

**1. Name: Hamdy Mohamed Ahmed**, Professor, Department of Engineering Mathematics and Physics, Higher institute of engineering - El Shorouk City.

**2. Degrees:**

- B.S. (Mathematics) Faculty of Science, Cairo University, Cairo, Egypt 1998.
- M.S. (Pure Mathematics) Faculty of Science, Alexandria University, Alexandria, Egypt 2002
- Ph.D. (Mathematics) Faculty of Science, Alexandria University, Alexandria, Egypt 2005

**3. Years of Service on Faculty: 19**

- 3/2016 - Present Professor
- 7/2010 - 3/2016 Associate Professor
- 5/2005 - 7/2010 Assistant Professor

**4. Other Experience:**

- 2013-Present: Part time, Faculty of engineering- Ain Sham University, Cairo, Egypt.
- Supervising 35 Ph.D and M. Sc. degree theses.
- Participating in Referee committee of 52 Ph.D and M. Sc theses

**5. Consulting Activities (selected)**

- None

**6. States in which registered:**

- Cairo, Egypt.

**7. Principal publications of last 5 years (selected):**

- Sayed Ahmed, A. M., Hamdy M. Ahmed, Karim K. Ahmed, Farah M. Al-Askr, and Wael W. Mohammed. "Effects of Lévy noise and impulsive action on the averaging principle of Atangana–Baleanu fractional stochastic delay differential equations." *Boundary Value Problems* 2024, no. 1 (2024): 88.
- Ahmed, AM Sayed, Hamdy M. Ahmed, Taher A. Nofal, Adel Darwish, and Othman AM Omar. "Hilfer-Katugampola fractional epidemic model for malware propagation with optimal control." *Ain Shams Engineering Journal* (2024): 102945.
- Mshary, Noorah, Hamdy M. Ahmed, Ahmed S. Ghanem, and AM Sayed Ahmed. "Hilfer-Katugampola fractional stochastic differential inclusions with Clarke sub-differential." *Heliyon* 10, no. 8 (2024).
- Rabie, Wafaa B., Hamdy M. Ahmed, Islam Samir, and Mahmoud Alnahhass. "Optical solitons and stability analysis for NLSE with nonlocal nonlinearity, nonlinear chromatic dispersion and Kudryashov's generalized quintuple-power nonlinearity." *Results in Physics* 59 (2024): 107589.
- Rabie, Wafaa B., Tarek A. Khalil, Niveen Badra, Hamdy M. Ahmed, M. Mirzazadeh, and M. S. Hashemi. "Soliton solutions and other solutions to

the (4+ 1)-dimensional Davey–Stewartson–Kadomtsev–Petviashvili equation using modified extended mapping method." *Qualitative Theory of Dynamical Systems* 23, no. 2 (2024): 87.

- Samir, Islam, Eman Salah, Emad Abo El-Dahab, Hamdy M. Ahmed, Medhat Ammar, Wassim Alexan, and Hisham H. Hussein. "Unraveling solitons dynamics in system of dispersive NLSE with Kudryashov's law of nonlinearity using improved modified extended tanh function method." *Alexandria Engineering Journal* 91 (2024): 419-428.
- Ahmed, Karim K., Niveen M. Badra, Hamdy M. Ahmed, Wafaa B. Rabie, Mohammad Mirzazadeh, Mostafa Eslami, and Mir Sajjad Hashemi. "Investigation of solitons in magneto-optic waveguides with Kudryashov's law nonlinear refractive index for coupled system of generalized nonlinear Schrödinger's equations using modified extended mapping method." *Nonlinear Analysis: Modelling and Control* 29, no. 2 (2024): 205-223.
- Mshary, Noorah, Hamdy M. Ahmed, and Ahmed S. Ghanem. "Existence and controllability of nonlinear evolution equation involving Hilfer fractional derivative with noise and impulsive effect via Rosenblatt process and Poisson jumps." *AIMS Mathematics* 9, no. 4 (2024): 9746-9769.

#### **8. Scientific and professional societies of which a member**

- Egyptian Society of Mathematics.

#### **9. Honors and awards:**

- World's top 2% scientists list by Stanford University, 2022, 2023.

#### **10. Institutional & professional service in last 5 years:**

- From September 2017 to August 2018, Head of Engineering Mathematics and Physics Department , Higher Institute of Engineering, El Shorouk City, Cairo, Egypt.
- From September 2018 to August 2019, Vice-Dean of the Higher Institute of Engineering, El Shorouk City, Cairo, Egypt.
- From September 2019 to present, Head of Physics and Engineering Mathematics Department, Higher Institute of Engineering, El Shorouk City, Cairo, Egypt.
- From September 2019 to present, Director of Scientific Research and Graduate Studies Unit, Higher Institute of Engineering, El Shorouk City, Cairo, Egypt.

#### **11. Professional Development Activities in the last 5 years:**

- Educational programs and courses specification and evaluation of learning outcomes, National Authority for quality assurance and accreditation of education
- E-learning methods, Faculty and leadership development-Cairo university
- Scientific publishing of research, Faculty and leadership development-Cairo University
- Leadership skills, Faculty and leadership development-Cairo University.