

## PERSONAL INFORMATION



**Name:** Hussein Abd Allah Soliman

**Qualifications:**

**Ph. D (Applied Mathematics) –Ain Shams University (2014)- (Numerical solutions for some problems of flow of the non–Newtonian fluids on different surfaces)**

**Current job:**

**Assistant professor of applied mathematics- Engineering Division- International Academy for Engineering and Media Science. (IAEMS)**

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**ResearchGate:** <https://www.researchgate.net/profile/Hussein-Soliman-8>.

**[linkedin.com/in/hussein-elmasry-075539257](https://www.linkedin.com/in/hussein-elmasry-075539257)**

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I am interested in numerical and analytical solutions of linear and nonlinear systems of differential equations and their various applications in fluid mechanics. As well as the use of **Matlab** and **Mathematica** algorithms in calculating and solving these systems and making graphics expressing them. Also, use statistical analysis software using **SAS® Enterprise Guide** and **Spss**. Highly skilled in teaching engineering mathematics in its various branches, and has a distinctive method in Teaching method is included in the points of excellence when the QAA team visits for accreditation

# EXPERIENCE

- Since 2016 and until now

Assistant professor of applied mathematics

International academy for engineering and media science. (IAEMS) (Engineering Division)

**Courses:**

(Calculus I), (Calculus II), (Calculus I I I), (Calculus I I I I),  
(Algebra), (Analytic Geometry), (Mechanics) and (Statistics).

- Since 2017 and until now (part-time)

The Arab Academy For Management, Banking And Financial Sciences. (AAMBFS)

Doctorate of Business Administration (DBA).

Master of Business Administration (MBA).

**Courses:**

(Parametric and non-parametric methods)  
(Quantitative Methods), (Operation Research) and (Statistics).

- 2015-2018 (part-time)

Higher institute of the administrative sciences.

**Courses:**

(Mathematics for Business), (Financial Mathematics)  
, (Quantitative Methods), (Operation Research) and (Statistics).

- 2017-2019 (part-time)

International academy for engineering and media science.

(IAEMS) (Business Division)

**Courses:**

(Mathematics for Business), (Financial Mathematics),  
(Quantitative Methods), (Operation Research) and (Statistics).

- 2023-2024 (part-time)

Cairo Higher Institute For Engineering, Computer Science & Management.

**Courses:**

(Mathematics for Business), (Pure Mathematics).

# SCIENTIFIC PUBLISHED RESEARCH

- ✓ Numerical Solutions of Power Law Fluids and Forchheimer Porous Medium Influences on the mixed convection MHD flow over a Stretching Porous Surface in the Presence of Chemical Reaction and Heat Generation. (Published online: 15 May 2024.-Numerical Heat Transfer, Part A: Applications (2024)). (Q1)
- ✓ New Closed-Form Exact Solution of Action Induced Magnetic Field and Fluid Wall Interaction on Radiative Mixed Convective Heat Transfer MHD Fluid Flow Inside a Vertical Walls with Suction/Injection and Pressure Gradient. (Published online: 04 Mar 2024.-Numerical Heat Transfer, Part B: Fundamentals (2024)). (Q2)
- ✓ Approximate to Exact Method for Study Radiative Steady MHD Heat and Mass Transfer Flow past a Vertical Porous Plate. (Published online: Palestine Journal of Mathematics (2024)). (Q4)
- ✓ Study Action of Rarefaction and Wall Ambient Temperature on Natural Convective MHD Fluid Motion Between Parallel Vertical Walls Under the Influence of An Electromagnetically Induced Magnetic Field. (Accepted-Edelweiss Applied Science and Technology (2024)). (Q4)
- ✓ Electrically Conducting Free Convective Flow and Micropolar Immiscible Fluid Flow in a Vertical Channel in the Presence of Chemical Reaction. (Published online: International Journal of Advanced Engineering and Business Sciences (2024)). [journals.ekb.eg](http://journals.ekb.eg)
- ✓ MHD Natural Convection Nano-fluid Flow between two Vertical Flat Plates through Porous Medium considering effects of viscous dissipation, non-Darcy, and Heat Generation/Absorption. (International Journal of Advanced Engineering and Business Sciences (IJAEBIS)- Accept Date: 06 September 2022- Publish Date: 01 October 2023- DOI: [10.21608/IJAEBIS.2022.157903.1031](https://doi.org/10.21608/IJAEBIS.2022.157903.1031)). [journals.ekb.eg](http://journals.ekb.eg)
- ✓ Exact and More Accurate Solution for Boundary Value Problems using Closed-Form and Numerical Methods. (International Journal of Advanced Engineering and Business Sciences (IJAEBIS)- Accept Date: 19 November 2022 DOI: [10.21608/IJAEBIS.2022.161578.1036](https://doi.org/10.21608/IJAEBIS.2022.161578.1036)). [journals.ekb.eg](http://journals.ekb.eg)
- ✓
- ✓ Exact and Approximate to Exact Methods for Solution Linear Boundary Value Problems Using Laplace Transform. (MSA Engineering Journal-26 July 2022. DOI: [10.21608/MSAENG.2022.150121.1028](https://doi.org/10.21608/MSAENG.2022.150121.1028)). [journals.ekb.eg](http://journals.ekb.eg)

- ✓ Numerical Treatment of MHD Rotating Flow of Nano-Micropolar Fluid with Impact of Temperature-Dependent Heat Generation and Variable Porous Matrix. (MSA Engineering Journal-26 July 2022- DOI: [10.21608/MSAENG.2022.150119.1027](https://doi.org/10.21608/MSAENG.2022.150119.1027)). [journals.ekb.eg](http://journals.ekb.eg)
- ✓ Predictive Model on Architectural Design Optimization for Minimizing Construction Cost with Design Constraints. (JES. Journal of Engineering Sciences-15 July 2022-DOI: [10.21608/JESAUN.2022.139209.1138](https://doi.org/10.21608/JESAUN.2022.139209.1138)). [journals.ekb.eg](http://journals.ekb.eg)
- ✓ New Investigation of Asymmetric Wall Temperature and Fluid-Wall Interaction on Radiative Steady MHD Fully Developed Natural Convection in Vertical Micro-Porous-Channel. (Al-Azhar Bulletin of Science-19 July 2022 - DOI: [10.21608/ABSB.2022.137705.1184](https://doi.org/10.21608/ABSB.2022.137705.1184)). [journals.ekb.eg](http://journals.ekb.eg)
- ✓ Radiative MHD Flow of Rivlin-Ericsen nanofluid of grade three through porous medium with uniform heat source (Springer- Beni-Suef Univ J Basic Appl Sci-3 June 2022-[doi.org/10.1186/s43088-022-00261-9](https://doi.org/10.1186/s43088-022-00261-9)). (Q3)
- ✓ MHD Natural Convection of grade three of non-Newtonian fluid flow between two Vertical Flat Plates through Porous Medium with heat source effect. (JES, Vol. 50, No. 1, January 2022 -DOI: [10.21608/JESAUN.2022.110893.1099](https://doi.org/10.21608/JESAUN.2022.110893.1099)). [journals.ekb.eg](http://journals.ekb.eg)
- ✓ Study effects of non-Darcy and heat source on MHD Rivlin-Ericksen Fluid of third-grade flow in a porous medium. (AJBAS,V. 3, Issue 2, July 2022 - DOI: [10.21608/AJBAS.2022.124168.1092](https://doi.org/10.21608/AJBAS.2022.124168.1092)). [journals.ekb.eg](http://journals.ekb.eg)
- ✓ Analytical treatment of MHD free convection heat and mass transfer from vertical surfaces in porous media considering Soret and Dufour effects. (INTERNATIONAL CONFERENCE on RECENT ADVANCES in PURE AND APPLIDE MATHEMATICS). (ICRAPAM 2018). (Indexed in Scopus)
- ✓ Entrance Heat Transfer to MHD Bingham Fluid Flow in A Square Duct with Joule and Viscous Dissipations. (2013 - Eleventh International Conference of Fluid Dynamics).
- ✓ The effect of Papanastasiou Viscosity on Steady MHD Flow and Heat Transfer between two Parallel Plates in the Presence of Dissipations and Radiation. (2013 - Eleventh International Conference of Fluid Dynamics).
- ✓ The Effect of Chemical Reaction and Radiation on Heat and Mass Transfer of Stagnation Point Flow of Micropolar Fluid through a Porous Medium. ( 2013- International Journal of Applied Mathematics and Physics).
- ✓ Solution for Steady Flow over a Rotating Disk in Porous Media with Heat Transfer (Journal of Applied Sciences Research, 7(11): 1485-1491, 2011 ISSN 1819-544X).

# COURSES

- ✓ Program Self-Evaluation- National Commission for Quality Assurance Education – (14-16)-11- 2022.
- ✓ Workshop (Introductory Training Workshop For Exploring Programming Through Mathematica)– University Development Center – Mansoura University –19-11-2022.
- ✓ Organizing scientific conferences– Faculty and Leadership Development Center – Helwan University – (8-9)-11-2022.
- ✓ Q&A in Mathematica Workshop - Wolfram Events Europe-25-8-2022.
- ✓ Participate in the workshop “ International Day of Women in Mathematics”– Nile University – 12-5-2022.
- ✓ International Publishing of Scientific Research– Faculty and Leadership Development Center – Cairo University – 2018
- ✓ University Management – Faculty and Leadership Development Center – Cairo University – 2018.
- ✓ Creative Thinking – Faculty and Leadership Development Center – Cairo University – 2018.
- ✓ Effective teaching and teaching strategies - National Commission for Quality Assurance Education – 2018.
- ✓ Introduction course in Matlab - Faculty of Engineering – Cairo University – 2014.
- ✓ Programming course in Matlab - Faculty of Engineering – Cairo University – 2014.
- ✓ General English Language – Faculty of Education – Ain Shams University – 2004 - grade (Very good).
- ✓ English For Mathematics Teachers – Faculty of Education – Ain Shams University – 2004 - grade (Excellent).

✓ International Computer Driving Licence (ICDL) – 2011.

✓ TOEFL (Scored 507) - Ain Shams University.

## SKILLS

- ✓ Highly experienced and skilled in online teaching.
- ✓ Ability to teach undergraduate-level courses, as well as experience in teaching courses at the MBA and DBA levels.
- ✓ Publish scientific research in ranked journals
- ✓ Conducting joint scientific research with foreign universities.
- ✓ Writing Scientific research using Latex.
- ✓ The ability to deal with (Matlab program, Mathematica program, Spss, .. ).
- ✓ Work effectively as part of the team.
- ✓ Maintain office hours to guide and advise students.
- ✓ Enhance students' skills within Social Studies, while coping with the latest trends in the field.
- ✓ Deliver courses, instructing a diverse population of students in a classroom.
- ✓ Set and conduct tests, evaluating students' knowledge of the subject matter as required.