

Curriculum Vita



Dr. Reda Abdelkader Mohamed Ibrahim

- Lecturer, Basic Sciences Department, Faculty of Engineering - Shubra - Benha University, Egypt.
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Personal informations

□ **Name:** Reda Abdelkader Mohamed Ibrahim

- **Date of birth:** 14 / 1 / 1985
- **Nationality:** Egyptian
- **Marital status:** Married
- **Military service:** Completed
- **Google citations:** [R.A.Ibrahim - Google](#) الباحث العلمي من Google
- **Address:** 8 Jadallah Lane - Safa & Marwa St. - Happiness Basin - Khosous - Qalyubia.

Education

- Bachelor of Pure Mathematics - Faculty of Science –Banha University - **May 2006 -very good**
- Master of Science in Pure Mathematics from the department of Mathematics - Faculty of Science – Ain Shams University (A Comparative Analysis of Some Numerical Methods for Integral Equations) (2014).
- Doctor of Philosophy (P.h.D) in Pure mathematics from the department of Mathematics - Faculty of Science – Ain Shams University (A Numerical Treatment of Fractional Integro-Differential Equations) (2018).

Present Work

(Benha University - Faculty of Engineering Shoubra)

Assistant Professor of engineering mathematics in Basic Sciences department - Faculty of Engineering Shoubra - Banha University.

Experiences

1: (December 2007 - may 2014) Demonstrator in Basic Sciences Department, Faculty of Engineering - Shubra - Benha University, Egypt.

2: (may 2014 - November 2018) assistant lecturer in Basic Sciences Department, Faculty of Engineering - Shubra - Benha University, Egypt.

3: (November 2018 - Now) lecturer in Basic Sciences Department, Faculty of Engineering - Shubra - Benha University, Egypt.

4: Teaching all the following courses at faculty of engineering Shubra Benha University since December 2007.

Courses :

- **Differentiation and its applications & Integration and its applications**
- **Analytical Engineering & Linear algebra.**
- **Partial differentiation and its applications.**
- **Differential equations.**
- **Vector analysis and its applications.**
- **Series solution & Special functions.**
- **Laplace transforms & Multiple integral.**
- **Taylor and McLaurin expansion.**
- **Infinite series.**
- **Fourier series & Fourier integral.**
- **Complex functions & Complex integrations.**
- **Numerical analysis with programming.**
- **Linear programming.**
- **Heat transfer courses**
- **Engineering Statics.**
- **Integral equations And Transformation.**
- **Advanced topics in Numerical Analysis (Post Graduates).**

Languages

- **Arabic (Mother Language)**
- **English (very good [reading, writing, talking]).**

Computer Skills

- **Mathematica Programming**
- **General Package: MS - Excel / MS - Word / MS – Power Point.**
- **Excellent Experience in using "internet ".**

Research interests:

- 1. Numerical analysis.**
- 2. Integral equations and its applications.**
- 3. Partial differential equation and its applications.**
- 4. Semi-analytical and Numerical methods.**
- 5. Heat and mass transfer.**
- 6. Mathematical Programming.**

Personal skills

- Working with team effectively.
- Able to work well under pressure.
- Able to learn new tasks quickly.

List of publications

- (1) Zahran E. H. M., Bekir A., **Ibrahim R.A.**, Myrzakulov R.; (2024) “The new soliton solution types to the Myrzakulov-Lakshmanan-XXXII-equation” AIMS Mathematics, 9(3): 6145–6160, DOI: 10.3934/math.2024300 (Q1: IF 2.2).
- (2) **Ibrahim R.A.**, Zahran E. H. M., Bekir A., (2024); “Unique soliton solutions to the nonlinear Schrödinger equation with weak non-locality and cubic–quintic–septic nonlinearity in nonlinear optical fibers” Applied Physics B (2024) 130:34, doi.org/10.1007/s00340-023-08171-z, (Q2: IF 2.25).
- (3) **Ibrahim R.A.**, Zahran E. H. M., Bekir A., (2024) “Effective analytical solutions versus numerical treatments of Chavy-Waddy-Kolokolnikov bacterial aggregates model in phototactic” Eur. Phys. J. Plus (2024) 139:135, doi.org/10.1140/epjp/s13360-024-04934-5,(Q2: IF 3.51) .
- (4) Zahran, E. H. M., Bekir,A., **Ibrahim, R.A.:** (2023); “New optical soliton solutions of the popularized anti-cubic nonlinear Schrödinger equation versus its numerical Treatment”; Optical and Quantum Electronics 55:377, (Q2: IF 3).
- (5) Zahran E. H. M., **Ibrahim R.A.**, Ozsahin D.U., Ahmad H., Shehata M. S. M; (2023); New diverse exact optical solutions of the three-dimensional Zakharov–Kuznetsov equation”; Optical and Quantum Electronics 55:817, (Q2: IF 3).
- (6) Zahran E. H. M., Bekir A., **Ibrahim R.A.;** (2023) “New impressive analytical optical soliton solutions to the Schrödinger–Poisson dynamical system against its numerical solutions”; Optical and Quantum Electronics 55:377, (Q2: IF 3).
- (7) **Ibrahim, R.A.** , Mohamed S. A., (2022): “Application of Differential Transform Method with Adomian Polynomial for solving RLC Circuits Problems and Higher Order differential equations”, Engineering Research Journal, 5, 4 doi [10.21608/ERJSH.2022.146768.1052](https://doi.org/10.21608/ERJSH.2022.146768.1052).
- (8) Youssef, I.K., **Ibrahim, R.A.**, On the performance of Haar wavelet approach for boundary value problems and systems of Fredholm integral equations, Mathematics and Computer Science, science publishing group, Vol.2, No.4, 39-46, 2017.
- (9) Youssef, I.K., **Ibrahim, R.A.**, Second order iterative techniques for boundary value problems and Fredholm integral equations, Computational and Applied Mathematics Journal, Vol.3, No.3, 13-21, 2017.
- (10) Youssef, I.K., **Ibrahim, R.A.** (2013);” Boundary Value Problems, Fredholm Integral Equations, SOR and KSOR Methods” Life Science Journal. 10(2), 304 – 312. https://www.researchgate.net/publication/303053543_Boundary_Value_SOR_Methods

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