



CURRICULUM VITAE

HAKEEM ULLAH

OBJECTIVE:

To be a member of a progressive organization that gives me a scope to update my knowledge and skills accordance with latest technology and part of a team that dynamically works to words growth of organization and gain satisfaction there off.

PERSONAL PROFILE:

Father's Name: Mir Akbar Khan
Date of Birth: 14-09-1982
Domicile: Peshawar (KPK)
Nationality: Pakistani
NIC No: 17301-1450546-3
Religion: Islam
Postal Address: Department of Mathematics Abdul Wali Khan University Mardan.
Marital Status: Married.
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PhD Thesis Title: Analysis and Applications of the Optimal Homotopy Asymptotic Method to nonlinear initial and Boundary Value Problems

MPhil Thesis Title: Flow of Viscoelastic fluid in a channel induced by Peristaltic Waves

FIELD OF RESEARCH

Fluid Mechanics: Viscous fluids, Non-Newtonian Fluids

Peristaltic Motion: Boundary value problems

Bio-Mechanics: Boundary value problems of blood flow

Asymptotic Method: OHAM, HAM, ADM, DTM, HPM, etc

Mathematical modeling: In engineering , physiological and environmental processes and industrial systems

Computational methods: and simulations in non-linear Science

ACADMIC QUALIFICATION:

Certificate/ Degree	Major Subjects	Div	Year of passing	University/Board
Ph. D (Distinction)	Applied Mathematics	1 st / (CGPA3.8/4.0)	2015	Abdul Wali Khan University, Mardan
M. Phil (Distinction)	Applied Mathematics	1 st / (CGPA3.8/4)	2010	International Islamic University Islamabad
M.Sc (Distinction)	Mathematics	1 st	2004	Gomal University D. I. Khan
B. Sc	Math A,B Physics	1 st	2002	University of Peshawar
F. Sc	Pre- Engineering	1 st	2000	BISE Peshawar
Matric	Science	1 st	1998	BISE Peshawar
PGCHEP	Teaching and learning module	Merit	2010	University Of Bradford UK.
B. Ed	Math, Physics	1 st	2006	I.E.R University of Peshawar

MAJOR COURSES STUDIED IN M. Sc

1. Real Analysis
2. Algebra
3. Complex Analysis
4. Differential Geometry
5. Dynamics
6. Topology
7. Functional Analysis
8. Ordinary Differential Equations
9. Set Theory and Mathematical Logic
10. Numerical Analysis
11. Mathematical Statistics
12. Integral equations
13. Partial Differential Equations
14. Measure and integration

MAJOR COURSES STUDIED IN M. Phil and Ph. D

1. Advanced Numerical Solutions of Ordinary Differential Equations.
2. Advanced Partial Differential Equations.
3. Advanced Functional Analysis.
4. Newtonian Fluid.
5. Non Newtonian Fluid.
6. Numerical Solution of Partial Differential Equations.
7. Magnetohydrodynamics
8. Fixed Point Theory and its Applications.
9. Convolution in Geometric Function Theory

10. Viscous-I
11. Viscous-II
12. Computational Methods
13. Linear Inequalities

COURSES TOUGHT

1. Fluid Mechanics
2. Advanced Calculus
3. Real Analysis
4. Differential Geometry
5. Ordinary differential equations
6. Partial differential equations
7. Basics of theory of fluids.
8. Dynamics
9. Fluid Dynamics
10. Integral Equations
11. Mathematical techniques for boundary value problems (M. Phil and Ph. D)
12. Advanced partial differential equations (M. Phil and Ph. D)
13. Non-Newtonian Fluid Mechanics (M. Phil and Ph. D)
14. Integral Equations (M. Phil and Ph. D)
15. Electro hydrodynamics (M. Phil and Ph. D)
16. Magnetohydrodynamics (M. Phil and Ph. D)
17. Numerical solutions of O/PDEs (M. Phil and Ph. D)
18. Computational Fluid Dynamics (M. Phil and Ph. D)
19. Fixed Point Theory and Its Applications (M. Phil and Ph. D)
20. Viscous I/II (M. Phil and Ph. D).

Supervision of Thesis:

(a) M. Phil

1. Imran Khan

The extended optimal homotopy asymptotic method with application to coupled burgers equations. Completed (2016)

2. Zeeshan Khan

Analysis and Application of coupled optimal homotopy asymptotic method. Completed (2016)

3. Muhammad Saad

The optimal homotopy asymptotic method with application to integro differential equations. In progress

4. Muhammad Ghayas

Analytical approach to the MHD boundary layer flow with suction/source In progress

(b) Ph. D

1. Saleem Nasir

Analytical approach to single/ double thin film flows In progress

2. Ibn-e-ameen

Modification of the optimal homotopy asymptotic method to system of differential equations In progress

3. Mehreen Fiza

Analysis and application of the multistep optimal homotopy asymptotic method to nonlinear DEs In progress

EDITORIAL BOARD MEMBER:

1. Science International ISI.
2. Journal of Applied Environmental and Biological Science ISI.
3. Indian journal of Science and Technology ISI.

AWARD/CETIFICATE

1. Position in the department in M. Sc, M. Phil and Ph. D.
2. Punctual and responsible certificate from the Vice Chancellor

LANGUAGES:

- 1, English,
- 2, Urdu
- 3, Pushto.

WORK EXPERIENCE:

1. Worked as lecturer in mathematics at Muslim Postgraduate College of Commerce and Management Science Peshawar 2004-2008.
2. Worked as lecturer in Mathematics at NAMAL College of Engineering and IT (An associate college of University of Bradford UK) Mianwali 2009-2010.
3. Worked as lecturer in Mathematics, at Department of Mathematics, Abdul Wali Khan University, Mardan 2010-2013.
4. Working as Assistant Professor in Mathematics at Department of Mathematics, Abdul Wali Khan University Mardan 2013-till date.

LIST of PUBLICATIONS

- [1] H. Ullah, Z. Khattak, S. Nourin, The practice of constructive alignment based on PEM in higher education of Pakistan. Procedia social and behavioral science 15 (2011) 2391-2394 ELSEVIER.
- [2] H. Ullah, S. Islam, M. Fiza, M. Arif, Peristaltic flow of a magneto hydrodynamic Oldroyd 4 - constant fluid in a planar channel. Life Sci. J. 2013 10(1s) 76-84. (IF 0.165)

- [3] R. Nawaz, H. Ullah, S. Islam, M. Idrees, Application of optimal homotopy asymptotic method to Burger equations. *J. Appl. Math.* Volume (2013) Article ID 387478 8 pages (**IF 0.834**).
- [4] R. Nawaz, S. Islam, M. Idrees, H. Ullah, Optimal homotopy asymptotic method to nonlinear damped generalized regularized long wave equation. *Math. Prob. Engi.* Volume (2013) Article ID 503137 13 pages (**IF 1.383**).
- [5] H. Ullah, S. Islam, M. Idrees, M. Arif, Solution of boundary layer problems with heat transfer by optimal homotopy asymptotic method. *Abst. Appl. Anal.* Volume (2013) Article ID 324869 10 pages (**IF 1.102**).
- [6] H. Ullah, S. Islam, M. Idrees, R. Nawaz, Application of optimal homotopy asymptotic method to doubly wave solutions of the coupled Drinfel'd Sokolv-Wilson equations. *Math. Prob. Engi.* Volume (2013) Article ID 362816 8 pages (**IF 1.383**).
- [7] H. Ullah, S. Islam, M. Idrees, R. Nawaz, M. Fiza, The flow past a rotating disk by optimal homotopy asymptotic method. *World. Appl. Sci. J.* 11 (2014) 1409-1414. **ISI**
- [8] H. Ullah, S. Islam, M. Idrees, M. Fiza, An extension of the optimal homotopy asymptotic method to coupled Schrodinger-KdV equation. *Int. J. Diff. Eqns.* Volume 2014 Article ID 106934 12 pages (**Scopus**).
- [9] H. Ullah, R. Nawaz, S. Islam, M. Idrees, The optimal homotopy asymptotic method with application to modified Kawahara equations. *JAAUBAS* (2014) doi:10.1016/j.jaubas.2014.05.004.
- [10] H. Ullah, S. Islam, M. Idrees, M. Fiza, Solution of the differential-difference equation by optimal homotopy asymptotic method. *Abst. Appl. Anal.* Volume 2014 Article ID 520467 8 pages (**IF 1.102**).
- [11] H. Ullah, S. Islam, M. Idrees, M. Fiza, The three dimensional flow past a stretching sheet by extended optimal homotopy asymptotic method. *Sci. Int.* 26 (2014) 567-576 (**ISI**).
- [12] H. Ullah, S. Islam, M. Idrees, M. Fiza, Application of optimal homotopy asymptotic method to heat transfer problems. *Sci. Int.* 26 (2014) 1151-1155 (**ISI**).
- [13] S. Zuhra, H. Ullah, S. Islam, I.A. Shah, Solving Singular Boundary Value Problems by Optimal Homotopy Asymptotic Method. *I. J. Diff. Equa.* Volume 2014, Article ID 287480, 10 pages (**Scopus**).
- [14] S. Zuhra, S. Islam, I.A. Shah, H. Ullah, Application of Optimal Homotopy Asymptotic Method to Benjamin-Bona-Mahony and Sawada- Kotera equations. *WASJ* 31 (11): 1945-1951, 2014. (**Scopus**).
- [15] H. Ullah, S. Islam, I. Khan, S. Sharidan, M. Fiza, Formulation and implementation of Optimal homotopy asymptotic method to coupled differential-difference equations. *Plos One* 10.1371/journal.pone.0120127. (**IF 3.8**).
- [16] H. Ullah, S. Islam, M. Fiza, S.A.Khan, Application of optimal homotopy asymptotic method to convective radiative fin with temperature dependant thermal conductivity. Volume: 1 (2014), Article ID: *J. Appl. Environ. Biol. Sci.* 456 (**ISI**).
- [17] H. Ullah, S. Islam, I. Khan, S. Sharidan, M. Fiza, Approximate solution of the generalized coupled Hirota- Satsuma coupled KdV equation by extended optimal homotopy asymptotic method, *Magnt research report Vol.2* (7). PP: 3022-3036 (**ISI**).
- [18] H. Ullah, S. Islam, M. Fiza, The optimal homotopy asymptotic method with application to Inhomogeneous nonlinear wave equations. *Sci. Int.* 26(5),1907-1913,2014 (**ISI**).

- [19] H. Ullah, S. Islam, M. Fiza, Approximate solution of two dimensional nonlinear wave equation by optimal homotopy asymptotic method. Math. Prob. Engi. Vol. 2015. ID. 380104, 7 pages. (**IF 1.082**).
- [20] S. Zuhra, H. Ullah, S. Islam, S.I.A. Shah, Generalized seventh order KdV by Optimal Homotopy Asymptotic Method. Sci. Int. 27(4),3021-3030,2015 (**ISI**).
- [21] H. Ullah, S. Islam, S. Sharidan, I.Khan, M. Fiza, The Extended Optimal Homotopy asymptotic method with applications to some KdV equations. Math. Prob. Eng. (**IF 0.87**). In Press.
- [22] H. Ullah, S. Islam, S. Sharidan, I. Khan, M. Fiza, MHD boundary layer flow of an upper convected Maxwell fluid by optimal homotopy asymptotic method. Scientia Iranica (**IF 1.025**). In press. **IF. 1.025**
- [23] H. Ullah, S. Islam, M. Fiza, Analytical solution for three dimensional problem of condensation film on inclined rotating disk by extended optimal homotopy asymptotic method. IJSTM. **IF.1.5**.
- [24] H. Ullah, I. Khan, Application of OHAM to homogenous advection equation. JAPEBS **ISI** In press.
- [25] H. Ullahm I. Khan, The OHAM with Application to in-homogenous advection equation. PUJ **ISI** In press.
- [26] H. Ullah, M. Fiza, S. Islam, The MOHAM with application to coupled mKdV equations. PUJ **ISI** Accepted.

REFERENCES:

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