

Dr. MUHAMMAD JAMIL (CV)

OBJECTIVE

TO SERVE THE WORLD THROUGH KNOWLEDGE.
HEC Approved Supervisor

PERSONAL

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Degree/Certificate	Board/University	From Year	To Year	Obtained Marks	Total Marks	Percentage
Ph.D. (Applied Mathematics) (Fluid Mechanics) (with distinction)	Abdus Salam School of Mathematical Sciences, G. C. University, Lahore, Pakistan	2007	2011	1811	2200	(82.3%) First Class First
M.Phil (Engineering Mathematics) (with distinction)	University of Karachi, Karachi, Pakistan	2002	2007	592	800	(74%) First Class First
M.Sc. (Applied Mathematics) (Gold Medalist)	University of Karachi, Karachi, Pakistan	2000	2001	883	1000	88.30% (First Class First)
B.Sc.(H) (Maths, Physics, Statistics)	University of Karachi, Karachi, Pakistan	1998	2000	2152	2600	82.76% (First Class First)
H.S.S.C. (Maths, Physics, Chemistry)	Inter Board Karachi, Karachi, Pakistan	1995	1997	622	1100	56.54% (Second Class)
S.S.C. (Maths, Physics, Chemistry, Biology)	Matric Board Karachi, Karachi, Pakistan	1993	1995	564	850	66.35% (First Class)

PhD DISTICTIONS

Thesis Title: Non-Newtonian fluids flows: Exact analytical solutions and numerical results;
Available at: <http://eprints.hec.gov.pk/7706/>.

Institute: Abdus Salam School of Mathematical Sciences (ASSMS), G. C. University, Lahore,
Pakistan.

Supervisor: Prof. Dr. Constantin Fetecau from Romania (HEC foreign faculty Professor).

Field: Applied and computational Mathematics, Partial differential equations, Fluid Mechanics,
Integral transforms, Mathematical modeling.

Awards: Received **five best performance awards** in different discipline form ASSMS.

Publications: More than **50** during Phd studies.

Year: 2011.

Researchgate: https://www.researchgate.net/profile/Muhammad_Jamil21?ev=hdr_xprf

Google scholar: <http://scholar.google.com.pk/citations?user=aqS0bWQAAAAJ&hl=en>

ACADEMIC DISTICTIONS

- 1.** Completed PhD form **Abdus Salam School of Mathematical Sciences (ASSMS),G. C. University, Lahore**, this school declared as a **Centre of excellence for 3rd world countries, where all faculty are foreign and top Mathematician from Germany, France, Romania, China, Russia etc. Many Professors visited ASSMS form USA, UK etc. and give lecture and seminar on different areas of Mathematical Sciences.**
- 2.** Completed PhD under the **supervision of the Prof. Dr. Constantin Fetecau form Romania** under HEC foreign faculty program. Prof. Constantin Fetecau have **valuable contribution** over the past three decades in **Theoretical and Applied Fluid Mechanics**& known as a **great scientist and researcher in this field.**
- 3.** Studied **25 courses** related to **Pure and Applied Mathematics** from **Top Mathematician of Europeans & developed countries** during the period of PhD with **82.3%** in ASSMS.
- 4.** Wrote more than **50 papers** just within four years, which is **record in** Abdus Salam School of Mathematical Sciences (ASSMS), G. C. University, Lahore.
- 5.** Wrote **4 papers** in **M.Phil**, which were published in national and internal journals.
- 6.** Received **Best Student** award at **ASSMS in 2010.**
- 7.** Received **Best Researcher** award at **ASSMS in 2010.**
- 8.** Received **Best Researcher in Applied Mathematics** award at **ASSMS in 2011.**
- 9.** Received **Best Presentation** award in 5th world conference at **ASSMS in 2011.**
- 10.** Received **Best Researcher** award in **writing maximum number of publications** in **ASSMS in 2011.**
- 11.** Passed **GRE international** in Mathematics with **72 percentile.**
- 12.** Taught the subject of **Fluid Mechanics to PhD students** at ASSMS in the years 2010 &2011 by the recommendation of my PhD supervisor Prof. Dr. Constantin Fetecau.
- 13.** Obtained **Gold Medal** in M.Sc. due to the **First Class First** position in the Department Of Mathematics, University of Karachi and **Second Position in the entire faculty of science** as well.
- 14.** Obtained **Merit certificate of First class First Position in M.Sc.** in the Department of Mathematics, University of Karachi.
- 15.** Obtained **Merit certificate of First class First Position in B.Sc.(H)** in the Department of Mathematics, University of Karachi and **First class First Position in the entire faculty of science** as well.

RESEARCH DISTICTIONS

1. Wrote more than **50 research papers** during Phd studies.
2. Received **three best researchers out of five awards** at **ASSMS** during Phd studies.
3. At present total numbers papers are **59+**.
4. **Authors of the Most downloaded articles** of the institution (**i.e.NEDUET**) almost every week in Researchgate.
5. **Impact factor** is greater than **40**.
6. **Citation** greater than **1100** via Google scholar, **925** via Scopus and **925** via Researchgate.

MERIT SCHOLARSHIPS

1. Merit scholarship of **HEC 5000 indigenous Phase-IV** program for PhD program.
2. Merit scholarship at Abdus Salam School of Mathematical Sciences, G. C. University, Lahore for PhD program from Punjab government.

TEACHING & RESEARCH EXPRIECE

1. Worked as **Assistant Professor** in Department of Mathematics at NED University of Engineering & Technology, Karachi form **2nd Dec 2011 to date**.
2. Working as **Part time teacher** in the evening class of **Master program in Applied Mathematics** in the Department of Mathematics at NED University of Engineering & Technology, Karachi form **Jan 2013 to date**.
3. **Teaching assistant** at Abdus Salam School of Mathematical Sciences, G. C. University, Lahore in the years 2010 and 2011.
4. **PhD Scholar** at Abdus Salam School of Mathematical Sciences, G. C. University, Lahore **from 12th Sep 2007 to 1st Dec 2011**.
5. Worked as **Assistant Professor** in Department of Mathematics at NED University of Engineering & Technology, Karachi form **1st Nov 2006 to 11th Sep 2007**.
6. Worked as **lecturer** in Department of Mathematics at NED University of Engineering & Technology, Karachi form **19th Oct 2004 to 31st Nov 2006**.
7. Worked as **full-time cooperative teacher (equivalent to lecturer)** in the Department of Mathematics at University of Karachi from **Jan 2002 to 18th Oct 2004**.

ADMINISTRATIVE RESPONSIBILITY

1. Departmental & Faculty Representative of Information, Science & Humanities (**DR & FR ISH**) from March 2015 to April 2017.
2. **Representative of BOR** Information, Science & Humanities departments from 2016 to 2017.
3. **Advisor** of PhD and Master programs and curriculums of Mathematics.
4. **Treasurer of NED Teacher's Association (NETA)** from September 2018 to 24th April, 2019.

CONFERENCE/WORKSHOPS AND SCHOOLS

1. **Second International Conference on Mathematics and its Applications in Information Technology** LUMS, Lahore, Pakistan, **2008**.
2. **International Conference on Recent Developments in Fluid Mechanics**, COMSATS institute of Technology, Islamabad, Pakistan, **2008**.
3. **3rd International Conference on Recent Developments in Fluid Mechanics**, Quaid-i-Azam University, Islamabad, Pakistan, **2009**.
4. **4th International Conference on 21st Century Mathematics** Abdus Salam School of Mathematical Sciences, GCU, Lahore, Pakistan, **2009**.
5. **4th International Conference on Recent Developments in Fluid Mechanics**, Quaid-i-Azam University, Islamabad, Pakistan, **2010**.
6. **5th International Conference on 21st Century Mathematics** Abdus Salam School of Mathematical Sciences, GCU, Lahore, Pakistan, **2011**.
7. **Workshop on Number theory** at Abdus Salam School of Mathematical Sciences, GCU, Lahore, Pakistan, **2011**.
8. **Ist Conference on Energy and Sustainability**, Mechanical Engineering Department NED University of Engineering and Technology, April 27, **2013**.
9. **Ist National Conference on information Technology** at Usman Institute of Information Technology, Karachi, **May 2013**.
10. **HEC indigenous on campus training on presentation skills** being held at NED University from 1-5 September **2014**.
11. **The Individual or the Collective? Querying Assumptions About the Literacy Gap**, at Yohsin Center for Social Development at Habib University, Karachi, **18th September, 2014**.
12. **The education system** at NED University of Engineering & Technology, Karachi, **18th September, 2014**.

- 13. "Sixth International Conference on Recent Developments in Fluid Mechanics"** at School of Natural Sciences (SNS), NUST, Islamabad, March 17-19, **2015**.
- 14. 5th International Mechanical Engineering Congress**, NED University of Engineering & Technology, Karachi, 9th and 10th May, **2015**.
- 15. 7th International Civil Engineering Congress**, NED University of Engineering & Technology, Karachi, 12th and 13th June, **2015**.
- 16. Third National Conference on Space Science & Technology** at Institute of Space & Planetary Astrophysics(ISPA), University of Karachi, Karachi-75270 on October 5-6, **2015**.
- 17. 1st International Material Engineering Conference**, NED University of Engineering & Technology, Karachi, 14th and 15th December, **2015**.
- 18. International Conference on Recent Advances 1st in Pure and Applied Mathematics (RAPAM' 16)** at Quaid-e-Awam University of Engineering, Science and Technology, Nawabshah, Sindh, Pakistan on 21-23 **January 2016**.
- 19. Workshop on Leadership at** being held at NED University from 1-5 September **2014**.
- 20. International Conference on Recent Advances in Applied Mathematics (ICRAAM-2019) on February 21-22, 2019)** at Mathematics Department, COMSAT University, Lahore, Pakistan.

PAPERS PRESENTED AS SPEAKER & INVITED/KEYNOTE SPEAKER

- 1. Starting solutions for the motion of a generalized Burgers' fluid between coaxial cylinders** at 4th International Conference on Recent Developments in Fluid Mechanics, Quaid-i-Azam University, **Islamabad, Pakistan, 2010**.
- 2. Research seminar in Fluid Mechanics** in ASSMS with collaboration to NCM **February 2010**.
- 3. Research seminar in Fluid Mechanics** in ASSMS with collaboration to NCM **September 2010**.
- 4. First problem of Stokes for generalized Burgers' fluids** at 5th International Conference on 21st Century Mathematics, Abdus Salam School of Mathematical Sciences, GCU, **Lahore, Pakistan, 2011**.
- 5. Unsteady helical flows of Maxwell fluid via prescribed shear stresses**, International conference on Applied Mathematics,(presented by coauthor D. Vierue), Universitatea Tehnic "Gheorghe Asachi" din Iasi, **Romania, 2011**.
- 6. Research seminar in Fluid Mechanics** in ASSMS with collaboration to NCM **February 2011**.

- 7.** Research seminar in Fluid Mechanics in ASSMS with collaboration to NCM **September 2011.**
- 8.** **Slip effects on oscillating fractionalized Maxwell fluid: Invited speaker** at; "Sixth International Conference on Recent Developments in Fluid Mechanics" at School of Natural Sciences (SNS), NUST, Islamabad, Pakistan, March 17-19, **2015.**
- 9.** **Oscillating flows of fractionalized second grade fluid with slip effects:** (presented by coauthor Sanaullah Dehraj); The 1st National Conference on Mathematics and Computer Science (NCMCS'15) on 21-23 January 2015 at Quaid-e-Awam University of Engineering, Science and Technology, Nawabshah, Sindh, Pakistan.
- 10.** **Unsteady motion of fractionalized second grade fluid with slip effects:** 5th international Mechanical Engineering Congress 9th and 10th May, 2015, NED University of Engineering & Technology, Karachi.
- 11.** **MHD viscous fluid flows when vorticity distribution perturbed by uniform and exponential streams: (Poster presentation);** 5th international Mechanical Engineering Congress 9th and 10th May, 2015, NED University of Engineering & Technology, Karachi.
- 12.** **MHD Maxwell fluid with non-linear velocity over the boundary:** 7th international Civil Engineering Congress 12th and 13th June, 2015, NED University of Engineering & Technology, Karachi.
- 13.** **Some exact solutions for rotating flows of a generalized Burgers' fluid in cylindrical domains:** Third National Conference on Space Science & Technology at Institute of Space & Planetary Astrophysics(ISPA), University of Karachi, Karachi-75270 on October 5-6, **2015.**
- 14.** **On exact solution of fractional MHD viscoelastic fluid:** International Material Engineering Conference, NED University of Engineering & Technology, Karachi, 14th and 15th December, **2015.**
- 15.** **Oscillations of fractionalized Maxwell fluid: Keynote speaker** at 1st International Conference on Recent Advances in Pure and Applied Mathematics (RAPAM' 16) at Quaid-e-Awam University of Engineering, Science and Technology, Nawabshah, Sindh, Pakistan on 21-23 **January 2016.**
- 16.** **Oscillations of fractionalized Maxwell fluid: Keynote speaker** at **International Conference on Recent Advances in Applied Mathematics (ICRAAM-2019) on February 21-22, 2019** at Mathematics Department, COMSAT University, Lahore, Pakistan.

SUBJECTS TAUGHT

- 1.** Fluid Mechanics(**PhD**)
- 2.** Non-Newtonian Fluid Mechanics(**PhD**)
- 3.** Advanced Non-Newtonian Fluid Mechanics(**PhD**)
- 4.** Non-linear differential equations(**PhD**)
- 5.** Transforms & their applications(**Master**)
- 6.** Advanced Differential Equations(**Master**)
- 7.** Classical Mechanics(**MSc**)
- 8.** Engineering Mathematics & Mathematical Modeling

- [9.](#) Advanced Calculus(Differential, Integral& Multivariable)
- [10.](#) Applied Numerical Methods
- [11.](#) Advanced Mathematical Techniques
- [12.](#) Discrete Mathematics
- [13.](#) Linear Algebra
- [14.](#) Real Analysis
- [15.](#) Complex Analysis
- [16.](#) Ordinary differential equations
- [17.](#) Partial differential equations
- [18.](#) Basics of theory of fluids.

FIELDS OF INTEREST (RESEARCH FIELDS)

1. Newtonian and non-Newtonian Fluid Dynamics
2. Nonlinear Mechanics
3. Mathematical Modeling
4. Mathematical Physics
5. Boundary value problems
6. Nonlinear Partial differential equations
7. Fractional and Fractal differential equations
8. Fuzzy system analysis
9. Numerical solutions of nonlinear systems
10. Transforms & their applications
11. Numerical methods/simulation
12. Heat & Mass transfer
13. Relativity

PUBLICATIONS TYPE

Total 65= 39 ISI index + 20 International + 6 National

ISI PUBLICATIONS 38

Two in International Journal of Nonlinear Science and Numerical Simulation (**ISI; 3.1**)
Four in Communications in Nonlinear Science and Numerical Simulation (**ISI; 2.697**)
Five in International Journal of Chemical Reactor Engineering (**ISI; 0.68**)
One in Mathematical and Computational Applications (**ISI**)
Two in Journal of King-Saud University-Science (**ISI**)
Two in Acta Mechanica Sinica(**ISI; 0.749**)
Four in Computers and Mathematics with Applications (**ISI; 1.449**)
One in Chemical Engineering Communications (**ISI; 0.913**)
One in Non-Linear Analysis: Real World Applications(**ISI; 2.30**)
One in Advances in Difference Equations (**ISI; 0.891**)
One in Theoretical and Applied Mechanics (**ISI; 0.2**)
One in Boundary Value Problems (**ISI; 1.05**)
One in Heat Transfer Research(**ISI; 1.05**)
One in AIP Advances (**ISI; 0.00**)
One in Mathematical Methods in the Applied Sciences (**ISI; 0.84**)

One in International Journal of the Physical Sciences (ISI; 0.554)
One in Thermal Sciences (ISI; 0.706)

INTERNATIONAL 20

Three in Theoretical and Applied Mechanics Letters (AIP)
Three in International Journal of the Differential Equations
One in Nonlinear Science Letters A: Mathematics, Mechanics and Physics
Three in International Journal of Applied Mathematics and Mechanics
One in ARPN Journal of Engineering and Applied Sciences
Two in ISRN Journal of Mathematical Physics
One in ISRN Journal of Computational Mathematics

NATIONAL 06

Two in Journal of Prime Research in Mathematics (HEC X-Category)
One Quaid-e-Awam University Research Journal of Engineering, Science and Technology

IMPACT FACTOR >45.00

CITATIONS >1200 (via Scopus & ResearchGate) and >1250 (via Google Scholar)

INTERNATIONAL ASSIGNMENTS REFREE OF SOME INTERNATIONAL JOURNALS

1. Computers and Mathematics with Applications (ISI) USA
2. International Journal of Chemical Reactor Engineering (ISI) Canada
3. Applied Mathematics Letters (ISI) USA
4. Advances in Difference Equations (ISI) USA
5. Applied Mathematical Modeling (ISI) USA
6. Chemical Engineering Communications (ISI) UK
7. Zeitschrift für Naturforschung A - A Journal of Physical Sciences (ISI) Germany
8. World Applied Sciences Journal (ISI)
9. International Journal of the Physical Sciences (ISI)
10. Applied Mathematics and Information Science (ISI)
11. World Journal of Modeling and Simulation UK
12. Journal of Advance Research in Differential Equations UK
13. Non-Linear Analysis: Real World Applications (ISI) The Netherland
14. Zeitschrift für Naturforschung A - A Journal of Physical Sciences (ISI) Germany
15. International Journal of Heat and Mass Transfer

NATIONAL AND INTERNATIONAL COLLABORATION

Joint research collaboration has been established with leading Foreign/national Universities.

1. Dr. Rana Khalid Naeem (Pakistan) (**M.Phil Supervisor**)
2. Dr. Constatian Fetecaue (Romania) (**PhD Supervisor**)
3. Dr. Muhammad Jawed Iqbal (Pakistan) (**Director ISPA, University of Karachi**)

4. Dr. Najeeb Alam Khan (Pakistan)
5. Dr. Corina Fetecaue (Romania)
6. Dr. Dumitru Vierue (Romania)
7. Dr. Ahmet Yildirim (Turkey)
8. Dr. Amir Mahmood (Pakistan)
9. Dr. Syed Anwer Ali (Pakistan)
10. Dr. Nasir-Uddin Khan (Pakistan)
11. Dr. Mudassar Nazar (Pakistan)
12. Dr. Imran Siddique (Saudi Arabia)
13. Dr. Subir Das (India)

MEMBER OF EDITORIAL BOARD

1. Editor “**Journal of GeoSpace Science**” University of Karachi, ISPA, **Pakistan.**
2. Editorial Member “**International Journal of Mathematical and Statistical Science**” (IJMSSc), Sindh Madressatul Islam University, Karachi, Pakistan.

MEMBERSHIPS

1. Member of **All Pakistan Mathematical Association (APMS)**
2. Member of **National Mathematics Society of Pakistan (NMSP)**

PhD/ M.PHIL/MASTER SUPERVISION (COMPLETED)

PhD STUDENTS

1. Honour to completed some **parts of PhD thesis** of Mr. Muhammad Imran, Mr. Azhar Ali Zafar, Mr. Muhammad Imran Asjad, Mr. Abdul Rauf and Ms. Nazish Shahid: at Abdus Salam School of Mathematical Sciences, G.C. University, Lahore, by the recommendation of my PhD supervisor due to my performance from **2009-2012.**

M.PHIL/MASTER STUDENTS

2. **Muhammad Idress Afridi (Batch: 2011-2012): Unsteady flows of second grade fluid over an accelerating plane**, Master thesis at NEDUET, completed in December **2013.**
3. **Salman Safdar (Batch: 2011-2012): Some exact solutions for second grade fluid over the moving plane**, Master thesis at NEDUET, completed in December **2013.**
4. **Afaqu Ahmed (Batch: 2012-2013): Some exact solutions for MHD viscous fluid flows**, Master thesis at NEDUET, completed in December **2014.**
5. **Sanaullah Dehraj (Batch: 2012-2013): Slip effects on fractionalized second grade fluid, flows**, Master thesis at NEDUET, completed in December **2014.**
6. **Kashif Ali (Batch: 2012-2013): Some exact solutions for accelerated flows of MHD Maxwell fluid**, Master thesis at NEDUET, completed in December **2014.**

- 7. Muhammad Zafarullah (Batch: 2013-2014): MHD flows of second grade fluid through the moving porous cylindrical domain**, Master thesis at NEDUET, completed in December **2015**.
- 8. Vijay Kumar (Batch: 2013-2014): Effect of MHD on fractionalized Maxwell fluids between porous pipes**, Master thesis at NEDUET, completed in December **2015**.
- 9. Iftikhar Ahmed (Batch: 2013-2014): Helical flows of some fractionalized viscoelastic fluids**, Master thesis at NEDUET, completed in December **2015**.
- 10. Muhammad Nasir Ansari (Batch: 2012): Exact analytical solutions and numerical results fractionalized MHD viscoelastic fluids applied to geophysical phenomena's**, M.Phil thesis at Institute of Space & Planetary Astrophysics(ISPA), University of Karachi.
- 11. Arsalan Ahmed (Batch: 2014-2015): Traveling wave solutions of some nonlinear PDEs**, Master thesis at NEDUET, completed in March **2019**.
- 12. Israr Ahmed (Batch: 2014-2015): Effects of second-order slip on the flows of fractionalized Maxwell and Oldroyd-B fluids**, Master thesis at NEDUET, completed in March **2019**.
- 13. Abdul Haleem (Batch: 2014-2015): Fractionalized MHD Jeffrey fluids over an accelerating and oscillating porous plane**, Master thesis at NEDUET, completed in March **2019**.
- 14. Maria Hasmi (Batch: 2017-2018): Fractionalized non-Newtonian fluids in a circular cylinder: Some new exact analytical solutions**, Master thesis at NEDUET, completed in October **2019**.
- 15. Mahreen Arshad (Batch: 2017-2018): Helical flows of fractionalized viscoelastic fluids for some new boundary conditions**, Master thesis at NEDUET, completed in October **2019**.
- 16. Kanwal Abid (Batch: 2013-2014): A scientific report on fluid flow between co-axial circular cylinder**, Master thesis at NEDUET, completed in October **2019**.
- 17. Aneesa (Batch: 2013-2014): Analysis of helical flows of rate type fluid in cylindrical region**, Master thesis at NEDUET, completed in October **2019**.
- 18. Alishba (Batch: 2014-2015): Rotating flows of some fractionalized non-Newtonian fluids: Analytical and numerical study**, Master thesis at NEDUET, completed in March **2020**.
- 19. Aroobab Nusrat (Batch: 2013-2014): Heat and mass transfer analysis for fractionalized MHD rate type fluids flows in porous medium**, Master thesis at NEDUET, completed in March **2020**.
- 20. Fazila Maqsood (Batch: 2013-2014): Applications of Atangana-Baleanu Caputo (ABC) fractional derivative and generalized M-function to heat and mass transfer problems**, Master thesis at NEDUET, completed in March **2020**.

- 21. Jahazaib (Batch: 2013-2014): A novel homotopy perturbation transform method (HPTM) for some partial differential equations(PDE's),** Master thesis at NEDUET, completed in in March 2020.
- 22. Numair (Batch: 2013-2014): Multi methods study of some applied partial differential equations to real life,** Master thesis at NEDUET, to be complete in October 2020.
- 23. Faizan (Batch: 2013-2014): Utilizations of generalized M functions to some dynamical systems: A practical approach,** Master thesis at NEDUET, completed in October 2020.
- 24. Gulreena (Batch: 2013-2014): Study of exact and analytical approach for some Burger's fluid flows,** Master thesis at NEDUET, completed in October 2020.
- 25. Aimen (Batch: 2013-2014): Mathematical study of MHD Oldroyd-B fluid in porous medium via integral transform methods,** Master thesis at NEDUET, completed in October 2020.
- 26. Wania (Batch: 2013-2014): Investigation of oscillating phenomena in non-Newtonian fluids flows and heat mass transfer analysis,** Master thesis at NEDUET, completed in October 2020.
- 27. Perfshan (Batch: 2013-2014): Analysis of heat and mass transfer of free convection flow of non-Newtonian fluids under variety of geometrics and boundary conditions,** Master thesis at NEDUET, completed in October 2020.
- 28. Nazia Sultana (Batch: 2013-2014): Mathematical modeling through PDE'S: A fractional calculus approach,** Master thesis at NEDUET, completed in October 2020 (As a helper).
- 29. Sohaima (Batch: 2013-2014): Application of fractional calculus to free convection flow on Newtonian and non-Newtonian fluids under different circumstances,** Master thesis at NEDUET, completed in October 2020(As a helper) .

PhD/ M.PHIL/MASTER SUPERVISION (WORKING)

PhD STUDENTS

- 1. Yasir Hussain Khan(2019-2020): Analysis of Heat Mass transfer flows of fluids using recent fractional derivatives,** PhD thesis at NEDUET, to be complete in December 2023.
- 2. Muhammad Zafarullah (Batch: 2016): Analytical Solutions of Some Fractionalized Viscoelastic Fluids through Different Techniques,** PhD thesis at University of Karachi, to be complete in December 2023.

M.PHIL/MASTER STUDENTS

- 1. Ismaeel (Batch: 2014-2015): Analytical solution for blood alcohol model by using homotopy perturbation method and fractional derivative, Master thesis at NEDUET, completed in March 2022(As a helper) .**

PhD/ M.PHIL/MASTER EXTERNAL VIVA EXAMINER

- 1. Hassam Khan(Batch: 2011): Exact solutions for unsteady flow of couple stress fluid, M.Phil thesis at Department of Mathematics, University of Karachi, examined in December 2014.**
- 2. Hassam Khan(Batch: 2011): Exact solutions for unsteady flow of couple stress fluid, M.Phil thesis at Department of Mathematics, University of Karachi, examined in December 2014.**
- 3. Nadeem Alam Khan (Batch: 2015): Analytical solutions and numerical results of some nonlinear oscillators, PhD thesis at Department of Mathematics, University of Karachi.**
- 4. Oyoon Abdul Razzaq (Batch: 2016): Numerical and analytical methods for solving fuzzy differtial equations, PhD thesis at Department of Mathematics, University of Karachi.**

BOOKS/MONOGRAPHS

- 1. Nonlinear Fractional Order Differential Equations Analytic Solutions and Numerical Results; By Najeeb Alam Khan and Muhammad Jamil (Lambert Academic Press, Germany).**
- 2. Applied Numerical Analysis For Sciences & Engineering (Publish Locally).**
- 3. Advanced Mathematical Techniques For Sciences & Engineering (Publish Locally).**

PUBLICATIONS

1. PUBISHED PAPERS

- 1. M. Jamil, V. Kumar, M. ZafarUllah, A. Khan, Fractionalized magnetohydrodynamics (MHD) Maxwell fluid through porous cylinders, Special Topics & Reviews in Porous Media — An International Journal, 12(6) (2021) 65–89 (USA,ISI-quoted).**
- 2. M. Jamil, A. Ahmed, New traveling wave solutions of MHD micropolar fluid in porous medium. Journal of the Egyptian Mathematical Society., 28 (2020) 1-22. (Egypt, non-ISI-quoted).**
- 3. M. Jamil, A. Ahmed, N. A. Khan, Some exact traveling wave solutions of MHD Maxwell fluid in porous medium. Int. J. Appl. Comput. Math., 6 (2020) 69. (India, non-ISI-quoted).**
- 4. M. Jamil, Abdul Haleem, MHD fractionalized Jeffrey fluid over an accelerated slipping porous plate, Nonlinear Engineering, 13 (2020) 273-89. (USA, non-ISI-quoted).**

- 5. M. Jamil, A. Ahmed**, Traveling Wave Solutions of 3D Fractionalized MHD Newtonian Fluid in Porous Medium with Heat Transfer. Journal of Applied and Computational Mechanics. (2019) **(Iran , ISI-quoted Impact Factor=0.000)**.
- 6. M. Jamil, I. Ahmed**, Twice order slip on the flows of fractionalized MHD viscoelastic fluid, European Journal of Pure & Applied Mathematics, **12 (2019) 1018-1051. (Turkey, ISI-quoted Impact Factor=0.000)**.
- 7. M. Jamil, M. Zafar Ullah**, MHD flows of second grade fluid through the moving porous cylindrical domain, European Journal of Pure & Applied Mathematics, **12 (2019) 1149-1175. (Turkey , ISI-quoted Impact Factor=0.000)**.
- 8. N. A. Khan, F. Sultan, F. Riaz, M. Jamil**: Investigation of combined heat and mass transfer between vertical parallel plates in a two-layer flow of couple stress nanofluid, Open Engineering, **6 (February 2016) 2391-5439 (USA, non-ISI-quoted). DOI: 10.1515/eng-2016-0004**.
- 9. M. Jamil**: Effects of slip on oscillating fractionalized Maxwell fluid, Nonlinear Engineering, De Gruyter. **5 (March 2016) 25 - 36 (USA, non-ISI-quoted). DOI: 10.1515/nleng-2015-0030**.
- 10. M. Jamil, K. A. Abro, N. A. Khan**: Helices of fractionalized Maxwell fluid, Nonlinear Engineering, **4 (December 2015) 191-201. (USA, non-ISI-quoted). DOI: 10.1515/nleng-2015-0016**.
- 11. M. Jamil, A. Ahmed**: MHD viscous fluid flows when vorticity distribution perturbed by uniform and exponential stream; Proceeding of 5th international Mechanical Engineering Congress 9th and 10th **May, 2015**, NED University of Engineering & Technology, Karachi.**(Pakistan)**
- 12. M. Jamil, S. Dehraj**: Unsteady motion of fractionalized second grade fluid with slip effects; Proceeding of 5th international Mechanical Engineering Congress **9th and 10th May, 2015**, NED University of Engineering & Technology, Karachi.**(Pakistan)**
- 13. M. Jamil, Kashif Ali Abro**: MHD Maxwell fluid with non linear velocity over the boundary; Proceeding of 5th international Mechanical Engineering Congress **12th and 13th June, 2015**, NED University of Engineering & Technology, Karachi.**(Pakistan)**
- 14. M. Jamil**: Starting solutions for the motion of second grade fluids due to oscillating shear stresses, Nonlinear Engineering, **4 (May 2015) 105-116, De Gruyter. (USA, non-ISI-quoted). DOI:10.1515/nleng-2015-0011**.

- 15. M. Jamil, N. A. Khan, M. I. Asjad:** New exact solutions for an Oldroyd-B fluid with fractional derivatives: Stokes' first problem, *Int J Nonlinear Sc & Num Simulation*, 14 (2013) 443-451 De Gruyter. (USA, ISI-quoted, Impact Factor=1.162). DOI: 10.1515/ijnsns-2011-024.
- 16. M. Jamil, N. A. Khan, N. Shahid:** Fractional MHD Oldroyd-B fluid over an oscillating plate, *Thermal Science*, 17 (January 2013) 997-1011 (Belgrade, ISI-quoted, Impact Factor=1.431). DOI: 10.2298/TSCI110731140J.
- 17. M. Jamil, N. A. Khan:** Erratum: "Helical flows of fractionalized Burgers' fluids" [AIP ADVANCES 2,012167 (2012)], AIP Advances, 3(February 2013) Article ID 029901 (USA, ISI-quoted, Impact Factor=1.653). DOI: 10.1063/1.4791777.
- 18. N. A. Khan, M. Jamil, Nadeem A. Khan:** Approximations of the nonlinear Painlevé transcendents, *Communications in Numerical Analysis*, Volume 2013 (March 2013), Article ID cna-00127, 6 Pages (Iran, non-ISI). DOI: 10.5899/2013/cna-00127.
- 19. M. Jamil, C. Fetecau:** Starting solutions for the motion of a generalized Burgers' fluid between coaxial cylinders, *Boundary Value Problem*, 14 (January 2012) 1-15 (USA, ISI-quoted, Impact Factor=0.490). DOI: 10.1186/1687-2770-2012-14.
- 20. M. Jamil, N. A. Khan:** Helical flows of fractionalized Burgers' fluids, *AIP Advances*, 2(March 2012) Article ID 012167 (USA, ISI-quoted, Impact Factor=1.653). DOI: 10.1063/1.3694982.
- 21. M. Jamil, A. Rauf, A. A. Zafar, N. A. Khan:** Some new exact solutions for helical flows of second grade fluids, *Comm. in Nonlin. Sc. & Num Simul.*, 17 (February 2012) 141-153 (The Netherlands, ISI-quoted, Impact Factor=3.181). DOI: 10.1016/j.cnsns.2011.04.004.
- 22. M. Jamil:** First problem of Stokes' for generalized Burgers' fluids, *ISRN Mathematical Physics*, (March 2012) Article ID 831063 (USA, non-ISI). DOI: 10.5402/2012/831063.
- 23. M. Jamil, N. A. Khan, A. Rauf:** Oscillating flows of fractionalized second grade fluid, *ISRN Mathematical Physics*, (April 2012) Article ID 908386 (USA, non-ISI). DOI: 10.5402/2012/908386.
- 24. M. Jamil, Corina Fetecau, M. Rana:** Some exact solutions for oldroyd-b fluid due to time dependent prescribed shear stress, *Theoretical and Applied Mechanics*, 50 (January 2012) 549-562 (Poland, ISI-quoted, Impact Factor=0.2).
<https://pdfs.semanticscholar.org/cffe/1ea173a1417c54f34bf5cfbb883bef3cf67b.pdf>
- 25. M. Jamil, N. A. Khan:** Axial Couette flow of an Oldroyd-B fluid, *Theoretical and Applied Mechanics Letters*, (January 2012) Art 012001 (China, ISI-quoted, Impact Factor=0.339). DOI: 10.1063/2.1201201.
- 26. M. Jamil, C. Fetecau, Corina Fetecau:** Unsteady flow of viscoelastic fluid with fractional Maxwell model between two cylinders, *Acta Mechanica Scienica*, 28 (2012) 274-280 (China, ISI-quoted, Impact Factor=1.545). DOI: 10.1007/s10409-012-0043-5.

- 27.** N. A. Khan, **M. Jamil**, Nadeem A. Khan: Effects of slip factors on the unsteady stagnation point flow and heat transfer towards a stretching sheet: An analytical study, *Heat Transfer Research*, 43(8) (April 2012) 779–794 (USA, ISI-quoted, Impact Factor=0.404). DOI:10.1615/HeatTransRes.2012004962.
- 28.** N. A. Khan, N-U. Khan, A. Ara, **M. Jamil**: Approximate analytical solutions of fractional reaction-diffusion equations, *J King Saud Uni Sc.*, 24 (March 2012) 111-118 (Saudi Arabia, ISI-quoted, Impact Factor=0.758). DOI: 10.1016/j.jksus.2010.07.021.
- 29.** N. A. Khan, **M. Jamil**, A. Ara: Approximate solutions to time-fractional Schrödinger equation via homotopy analysis method, *ISRN Mathematical Physics*, (March 2012) Article ID 197068 (USA, non-ISI). DOI: 10.5402/2012/197068.
- 30.** N. A. Khan, **M. Jamil**, A. Mahmood, A. Ara: Approximate solution for the electrohydrodynamic flow in a circular cylindrical conduit, *ISRN Computational Mathematics*, (March 2012) Article ID 341069 (USA, non-ISI). DOI: 10.5402/2012/341069.
- 31.** **M. Jamil**, A. Rauf, C. Fetecau, N. A. Khan: Helical flows of second grade fluid due to constantly accelerated shear stresses. *Comm in Nonlinear Sc and NumSimul*, 16(August 2011) 1959-1969 (The Netherlands, ISI-quoted, Impact Factor=3.181). DOI: 10.1016/j.cnsns.2010.09.003.
- 32.** **M. Jamil**, C. Fetecau, N. A. Khan, A. Mahmood: Some Exact solutions for helical flows of Maxwell fluid in an annular pipe due to accelerated shear stresses, *Int J Chm React Engg*, 9 (January 2011) Article A20 (USA, ISI-quoted, Impact Factor=0.881). DOI: 10.2202/1542-6580.2486.
- 33.** **M. Jamil**, A. Rauf, A. A. Zafar, N. A. Khan: New exact analytical solutions for first Stoke's problem of Maxwell fluid with fractional derivative approach. *Comp. and Math with Appl.*, 62 (August 2011) 1013-1023 (USA, ISI-quoted, Impact Factor=1.860). DOI: 10.1016/j.camwa.2011.03.022.
- 34.** **M. Jamil**, A. A. Zafar N. A. Khan: Translational flows of an Oldroyd-B fluid with fractional derivatives, *Comp. and Math with Appl.*, 62 (August 2011) 1540-1553 (USA, ISI-quoted, Impact Factor=1.860). DOI: 10.1016/j.camwa.2011.03.090.
- 35.** **M. Jamil**, N. A. Khan, M. I. Asjad: Unsteady rotating flows of Oldroyd-B fluids with fractional derivatives, *Int J Chm React Engg*, 9 (January 2011),Article A115 (USA, ISI-quoted, Impact Factor=0.881). DOI: 10.2202/1542-6580.2620.
- 36.** **M. Jamil**, A. U. Awan, D. Vieru: Unsteady helical flows of Maxwell fluids via prescribed shear stresses, *Bul. Inst. Polit. Iasi, t. LVII (LXI) (2011)* 137-148 (Romania, non-ISI).
- 37.** **M. Jamil**, C. Fetecau, M. Imran: Unsteady helical flows of Oldroyd-B fluids, *Comm in Nonlinear Sc and Num Simul*, 16 (March 2011) 1378-1386 (The Netherlands, ISI-quoted, Impact Factor=3.181). DOI: 10.1016/j.cnsns.2010.07.004.

- 38.** [M. Jamil](#), C. Fetecau: Helical flows of Maxwell fluid between coaxial cylinders with given shear stresses on the boundary, *Non-Linear Analysis: Real World Applications*, 11 (2011) 4302-4311 (The Netherlands, ISI-quoted, Impact Factor=2.012). DOI: [10.1016/j.nonrwa.2010.05.016](#).
- 39.** [M. Jamil](#), N. A. Khan: Slip effects on fractional viscoelastic fluids, *Int J of Differential Equations*, (2011) Art 193813(USA, ISI-quoted, Impact Factor=0.00). DOI: [10.1155/2011/193813](#).
- 40.** N. A. Khan, [M. Jamil](#), A. Ara, N-U Khan: On efficient method for system of fractional differential equations, *Advances in Difference Equations*, (January 2011) Article ADE/303472 (USA, ISI-quoted, Impact Factor=0.539). DOI: [10.1155/2011/303472](#).
- 41.** N. A. Khan, A. Ara, S. A. Ali, [M. Jamil](#): Orthogonal flow impinging on a wall with suction and blowing. *Int J Chm React Engg*, 9 (April 2011) Art. A47 (USA, ISI-quoted, Impact Factor=0.881). DOI: [10.2202/1542-6580.2458](#).
- 42.** N. A. Khan, A. Ara, [M. Jamil](#), A. Yildirim: Traveling wave solutions for MHD Aligned flow of a second grade fluid: A symmetry independent approach, *J King Saud Uni Sc.*, 24 (2011) 63-67 (Saudi Arabia, ISI-quoted, Impact Factor=0.758). DOI: [10.1016/j.jksus.2010.08.014](#).
- 43.** N. A. Khan, A. Ara, [M. Jamil](#): An efficient approach for solving the Riccati equation with fractional orders, *Comp Math with Appl.*, 61 (May 2011) 2683-2689 (USA, ISI-quoted, Impact Factor=1.860). DOI: [10.1016/j.camwa.2011.03.017](#).
- 44.** N. A. Khan, A. Ara, [M. Jamil](#): Approximations of the nonlinear Volterra's population model by an efficient numerical method, *Mathematical Methods in the Applied Sciences*, 34 (Jun 2011) 1733-1738 (USA, ISI-quoted, Impact Factor=1.18). DOI: [10.1002/mma.1479](#).
- 45.** N. A. Khan, [M. Jamil](#), A. Ara, S. Das: Explicit solution of time-fractional batch reactor system, *Int J Chm React Engg*, 9 (February 2011)A91 (USA, ISI-quoted, Impact Factor=0.881). DOI:[10.2202/1542-6580.2602](#).
- 46.** N. A. Khan, N-U. Khan, [M. Jamil](#), J. A. Siddiqui: Approximate analytical solutions for the Swift-Hohenberg equation with Cauchy Dirichlet condition, *Nonlin. Sc. Lett. A*, 2(2), (January 2011), 85-92 (Chaina, non-ISI).
- 47.** N. A. Khan, [M. Jamil](#), A. Ara: Multiple-parameter Hamiltonian approach for higher accurate approximations of a nonlinear oscillator with discontinuity, *Int J of Differential Equations*, (July 2011) Article ID 649748 (USA, ISI-quoted, Impact Factor=0.0). DOI: [10.1155/2011/649748](#).
- 48.** N. A. Khan, [M. Jamil](#), S. Ali, Nadeem. A. Khan: Solutions of the Force-Free Duffing-van der Pol Oscillator Equation, *Int J of Differential Equations*, (January 2011) Article ID 852919 (USA, ISI-quoted, Impact Factor=0.0). DOI: [10.1155/2011/852919](#).

- 49.** **M. Jamil**, N. A. Khan, G. Murtaza, Q. Din: Some exact solutions for the flow of a Newtonian fluid with heat transfer via prescribed vorticity, *J Prime Research in Math*, 6 (January 2010) 38-55 (Pakistan, HEC approved).
- 50.** **M. Jamil**: A class of exact solutions to Navier-Stokes Equations for the given vorticity, *International Journal of non-Linear sciences*, 7 (January 2010) 12–20 (UK, non-ISI).
- 51.** A. Mahmood, C. Fetecau, N. A. Khan, **M. Jamil**: Some exact solutions of the oscillatory motion of a generalized second grade fluid in an annular region of two cylinders, *Acta Mechanica Sinica*, 26 (August 2010) 541-550 (China, ISI-quoted, Impact Factor=1.545). DOI: [10.1007/s10409-010-0353-4](https://doi.org/10.1007/s10409-010-0353-4).
- 52.** N. A. Khan, A. Mahmood, **M. Jamil**, N-U Khan: Traveling wave solutions for MHD aligned flow of a second grade fluid, *Int J Chm React Engg*, 8 (January 2010) A163 (USA, ISI-quoted, Impact Factor=0.881). DOI: <https://doi.org/10.2202/1542-6580.2485>.
- 53.** C. Fetecau, A. Mahmood, **M. Jamil**: Exact solutions for the flow of a viscoelastic fluid induced by a circular cylinder subject to a time dependent shear stress, *Comm in Nonlinear Sc and Num Simul*, 15 (December 2010) 3931-3938 (The Netherlands, ISI-quoted, Impact Factor=3.181). DOI: [10.1016/j.cnsns.2010.01.012](https://doi.org/10.1016/j.cnsns.2010.01.012).
- 54.** **M. Jamil**, C. Fetecau: Some exact solutions for rotating flows of a generalized Burgers' fluid in cylindrical domains, *Journal of Non-Newtonian Fluid Mechanics*, 165 (December 2010) 1700-1712 (The Netherlands, ISI-quoted, Impact Factor=2.293). DOI: [Doi.org/10.1016/j.jnnfm.2010.08.004](https://doi.org/10.1016/j.jnnfm.2010.08.004).
- 55.** Corina Fetecau, D. Vieru, **M. Jamil**: Unsteady flow of a generalized Oldroyd-B fluid in a duct of rectangular cross-section (II), *Buletinul Institutului Politehnic Din Iasi*, 165 (2010) 1700-1712 (Romania, non-ISI).
- 56.** Corina Fetecau, **M. Jamil**, C. fetecau, D. Vieru: The Rayleigh-Stokes problem for an edge in a generalized Oldroyd-B fluid, *Zeitschriftfrangewandte Mathematik und Physik (ZAMP)*, 60 (September 2009) 921 – 933 (Germany, ISI-quoted, Impact Factor=1.711). DOI: [10.1007/s00033-008-8055-5](https://doi.org/10.1007/s00033-008-8055-5).
- 57.** Corina Fetecau, **M. Jamil**, C. Fetecau, I. Siddique: A note on the second problem of Stokes for Maxwell fluids, *International Journal of non-Linear Mechanics*, 44 (December 2009) 1085 – 1090 (UK, ISI-quoted, Impact Factor=2.163). DOI: [10.1016/j.ijnonlinmec.2009.08.003](https://doi.org/10.1016/j.ijnonlinmec.2009.08.003).
- 58.** N. A. Khan, **M. Jamil**, R. K. Naeem, A. Ara: Martin's method applied to plane flow of a micropolar fluid, *Int J of Appl Math & Mech.*, 5 (January 2009) 88-99 (India, non-ISI).
- 59.** N. A. Khan, **M. Jamil**: Analytic solution for creeping flow of an unsteady micropolar fluid, *Int J of Appl Math & Mech.*, 5(1) (January 2009) 39-47 (India, non-ISI).
- 60.** A. Mahmood, N. A. Khan, C. Fetecau, **M. Jamil**, Q. Rubbab: Exact analytic solutions for the flow of second grade fluid between two longitudinally oscillating cylinder, *J Prime Research in Math*, 5 (January 2009) 192-204 (Pakistan, HEC approved).

- 61.** N. A. Khan, A. Ara, **M. Jamil**: Traveling waves solution of a micropolar fluid, Int J Nonlinear Sc&Num Simulation, 10 (September 2009) 1121-1125 (USA, ISI-quoted, Impact Factor=1.162). Doi.org/10.1515/IJNSNS.2009.10.9.1121.
- 62.** W. Akhtar, **M. Jamil**: On the axial Couette flow of a Maxwell fluid due to longitudinal time dependent shear stress, Bull. Math.Soc. Sci. Roumanie Tome, 51 (2008) 93-101 (Romainia, non-ISI).
- 63.** **M. Jamil**, N. A. Khan: Some exact solutions of equations of motion of a finitely conducting incompressible fluid of variable viscosity in the presence of transverse magnetic field by transformation method, ARPN J of Engg& App Math, 1 (June 2006) 5-25 (Pakistan)
- 64.** R. K. Naeem, **M. Jamil**: On plane steady flows of an incompressible fluid with variable viscosity, International Journal of Applied Mathematics and Mechanics, 2 (2006) 1-19 (India, non-ISI).
- 65.** R. K. Naeem, **M. Jamil**: A class of exact solutions to flow equations of an incompressible fluid of variable viscosity, Quaid-e-Awam University Research Journal of Engineering, Science and Technology, 6 (2005) 11-18 (Pakistan, non-ISI).

2. SUBMITTED PAPERS

- 66.** **M. Jamil**, I. Ahmed, I. Khan, U. Faryaz, Analysis of heat and mass transfer of fractionalized MH second grade uid over nonlinearly moving porous plate, Problem in Mathematical Engineering (USA, ISI-quoted, Impact Factor=1.162).
- 67.** **M. Jamil**, M. I. Asjad, A. Ahmed, N. A. Khan, Fractionalized MHD couple stress fluid in porous medium with heat transmission: Some general traveling wave solutions, Alexandria Engineering (Egypt, ISI-quoted, Impact Factor=1.5).
- 68.** **M. Jamil**, A. Haleem, U. Faryaz, Heat and mass transfer in fractionalized MHD Jeffrey fluid on porous plane for generalized nonlinear boundary conditions, Computational methods in differential equations (Iran, ISI-quoted, Impact Factor=0.0).
- 69.** **M. Jamil**, M. Hashmi, I. Khan, A. Khan, Irregular vibration of fractionalized MHD Maxwell fluid in porous cylinder, Boundary Value Problems (USA, ISI-quoted, Impact Factor=1.6).
- 70.** **M. Jamil**, A. Haleem, U. Faryaz, MHD fractionalized Jeffrey fluid for the increasing amplitude of the oscillations of a porous plane with dual slipping effects, Computational methods in differential equations (Iran, ISI-quoted, Impact Factor=0.0).