**Curriculum Vitae (CV)**

# Mohamed Abozeid Abd El-fadil Shaalan

## Personal Information:

**Academic Rank:** Assistant Professor

**Department:** Basic Science

**Specialization:** Mathematics

**Position:** Lecturer

**Google Scholar:** https://scholar.google.com.eg

**Research Gate:** www.researchgate.net/profile

**ORCID Record:** https://orcid.org/0000-0001-8121-3216

**Scopus ID:** https://www.scopus.com/authid/detail.uri?authorId=57216811475

**Email** Mohamed.abozaid@hti.edu.eg

**Mobile/WhatsApp:** (Mobile) +20/ 01099166310 & (WhatsApp)+20/01061560954

## Education:

| Degree | Discipline | Institution | Year |
|---|---|---|---|
| Ph.D. | Pure Mathematics | AL-AZHAR UNIVERSITY | 2019 |
| M.Sc. | Pure Mathematics | ZAGAZIG UINVERSITY | 2014 |
| B.Sc. | Pure Mathematics | ZAGAZIG UINVERSITY | 2007 |

## Academic Experience:

**Institution:** **Higher Technological Institute**

**Rank:** **Assistant Professor**

**Dates:** **Agu. 2019 Until Now.**

**Institution:** **Higher Technological Institute**

**Rank:** **Research Assistant (PhD student)**

**Dates:** **May 2015 Until Aug 2019.**

**Institution:** **Higher Technological Institute**

**Rank:** **Teaching Assistant**

**Dates:** **Sep. 2009 Until May 2015.**

## Research interests:

- Pure Mathematics
- Numerical Analysis.
- Programming.
- Differential equation.
- Solitary waves.
- Computational mathematics.
- Non-linear Partial differential equations.
- Difference equations.

## Publications:

- M. H. Saleh, S. M. Amer and **M. A. Shaalan**, Comparison of Adomian decomposition and Taylor expansion methods for the solutions of fractional integro-differential equations, International journal of Computer Applications, 74 (17), 44-49, 2013.
- M. H. Saleh, S. M. Amer and **M. A. Shaalan**, Comparison of Adomian decomposition and Homotopy perturbation methods for higher-order linear fractional integro-differential equations. IOSR Journal of Mathematics. 9 (2), 38-46, 2013.
- K. R. Raslan, M. A. Ramadan and M. A. Shaalan, Numerical solutions of second order matrix differential equations using basis splines, Journal of Mathematical and Computational Science, 6 (6), 1210-1220, 2016.
- K. R. Raslan, M. A. Ramadan and **M. A. Shaalan**, Theoretical and numerical studies of two Point boundary value problems using trigonometric and exponential cubic B-splines, Journal of the Egyptian Mathematical Society, 26 (2), 259-268, 2018.
- K. R. Raslan, A. R. Hadhoud and **M. A. Shaalan**, The exponential and trigonometric cubic B-spline methods for second order matrix differential equations, Journal of Abstract and Computational Mathematics, 3 (1), 1-10, 2018.
- K. R. Raslan, A. R. Hadhoud and **M. A. Shaalan**, Numerical treatment of first order matrix differential equations using different cubic B-spline functions, Journal of the Egyptian Mathematical Society, 26 (2), 269-277, 2018.
- Khalid K. Ali, A. R. Hadhoud and **M. A. Shaalan**, Numerical study of self-adjoint singularly perturbed two-point boundary value problems using collocation method with error estimation, Journal of Ocean Engineering and Science, 3 (3), 237–243, 2018.
- *Khalid K. Ali, **M. A. Shaalan** and K. R. Raslan,* An Extended Theoretical and Numerical Study of two-Point Boundary Value Problems Using Collocation Method with Physical Applications, Num. Com. Meth. Sci. Eng., 1 (1), 33-39, 2019.
- M. Abu zeid, Khalid K. Ali, **M. A. Shaalan** and K. R. Raslan, Numerical study of thermal radiation and mass transfer effects on free convection flow over a moving vertical porous plate using cubic B-spline collocation method, Journal of the Egyptian Mathematical Society, 27 (36), 2019.
- A. R. Hadhoud, Khalid K. Ali and **M. A. Shaalan**, A septic B-spline method for solving nonlinear singular boundary value problems arising in physiological models, Scientia Iranica E, 27 (3), 2020.
- K. R. Raslan, Khalid K. Ali, **M. A. Shaalan** and Hind K. Al-Jeaid, Solutions of Fluid Flow Problem over a Generalized Stretching or Shrinking Sheet with Heat Transfer Using Cubic and Quartic B-Spline Collocation Methods, Int. J. Appl. Comput. Math, 8:91 (2022).
- K.R. Raslan, Khalid K. Ali and **M. A. Shaalan**, N-Dimensional quartic B-spline collocation method to solve different types of n-dimensional partial differential equations, Journal of Ocean Engineering and Science, In Press. (2022).
- K.R. Raslan, Khalid. K Ali, Hind K Al-Jeaid and **M.A. Shaalan**, Bi-Finite Difference Method to Solve Second-Order Nonlinear Hyperbolic Telegraph Equation in Two Dimensions, Mathematical Problems in Engineering, (2022) 2022, Article ID 1782229.

- Khalid K. Ali, M.S. Mehanna, M. Ismail Abdelrahman and **M.A. Shaalan**, Analytical and Numerical solutions for fourth order Lane–Emden–Fowler equation, Partial Differential Equations in Applied Mathematics, 6 100430 (2022).
- F. Koura, K.R. Raslan, Khalid K. Ali and **M. A. Shaalan**, Numerical Analysis of a Spatio -Temporal bi Modal Coronavirus Disease Pandemic, Applied Mathematics & Information Sciences, 16(5) 729-737 (2022).

## Certifications or Professional Registrations:

- **Journal Referee**

1- Hacettepe Journal of Mathematics and Statistics.
2- Journal of Applied Mathematics & Information Sciences.
3- Mathematical Methods in the Applied Sciences.

## Teaching Experience:

- **All mathematics courses in Higher Technological Institute from Sep. 2009 until now.**

## Courses taught

- **Linear Algebra**
- **Geometry**
- **Differentiation**
- **Advanced Calculus**
- **Integration**
- **Differential Equations**
- **Complex Analysis**
- **Numerical Analysis**
- **Statistical Analysis**
- **Special Functions**
- **Fourier Analysis**
- **Discrete Mathematics**