Publications

Professor Johnson I Agbinya, PhD (La Trobe) https://orcid.org/0009-0008-4569-7856

Head of School of IT & Engineering, Melbourne Institute of Technology

- ✓ Top 2% Scientist worldwide (Elsevier, October 2023) ranking in Artificial Intelligence & Image Processing, Remote Sensing, Networking and Telecommunications, and Information & Communication Technologies; (https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/6/files/d2537947-3d38-42e5-9c34-15c3dfe04f59)
- ✓ AD Scientific Index 2024; Oceania Scientists i10 Productivity Rankings 2024; https://www.adscientificindex.com/productivity-rankings/?con=Oceania&q=agbinya

20 PhD grads, 3 Professor (MIT) h-index 27, 11 books in are Professors Res Prof (SUST), i10-index 65; AI/Sensors / ; 10 MPhil/ Adj Prof 3688 citations telecommunic over 750 MSc NMAIST, Adj (Google ation/ Data grads Scholar) **Prof WITS** Analytics/ Research Grants Assessor, NRF South Africa, Over 400 peer Elsevier (SCOPUS) Portuguese Grants Agency, reviewed 2023 Ranking: Top Researcher Assessor, NRF South Africa publications / 2%, Researchers-Times Higher Education University Ranking **Editor Sensors &** career list: Artificial Nature Discovery Intelligence, ICT, Networks Networking, Telecommunications Supervised, designed & Elsevier (SCOPUS) 2023 developed FunRich, a Ranking: Top 2%, bioinformatics open Researchers-career list: access standalone Artificial Intelligence, enrichment and ICT, Networking, interaction network Telecommunications analysis tool.

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1 Citations Counts in Google Scholar and Profile

Google Scholar follows and maintains research profiles of world class researchers daily in a graphical form as shown below for Professor Johnson I Agbinya.

Cited by VIEW ALL

	All	Since 2020
<u>Citations</u>	3926	1616
<u>h-index</u>	27	14
i10-index	65	22

2 Publications

2.1 Editorship

Recent International Journal Editorial							
2025	Johnson I Agbinya, Guest Editor, LiDAR Technology for Autonomous Navigation and Mapping, Remote Sensing, MDPI, 2025						
2019	Johnson I Agbinya, Guest Editor, Remote Sensing, Special Issue, "The Internet of Things (IoT) in Remote Sensing: Opportunities and Challenges",https://www.mdpi.com/journal/remotesensing/special_issues/iot_rs						
2019	Ammar Alazab, Johnson Agbinya and Mamoun Alazab, Special Issue in - Security and Privacy in Information and Communication Systems https://www.mdpi.com/journal/futureinternet/special issues/Communication Systems						
2019+	Johnson I Agbinya, Editor-in-Chief, Software Networking, River Publishers, Denma https://www.riverpublishers.com/journal.php?j=JSN/2018/1						
Technical Program Committee Chair and Proceedings: Recent International Conferences							
2023	Johnson I Agbinya, Proc. International conference on Science, Computing and Telecommunications, September 12-13, Lusaka Zambia; https://www.icict.org.zm/						
2019	Johnson I Agbinya, Proc. International conference on Science, Computing and Telecommunications, March 10-12, Swaziland (Sponsored by Springer); http://www.ib2com.org/pact2019/						
2018	Johnson I Agbinya, Proc. International conference on Cyber Security and Communications Systems, December 10-12, Melbourne, Australia (Sponsored by Springer); www.iccscs.org						
2017	Johnson I Agbinya, Proc. International conference on Science, Computing and Telecommunications, March 7-10, 2017, Nairobi, Kenya; http://www.ib2com.org/pact2017/						

2.2 Text Books

- Agbinya, JI, Applied Big Data Analytics, River Publishers Denmark, River Publishers Denmark, PO Box 1657, Aalborg Postkontor, Algade 42, 9000 Aalborg, Denmark, due for publication, ISBN: 9788770220965, e-ISBN: 9788770220958, May 2020
- Agbinya, JI., Wireless Power Transfer (2nd Edition), (River Publishers Denmark, PO Box 1657, Aalborg Postkontor, Algade 42, 9000 Aalborg, Denmark, 2015); ISBN:
 (http://www.riverpublishers.com/); 2nd Edition; ISBN: 978-87-93237-67-4 (Hardback); 978-87-93237-68-1 (ebook), 746 pages, December 2015
- 3. Agbinya, JI., Wireless Power Transfer", (River Publishers Denmark, PO Box 1657, Aalborg Postkontor, Algade 42, 9000 Aalborg, Denmark, July 2012); ISBN: 978-87-92329-23-3 (http://www.riverpublishers.com/); 1st Edition
- 4. Agbinya JI, "Principles of Inductive Near Field Communications for Internet of Things", ISBN: 978-87-92329-52-3; (River Publishers Denmark, PO Box 1657, Aalborg Postkontor, Algade 42, 9000 Aalborg, Denmark, November. 2011)
- 5. Agbinya JI, Whittington J, Custovic E and Lal S.; "Bio-Informatics Systems, Processing and Applications", (River Publishers Denmark, PO Box 1657, Aalborg Postkontor, Algade 42, 9000 Aalborg, Denmark, ISBN: 9788793102187 Publication date October 2013)
- 6. Agbinya JI, Mari Carmen Agueyo-Torres, Klempous R and Nikodem, J.; "4G Wireless Communication Networks: Design, Planning and Applications", (River Publishers Denmark, PO Box 1657, Aalborg Postkontor, Algade 42, 9000 Aalborg, Denmark, ISBN: 978-87-92982-71-1; Publication date July 2013)
- 7. Agbinya JI, Biermann E, Lal S and Hamam Y., Biomedical and Environmental Sensing, (River Publishers Denmark, PO Box 1657, Aalborg Postkontor, Algade 42, 9000 Aalborg, Denmark, ISBN: 978-87-92329-28-8; November 2009
- 8. Agbinya, JI, "Planning and Optimisation of 3G and 4G Wireless Networks", River Publishers Denmark, PO Box 1657, Aalborg Postkontor, Algade 42, 9000 Aalborg, Denmark), ISBN #: 978-87-92329-24-0 December 2009
- 9. Agbinya, JI, IP Communications and Services for NGN, (ISBN: 978-1-4200-7090-3; Auerbach Publications, Taylor & Francis Group, USA, CRC Press; USA, January, 2010)
- 10. Agbinya, JI, Sevimli, O., Lal, S., Reisenfeld, S; Selvadurai, S; Li, Y and Aljumaily, A; "Emerging Broadband Communications and Applications: Next Generation Broadband Communications"; ISBN: 978-87-92329-00-4; ISBN E-Book: 978-87-92329-01-1 (River Publishers Denmark, September, 2008)
- 11. Agbinya, J.I., Oyejobi, F. and Etukudo, B., "Internet Technology In a Nutshell" (Macquarie Lighthouse Press, Marsfield, Australia; August 1998, ISBN: 0-646-35607-0)

2.3 Articles in Accredited Journals

- 12. Sana Abdelaziz Bkheet, Johnson I. Agbinya, Gamal Saad Mohamed Khamis, "Advanced Deep Learning Approach for Smart Home Appliance Identification Using Recurrent Neural Networks with LSTM", IoT **2024**, 5, 835–851. https://doi.org/10.3390/iot5040038, 2024.
- 13. Bhagwan Das, Johnson I Agbinya; "Adaptive Composite Bandwidth and Automatic Gain Control Receiver for 6G Wireless Optical Communication", Discover Applied Sciences, Springer Nature, https://doi.org/10.1007/s42452-024-05882-6, 2024.

- 14. Sana Abdelaziz Bkheet, Johnson I Agbinya, "IOT Objects Identification Model Using Deep-Neural Network (DNN)", Journal of Basic and Applied Sciences, 17(4): 1-18. DOI: 10.22587/ajbas.2023.17.4.1.
- 15. Nahla Ibrahim and Johnson Agbinya, "Design of a Lightweight Cryptographic Scheme for Resource-Constrained Internet of Things Devices", Applied Sciences, MDPI, 2023
- 16. Cosmas Magashi, Johnson I Agbinya, Anael Sam and Jimmy Mbelwa, "Indicative factors for SACCOS Failure in Tanzania", Engineering Technology and Applied Science Research, 2022; https://etasr.com.
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- 18. Nahla Fatahelrahman Ibrahim and Johnson I Agbinya, "A Review of Lightweight Cryptographic Schemes and Fundamental Cryptographic Characteristics of Boolean Functions", accepted December 3, 2021 in Advances in Internet of Things, Scientific Research Publishing Inc., 2022
- 19. Hoang Nguyen and Johnson I Agbinya, "Inductive Multi-Frequency Diversity Using Split Resonant Frequency", *Progress In Electromagnetics Research M, Vol. 100, pp. 81–91, 2021*
- Mohammad Kamrul Hasan, Taher M. Ghazal, <u>Ali Alkhaifah</u>, Khairul Azmi Abu Bakar, <u>Alireza Omidvar</u>, <u>Nazmus S Nafi</u> and <u>Johnson I. Agbinya</u>; "Fischer Linear Discrimination and Quadratic Discrimination Analysis based Data Mining Technique for Internet of Things Framework for Healthcare", Frontiers in Public Health | doi: 10.3389/fpubh.2021.737149, 2021.
- 21. Sana Abdel Aziz, Johnson I Agbinya, "A Review of Identity methods of Internet of Things (IOT)", Advances in Internet of Things, scirp.org, 2021.
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- 23. Nagi F. Ali Mohamed and Johnson I Agbinya, "Stable Power Delivery Efficiency in Misaligned Wireless Power Transfer Systems Using Triffid Antennas", Journal of Mobile Multimedia, Vol. 16, Issue 3, 2020, pp. 335 350
- 24. Atika Hussein and Johnson I Agbinya, "Water Flow forecasting using Artificial Intelligence techniques and Markov chain model: The Blue Nile Scenario", Australian Journal of Basic and Applied Sciences, Vol. 13, No.12, 2019). Issue No.12, online at http://www.ajbasweb.com/old/ajbas_December_2019.html, pp. 10-18.
- 25. Atika Hussein and Johnson I Agbinya, "A Survey on Data mining Techniques for Water Flow Forecasting", Australian Journal of Basic and Applied Sciences, Vol. 14, 2020. Issue No. 3, pp. 1-12
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- Nahina Islam, Ammar Alazab, Johnson Agbinya, "Energy Efficient and Delay Aware 5G Multi-tier Network", Remote Sensing, Special Issue, The Internet of Things (IoT) in Remote Sensing: Opportunities and Challenges, April 2019, Impact Factor 4.118; https://www.mdpi.com/journal/remotesensing/special_issues/iot_rs
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- 29. Johnson I Agbinya and Hoang Nguyen, "Principles and Applications of Frequency Splitting in Inductive Communication and Wireless Power Transfer Systems", Wireless Personal Communications, Impact Factor 1.2, July 2019, Volume 107, Issue 2, pp 987–1017.
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- 32. Johevajile K. Mazima, Johnson I Agbinya, Shubi F. Kaijage and Emmanuel Manasseh. "An Overview of Electromagnetic Field Interaction with Grain Crops", International Journal of Computer Science and Information Security, Thompson Reuters, June 2017
- Hoang Nguyen and Johnson I Agbinya, "Inductive multi-frequency diversity using resonant split frequency", Progress in Electromagnetics Research M, Vol. 100, January 2021, pp. 69-79.
- 34. Dennis L. Owuor, Okuthe P. Kogeda, Johnson I. Agbinya, "<u>Three Tier Indoor Localization System for Digital Forensics</u>", World Academy of Science, Engineering and Technology, International Journal of Electrical, Computer, Energetic, Electronic and Communication Engineering Vol:11, No:6, 2017
- 35. Hoang Nguyen and Johnson I Agbinya, "Splitting Frequency Diversity in Wireless Power Transmission" ,IEEE Transactions on Power Electronics, Impact Factor 6.814, Vol. 30, Issue 11, Nov. 2015, pp.6088 6096
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- 37. Hoang Nguyen, Johnson I Agbinya and John Devlin, "FPGA-Based Implementation of Multiple Modes in Near Field Inductive Communication Using Frequency Splitting and MIMO Configuration", IEEE Transactions on Circuits and Systems I (A, IF: 2.823); January, 2015, pp. 302 310.
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- 44. Khalid Aboura, Johnson I Agbinya and Eskandarian, "Weibull Decision Support Systems in Maintenance", Organizacija. Volume 47, Issue 2, pp. 81–89, ISSN (Online) 1581-1832, DOI: 10.2478/orga-2014-0008, May 2014
- 45. Hoa Doan Thanh and Johnson I Agbinya, "Investigation and Study of Mode Splitting in near field inductive communication systems", International Journal of Electronics and Telecommunications, Vol. 59, issue 2, pp. 185-194, ISSN (Print) 0867-6747, DOI: 10.2478/eletel-2013-0022, July 2013
- 46. Hoang Nguyen, Johnson I. Agbinya, and John Devlin, "Channel characterization and link budget of MIMO configuration in Near Field Magnetic Communication", INTL JOURNAL OF ELECTRONICS AND TELECOMMUNICATIONS, 2013, VOL. 59, NO. 3, pp. 257–264; DOI: 10.2478/eletel-2013-0030.
- 47. Mohashin Uddin Pathan and Agbinya JI, "Automated Estimation of Multiple Diffraction Losses for Microwave Link Design", African Journal of ICT, Vol 7, No. 2, 2013, pp. 27-36
- 48. J.I Agbinya, Guest Editor: Special issue on: Emerging Green Energy Techniques; ", Journal of Green Engineering, ISSN 1904-4720, Vol.3, No. 3, April 2013
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- 50. Mohammad Al-Hattab, Maen Takruri and Johnson Agbinya, "Mobility Prediction Using Pattern Matching", International Journal of Electrical and Computer Sciences (IJECS-IJENS), Vol. 12, No. 3, June 2012, pp. 18 24.
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- 91. Tran TD and Agbinya JI, "Network Invading Attack on Key Pre-distribution Schemes for Distributed Sensor Networks and Countermeasures", in the book "Security of Self-Organising Networks: MANET, WSN, WMN, VANET", editor Al-Sakib Khan Pathan, Auerbach Publications, CRC Press, Taylor & Francis Group, USA, 2009
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- 97. (Invited Book Chapter) Agbinya, JI., "SIP Security and Quality of Service Performance" in 'SIP Handbook: Services, Technologies and Security' (Editors: Syed Ahson and Mohammad Ilyas, (CRC Press, 2008)
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2.4 Papers in peer-reviewed conference proceedings

- Johnson I Agbinya and Nathan A Agbinya, "Revolutionising Cardiothoracic Surgery with Noninvasive Inductive Resonance Flowmetry", 2025 Annual Cardiothoracic Surgery Meeting of Aotearoa NZ, March 22, 2025
- 2. Johnson I Agbinya, "Characteristics of Pythagoras Quantum Twin State Processors", Proc. 14th ICAEIC-2025, Sydney, Australia, February 10-13, 2025.
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- 13. Agbinya, J.I., "Video Object Segmentation and Background Modelling", Confidential Research File Note No. SV99-4, CSIRO Telecommunications and Industrial Physics, Marsfield, P O Box 76, Epping NSW 2121, Australia, Wednesday September 23, 1999.
- 14. Agbinya, J.I., "Implementation of Automatic Human Face Tracking in FIAC", Confidential Research File Note No. JIA-SQIS-FIAC/1, CSIRO Telecommunications and Industrial Physics, Marsfield, P O Box 76, Epping NSW 2121, Australia, October 15, 1998.
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2.6 Keynote Addresses, Tutorials and short courses/training programs

- 1) Chief Guest, IEEE ICEICM 2021, Reva University, Bengaluru, India
- 2) Internet and IP communications
- 3) 4G and Next generation networks
- 4) Planning, Dimensioning and Optimisation of WiMAX and LTE Networks, SETIT 2011;
- 5) Cloaking and Invisibility, International Conference on Mechatronics, Kuala Lumpur, May 2011
- 6) Voice Over IP (VoIP) on contract (IIR Training and ICTe Africa 2006, 2007, 2008)
- 7) Mobile Communication Networks (GSM, UMTS, GPRS, HSDPA and Wireless LAN)
- 8) Interconnectivity regulation, pricing and practice
- 9) National Telecommunication Regulatory policy advice and training
- 10) ICT National Policies (Sole International Expert on creating Nigeria's National ICT Policy in 2000 NITDA)
- 11) Founder, Pan African Conference on Science, Computing and Telecommunications (PACT); http://www.ib2com.org/PACT

2.7 Facilitation of conferences workshops/seminars

- 1) Founder (Pan African Conference on Science, Computing and Telecommunications: PACT 2013-2023)
- 2) Founder (IB2COM 2008 2014)
- 3) Founder (Auswireless and BroadCom, 2006 2009)
- 4) Founder (IB2Com, 2010)
- 5) Conference Chair (Auswireless and BroadCom, 2006 2009)
- 6) Conference Chair (IB2Com, 2010)
- 7) TPC Member ATNAC 2011, Melbourne Australia
- 8) TPC Member ITU Kaleidoscope, South Africa, 2011
- 9) International Advisory Committee for International Conference on Mechatronics, Kuala Lumpur, May 2011
- **10)** TPC Member SETIT (Science of Electronics, Technologies of Information and Telecommunications), October, 2011 Tunisia

2.8 Technologies Developed and in Commercial Application

- 1) Sentiment Analysis in Social Networks (2021)
- 2) Virtual Doctor (2020 2021, to be deployed
- 3) Modulation Schemes for NFC (patent pending, 2021)
- 4) Short range communication transceivers (2016)
- 5) FunRich Software (http://www.funrich.org) software for cancer cell networks study (2015)
- 6) FPGA implementation of inductive communication systems (2013-2015)
- 7) Multimedia architecture for Ericsson's IMS with UNSW (Vodafone Australia);

- 8) Personal area network nodes based on Spartan FPGA (UTS);
- 9) data transcoding for 3G networks (Vodafone Australia)
- 10) Face recognition system and digital identity management system for secure online transactions (CSIRO);
- 11) CRASys Speech Compression System (CSIRO);