Prof. Dr. Jalil Ali

Dr. Jalil Ali received his PhD in plasma physics from Universiti Teknologi Malaysia (UTM), Malaysia in 1990. At present, he is a Professor of Photonics at the Institute of Advanced Photonics Science, Nanotechnology Research Alliance and the Physics Department, UTM. From 1987-2010, he has held numerous faculty and research positions including the Dean/Director, Bureau of Innovation and Consultancy. He was instrumental in establishing and forging University-Industry collaboration in Malaysia. He has authored/coauthored more than 300 technical papers published in international journal, three books and a number of book chapters. His areas of interests are in photonics, optical solitons, fiber couplers, nano waveguides and fusion energy. Dr. Jalil Ali is a member of OSA, SPIE, the Malaysian Institute of Physics and Zecotek Photonics Inc. Board of Directors.

1. Personal Information

Position : Professor of Photonics (VK06)

: Visiting Professor King Mongkut's Institute Technology (KMITL) Ladkrabang, Bangkok, Thailand.

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2. Academic Qualification

- B.Sc (Hons)(Physics), Universiti Malaya 1982
- M.Sc(Plasma), Universiti Malaya 1985
- P.hD (Plasma/Laser), Universiti Teknologi Malaysia 1990

3. Area or Specialization

Laser-Optoelectronics/Photonics, Plasma Technology, x-ray & microwave inspection technology and neutron application technology, optical soliton, non-linear optics, Fusion energy.

4. Invited Talks and Knowledge-Sharing Sessions

1. The Perspective of International Grants in Today's Research Scenario
   Invited Talk during knowledge sharing session in UTHM
   24th March 2017

2. Our Contribution to the Global Challenges Research
   Global Challenges Research Workshop at Herriot-Watt University, Cyberjaya
   2nd March, 2017

3. WINNING PROPOSAL Newton Fund – How to Secure the Grant?
   Organized by: Research Management Center, UTM
   6th October 2016

5. Awards

- United Nations WSIS award on an international collaborative research via GDC, 2016
- Excellent Research Award for publications, UTM,2014
- Excellent Research Award for publications, UTM,2013
- Excellent Research Award for publications, UTM,2012
- Excellent Research Award for publications, UTM,2011
- Excellent Research Award for publications, UTM,2010
- Excellent Research Award,UTM,2009
- Technology Asean Business Review Award. Excellence in Government Delivery Services (Innovation), UTM, 2008
- Excellent Research Award, UTM, 2007
- Excellent Service Award, UTM, 2005
- Excellent Service Award, UTM, 2002
- Excellent Service Award, UTM, 1997

- Research Fellow at Loughborough University of Technology, UK. Asian Development Bank, 1994
- Visiting Lecturer Fellowship, British Council, 1987 – 1993 @ 3 months annually
- Research Fellow, UTM-British Council, 1990 – 1993
- United Nations Fellowship, United Nations University, Tokyo, 1988
- Research Fellowship, University Malaya, 1983

6. Publications

H-Index: 45 *(socurce: Google Scholar);* **21** *(socurce: UTM Pure/Scopus)*

Citations: 5669 *(socurce: Google Scholar)* **1400** *(socurce: UTM Pure/Scopus)*

6.1 Original Books

1. Nanomedicine: Drug Delivery, Molecular Diagnosis and Artificial Organs, Preecha Yupapin and Jalil Ali, Science Publisher, 2012
2. Nanoscale Nonlinear PANDA Ring Resonator, Preecha Yupapin, Chat Teeka, Jalil Ali, Muhammad Arif Jalil, Science Publisher, 2012
3. Optical Solitons in Nonlinear Micro Ring Resonators: Unexpected Results and Applications, Nithiroth Pornsuwancharoen, Jalil Ali, Preecha Yupapin , Nova Science Publisher, 2011
4. Nanoscale Signal Processing for Hybrid Computer Communications, Preecha Yupapin, Somsak Mitatha, Jalil Ali, Nova Science Publisher, 2011
5. Quantum Entanglement, I. S. Amiri, M. A. Jalil, M. Kouhnavard, P. P. Yupapin and J. Ali. In Quantum Entanglement using Multi Dark Soliton Correlation for Multivariable Quantum Router, Nova Science Publisher, 2011

6.2 Indexed Journal Publication (Scopus/ISI/Impact Factor)

1. Amiri, I.S., Alavi, S.E., Supa'at, A.S.M., Ali, J., Ahmad, H. (2016). The analysis of phase, dispersion and group delay in InGaAsP/InP microring resonator. Jurnal Teknologi
2. Daud, S., Amiri, I.S., Ali, J. (2016) Half-panda ring resonator used to generate 100 MHZ repetition rate femtosecond soliton, Jurnal Teknologi
3. Pornsuwancharoen, N., Youplao, P., Amiri, I.S., Ali, J. and Yupapin, P., 2016. Electron Driven Mobility Model by Light on the Stacked Metal-Dielectric-Interfaces. arXiv preprint arXiv:1612.01258.

4. IS Amiri, SE Alavi, J Ali, High Capacity Soliton Transmission for Indoor and Outdoor Communications Using Integrated Ring Resonators, International Journal of Communication Systems, Volume 28, Issue 1, pages 147 160 (2015)
5. Alavi, S. E., Amiri, I. S., Idrus, S. M., Supaat, A. S. M., Ali, J. 2015. Cold laser therapy modeling of human cell/tissue by soliton tweezers, Optik, 126(5), 578 582
6. Sze Ho Phing, Anna Mazhorova, Mostafa Shalaby, Marco Peccianti, Matteo Clerici, Alessia Pasquazi, Yavuz Ozturk, Jalil Ali & Roberto. Morandotti Sub-wavelength terahertz beam profiling of a THz source via an all-optical knife-edge technique. Scientific Reports 5, 8551 (2015) (Nature)
7. N. Thammawongsa, Farrah Dilla Zainol, S. Mitatha, J. Ali and, and P. P. Yupapin, "Nanorobot Controlled by Optical Tweezer Spin for Microsurgical Use," IEEE Transactions on Nanotechnology, 12(1), 29-34 (2013) (IEEE).
8. P Sanati, A Afroozeh, IS Amiri, J Ali, LS Chua, Femtosecond Pulse Generation using Microring Resonators for Eye Nano Surgery, Nanoscience and Nanotechnology Letters 6 (3), 221-226 (2014)
9. IS Amiri, J Ali, Optical Quantum Generation and Transmission of 57-61 GHz Frequency Band Using an Optical Fiber Optics, Journal of Computational and Theoretical Nanoscience (JCTN) 11 (10), 2130-2135 (2014)
10. IS Amiri, B Barati, P Sanati, A Hosseinnia, HR Khosravi, S Pourmehdi, A Emami, J Ali, Optical stretcher of biological cells using sub-nanometer optical tweezers generated by an add/drop microring resonator system, Nanoscience and Nanotechnology Letters 6 (2), 111-117 (2014)
11. IS Amiri, J Ali, Generating Highly Dark Bright Solitons by Gaussian Beam Propagation in a PANDA Ring Resonator, Journal of Computational and Theoretical Nanoscience (JCTN) 11 (4), 1092-1099 (2014)
12. IS Amiri, SE Alavi, SM Idrus, ASM Supa'at, J Ali, PP Yupapin, W-Band OFDM Transmission for Radio-over-Fiber link Using Solitonic Millimeter Wave Generated by MRR, IEEE Journal of Quantum Electronics 50 (8), 622-628 (2014)
13. IS Amiri, M Ebrahimi, AH Yazdavar, S Ghorbani, SE Alavi, SM Idrus, J Ali, Transmission of data with orthogonal frequency division multiplexing technique for communication networks using GHz frequency band soliton carrier, IET Communications 8 (8), 1364 1373 (2014)
14. IS Amiri, J Ali, Femtosecond Optical Quantum Memory generation Using Optical Bright Soliton, Journal of Computational and Theoretical Nanoscience (JCTN) 11 (6), 1480-1485 (2014)

15. IS Amiri, P Naraei, J Ali, Review and Theory of Optical Soliton Generation Used to Improve the Security and High Capacity of MRR and NRR Passive Systems, Journal of Computational and Theoretical Nanoscience (JCTN) 11 (9), 1875-1886 (2014)

7. Grants

- Project Leader, Next Generation Green Data Centers for Bussiness and Environment Sustainability, Budget Approved 3,100,000MYR (Vot 4B271)
- Applications and development of Plasma Devices in support of Malaysia's future development in the Energy and Industrial sectors, Budget Approved 50,000GBP (Vot 4B294). This project is being carried out in collaboration with Dr John Pasley from University of York, UK.
- Project Member, Flexible Solar Photovoltaics for Commerical and Community Roof-tops in Malaysia, Budget Approved 52,000GBP (Vot 4B249). This project is being carried out in collaboration with Dr Jake Bowers from Loughborough University, UK.
- Project Member, Printed Solar Cell for Large Roof Application, April 2015 until December 2016, Budget Approved RM 335979.16 (Vot 4B206). This project was conducted in collaboration with Prof Mike Walls from Loughborough University UK.Project Leader-Dark Soliton Propagation within the Micro and Nano Waveguide Ring Resonator for Secured Communication, Tier-1 GUP, Vot. No. Q.J13000.7126.00H84, April 2011 until March 2013, RM170,000.
- Project Leader-Fundamental and Experimental Studies of Bio-photonics Ring Resonator Sensor, Flagship, Vot. No. Q.J130000.2426.00G26, August 2011 until July 2014, RM 551,000.
- Project Member- Design and Characteristics of MXN Switch Single Mode Fiber Couplers, Tier-1 GUP, Vot. No. Q.J13000.7126.01H02, April 2011 until March 2013, RM 144,000.
- Project Member- Simulation of Bio-Photonics Ring Resonator Sensor, Flaghip, August 2011 until July 2014, RM 138,500.