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EDUCATION

B. Sc. Degree

B. Sc. (2001 -2005) in Physics -Department of Physics, College of Education, Salahaddin University -Erbil, Iraq.

M.Sc. Degree

M. Sc. (2007-2009) in Atomic Laser Optics -Department of Physics, College of Education, Salahaddin University-Erbil, Iraq.

WORK EXPERIENCE

Teaching Assistance

Teaching assistance (2005 - 2009) in Physics - Department of Physics, College of Education, University of Salahaddin Erbil-Iraq.

Working in Electronics Lab., General Physics Lab., Properties of Matter Lab., Nuclear Physics Lab., Illustration Lab., Advanced Electricity and Magmatism Lab., Electricity and Magmatism Lab and Computer Skills Lab.

Teaching Physics Science at;

1. Badawa Evening School,
2. Ainkawa School.

Teaching Mathematics at;

1. Physics Department,
2. Badawa Evening School,
3. Zana Private School.

Teaching IT at;

1. Physics Department,
2. Law & Management Department, Erbil Technical Institute,
3. Kurdish, Arabic, and English Departments, College of Education, Soran University.

Teaching Subject Lessens at Physics Department in Hawler and Shaqlawa, College of Education, Salahaddin University/Hawler

1. Wave Motion & Sound
2. Properties of Matter,
3. Advance Electricity and Magmatism,
4. Electricity and Magmatism,
5. Laser Physics.

Teaching Staff

Teaching staff (2009 - Now) in Physics - Department of Physics, College of Education, Salahaddin University-Erbil-Iraq.

SKILLS

1. Research Experience (Laser Physics, Optics, Communication).
2. Teaching Experience (Laser Physics, Advance Electricity and Magmatism, Electricity and Magmatism, Electronics).

Local and International Memberships

1. Kurdistan Teachers Union Since 1/11/2005.
2. Kurdistan Physicists' Syndicate Since 1/6/2006.
3. Zanco Cultural Center 2006.

LINKS

Formal Page: <https://academics.su.edu.krd/twana.anwar1/>

Research Gate: <https://www.researchgate.net/profile/Twana-Kak-2>

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Google Scholar: <https://scholar.google.com/citations?user=MCzjKu8AAAAJ&hl=en>

Publications

1. Abdulrahim, D., Mohammed, N., & Anwer, T. K. (2015). Quantum (Second Harmonic) Efficiency and Conversion Coefficient for a Frequency Doubled He-Ne Laser. *Quantum (Second Harmonic)*, 49.
2. Anwer, T. M. K., & Yaseen, S. D. (2022). Comparative Additional Factor for Diffraction Loss On (TEM01) Mode from That of (TEM00) Mode. *Zanco Journal of Pure and Applied Sciences*, 34(2), 37-42.
3. Mamand, D. M., Awla, A. H., Anwer, T. M. K., & Qadr, H. M. (2022). Quantum chemical study of heterocyclic organic compounds on the corrosion inhibition. *Chimica Techno Acta*, 9(2), 20229203.
4. Mamanda, D.M., Anwerb, T.K., Qadra, H.M. and Mussaa, C.H., 2022. Investigation of Spectroscopic and Optoelectronic Properties of Phthalocyanine Molecules. *RUSSIAN JOURNAL OF GENERAL CHEMISTRY*, 92(9).
5. Dyari Mustafa Mamand, Twana Mohammed Kak Anwer, Hiwa Mohammad Qadr, 2022. Theoretical Investigation On Corrosion Inhibition Effect Of Oxadiazoles: DFT Calculations. *Oxidation Communications* 45, No 4, 600–627.
6. Mamand, D.M., Rasul, T.H., Awla, A.H. and Anwer, T.M.K., 2022. ELECTRONIC STRUCTURE AND OPTOELECTRONIC PROPERTIES OF A NEW POLYMER SERIES (N-ALKYL 2-PYRIDONE DITHIOPHENE) PDTs. *Вестник Московского государственного технического университета им. НЭ Баумана. Серия «Естественные науки»*, (6 (105)), pp.157-173.
7. Jahan K, Srinivas P, Ahammad SH, Livingston LM, Anwer TM, Kiran KU, Rajesh V, Hossain MA, Rashed AN. Superior gain and polarization control

- in MIMO circular ring surface plasmonic planar differential antenna for wireless systems. *Plasmonics*. 2023 Mar 11:1-1.
- 8. Shanmugapriya G, Bhoompally S, Ahammad SH, Kiran KU, Anwer TM, Hossain MA, Rashed AN, Nabil AA. Performance evaluation of various distributors and exchange elements configurations in the optical fiber communication system under optimum operating conditions. *Journal of Optical Communications*. 2023 Mar 23(0).
 - 9. Ganesan S, Bhoompally S, Ahammad SH, Kiran KU, Kak Anwer TM, Hossain MA, Zaki Rashed AN, Zidan WF. Mode mixing performance evaluation and influence of elements on the fiber system behaviour. *Journal of Optical Communications*. 2023 Mar 23(0).
 - 10. Rashed AN, Babu GH, Nagendram S, Anwer TM, Ahammad SH, Hossain MA, Ibrahim A. Study of the splicing/coupling influence of cabling to fibers test links measurements. *Journal of Optical Communications*. 2023 Mar 27(0).
 - 11. Rashed AN, Reddy MM, Nagendram S, Anwer TM, Ahammad SH, Hossain MA, Shetea EF. Simulative study of vertical cavity with distributed feedback optical sources coupling to fiber systems evaluation. *Journal of Optical Communications*. 2023 Mar 27(0).
 - 12. Nagendram S, Babu GH, Ahammad SH, Kiran KU, Anwer TM, Hossain MA, Rashed AN, Amin MH. Noise multiplication and bandwidth of photodetectors employed with Taylor dispersion in micro optical fiber channel system. *Journal of Optical Communications*. 2023 Mar 27(0).
 - 13. Zuhayer A, Reddy MM, Anwer TM, Ahammad SH, Hossain MA, Rashed AN, Mahrous L. Study and development of dual core photonic crystal fiber for the employment of guided waves polarization modes. *Journal of Optical Communications*. 2023 Mar 29(0).
 - 14. Zaki Rashed AN, Reddy MM, Snehith N, Kak Anwer TM, Ahammad SH, Inthiyaz S, Hossain A, Shaker F. Various RZ percentage duty cycle coding with NRZ modulation technique signature on the fiber system performance. *Journal of Optical Communications*. 2023 Mar 29(0).
 - 15. Rashed AN, Reddy MM, Nagendram S, Kak Anwer TM, Ahammad SH, Kumar MS, Hossain MA, Essam A. Optical duobinary transmitter based OQPSK line coding phase offset for the prediction of OWC channel systems

- performance efficiency. *Journal of Optical Communications*. 2023 Mar 30(0).
16. Rashed AN, Reddy MM, Nagendram S, Kak Anwer TM, Ahammad SH, Inthiyaz S, Hossain MA, Farouk S. Efficient employment of optical DPSK transmitter with linear multimode fibers and FSO channel under various duty cycle coding effects. *Journal of Optical Communications*. 2023 Mar 30(0).
 17. Rashed AN, Reddy MM, Nagendram S, Anwer TM, Ahammad SH, Kumar MS, Hossain MA, Mousad A. Performance evaluation simulation of the optical splitters integrated with unidirectional fiber elements. *Journal of Optical Communications*. 2023 Apr 4(0).
 18. Ferdous AI, Reddy MM, Anwer TM, Anower MS, Jain P, Musha A, Islam MA, Ahammad SH, Hossain MA, Rashed AN, Ibrahim H. Optical communications with guided wave fibers with rectangular cladding for fuel adulteration detection. *Journal of Optical Communications*. 2023 Apr 11(0).
 19. Zuhayer A, Reddy MM, Kak Anwer TM, Ahammad SH, Inthiyaz S, Hossain MA, Rashed AN, Hakim R, Daher MG, Zyoud SH. High stability with low polarization and confinement loss based new structure of photonic crystal fiber waveguide profile. *Journal of Optical Communications*. 2023 Apr 11(0).
 20. Bhoompally S, Reddy MM, Kak Anwer TM, Ahammad SH, Hossain MA, Ferdous AI, Zaki Rashed AN, Ezzat A. Distributed feedback laser grating order effects on optical systems with NRZ-RZ line coding scheme performance signature. *Journal of Optical Communications*. 2023 Apr 17(0).
 21. Kalyani P, Manasa Y, Ahammad SH, Suman M, Anwer TM, Hossain MA, Rashed AN. Prediction of patient's neurological recovery from cervical spinal cord injury through XGBoost learning approach. *European Spine Journal*. 2023 Apr 15:1-9.
 22. I. Sivagami · R. O. M. U. Jauhar · T. Sivanesan · Paavai. Era · R. Ranjani · Twana Mohammed Kak Anwer · Shaik Hasane Ahammad · Md. Amzad Hossain · Ahmed Nabih Zaki Rashed, 2023. Determination of Optical, Photoluminescence, Structural, Spectral, Laser Damage and Thermal Properties of an Organic Methylammonium Hydrogen Succinate Monohydrate Single Crystal (MHSM). *Journal of Electronic Materials* <https://doi.org/10.1007/s11664-023-10435-5>.

23. Anwer, T. M. K., & Yaseen, S. Mohammed, N. (2023). Optimization of Variable Parameters in Diode Pumped SHG Nd-YAG Lasers. Zanco Journal of Pure and Applied Sciences, .