



Mohamed Sayed Abdelwahed Ahmed

**Associate Professor
(Mathematics & Applied Mathematics)**

(Mohamed.sayed@bhit.bu.edu.eg)

(eng_moh_sayed@live.com)

Mobile : (+20) 1068860534

Phone: (+973) 32008788

Scopus profile: <https://www.scopus.com/authid/detail.uri?authorId=37088095400>

Academic website: <http://www.bu.edu.eg/staff/mohamed.sayed1>

Google scholar profile: <https://scholar.google.com.eg/citations?user=x9VdH2gAAAAJ&hl=en>

Publons profile: <https://publons.com/dashboard/records/review/>

Personal Data

Date of Birth	July, 7 th , 1981
Place of Birth	Cairo, Egypt
Nationality	Egyptian

Scientific Degrees

Associate professor of applied mathematics - 2020

Ph.D. of engineering Mathematics (PEM)

BENHA University – Cairo,
Egypt 2011-2014

Master of engineering Mathematics (MEM)

BENHA University – Cairo, Egypt
2007-2011

Bachelor of civil engineering

BENHA University – faculty of engineering at shoubra
Cairo, Egypt
1998-2003

Experience

- **Associate professor** of mathematics, Civil and Environmental Engineering Department, College of engineering and design, Kingdom University, kingdom of Bahrain. (September 2023 up to now)
- **Acting Head of Basic Science Department**, College of Engineering-Badr University. (September 2021 up to September 2023)
- **Associate professor** of mathematics, College of Engineering - Badr University in Cairo (BUC) - (on leave from September 2020 up to September 2023).
- **Assistance professor** of mathematics, College of Engineering - Badr University in Cairo (BUC)- (on leave from September 2019 – September 2020)
- **Assistance professor** of applied mathematics (engineering mechanics), faculty of engineering at benha- Benha University (from June 2015 up to September 2019)
- **Assistance professor** of mathematics, faculty of engineering- Modern University MTI (from September 2014 to June 2015)
- **Lecturer** of applied mathematics (engineering mechanics), faculty of engineering- Modern University MTI (from September 2012 to August 2014)
- **Demonstrator**, Faculty of engineering at shoubra – Benha University, Engineering Mathematics and Physics Department, from September 2004 to 2012

Teaching Courses**Undergraduate courses**

1. Calculus of one variable functions
2. Linear Algebra
3. Analytical and space Geometry
4. Calculus of multivariable functions
5. Ordinary and partial differential equations
6. Numerical Techniques
7. Complex analysis
8. Static and Dynamics of particles (kinetics & kinematics)
9. Static and Dynamics of rigid body (kinetics & kinematics)
10. Structure analysis (1, 2 & 3)
11. Stress analysis.
12. Fluid Mechanics
13. Physics (electricity and magnetism)

Postgraduate courses

1. Advanced dynamics of rigid body (3d modeling)
2. Advanced Ordinary and partial differential equations
3. Advanced fluid mechanics

Ph.D. Study

The Ph.D. in the field of Nanofluids and its impact on the mechanical properties of a moving surface in a cooling medium

Research area

Optimal Homotopy Asymptotic technique (OHAM)- Differential Transformation Method (DTM)- Numerical analysis, Heat and Mass transfer- Nanofluids- Micro polar fluids (Bio- fluids) – Computational Mechanics

H-index

According to google scholar is **15** with citations **709**
According to Scopus is **14** with citations **540**

Supervision of scientific Theses

Nine theses, (5 Master + 4 Ph.D.)

Discussing scientific theses

3 Theses, (Alazhar University, Helwan university, Benha university)

Special Skills Academic participation

- ✓ Minute taker of the College Council.
- ✓ Member of the committee for setting study, exam and Invigilation schedules.
- ✓ General coordinator of quality works in the basic science department.
- ✓ Member of the Postgraduate Studies Committee.
- ✓ Member of the committee for updating the academic regulations for undergraduate and postgraduate students.
- ✓ Member of the College Laboratories Committee.

Computer Skills

- ✓ Mathematics Programs (Mathematica, and Matlab)
- ✓ Engineering Programs (Rivet structure, ETAB, SAP 2000, SAFE, CSI- col, and AUTOCAD)
- ✓ Office Applications (ICDL Certificate)

Languages

Arabic (Mother Language),
English (V. Good written & spoken) "TOEFL with score 550".

References

- **Prof. Dr. Aref Mohamed Soliman**
professor of mechanical engineering,
Dean of faculty of engineering- Badr university, Cairo-Egypt
Former, Dean of faculty of engineering- benha university, Cairo-
Egypt.
Mobile: 010 05859571
- **Prof. Dr. Tarek Gamal Emam**
Head of Basic Science Department,
Faculty of Sciences, Jeddah university, KSA.
Mobile: +966502799302
- **Prof. Dr. El-sayed Elbashbeshy**
Professor of Mathematics, faculty of Sciences, Ain shams university, Cairo-
Egypt.
Mobile : 01009414551

Published Papers

1. Entropy Generation Analysis of a micropolar fluid in a Corrugated Channel with Convective and Slip Conditions, *Case Studies in Thermal Engineering*, 25(2024),100951.
2. Solving Nonlinear Fractional PDEs with Applications to Physics and Engineering Using the Laplace Residual Power Series Method, *International Journal of Differential Equations*, (2023), 1240970.
3. Entropy study of electromagnetohydrodynamic trihybrid nanofluid flow within non-uniform peristaltic across microchannel, *ZAMM-Journal of Applied Mathematics and Mechanics*,(2023), e202300269.
4. Electromagnetohydrodynamic unsteady blood flow with ternary nanoparticles in a vertical irregular peristaltic flow: an exact treatment, *Journal of Thermal Analysis and Calorimetry*,(2023), 1-19
5. Thermal evaluation of MHD boundary layer flow of hybridity nanofluid via a 3D sinusoidal cylinder, *ZAMM-Journal of Applied Mathematics and Mechanics*, (2023); e202300186.
6. Investigating the Impact of Magnetic Fields and Pulsating Pressure on Non-Newtonian Fluid Flow in Symmetric/Asymmetric Corrugated Microchannels, *Engineering Research Journal*, (2023),179, (43-67).
7. Solitary Wave Solution for Fractional-Order General Equal-Width Equation via Semi Analytical Technique, *Appl. Math* (2023),17 (3), 483-493.
8. Famous Digital Signatures Used in Smart Contracts, 2023 International Telecommunications Conference, ITC-Egypt 2023, 2023, pp. 649–656.
9. Effect of magnetic force and moderate Reynolds number on MHD Jeffrey hybrid nanofluid through peristaltic channel: application of cancer treatment, *Eur. Phys. J. Plus* (2023) 138:137.
10. Electromagnetohydrodynamic effects with single-walled carbon nanotubes particles in a corrugated microchannel, *Chaos, Solitons and Fractals*, 168, (2023), 113126.
11. MHD mixed convection Ferro Fe_3O_4 /Cu-hybrid-nanofluid runs in a vertical channel, *Chinese Journal of Physics*,76(2022),269–282.
12. Hybrid/mono-carbon nanotubes–water flow in a peristaltic curved channel with viscous dissipation. *Eur. Phys. J. Plus* (2021) 136:979
13. Impact of Thermal Radiation on the Heat Transfer of Squeezing Flow Between Two Parallel Disks-An Analytical Solution, *International Journal of Multidisciplinary Research and Publications*,(2022),81-89.
14. Impact of hybrid nanofluid coolant on the boundary layer behavior over a moving cylinder: Numerical case study. E.M. Elsaid, M. S. Abdel-wahed, *Case Studies in Thermal Engineering*, 25(2021),100951.
15. Mixed convection hybrid-nanofluid in a vertical channel under the effect of thermal radiative flux, E.M. Elsaid, M. S. Abdel-wahed, *Case Studies in Thermal Engineering* 25(2021),100913.
16. Entropy analysis for an MHD nanofluid with a microrotation boundary layer over a moving permeable plate . A.Y. Sayed, M.S. Abdel-wahed, *European Physical Journal Plus* 135 (1), 106,(2020).

17. Magnetohydrodynamic Ferro-Nano fluid flow in a semi-porous curved tube under the effect of hall current and nonlinear thermal radiative. M.S. Abdel-wahed, Journal of Magnetism and Magnetic Materials 474, 347-354 (2019)
18. MHD Flow and Heat Transfer over a Moving Cylinder in a Nanofluid under Convective Boundary Conditions and Heat Generation. M.S. Abdel-Wahed, E.M. El-Said Thermal Science (2019)
19. Thermal Radiative Effects on MHD Casson Nanofluid Boundary Layer over a Moving Surface. H. Ismail, A.A. Megahed, M.S. Abdel-Wahed, M. Omama, Journal of Nanofluids 7 (5), 910-916 (2018)
20. KKL-Model of MHD CuO-Nanofluid flow over a stagnation point stretching sheet with nonlinear thermal radiation and suction/injection SA Mohammadein, K. Raslan, M.S. Abdel-wahed, E.M. Abedel-aal, Results in Physics 10, pp. 194-199 (2018)
21. MHD Steady/Unsteady Porous Boundary Layer of Cu–Water Nanofluid with Micropolar Effect over a Permeable Surface. K Raslan, S Mohamadain, M. Abdel-wahed, E.M. Abedel-aal, Applied Sciences (2076-3417) 8 (5) (2018)
22. Unsteady Three-Dimensional Flow of a Nanofluid over a Stretching Sheet with Brownian motion and Thermophoresis Effects. S.M. Abedel-aal, M.S. Abdel-Wahed, Journal of Nanofluids 7 (2), 396-403(2018)
23. Effect of joule heating and Hall current on MHD flow of a Nanofluid due to a rotating disk with viscous dissipation. M.S. Abdel-Wahed, T.G. Emam, Thermal Science 22 (2), 857-870 (2018)
24. Lorentz force effect on mixed convection micropolar flow in a vertical conduit. M.S. Abdel-Wahed, European Physical Journal Plus 132 (5), 195 (2017)
25. Rotating ferro-nanofluid over stretching plate under the effect of hall current and joule heating. M.S. Abdel-Wahed, Journal of Magnetism and Magnetic Materials 429, 287-293 (2017)
26. Flow and heat transfer of a weak concentration micropolar-nanofluid over steady/unsteady-moving surface. M.S. Abdel-wahed, Applied Physics A 123 (3), 195 (2017)
27. MHD Boundary layer behavior over a moving surface in a Nanofluid under the influence of convective boundary conditions. M. Abdel-Wahed, T. Emam, Strojniški vestnik-Journal of Mechanical Engineering 63 (2), 119-128 (2017)
28. Three Dimensional Boundary Layer Flow over Unsteady Continuous Moving Surface Embedded in a Nanofluid. M.S. Abdel-wahed, International Journal of Computer Science and Application 6, (1) (2017)
29. Nonlinear Rosseland thermal radiation and magnetic field effects on flow and heat transfer over a moving surface with variable thickness in a nanofluid. MS Abdel-Wahed, Canadian Journal of Physics 95 (3), 267-273 (2016)
30. Effect of hall current on MHD flow of a nanofluid with variable properties due to a rotating disk with viscous dissipation and nonlinear thermal radiation. M.S. Abdel-Wahed, M.Y. Akl, AIP Advances 6 (9), 095308 (2016)
31. Soret and DuFour effects on MHD stagnation point flow and heat transfer impinging on stretching sheet with Chemical reaction and transpiration. M.S. Abdel-wahed, S.M. Abdel-AAL, European Journal of Scientific Research 137 (1), 63-73 (2016)
32. Flow and heat transfer over a moving surface with non-linear velocity and variable thickness in a nanofluid in the presence of Brownian motion. M.S. Abdel-Wahed,

- E.M.A. Elbashbeshy, T.G. Emam, Applied Mathematics and computation 254, 49-62 (2015)
33. The effect of thermal radiation, heat generation and suction/injection on the mechanical properties of unsteady continuous moving cylinder in a nanofluid. E.M.A. El-Sayed, T.G. Emam, M.S. Abdel-Wahed, Thermal Science 19 (5), 1591-1601(2015)
 34. Effects of thermal radiation and heat generation on the mechanical properties of unsteady continuous moving surface in a Nanofluid in the presence of suction/injection. A.R.A. Saad, E.M.A. Elbashbeshy, T.G. Emam, M.S. Abdel-Wahed, American Journal of Mechanical Engineering and Automation 1 (3), 24-30 (2014).
 35. An exact solution of boundary layer flow over a moving surface embedded into a nanofluid in the presence of magnetic field and suction/injection. E.M.A. Elbashbeshy, T.G. Emam, M.S. Abdel-Wahed, Heat and Mass Transfer 50 (1), 57-64 (2014).
 36. Effect of heat treatment process with a new cooling medium (nanofluid) on the mechanical properties of an unsteady continuous moving cylinder. EMA Elbashbeshy, T.G. Emam, M.S. Abdel-Wahed, Journal of Mechanical science and technology 27 (12), 3843-3850 (2013).
 37. Flow and heat transfer over a moving surface with nonlinear velocity and variable thickness in a nanofluid in the presence of thermal radiation. EMA Elbashbeshy, T.G. Emam, M.S. Abdel-Wahed, Canadian journal of Physics 92 (2), 124-130 (2013).
 38. Effect of magnetic field on flow and heat transfer of a nanofluid over an unsteady continuous moving surface in the presence of suction/injection. EMA Elbashbeshy, T.G. Emam, M.S. Abdel-Wahed, Int. J. Appl. Math 14 (10), 436-442 (2012).
 39. Three-dimensional flow over a stretching surface with chemical reaction and suction/injection. E.M.A. elbashbeshy, T.G. Emam, M.S. abdel-wahed, Int. J. of Applied Mechanics and Engineering 17 (1), 203-212 (2012).
 40. Mass Transfer over Unsteady Stretching Surface Embedded in Porous Medium in the Presence of Variable Chemical Reaction and Suction/Injection. EMA Elbashbeshy, T.G. Emam, M.S. Abdel-Wahed, Applied Mathematical Sciences 5 (12), 557-571 (2011).
 41. Heat transfer over an unsteady moving surface with heat generation and thermal radiation in micropolar fluid in the presence of suction/injection. A.R.A. Saad, M.S. Abdel-Wahed, International Journal of Energy & Technology 3 (31) (2011).
 42. Three-dimensional flow over a stretching surface with thermal radiation and heat generation in the presence of chemical reaction and suction/injection. E.M.A. Elbashbeshy, T.G. Emam, M.S. Abdel-Wahed, International Journal of Energy Technology 16 (3) (2011).

There are 6 papers under review