

# CURRICULUM VITAE

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## Personal Data:

Born July 10, 1978

Married; two children

## Qualifications:

Qualification	Date	General Specialization	Specific Specialization	Institution	Place
<b>Ph.D.</b>	June 2010	Mathematics	Applied Mathematics	<b>Al-Farabi Kazakh National University</b> , Faculty of Mechanics and Mathematics	<b>Kazakhstan</b>
<b>Master of Science</b>	January 2007	Mathematics	Engineering Mathematics	<b>Cairo University</b> , Faculty of Engineering	<b>Egypt</b>
<b>Bachelor of Science with honor</b>	May 2004	Mathematics	Applied Mathematics	<b>Benha University</b> , Faculty of Science	<b>Egypt</b>
<b>Bachelor of Engineering and Technology</b>	June 2000	Electrical Engineering	Control and Measurements	<b>Benha University</b> , Benha Faculty of Engineering	<b>Egypt</b>

## Academic Experience:

Title	Place	Institution	College	Dept.	From M / Y	To M / Y
Assistant Professor	Egypt	Benha University	Benha Faculty of Engineering	Basic Science, Mathematics	9 / 2010	Till now
Assistant Professor	Egypt	10 <sup>th</sup> of Ramadan University	Higher Technological Institute	Basic Science, Mathematics	9 / 2010	Till now

Research Student	Kazakhstan	Al-Farabi Kazakh National University	Faculty of Mechanics and Mathematics	Computer Mathematics' Modeling	12 / 2007	6 / 2010
Lecturer	Egypt	Benha University	Benha High Institute of Technology	Basic Science	9 / 2002	11 / 2007

**Courses that have been taught:**

Course Name	Course Level
Differential and integral calculus	Diploma
Multivariable calculus	Diploma
Linear algebra and geometry	Diploma
Abstract algebra	Diploma
Ordinary and partial differential equations	Diploma
Numerical Analysis	Bachelor
Probability and statistics	Bachelor
Numerical Analysis	Master
Integral equations	Master
Linear algebra	Master

**Scientific Research:**

Title	Cooperated Author(s)	Journal (Volume, Issue, Date)
Extension of the Homotopy Perturbation Method for Solving Nonlinear Differential-Difference Equations	Kaltayev Aidarkan, Bulut H.	<i>Zeitschrift für Naturforschung A (A Journal of Physical Sciences)</i> . – 2010. – Vol.65a, №12. – P. 1060-1064
Homotopy Perturbation Method for Solving Nonlinear Differential-Difference Equations	Kaltayev Aidarkan	<i>Zeitschrift für Naturforschung A (A Journal of Physical Sciences)</i> . – 2010. – Vol.65a, №6/7. – P. 511-517
Application of He's homotopy perturbation method for solving fractional Fokker-Planck equations	Kaltayev Aidarkan	<i>Zeitschrift für Naturforschung A (A Journal of Physical Sciences)</i> . – 2009. – Vol.64a, №12. – P. 788-794
Application of the homotopy perturbation method to a magneto-elastico-viscous fluid along a semi-infinite plate	Kaltayev Aidarkan	<i>International J. of Nonlinear Science and Numerical Simulation</i> – 2009. – Vol.10, №9. – P. 1113-1120
Homotopy perturbation Pade technique for constructing approximate and exact solutions of Boussinesq equations	Kaltayev Aidarkan	<i>Applied Mathematical Sciences</i> . – 2009. – Vol.1.3, №22. – P. 1061-1069
Investigation of a transition from steady convection to chaos in porous media using piecewise variational iteration method	Kaltayev Aidarkan, Ragab Shahwar F.	<i>World Academy of Science, Engineering and Technology (WASET)</i> . – 2009. – Vol.5.8. – P. 1088-1097
A comparison study of a symmetry solution of magneto-elastico-viscous fluid along a semi-infinite plate with homotopy	Kaltayev Aidarkan	<i>World Academy of Science, Engineering and Technology (WASET)</i> . – 2009. – Vol.5.5. – P. 499-504

perturbation method and 4 <sup>th</sup> order Runge–Kutta method		
Application of homotopy perturbation method to linear and nonlinear Schrödinger equations	Ragab Shahwar F.	<i>Zeitschrift für Naturforschung A (A Journal of Physical Sciences.</i> – 2008. – Vo1.63a, №3/4. – P. 140-144
New Exact Solutions for Nonlinear Equations by the General Improved Tanh and Sech Methods	Ragab Shahwar F., Mostafa S.I.	<i>Sci. Bull. Fac. Eng. Ain shams Univ. Egypt.</i> – June 2006. – Vo1.41, №2. – P. 859-876
Improved Tanh and Sech Methods Applied to Special Types of Nonlinear Partial Differential Equations	Ragab Shahwar F., Mostafa S.I.	<i>Sci. Bull. Fac. Eng. Ain shams Univ. Egypt.</i> – March 2006. – Vo1.41, №1. – P. 1165-1180

### Written Books:

Book Title	Publisher	Date of Publishing
Modifications of Homotopy Perturbation & Variational Iteration Methods: Convergence theorems and applications in fluid mechanics and mathematical physics	LAP LAMBERT Academic Publishing GmbH & Co. KG, Germany	September, 2011
Improved Tanh and Sech Methods for Obtaining New Exact Solutions: Applied to nonlinear evolution and transmission lines model equations	LAP LAMBERT Academic Publishing GmbH & Co. KG, Germany	August, 2011

### Papers in Conferences, Seminars and Symposiums:

Paper	Event	Place	Date
Investigation of a transition from steady convection to chaos in porous media using piecewise variational iteration method	International Conference on Fluid Mechanics and Thermal Engineering	Venice, <b>Italy</b>	28-30 October, 2009
Extension of the homotopy perturbation method for solving nonlinear differential-difference equations	III Congress of the World Mathematical Society of Turkic Countries	Al-Farabi Kazakh National University, <b>Kazakhstan</b>	30 June – 4 July, 2009
Improving the homotopy perturbation method accuracy and its extension for solving sine-Gordon equations	III international Scientific Conference “Actual Problems of Mechanics and Engineering”	The Kazakh Technical University, <b>Kazakhstan</b>	17-19 June, 2009
Constructing approximate and exact Solutions for boussinesq equations using homotopy perturbation Padé technique	International Conference on Mathematical, Physical and Engineering Sciences	Penang, <b>Malaysia</b>	25-27 February, 2009
Investigation of chemical reaction and magnetic field effects on viscous flow over a nonlinearly stretching sheet by a	International conference “Computational and Informational Technologies in Science,	Al-Farabi Kazakh National University,	10-14 September, 2008

homotopy perturbation Padé technique	Engineering and Education (CTMM-2008)	<b>Kazakhstan</b>	
Improved Variational Iteration Method for Solving Nonlinear Partial Differential Equations	32 <sup>nd</sup> International Conference for Statistics, Computer Science and its Applications	Benha High Institute of Technology, <b>Egypt</b>	15-19 April 2007

**Scientific Organizations Membership:**

Name of Organization	Arabic/Foreign
1- Egyptian Engineers Association	Arabic
2- Egyptian Mathematical Society	Arabic

**Peer-review Activities:**

Journal reviewer for
1- Zeitschrift für Naturforschung A
2- International Journal of Computer Mathematics
3- Mathematical Modelling and Analysis
4- International Journal of Mathematical Modelling and Numerical Optimization.
5- Applied Mathematical Modelling
6- Ain Shams Engineering Journal

**Areas of Research Interest:**

- Computational Mathematics
- Differential Equations
- Numerical Analysis
- Computational Fluid Dynamics
- Fractional Calculus

**International Scientific Awards:**

- 1- Published biography in **Who's Who in the World 27<sup>th</sup> Edition 2010** as one of the stars in the field of mathematics.
- 2- Award for the higher impact factor research paper of the university PhD students, Rector of al-Farabi Kazakh National University, Almaty, Kazakhstan, June 2010.

**Languages:**

Language	Proficiency								
	Reading			Writing			Speaking		
	Begin.	Med.	Adv.	Begin	Med.	Adv.	Begin.	Med.	Adv.
Arabic	Mother tongue								
English			*			*			*
Russian		*			*			*	

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