Mansoori, M. Mokhtar and S. Hitam, “Directivity Influence of Signals Propagation through EDFA gain Medium in Brillouin – erbium Fiber Laser,” *Optics Communications*, vol. 282, pp 4266 – 4270, 2009. **Scopus**
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- 18 *M Ajiya*, M. A. Mahdi and M. H. Al-Mansoori, S. Hitam and M. Mokhtar, “Broadly Tunable Multiple Wavelength Brillouin Fiber Laser Exploiting Erbium Amplification,” *Journal of Optical Society of America B*, Vol. 26, No. 9, pp 1789 – 1794, 2009 **Scopus**
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- 19 A. W. Al-Alimi, M. H. Al-Mansoori, A. F. Abas, M. A. Mahdi, and *M. Ajiya*, “Optimization of tunable dual wavelength erbium-doped fiber laser”, *Laser Physics Letters*, Vol. 6, No. 10, pp 727 – 731, 2009 **Scopus**
-
- 20 *M. Ajiya*, J. A. Oladapo, U. G. Danbatta, N. A. M. Ahmad Hambali, “Seamless Channel Spacing in Multiple Wavelength Fiber based Lasers” *IIE, International Journal of Computing, Communications and Instrumentation Engineering*, (IJCCIE) Vol.3, No. 2, pp 263 – 266, 2016
-
- 21 Mariya Garba Mustapha, *Mohammed Ajiya*, and Dahiru Sani Shuaibu, “Uncluttered Gain Roll Out In Erbium Doped Fiber Amplifier” *IIE, International Journal of Computing, Communications and Instrumentation Engineering*, (IJCCIE) Vol.1, No. 1, pp 69 – 72, 2014
-
- 22 H Rabiou, *M. Ajiya* and D. S. Shuaibu, “An Investigative Study on the Influence of 3D Geometrical Face Features and their Significance on Facial Face Expression” *Zaria Journal of Electrical Engineering*
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Technology, Vol.2, No. 1, pp 20 – 32, 2013

23 D. S. Shuaibu, **M. Ajiya**, S. S. Adamu, S. H. Lawan, “An Efficient Buffer Management Algorithm for Hetrogeneous Wireless Network” *Nigerian Journal of Engineering*. – Vol.19, No.2, pp 12 – 19, 2013

24 K. O. Olawuyi, **M. Ajiya** and D. S. Shuaibu, “Effect of Path Distance on Bit Error Rate (BER) of a Microwave Radio Link in a QAM System of GSM Network” *Zaria Journal of Electrical Engineering Technology* Vol. 2, No.1, pp 33 – 38, 2013

25 S. H. Lawan, **M. Ajiya** and D. S. Shuaibu “Numerical Simulation of Chromatic Dispersion and Fiber Attenuation in a Single-Mode Optical Fiber System” *IOSR Journal of Electronics and Communication Engineering*, Vol. 3, No. 6, pp 31-34, 2012

26 **M. Ajiya**, “48 Channels generation in L – Band Brillouin/Erbium Fiber Laser” *Nigerian Journal of Engineering*. Vol. 18, No. 1, pp 47 – 50, 2011

27 **M. Ajiya**, “Review of Configurations and Applications of Fiber Optical Parametric Amplifiers” *Journal of engineering and Technology*, Vol. 5, No.2, pp 33 – 43, 2010

28 **M. Ajiya**, “Review of Fiber Optical Parametric Amplifiers” *Journal of engineering and Technology*, Vol. 5, No.1, pp 26 – 32, 2010

29 **M. Ajiya**, “Design, Construction and Testing of Intercom System,” *Journal of Engineering and Technology*, Vol.2, No.1, pp 63 – 72, 2007

a. Conference Proceedings

30 **M Ajiya**, N. A. M. Ahmad Hambali and M. S. A. Wahab “L-Band Single Wavelength Ring Cavity Configured Brillouin/Raman Fiber Laser” Proceedings of 6th *IEEE International Conference on Adaptive Science and Technology*, ICAST 2014, Otta, Nigeria. 29th – 31st October 2014 **Scopus**

31 S. H. Lawan and **M. Ajiya** “Dispersion Management in a Single-Mode Optical Fiber Communication System Using Dispersion Compensating Fiber” Proceedings of *IEEE International Conference on Emerging & Sustainable Technologies for Power & ICT in a Developing Society*, NIGERCON 2013, Owerri, Nigeria. 14th – 16th November 2013 **Scopus**

32 **M Ajiya**, “Validation of Channels Stability in Multiple Wavelength Brillouin-Erbium Fiber Laser”, Proceedings of IEEE International Conference on Adaptive Science and Technology, Abuja, 2011 **Scopus**

33 A W. Al-Alimi, M. H. Al-Mansoori, A. F. Abas, M. A. Mahdi, F. R. M. Adikan and **M. Ajiya**, “Intracavity Loss Optimization in Tunable Dual-Wavelength Erbium-Doped Fiber Laser”, International Symposium on Optical Engineering and Photonic Technology: OEPT 2009, Paper ID: 0159XT, July 10th - July 13th, 2009, Orlando, Florida, USA **Scopus**

34 **Mohammed Ajiya**, Mohd Adzir Mahdi, Mohammed Hayder Al-Mansoori, Nor Azura Ahmad Hambali and Shee Yu Gang, **Scopus**



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- “Multiwavelength Brillouin – Erbium Fiber Laser Incorporating Stimulated Brillouin Scattering as Mirror,” *SPIE Photonic West International Conference*, San Jose, California, USA, Vol. 7195, pp 95, 26 – 29 January 2009
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- 35 **Mohammed Ajiya**, Mohd Adzir Mahdi, Mohammed Hayder Al-Mansoori, Nor Azura Ahmad Hambali and Shee Yu Gang, “Multiwavelength Brillouin/Erbium Fiber Laser Utilizing Virtual Reflectivity in Dispersion Compensating Fiber,” *IEEE International Conference on Electronic Design, ICED 2008*, 1 – 3 December 2008 **Scopus**
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- 36 Mohammed Hayder Al-Mansoori, **Mohammed Ajiya**, Mohd Adzir Mahdi, “Characteristics of Multiple Wavelength L – band Brillouin – Erbium Comb Fiber Laser at Low Pumping Powers,” *IEEE International Conference on Electronic Design, ICED 2008*, 1 – 3 December 2008 **Scopus**
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- 37 Nor Azura Ahmad Hambali, Mohd Adzir Mahdi, **Mohammed Ajiya**, Mohammed Hayder Al-Mansoori and Shee Yu Gang, “Reduction of Pump Threshold by Circulating Brillouin Stokes Lines in Ring cavity,” *IEEE International Conference on Electronic Design, ICED 2008*, 1 – 3 December 2008 **Scopus**
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- 38 Shee Yu Gang, Mohd Adzir Mahdi, Mohammed Hayder Al-Mansoori, Nor Azura Ahmad Hambali and **Mohammed Ajiya**, “Amplitude Equilibrium Dual-Wavelength Fiber Laser Through Brillouin Pump recycling Technique,” *IEEE International Conference on Electronic Design, ICED 2008*, 1 – 3 December 2008 **Scopus**
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- 39 **M. Ajiya**, H. Rabi and J. Alao Oladapo, “Tunable L-Band Delay Interferometer Assisted Multi-Wavelength Brillouin Fiber Laser,” Proc. of the 1st International Conference on Green Engineering for Sustainable Development, IC-GESD, Bayero University Kano, pp 270 – 281, 8th – 10th December 2015
-
- 40 **M. Ajiya**, M. A Mahdi, M. H. Al-Mansoori, “Trends in The Improvement of Tunability in Multiwavelength Brillouin/Erbium Fiber Laser” Proc. of the Tropical Meeting on Photonics, Faculty of Engineering, University Putra Malaysia, 2010.
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- 41 A. W. Al-Alimi, M. H. Al-Mansoori, A. F. Abas, M. A. Mahdi, and **M. Ajiya**, “A stabilized tunable dual wavelength erbium-doped fiber laser,” Proc. of the 1st Tropical Meeting on Lasers and optoelectronics, paper 3, the Anderman, langkawi, Malaysia, 2009.
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- 42 **Mohammed Ajiya**, Mohd Adzir Mahdi, Mohammed Hayder Al-Mansoori, Nor Azura Ahmad Hambali and Shee Yu Gang, “Multiwavelength Lasing Oscillations in a Ring Cavity Brillouin/Erbium Fiber Laser Aided by High Reflectivity Optical Mirror,” *FEIC International Symposium on Engineering and Technology, SET 2008*, pp 316 – 320, 15 – 16 December 2008
-
- 43 Mohammed Hayder Al-Mansoori, **Mohammed Ajiya** and Mohd Adzir Mahdi, “Generation of Multiwavelength Laser Using Enhanced Sagnac Loop Mirror with Optical Amplifier,” *FEIC International Symposium on Engineering and Technology, SET 2008*, pp 664 – 669, 15 – 16 December 2008
-
- 44 Nor Azura Ahmad Hambali, Mohd Adzir Mahdi, Mohammed Hayder Al-Mansoori, **Mohammed Ajiya**, and Shee Yu Gang, “Tunable Range Investigations at Different EDFA Locations on Single – Wavelength Brillouin – Erbium Fiber Laser,” *FEIC International Symposium on Engineering and Technology, SET 2008*, pp 89 – 94, 15 – 16 December 2008
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- 45 Shee Yu Gang, Mohd Adzir Mahdi, Mohammed Hayder Al-Mansoori, Alyani Ismail, Nor Azura Ahmad Hambali and **Mohammed Ajiya**, “Brillouin Threshold Reduction Through Feedback Mechanism,” *FEIIC International Symposium on Engineering and Technology*, SET 2008, pp 403 – 406, 15 – 16 December 2008
-
- 46 **M Ajiya**, and H Rabi, “Double Frequency Spaced Multiple Wavelength Brillouin/Erbium Fiber Laser” Proceedings of *National Conference on Bridging the Gap between Academia and Industry in Nigeria*, ACICOn 2014, Faculty of Engineering, Bayero University, Kano, Nigeria. 9th – 11th December 2014.
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- 47 H Rabi and **M Ajiya**, “3d-Based Face Registration Using Intrinsic Properties” Proceedings of *National Conference on Bridging the Gap between Academia and Industry in Nigeria*, ACICOn 2014, Faculty of Engineering, Bayero University, Kano, Nigeria. 9th – 11th December 2014.
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c. Books and Book Chapters

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- 48 Dahiru Sani Shuaibu, **Muhammad Ajiya** and Yakubu Suleiman Bagudu, “Chapter 1 – Scheduling Algorithm for Next Generation Heterogeneous Wireless Networks in a book *Advances in Information & Communication Technologies*” Ahmadu Bello University Press, Zaria, 2012
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d. Patents

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- 49 **M. Ajiya**, M. A Mahdi, M. H. Al-Mansoori, “Broadly Tunable Multiple Wavelength Brillouin-Erbium Fiber Laser Utilizing Stimulated Brillouin Scattering As A Virtual Mirror” PI 2009 3301 **Granted Date: 14th October 2013; Grant # MY – 149767 - A**
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Awards/Recognition

1. One of 2000 Outstanding Intellectuals of the 21st Century – International Biographical Centre, Cambridge, England. UK.
2. One of Top 100 Engineers in the year 2011 - International Biographical Centre, Cambridge, England. UK.
3. Nigerian Students’ Community in Malaysia, International Islamic University, Malaysia. Certificate of Honour for valuable contribution to Nigerian Status in Malaysia.
4. Nigerian Universities Engineering Students Association, Certificate of Honour for being Best Student in Level III
5. Bayero university scholarship award for outstanding academic performance
6. The International Einstein Award for Scientific Achievement – International Biographical Centre, Cambridge, England. UK
7. Award of Excellence in recognition of immense contribution to societal transformation, educational and information development in northern Nigeria – Association of Northern Nigerian Students