

Prof. Dr. Muhammad Imran



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Web of Science Profile

<https://publons.com/researcher/479522/muhammad-imran-chaudhry/>

ResearcherID: B-1724-2010

<https://www.webofscience.com/wos/author/record/B-1724-2010>

Web of Science H index 38

Web of Science Citations 4403

ORCID Profile

<https://orcid.org/0000-0002-2363-5039>

Scopus ID: 57198098059

<https://www.scopus.com/authid/detail.uri?authorId=57198098059>

P-286, Khyaban Garden, Sargodha Road, Faisalabad

Off. +92-41-9203044, Cell +92-321-6659128,

E-mail: drmimranchaudhry@gcuf.edu.pk

drmimranchaudhry@gmail.com

I did my master's in mathematics (Applied) from Department of Mathematics, University of the Punjab, Lahore. I got my Doctoral Degree in Mathematics (Applied) under the supervision of Prof. Dr. Constantin Fetecau from Abdus Salam School Mathematical Sciences GC University, Lahore Pakistan in the year 2012. Editor in chief of Engineering and Applied Science Letters (EASL) journal and editor of **four** research journals of Mathematics. On reviewer panel of **thirty** reputed international journals of Mathematics and Engineering. Credit of publishing **two hundred five** research papers in well reputed international journals. Credit of having three highly cited research articles. I published **four** books on fluid mechanics at the international level and edited two international books. Supervised **thirteen PhD** students and **ninety M Phil** students and currently supervising **five** PhD Scholars and **four** M Phil scholars. Winner of **Research Productivity Award** by Pakistan Council for Science and Technology, Pakistan in year 2012-13. I win research grant worth **1.79 million** under NRPU program by HEC Pakistan. Organized **eight** international/National conferences/Seminar. Present my research in **fifty one** international/national level Conferences/Seminars as speaker/Invited speaker/Plenary Speaker.

Current Status

Working as Professor, Department of Mathematics, Government College University, Faisalabad. Pakistan

Personal Information

Father's Name : Abdul Rashid

Date of Birth : 11 November 1983

N.I.C. No. : 31100-0890383-7 Marital Status : Married
Domicile : Faisalabad (Punjab) Religion : Islam

Academic Information

- Ph.D. Mathematics 2007-2012
Abdus Salam School of Mathematical Sciences, Govt. College University, Lahore
- M.Sc. Mathematics 1st Div 2003-2005
Department of Mathematics, University of the Punjab, Lahore Mathematics
- B.Sc. Mathematics A, Mathematics B & Physics 1st Div 2001-2003
Govt. College Faisalabad, University of the Punjab, Lahore
- I.C.S Mathematics, Physics & Computer Science 1st Div 1999-2001
GC University Faisalabad, BISE, Faisalabad Mathematics, Physics & Computer Science
- S.S.C Science Group 1st Div 1997-1999
Govt. Comp. H. Model High School Faisalabad, BISE, Faisalabad

Administrative and Academic Duties Performed

At present serving as Professor, at Department of Mathematics, Government College University, Faisalabad. Pakistan.

- Chairman, Department of Mathematics, Government College University, Faisalabad from January 11, 2022 to February 24, 2025
- Secretary, University Prospectus Committee 2024, Government College University, Faisalabad
- Member University Admission Committee, 2022-23, 2024-25 and 20225-26
- QEC Block Coordinator, Shaid Kamal Block, Government College University, Faisalabad
- Convener, Board of Studies, Department of Mathematics, Government College University, Faisalabad from 2021 to February 24, 2025.
- Member University Admission Committee Fall 2023-24 and Spring 2024
- Member Purchase Committee Estate Care Office Government College University, Faisalabad from 2021 to date.
- Member, University Prospectus Committee 2023, Government College University, Faisalabad
- Member, Board of Faculty, Faculty of Physical Sciences, Government College University, Faisalabad from 2020 to date

- Member, Academic Council, Government College University, Faisalabad from 2021 to February 24, 2025
- Convener, Departmental Technical Review Committee, Department of Mathematics, Government College University, Faisalabad from 2021 to February 24, 2025
- Member Board of Studies University of Okara Okara, from 2018 to date
- Member Board of Studies University of Jhang, Jhang, from 2020 to date
- Member Board of Studies Government College Women University, Faisalabad, from 2019 to 2022
- Member, Selection Board, National Textile University, Faisalabad.
- Member, Selection Board, Government College Women University, Faisalabad.
- Subject Advisor Mathematics, Punjab Public Service Commission
- Convener, Departmental Admission Committee from 20221 to date
- Technical Review Committee, Department of Mathematics, Government College University, Faisalabad from 2021 to February 24, 2025
- Member, Departmental Technical Review Committee, Department of Mathematics, Khawaja Fareed University of Engineering and Technology, Faisalabad from 2022 to date
- Member, Departmental Technical Review Committee, Department of Mathematics, University of Engineering and Technology, Faisalabad from 2020 to date
- Presented technical and oral research as invited Trainer/Speaker in Two Days Workshop on Mathematical Modeling Using Mathcad Mathematica, organized by University of Agriculture Faisalabad, July 13-14, 2023
- Member, Departmental Technical Review Committee, Department of Mathematics, National Textile University, Faisalabad from 2020 to 2023
- Member, Departmental Technical Review Committee, Department of Mathematics, Government College University, Faisalabad from 2019 to 2020
- Co-ordinator for Evening Programs of Mathematics Department from 2016 to date
- Focal Person to IT, Department of Mathematics, Government College University from 2013 to 2021
- Research Coordinator, Department of Mathematics, Government College University from 2013 to 2021
- Convener Time Table Committee, Department of Mathematics, Government College University from 2016 to 2021
- Convener Departmental Purchase and Maintenance Committee from 2013 to 2021

- Convener Departmental Book Purchase Committee, Government College University, Faisalabad from 2013 to 2021
- Member Committee for Checking Plagiarism from 2013 to 2021
- Member Admission Committee Teach Undergraduate and Graduate courses Government College University, Faisalabad
- Focal person of the Department of Mathematics, Government College University, Faisalabad from 2016 to 2021
- Sports Incharge, Department of Mathematics, Government College University, Faisalabad from 2012 to 2014

Research Activities

- Credit of one hundred ninety five research articles published in leading world class peer reviewed scientific journals of Mathematics, Engineering, and Mathematical Physics.
 - Editor in Chief of Engineering and Applied Science Letters (EASL)
 - Academic Editor of
 - Mathematical Problem in Engineering
 - Journal of Prime Research in Mathematics
 - Open journal of Mathematical Sciences
 - Transactions in Mathematical and Computational Sciences.
 - Convener, Board of studies Government College University, Faisalabad. Member, University of Okada, Agriculture University Faisalabad, and University of Jhang.
 - Reviewer's panel of thirty reputed international journals of Mathematics and Engineering.
 - Published four Book on Mathematics
 - Organized eight conferences/Seminar at National/International level.
 - HEC approved supervisor.
 - Presented research in forty one national and international conferences.
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Research Grant

Winner of two research projects under NRPU program by HEC

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|-----------------|---|
| 1. Project No.: | 7498/Punjab/NRPU/R&D/HEC/2017 |
| Project Title: | Chemical reaction and radiation effects on mixed convective slip flow of nanofluids over an inclined sheet with non- uniform heat source/sink |
| Amount: | 1.79 Million |
| 2. Project No.: | 16361/NRPU/R&D/HEC/2020-21 |
| Project Title: | Mathematical modeling and simulation of convective drying and its application in food industry |
| Amount: | 3.34 Million |
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Publications in Journals

1. Akhtar, T., Abid, M., Souayeh, B., & Imran, F. D. M. (2025). Recent advances in modified Arrhenius activation energy and bioconvection in Williamson nanofluid flow over a bidirectional surface. *Propulsion and Power Research*.
2. Jianfeng Wang, Shan Ali Khan, Muhammad Imran, Houssam Eddine Abdellatif, Umar Farooq, Aiedh Mrisi Alharthi, Ahmed Belaadi, Computational investigation of melting performance enhancement in PCM-based lobed triplex-tube heat exchangers with Y-shaped fins for solar thermal energy storage, *International Communications in Heat and Mass Transfer*, Volume 169, Part A, 2025, 109567, ISSN 0735-1933, <https://doi.org/10.1016/j.icheatmasstransfer.2025.109567>.
(<https://www.sciencedirect.com/science/article/pii/S0735193325009935>)
3. Alhushaybari, A., Khan, S. A., Farooq, U., Imran, M., Haider, S. M. M., Ching, D. L. C., & Khan, I. (2025). Thermal management analysis of thermal radiation effect on mixed convective casson fluid inside wavy wall lid-driven cavity with diamond-shaped obstacles. *Journal of Radiation Research and Applied Sciences*, 18(3), 101808. <https://doi.org/10.1016/j.jrras.2025.101808>
4. Shaheen, A., Waqas, H., Muhammad, T., Hussain, M., Imran, M., Saidani, T., Al-Mdallal, Q.M.: Artificial neural network based computational analysis of hybrid nanofluid flow containing gold and zinc nanoparticles. *Z Angew Math Mech*. 105, e70179 (2025). <https://doi.org/10.1002/zamm.70179>
5. Farooq, U., Imran, M., Khan, S. A., Ghachem, K., Aich, W., Ching, D. L. C., & Khan, I. (2025). Numerical simulation of Nonlinear thermal radiation effect on water-based TiO₂–SiO₂ hybrid nanofluid flow with Cattaneo-Christov heat flux and multiple slips. *Journal of Radiation Research and Applied Sciences*, 18(3), 101784. <https://doi.org/10.1016/j.jrras.2025.101784>
6. Umar Farooq, Muhammad Imran, Shan Ali Khan, Kaouther Ghachem, Walid Aich, Dennis Ling Chuan Ching, Ilyas Khan, Numerical simulation of Nonlinear thermal radiation effect on water-based TiO₂–SiO₂ hybrid nanofluid flow with Cattaneo-Christov heat flux and multiple slips, *Journal of Radiation Research and Applied Sciences*, Volume 18, Issue 3, 2025 101784, ISSN 1687-8507, <https://doi.org/10.1016/j.jrras.2025.101784>.
7. Nazeer, M., Saleem, S., Fatima, N., Imran, M., & Radwan, N. (2025). Role of zeta potential and slip boundary conditions to improve the heat transfer analysis of hybrid nanofluid. *Journal of Radiation Research and Applied Sciences*, 18(3), 101702. Khan, S. A., Imran, M., Tahir, M., Alhushaybari, A., Ching, D. L. C., & Khan, I. (2025). Thermal radiation influence on nodal/saddle stagnation point flow with convective heat transfer in hybrid nanofluids containing gold and zinc nanoparticles. *Journal of Radiation Research and Applied Sciences*, 18(3), 101637. <https://doi.org/10.1016/j.jrras.2025.101637>
8. Malik, M. F., Raza, M., & Imran, M. (2025). Corrigendum to “Hybrid Nanofluid Flow Around a Circular Cylinder: A Coupled ANN and Numerical Study of MHD, Bioconvection, and Thermal Radiation” *Results in Engineering* 26 (2025) 105435. *Results in Engineering*, 105933.
9. Chaudhry, M., Imran, M., Raza, M., & Idrees, N. (2025). Thermal and flow analysis of MHD nanofluid between oscillating discs with motile microorganisms: Application in rotating bioreactors. *Case Studies in Thermal Engineering*, 73, 106459. <https://doi.org/10.1016/j.csite.2025.106459>
10. Shahzad, A., Imran, M., Tahir, M., Khan, S. A., & Shah, N. A. (2025). Heat generation/absorption and bioconvective swirling stagnation point flow impact of magnetized Maxwell nanofluid by a stretchable rotating disk. *Propulsion and Power Research*, 14(1),

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- 133-147.
11. Khan, S. A., Imran, M., Alharthi, A. M., Ching, D. L. C., & Khan, I. (2025). Designing novel soft computing paradigm to compute the impact of thermal radiation for efficient thermal transportation of Maxwell hybrid nanofluid model: Renewable solar energy in solar collector application. *Journal of Radiation Research and Applied Sciences*, 18(2), 101511.
 12. Imran, M., Khan, S. A., Yasmin, S., Zunaira, S., Alhushaybari, A., Ching, D. L. C., & Khan, I. (2025). Analysis of flow and heat transfer in magnetized nanofluids between two rotating disks in the presence of thermal radiation. *Journal of Radiation Research and Applied Sciences*, 18(3), 101643. <https://doi.org/10.1016/j.jrras.2025.101643>
 13. Khan, S.A., Imran, M., Farooq, U. et al. Computational analysis of MHD natural convection flow of Al₂O₃/water–ethylene glycol (50:50) hybrid nanofluid in an octagonal chamber with circular heated blocks. *Multiscale and Multidiscip. Model. Exp. and Des.* 8, 309 (2024). <https://doi.org/10.1007/s41939-025-00898-w>
 14. Zeemam, M., Imran, M., Basit, M. A., Ajmal, M. W., Tahir, M., Alhushaybari, A., ... & Galal, A. M. (2025). Bioconvection on magnetically-driven Casson fluid flow through porous shrinking sheet along a transportation of mass and heat. *International Journal of Modern Physics B*, 2550188.
 15. Ullah, A., Imran, M., Basit, M. A., Tahir, M., & Younis, J. (2024). AHerfReLU: A Novel Adaptive Activation Function Enhancing Deep Neural Network Performance. *Complexity*, 2025(1), 8233876. <https://doi.org/10.1155/cplx/8233876>
 16. Khan, S. A., Imran, M., Ali, B., Chamkha, A. J., & Alhushaybari, A. (2025). Chemically reactive micropolar hybrid nanofluid flow containing motile microbes over stretching sheet with Cattaneo–Christov heat flux model. *ZAMM - Journal of Applied Mathematics and Mechanics / Zeitschrift für Angewandte Mathematik und Mechanik*, 105(5), e70079. <https://doi.org/10.1002/zamm.70079>
 17. Shahzad, A., Imran, M., Tahir, M., Khan, S. A., & Shah, N. A. (2025). Heat generation/absorption and bioconvective swirling stagnation point flow impact of magnetized Maxwell nanofluid by a stretchable rotating disk. *Propulsion and Power Research*.
 18. Farooq, U., Imran, M., Noreen, S., Fatima, N., & Muhammad, T. Heat Transfer Performance of Hybrid Nanofluid Radiative Flow via a Rotating Disk With Heat Source–Sink Effects and Response Surface Methodology. *Mathematical Methods in the Applied Sciences*. <https://doi.org/10.1002/mma.10821>
 19. Farooq, U., Imran, M. & Fatima, N. Computational insights into the thermal behavior of SWCNT-Fe₃O₄ and MWCNT-CuO hybrid nanofluids in stretching cylinder with Response Surface Methodology. *Multiscale and Multidiscip. Model. Exp. and Des.* 8, 221 (2025). <https://doi.org/10.1007/s41939-025-00786-3>
 20. Imran, M., Zeemam, M., Basit, M. A., Sultan, R., Alharthi, A. M., Souayeh, B., Ali, M. R., & Aymen, F. (2025). Exploration of stagnation-point flow of Reiner–Rivlin fluid originating from the stretched cylinder for the transmission of the energy and matter. *Scientific Reports*, 15(1), 1-26. <https://doi.org/10.1038/s41598-025-90298-4>
 21. Basit, M. A., Bashir, M. M., Imran, M., Tahir, M., Alharthi, A. M., Chuan Ching, D. L., & Khan, I. (2025). Analysis of efficient partial differential equations model for nano-fluid flow through wedge involving minimal energy and thermal radiation. *Journal of Radiation Research and Applied Sciences*, 18(2), 101331. <https://doi.org/10.1016/j.jrras.2025.101331>
 22. Basit, M. A., Imran, M., Yan, C., Breaz, D., Cotîrlă, L., & Danciu, A. (2024). Advancing Renewable Energy Systems: A Numerical Approach to Investigate Nanofluidics' Role in Engineering Involving Physical Quantities. *Nanomaterials*, 15(4), 261. <https://doi.org/10.3390/nano15040261>
 23. Farooq, U., & Imran, M. (2025). Analysis of bio-convection in casson hybrid nanofluid flow with motile microorganisms and heat transfer using cattaneo-christov heat and mass flux theory over a cylinder. *Case Studies in Thermal Engineering*, 69, 105960.
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24. Munaza Chaudhry, Muhammad Abdul Basit, Muhammad Imran, Madeeha Tahir, Aiedh Mrisi Alharthi, Jihad Younis; Numerical analysis of mathematical model of nanofluid flow through stagnation point involving thermal radiation, activation energy, and living organisms. *AIP Advances* 1 January 2025; 15 (1): 015220. <https://doi.org/10.1063/5.0249122>
 25. Khan, S. A., Imran, M., Ali, B., & Muhammad, T. (2025). Towards a new strategy modelling to optimise thermal and solutal transportations within a magnetised blood-based hybrid nanofluid flow over gyrating sphere. *International Journal of Ambient Energy*, 46(1). <https://doi.org/10.1080/01430750.2024.2444328>
 26. Chaudhry, M., Basit, M. A., Akhtar, T., Imran, M., Tahir, M., Saleem, S., & Galal, A. M. (2025). Computational heat and mass transfer analysis of magnetized nanofluid flow under the influences of motile microorganisms and thermal radiation. *Modern Physics Letters B*, 2550111. <https://doi.org/10.1142/S0217984925501118>
 27. Abid, M. , Akhtar, T. , Awad, M. M. , & **Imran, M.** (2025). Advanced numerical simulations of lid-driven cavity flows using an optimized parallelized fractional step method. *Computational Algorithms and Numerical Dimensions*, 4(1), 1-17. Print ISSN: 2980-7646 Online ISSN: 2980-9320, <https://doi.org/10.22105/cand.2024.488797.1159>
 28. Li, W., Khan, S. A., Shafqat, M., Abbas, Q., Muhammad, T., & Imran, M. (2024). Computational Analysis for efficient thermal transportation of ternary hybrid nanofluid flow across a stretching sheet with Cattaneo-Christov heat flux model. *Case Studies in Thermal Engineering*, 105706. <https://doi.org/10.1016/j.csite.2024.105706>
 29. Farooq, U., Khan, S. A., Liu, H., Imran, M., Said, L. B., Ramzan, A., & Muhammad, T. (2024). Application of Artificial Intelligence Brain Structure-Based Paradigm to Predict the Slip Condition Impact on Magnetized Thermal Casson Viscoplastic Fluid Model Under Combined Temperature Dependent Viscosity and Thermal Conductivity. *Case Studies in Thermal Engineering*, 105702. <https://doi.org/10.1016/j.csite.2024.105702>
 30. Farooq, U., M. Ali, A. B., Fatima, N., Khan, S. A., Noreen, S., **Imran, M.**, & Muhammad, T. Applications of hybrid nanofluid in advanced solar thermal technologies with enhanced heat transfer with Cattaneo–Christov heat flux in a cylinder. *ZAMM - Journal of Applied Mathematics and Mechanics / Zeitschrift für Angewandte Mathematik und Mechanik*, e202400286. ISSN / eISSN: 0044-2267 / 1521-4001, *Web of Science* Core Collection: Science Citation Index Expanded, Impact Factor: 2.3, <https://doi.org/10.1002/zamm.202400286>
 31. Khan, S. A., Yasmin, S., Waqas, H., **Imran, M.**, & Alhushaybari, A. (2024). Hydrothermal transport of magnetized mono nanofluids between two spinning disks. *Modern Physics Letters B*, 2450467. ISSN / eISSN: 0217-9849 / 1793-6640 *Web of Science* Core Collection: Science Citation Index Expanded, Impact Factor: 1.8, <https://doi.org/10.1142/S0217984924504670>
 32. Galal, A. M., Zeemam, **M.**, **Imran, M.**, Basit, M. A., Tahir, M., Akram, S., & Younis, J. (2024). Numerical exploration of bioconvection in optimizing nanofluid flow through heated stretched cylinder in existence of magnetic field. *Multidiscipline Modeling in Materials and Structures*. ISSN / eISSN: 1573-6105 / 1573-6113, *Web of Science* Core Collection: Science Citation Index Expanded, Impact Factor: 1.7, <https://doi.org/10.1108/MMMS-08-2024-0239>
 33. Malik, M. F., Turabi, Y. U. B., Raza, **M.**, **Imran, M.**, & Muhammad, T. (2024). Computational analysis of heat transfer for hybrid nanofluid flow within a wavy lid-driven cavity with entropy generation and non-uniform heating. *Results in Physics*, 67, 108054. ISSN / eISSN: 2211-3797, *Web of Science* Core Collection: Science Citation Index Expanded, Impact Factor: 4.4, <https://doi.org/10.1016/j.rinp.2024.108054>
 34. Ali, Z., **Imran, M.**, Tahir, M., Khan, S. A., & Alghamdi, M. (2024). Numerical investigation of bioconvective non-Newtonian nanofluid flow across a curved surface in the presence of
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- microbes. *Case Studies in Thermal Engineering*, 64, 105308. ISSN / eISSN: 2214-157X, *Web of Science* Core Collection: Science Citation Index Expanded, Impact Factor: 6.4, <https://doi.org/10.1016/j.csite.2024.105308>
35. Basit, M. A., **Imran, M.**, Mohammed, W. W., Ali, M. R., & Hendy, A. S. (2024). Thermal analysis of mathematical model of heat and mass transfer through bioconvective Carreau nanofluid flow over an inclined stretchable cylinder. *Case Studies in Thermal Engineering*, 63, 105303. ISSN / eISSN: 2214-157X, *Web of Science* Core Collection: Science Citation Index Expanded, Impact Factor: 6.4, <https://doi.org/10.1016/j.csite.2024.105303>
 36. Wu, Y., Chaudhry, M., Maqbool, N., Tahir, M., Basit, M. A., & **Imran, M.** (2024). Entropy generation in radiative motion of tangent hyperbolic nanofluid in the presence of gyrotactic microorganisms and activation energy. *Frontiers in Physics*, 12, 1409318. ISSN / eISSN: 2296-424X, *Web of Science* Core Collection: Science Citation Index Expanded, Impact Factor: 1.9, <https://doi.org/10.3389/fphy.2024.1409318>
 37. Akhtar, T., **Imran, M.**, Akolade, M. T., & Akgül, A. (2024). Unraveling heat transfer mechanisms in MoS₂/SO₂- water nanofluid for flow over a stretching cylinder. *Numerical Heat Transfer, Part B: Fundamentals*, 1-14, ISSN / eISSN: 1040-7790 / 1521-0626, *Web of Science* Core Collection: Science Citation Index Expanded, Impact Factor: 1.7, <https://doi.org/10.1080/10407790.2024.2383983>
 38. Farooq, U., Liu, H., Basem, A., Fatima, N., Alhushaybari, A., **Imran, M.**, Ali, B.N., & Muhammad, T. (2024). Computational investigation of methanol-based hybrid nanofluid flow over a stretching cylinder with Cattaneo–Christov heat flux. *Journal of Computational Design and Engineering*, 11(4), 73-82. ISSN / eISSN: 2288-5048 *Web of Science* Core Collection: Science Citation Index Expanded, Impact Factor: 4.8, <https://doi.org/10.1093/jcde/qwae059>
 39. Farooq, U., Basem, A., **Imran, M.**, Fatima, N., Tahir, M., Waqas, H., & Ibrahim, A. (2024). Numerical Computational of Chemically Reactive Hybrid Nanofluids with Melting Phenomena Passing Through a Disk: Comparative Study. *Journal of Nanofluids*, 13(3), 831-838. ISSN / eISSN: 2169-432X / 2169-4338, *Web of Science* Core Collection: Emerging Sources Citation Index, Impact Factor: 2.7, <https://doi.org/10.1166/jon.2024.2167>
 40. **Imran, M.**, Basem, A., Fatima, N., Zahra, T., Ramzan, A., Waqas, H., Farooq, U., & Ali, M. (2024). Computational Analysis of Magneto Bioconvection Casson Nanofluid Flow Containing Gyrotactic Microbes: A Bio-Microsystemtechnology and Bio-Fuel Cells Application. *Journal of Nanofluids*, 13(3), 665-673. ISSN / eISSN: 2169-432X / 2169-4338, *Web of Science* Core Collection: Emerging Sources Citation Index, Impact Factor: 2.7, <https://doi.org/10.1166/jon.2024.2160>
 41. Khan, S. A., Imran, M., Waqas, H., Muhammad, T., Yasmin, S., & Alhushaybari, A. (2024). Numerical analysis of multiple slip effects on CuO/MgO/TiO₂-water ternary hybrid nanofluid with thermal and exponential space-based heat source. *Tribology International*, 197, 109778. ISSN / eISSN: 0301-679X / 1879-2464 *Web of Science* Core Collection: Science Citation Index Expanded, Impact Factor: 6.1, <https://doi.org/10.1016/j.triboint.2024.109778>
 42. Akhtar, T., Abid, M., Awad, M. M., Chaudhry, M., & Imran, M. (2024). Analysis of magnetized bio-convective Ellis nanofluid flow: Impact of viscous dissipation and activation energy. *Thermal Science and Engineering*, 7(3), 8615. ISSN / eISSN: 2578-1782 Impact Factor: <https://doi.org/10.24294/tse.v7i3.8615>
 43. Maria Javaid, Junaid N. Chauhdary, M. Yasar Javaid, M. Farooq, Faisal Saleem, **M. Imran, I.** Hussain, M. Sultan, M. Imran Khan, M. Ilyas Khan, M. Rehan, F. Riaz, Channel Flow Dynamics of Fractional Viscoelastic Nanofluids in Molybdenum Disulphide Grease: A Case Study, *Results in Engineering*, 2024, 102872, ISSN 2590-1230, ISSN / eISSN: 2590-1230 *Web of Science* Core Collection: Emerging Sources Citation Index Impact Factor: 6.0,
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(<https://www.sciencedirect.com/science/article/pii/S2590123024011277>)
44. Khan, S. A., Liu, H., Imran, M., Farooq, U., Yasmin, S., Ma, B., & Alhushaybari, A. (2024). Quadratic regression model for response surface methodology based on sensitivity analysis of heat transport in mono nanofluids with suction and dual stretching in a rectangular frame. *Mechanics of Time-Dependent Materials*, 1-30. ISSN / eISSN: 1385-2000 / 1573-2738, *Web of Science Core Collection: Science Citation Index Expanded*, Impact Factor:2.1 <https://doi.org/10.1007/s11043-024-09715-2>
 45. Fatima, N., Basem, A., Farooq, U., Imran, M., Tahir, M., Ali, N. B., ... & Waqas, H. (2024). Numerical analysis of TiO₂-Al₂O₃/water and Ag-MoS₂/water hybrid nanofluid flow over a rotating disk with thermal radiation and Cattaneo-Christov heat flux effects. *Mechanics of Time-Dependent Materials*, 1-17. ISSN / eISSN: **1385-2000 / 1573-2738**, *Web of Science Core Collection: Science Citation Index Expanded*, **Impact Factor: 2.1**, <https://doi.org/10.1007/s11043-024-09732-1>
 46. Said, L. B., Khan, S. A., Farooq, U., Liu, H., Imran, M., Muhammad, T., & Awadai, M. A. M. (2024). Application of Box-Behnken design with RSM to predict the heat transfer performance of thermo-magnetic convection of hybrid nanofluid inside a novel oval-shaped annulus enclosure. *Case Studies in Thermal Engineering*, 105010. ISSN / eISSN: **2214-157X**, *Web of Science Core Collection: Science Citation Index Expanded*, **Impact Factor: 6.4**, <https://doi.org/10.1016/j.csite.2024.104950>
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Conference Papers

198. Muhammad Imran, Madeeha Tahir. On helical flow of Maxwell fluid through an annulus

under stresses on the boundary, 2nd International sciences and innovation Congress 22-23 May, 2021., 116-130, Editor: Prof. Dr. Tahir Özcan, Dr. Muhammed Yaşar Dörtbudak , ISBN: 978-625-7636-87-2

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Books/Book Chapter Published

1. Title: Fluid Mechanics

Author: Muhammad Imran

Department of Mathematics, Government College University, Faisalabad

drmimranchaudhry@gcuf.edu.pk

Editor: Prof. Dr. Ali Akgul

Siirt University, Art and Science Faculty, Department of Mathematics, 56100 Siirt, Turkey

aliakgul00727@gmail.com

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2. Title: On helical flow of Maxwell fluid through an annulus under stresses on the boundary

Author: Muhammad Imran, Madeeha Tahir,

Editor: Prof. Dr. Tahir Özcan

Dr. Muhammed Yaşar Dörtbudak ,

2nd International sciences and innovation Congress 22-23 May, 2021, 116-130,

ISBN: 978-625-7636-87-2

3. Title: Governing Equations for Rotational Flows

Language: English

ISBN/EAN13:1523916001 / 9781523916009

<https://www.createspace.com/6053623>

http://www.amazon.com/Governing-Equations-Rotational-Flows-Muhammad/dp/1523916001/ref=sr_1_1?ie=UTF8&qid=1455101965&sr=8-1&keywords=Governing+Equations+for+Rotational+Flows

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4. **Title: Basic Equation for Axial Flow in Cylindrical Domains**

Language: English

ISBN/EAN13: 1983416436 / 978-1983416439

<https://www.createpace.com/6053623>

https://www.amazon.com/s/ref=nb_sb_noss?url=search-alias%3Dstripbooks&field-keywords=Basic+Equation+for+Axial+Flow+in+Cylindrical+Domains

CreateSpace Independent Publishing Platform (November 15, 2017)

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International Peer Review Books Edited

1. **Title:** Mathematical Modelling and Computations for Fractional-Order Systems

Authors: Prof. Dr. Muhammad Aslam Noor, Prof. Dr. Muhammad Abbas, Prof. Dr. Qammar Rubbab, Dr. Mohsan Raza, Dr. Muhammad Imran, Dr. Muhammad Ahsan Binyamin, Dr. Awais Gul Khan, Dr. Khadija Tul Kubra, Dr. Madiha Ghamkhar, Mr. Ehsan Ullah, Dr. Naveed Hussain, Dr. Ghulam Farid, Dr. Hamood Ur Rehman, Dr. Shahla Faisal, Dr. Madeeha Tahir, Dr. Rooh Ali, Mr. Muhammad Zakria Javed, Ms. Samra Gulshan, Ms. Ifrah Iqbal, Mr. Usama Asif, Ms. Naila Javed, Mr. Rehmatullah Madni

Editors: Dr. Muhammad Imran, Prof. Dr. Saima Akram, Dr. Madeeha Tahir, Mr. Rooh Ali

Pages: 1-215; **Publication Date::** 20 December 2024; **ISBN:** 978-627-7623-04-3

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Publisher: Ptolemy Institute of Scientific Research and Technology (PISRT)

Language: English

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2. **Title:** Modelling in fractional-order systems with applications in engineering

Authors: Muhammad Aslam Noor, Idris Ahmed, Muhammad Jamilu Ibrahim, Mujahid Abdullahi, Abbas Umar Saje, Mohsan Raza, Dr. Muhammad Ahsan Binyamin, Muhammad Uzair Awan, Khadija Tul Kubra, Rooh Ali, Muhammad Zakria Javed, Sehrish Rafique, Samra Gulshan

Editors: Dr. Muhammad Imran, Prof. Dr. Saima Akram, Dr. Madeeha Tahir, Mr. Muhammad Abdul Basit

Pages: 1-169; **Publication Date::** 18 December 2023; **ISBN:** 978-627-7623-03-6

URL: <https://pisrt.org/books/modelling-in-fractional-order-systems-with-applications-in->

[engineering/](#)

Publisher: Ptolemy Institute of Scientific Research and Technology (PISRT)

Language: English

ISBN/EAN 978-627-7623-03-6

3. **Title:** Null controllability of degenerate and non-degenerate singular parabolic equations: theoretical and numerical aspect

Author: Hamed Ould Sidi

Urmed Research Unit Faculty of Legal, Economic and Social Sciences University of Nouakchott al Aasriya, Mauritania

hamedouldsidi@yahoo.fr

Editor: Muhammad Imran

Government College University, Faisalabad, Pakistan

drmmimranchaudhry@gcuf.edu.pk

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URL: <https://pisrt.org/books/null-controllability-of-degenerate-and-non-degenerate-singular-parabolic/>

4. **Title:** Foundations of mathematical analysis and semigroups theory

Author: Lakhdar Meziani

Batna University, 05000 Batna, Algeria

mezianilakhdar@hotmail.com

Editor: Muhammad Imran

Government College University, Faisalabad, Pakistan

drmmimranchaudhry@gcuf.edu.pk

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Language: English

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International/national Conferences/Seminars Organized

1. Convener, Two-days “3rd International Conference on Recent Developments in Pure and Applied Mathematics” organized by Government College University, Faisalabad, and Government College Women University, Faisalabad held on December 18-19, 2024
2. Convener, One Day Seminar on Advancements in Mathematics organized by Government College University, Faisalabad, held on May 27, 2024.
3. Convener, One Day Seminar on Mathematics Day organized by Government College University, Faisalabad, held on March 10, 2024.
4. Convener, Two days “Two Days Training Workshop in the Deep Learning Models for Image Recognition and Dynamical Simulation & Poster Competition” organized by Government

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- College University, Faisalabad, held on June 19-20, 2023
5. Convener, Two days “ International Conference on Recent Developments in Pure and Applied Mathematics” organized by Govt. College University, Faisalabad, held on October 23-24, 2022
 6. Principal Organizer, Two day “1st International Conference on Pure and Applied Mathematics” organized by Govt. College University, Faisalabad, held on February 19-20, 2022
 7. Principal Organizer, “One day Training on access of Research Data and its Management, organized by Govt. College University, Faisalabad, held on March 31, 2022.
 8. Convener Organizing Committee, One Day International Seminar on Recent Trends in Pure and Applied Mathematics, organized by Govt. College University, Faisalabad held on November, 09 2019
 9. Convener Organizing Committee, One Day International Seminar on Advancements in Pure and Applied Mathematics, organized by Govt. College University, Faisalabad held on January, 24, 2017

Research Presentations Given at Conferences/Seminars

1. Presented technical and oral research as invited Trainer/Speaker in 2-days workshop on Recent Trends in Fluid Mechanics with Applications in Natural Sciences, organized by University of Agriculture Faisalabad, September 12-13, 2024.
 2. Presented technical and oral research as Speaker in 3-days Kocaeli Science Congress organized by Kocaeli University, Kocaeli, Türkiye October 02-04, 2024.
 3. Presented technical and oral research as Speaker in 4-days 7th International Hybrid Conference on Mathematics Advances and Applications organized by Yildiz Technical University, Istanbul, Türkiye May 08-11, 2024.
 4. Presented technical and oral research as invited Speaker in 4th International Conference on Pure and Applied Mathematics NCPAM 2024, Organized by Department of Mathematics, University of Sargodha, Sargodha, April 29-30, 2024.
 5. Presented technical and oral research as invited Trainer/Speaker in 2-days workshop on Pure and Applied Mathematics, organized by University of Agriculture Faisalabad, April 22-23, 2024.
 6. Presented technical and oral research as invited Speaker in Innervational Mathematics day and Quiz Competition, Organized by Department of Mathematics, Government College Women University Faisalabad March 14, 2024.
 7. Presented technical and oral research as invited Speaker in 6th International Conference on Pure and Applied Mathematics (ICPAM), Organized by Department of Mathematics, University of Sargodha, Sargodha, December 06-07, 2023.
 8. Presented technical and oral research as invited Speaker in 2nd International Conference on Recent Advances in Mathematics, Organized by Department of Mathematics, University of Education, Lahore, December 04-05, 2023.
 9. Presented technical and oral research as invited Speaker in 6th International Conference on Pure and Applied Mathematics (ICPAM), Organized by Department of Mathematics, University of Sargodha, Sargodha, December 06-07, 2023.
 10. Presented technical and oral research as Invited/Guest Speaker in seminar organized by Department of Mathematics, Government Post Graduate College of Science, Samanabad Faisalabad held on September 13, 2023.
 11. Presented technical and oral research as invited Trainer/Speaker in Two Days Workshop on Mathematical Modeling Using Mathcad Mathematica, organized by University of Agriculture Faisalabad, July 13-14, 2023
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12. Attended the one day Workshop on Navigation the shift: Response to Evolution in Educational Paradigms for Global Citizenship and Sustainable Development By Department of Education and Directorate of Training and Development, Government College University Faisalabad December 08, 2023.
13. Presented technical and oral research as invited Speaker in International Conference GMDRC 2022, organized by Superior College, Mandi Baha u Din and Air University Islamabad, Pakistan, March 26, 2022.
14. Presented technical and oral research as invited Speaker in International Conference GMDRC 2022, organized by Superior College, Mandi Baha u Din and Air University Islamabad, Pakistan, March 26 2022
15. Presented technical and oral research as invited Speaker in Two Days International Conference on Mathematical Modeling and Scientific Computing for Industry, organized by Government College University Lahore, Pakistan, November 07-08 2022
16. Presented technical and oral research as Speaker in 19th International Conference on Statistical Sciences, organized by University of Agriculture Faisalabad, Pakistan and Pak Institute of Statistical Training and Research, March 17-19 2022
17. Presented technical and oral research as Keynote Speaker in 3rd National Conference on Mathematics and Applications, organized by University of Sargodha, Sargodha, Pakistan and, December 01-02 2022
18. Presented technical and oral research as invited Speaker in National Conference on Latest Trends in Mathematical Modeling and Simulation, organized by Government College University Lahore, Pakistan, December 14-15 2021
19. Presented technical and oral research in Conference on 2nd International Science and Innovation Congress, organized by International Science and Art Research Center, Ankara, Turkey, May 22-23 2021
20. Presented research in Conference on International Hazar Scientific Researches Conference-II, Baku, Azerbaijan, Khazar University Baku, Azerbaijan, April 10-12, 2021
21. Presented research in Conference as Keynote Speaker in National Conference on Research in Mathematics, organized by Riphah International University, Bahawalpur Campus, March 20 2021,
22. Presented research in Conference on 5th International Conference on Pure and Applied Mathematics, organized by University of Sargodha, Sargodha, February 24-25, 2020
23. Presented research in Conference on 1st International Conference on Recent Advances in Mathematics (CORAM-2020), organized by Education University, Lahore, October 15-16, 2020
24. Invited Speaker in 1st UOL International conference on Mathematics, organized by University of Lahore, held on November 30th to December 02, 2019
25. Invited Speaker in 1st National conference on Multidisciplinary Research, organized by University of Okara, held on November, 27-28 2019
26. Invited Speaker in Workshop on Workshop on Solitons and its Applications organized by Department of Mathematics, Government College University Lahore, held on January 07, 2019
27. Invited Speaker in seminar organized by Department of Mathematics, Government Post graduate college of Science Faisalabad held on June 13, 2019
28. Invited Speaker in seminar organized by Department of Mathematics, Government Post Graduate college Samanabad Faisalabad held on July, 2019
29. Deliver a talk in 3 days 4th UMT International Conference on Pure and Applied Mathematics organized by UMT and HEC held on March 30 to April 2, 2018
30. Invited Speaker in 3 days 6th International Conference on Education (ICE) A Multi & Inter-Disciplinary Conference organized by Education University Lahore, HEC held on 15-17 March, 2018

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31. Invited speaker in one day Workshop on Fluid Dynamics organized by Govt. College University, Lahore, held on March 15, 2018.
 32. Deliver a talk in 3 days 3rd UMT International Conference on Pure and Applied Mathematics organized by UMT, HEC held on March 4-6, 2017
 33. Participate in one day seminar on Pure and Applied Mathematics, organized by, Government College University, Faisalabad, Pakistan held on 24 January 2017
 34. Deliver a talk in 2 days 1st UMT International Conference on Pure and Applied Sciences organized by UMT, HEC held on March 5-7, 2016
 35. Work shop on Government-Industry-Academia Linkages, organized by ORIC, Government College University, Faisalabad, Pakistan held on 25-26 January 2016
 36. Deliver a talk in 2 day 1st International Conference on Advancements in Mathematics (ICAM) scheduled from February organized by Comsats Institute of Information Technology (CIIT) held on 11-13, Feb 2015
 37. Deliver a talk in 2 day 1st UMT National Conference on Pure and Applied Mathematics organized by UMT, HEC held on March 7-8, 2015
 38. Work shop on Digital Library and e-Seminar, ORIC, Government College University, Faisalabad, Pakistan held on 1-7 September 2015
 39. Deliver a talk in Two-day workshop on Advancements in Pure and Applied Mathematics organized by Comsats Institute of Information Technology (CIIT) held on 24-25 April 2014
 40. Deliver a talk in 6th World Conference on 21st Century Mathematics organized by HEC/ ICTP Italy/ International Magmatically Union, Abdus Salam School of Mathematical Sciences, GC University, Lahore, Pakistan held on 06-09 February 2013
 41. Participate in 14th International Pure Mathematics Conference on Algebra, Analysis & Geometry, Quaid-i-Azam University, Islamabad, Pakistan, August 23-25, 2013,
 42. Participate in A half day seminar on Bioethics, Government College University, Faisalabad, Pakistan held on 27 June 2013
 43. Invited Speaker in Seminar Series in Mathematics at NUST-CAMP, Islamabad, Pakistan, 20 February 2013
 44. Deliver a talk in 5th World Conference on 21st Century Mathematics; held 09-13 February 2011; Abdus Salam School of Mathematical Sciences, GC University, Lahore, Pakistan.
 45. Participate in International Conference on Mathematical Inequalities and Applications; held 07-13 March 2010; Abdus Salam School of Mathematical Sciences, GC University, Lahore, Pakistan.
 46. Participate in 3rd International Conference on Recent Developments in Fluid Mechanics; held July 30-August 01, 2009; Quaid -i-Azam University, Islamabad, Pakistan.
 47. Participate in Summer Conference in Mathematics; held July 27-28, 2009; Lahore University of Management Sciences, Lahore, Pakistan.
 48. Participate in One day Symposium on Mathematics; held March 26, 2009; Lahore College for Women University, Lahore, Pakistan.
 49. Participate in Research at Fast-NU Multi Topic Conference; held 07 March 2009; National University of Computer & Emerging Sciences, Islamabad, Pakistan.
 50. Deliver a talk 4th World Conference on 21st Century Mathematics; held 04-08 March 2009; Abdus Salam School of Mathematical Sciences, GC University, Lahore, Pakistan.
 51. Participate in LUMS 2nd International Conference on Mathematics and its Applications in Information Technology; held March 9-12, 2008; Lahore University of Management Sciences, Pakistan.
 52. Participate in Summer Conference in Mathematics; held July 30-31, 2007; Lahore University of Management Sciences, Lahore, Pakistan.
 53. Participate in 8th International Pure Mathematics Conference on Algebra, Analysis & Geometry; held August 24-26, 2007; Quaid-i-Azam University, Islamabad, Pakistan.
 54. Participate in 2nd World Conference on 21st Century Mathematics 2005; held March 04-06,
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Academic distinction and Awards:

- Top 2 percent cited researcher from year 2019 to 2024
- Winner of Research Productivity Award 2023 by Government College University, Faisalabad 2023
- Winner of Research Productivity Award 2023 by Government College University, Faisalabad 2022
- Certificate of the Highly Cited Paper in 2020-2021 by Symmetry Journal
- Certificate of the Highly Cited Paper in 2019-2020 by Heat Transfer Journal
- Winner of Research Productivity Award by Pakistan Council for Science and Technology, Pakistan in year 2012.
- Winner of young speaker Award in 5th World Conference on 21st Century Mathematics; held 09-13 February 2011; Abdus Salam School of Mathematical Sciences, GC University, Lahore, Pakistan
- Indigenous Ph.D. Fellowship scheme holder Batch IV, PIN: **074-3581-ps4-240**
- Winner of Talent Forming Scheme by HEC in year 2003-2005

Course/training attended:

- Staff development Course by National Academy of Higher Education; held December 11 to January 13, 2007.
- 12 weeks Computer Programming Course from Computer Center Zala Council, Faisalabad
- Civil Defense Basic General Training Course by Civil Defense Department, Govt. of Punjab; held May 11 to June 01, 1998.

PhD Produced

Sr. #.	Student's Name	Registration No.	Session	Thesis Title	Year of Award of Degree
1.	Mr. Muhammad Abdul Basit	2012-GCUF-50581	2021-2024	Study of Mathematical Models for Heat and Mass Transfer of the Nanofluids in the Presence of Motile Microorganisms	2025
2.	Mr. Mohib Hussain	2013-GCUF-03405	2020-2023	Efficient Heat Transfer Analysis of Hybrid Nanofluid in Various Channels using Numerical Approach	2025
3.	Aqsa Yousaf	2013-GCUF-02526	2019-22	Some Useful Nonlinear Models for Bioconvection Transport of Nanofluids	2024

4.	Muhammad Nawaz	2018-GCUF-000366	2018-21	Numerical study of fluid flow subject to a disk movement	2024
5.	Abida Shaheen	2012-GCUF-06879	2019-22	Numerical Solutions for Thermal Transport of Hybrid Nano-Fluids	2024
6.	Arfan Shahzad	2018-GCUF-000354	2018-21	Numerical solutions for bioconvection flows due to rotating disk	2023
7.	Gulzar Ahmad Danish				2022
8.	Tahir Kamran	2018-GCUF-000192	2018-21	On Thermal and Mass Transport of Bioconvective Flow of Micropolar Nanofluids with Slip Effects	2022
9.	Naeem Sadiq	2014-GCUF-010236	2014-17	Unsteady flows of some non Newtonian fluids with fractional derivatives in cylindrical domains	2021
10.	Hassan Waqas	2009-GCUF-3838-318	2017-20	Chemical and thermal effects on nanofluids	2021
11.	Nouman Siddique	2011-GCUF-04017	2015-18	Majorization Type Inequalities via Interpolating Polynomials	2021
12.	Maria Javaid	2009-GCUF-1545-514101	2015-18	Some New Results for Unsteady Mass and Heat Transfer of Non-Newtonian Fluids	2020
13.	Rabia Safdar	2007-GCUF-1087-517	2014-17	Some solutions for unsteady flow of viscous fluids over an infinite plate and in pipe - like domains	2019
Total No. of PhDs Produced during TTS Period:					13

M Phil Produced During the TTS Service

Sr. #.	Student's Name	Registration No.	Session	Thesis Title	Year of Award
1.					
2.					
3.	Muhammad Waleed Ajmal	2018-GCUF-04607	2022-24	MHD bioconvective darcy-Forchheimer flow over a rotating disk with multiple slip effects using modified	2024

				Buongiorno nanofluid model	
4.	Areej Arshad	2017-GCUF-08445	2022-24	MHD conductive heat transfer flow on a permeable stretching cylinder with activation energy, thermal radiation, and bioconvection effects	2024
5.	Muhammad Zeemam	2018-GCUF-057849	2022-24	Bio-convection of non-Newtonian Casson fluid containing gyrotactic microorganisms in the presence of magnetic field over a narrow parabola of revolution with enthalpy change	2024
6.	Syed Ahmad Hussain	2022-GCUF-00615	2022-24	Effects of nanoparticle shapes on MHD flow of TiO_2 -Ag water on a porous stretching plate in the presence of heat source and thermal radiation	2024
7.	Razia Sultan	2018-GCUF-35382	2022-24	Effects of MHD and thermal radiation on bioconvective flow of Casson nanofluid over a nonlinear stretching sheet in the presence of microorganism with non-uniform heat source	2024
8.	Muhammad Arbaz	2015-GCUF-058619	2021-23	Significance of exponential space-based internal heat source on bio-convective maxwell nanofluid flow due to stretching sheet in the presence of Darcy–Forchheimer and Lorentz forces	2023
9.	Asim Sultan	2018-GCUF-01377	2021-23	Numerical study of bio-convection Casson nano-fluid flow through permeable linearly stretched cylinder	2023
10.	Muneeb Ali	2017-GCUF-063229	2021-23	Computational analysis on bio-convective Casson nanofluid flow over a curved stretching surface	2023
11.	Muhammad Qayyum	2017-GCUF-70883	2021-23	Numerical simulation for bioconvection flow of maxwell nanofluid flow due to stretching/shrinking	2023

				cylinder/plate	
12.	Abdul Wahab	2016-GCUF-064183	2020-22	Study of Arrhenius activation energy on the thermo-bioconvection flow of nanofluid over a Riga plate by using shooting method	2022
13.	Muhammad Shahzab Masood	2016-GCUF-064228	2020-22	Numerical study of bio-convection flow of magneto-cross nanofluid containing gyrotactic microorganisms with activation energy	2022
14.	Muhammad Ali	2018-GCUF-89237	2020-22	Computational analysis of maxwell nanofluid flow due to stretching/shrinking cylinder with motile microorganisms	2022
15.	Muhammad Abid	2017-GCUF-069680	2020-22	Aspects of bio-convection on Casson nano fluid flow with Cattaneo – Christov double diffusion and motile microorganisms	2022
16.	Asad Shahzad	2020-GCUF-08660	2020-22	Numerical study of the hydro-thermal properties of the Ferro-Copper Oxide-water hybrid nanofluid over a stretched sheet	2022
17.	Bilal Hussain	2016-GCUF-064663	2020-22	Bioconvection flow of tangent hyperbolic nanoliquid with chemically reactive, nonlinear thermal radiation and gyrotactic microorganisms properties	2022
18.	Farwa Muatter	2020-GCUF-09952	2020-22	Bioconvection and mass transportation of micropolar nanofluid owing to expanded surface with thermal radiations	2022
19.	Muhammad Aon Raza	2015-GCUF-17736	2019-21	Modified Homotropy Perturbation Laplace transform method for higher order linear and nonlinear boundary value problems	2021
20.	Tayyaba Akhtar	2019-GCUF-01019	2019-21	Study of motile microorganisms with activation energy under Wu's slip effects	2021
21.	Ayesha Naz	2015-GCUF-056612	2019-21	On thermal bio-convection radiative Darcy Forchheimer nanoliquid flow under Wu's	2021

				slip with gyrotactic motile microorganism over malleable cylinder or plate	
22.	Munaza Chaudhry	2015-GCUF-120525	2019-21	Synchronous impacts of bioconvection and velocity slip with Arrhenius activation energy and binary chemical reaction in three-dimensional flow of Eyring Powell nanofluid	2021
23.	Saba Khawar	2013-GCUF-05848	2018-20	Thermally developed Falkner-Skan bioconvection flow of a magnetized nanofluid in the presence of a motile gyrotactic microorganism: Buongiorno's nanofluid model	2020
24.	Aamir Shahzad	2018-GCUF-010567	2018-20	Analysis of tangent hyperbolic MHD nanofluid with activation energy and Wu's slip effect	2020
25.	Hira Zafar	2018-GCUF-010568	2018-20	MHD bioconvective flow of nanofluid with couple stress featuring activation energy and Wu's slip	2020
26.	Qurat Ul Ain	2015-GCUF-9053	2018-20	On bio-convective magnetized tangent hyperbolic nanoliquid with gyrotactic microorganism and second order velocity slip temperature effect	2020
27.	Muhammad Imran	2018-GCUF-010580	2018-20	Activation energy in bioconvection of Oldroyd-B nanofluid over a stretching cylinder with second order slip	2020
28.	Umme Kalsoom	2018-GCUF-010582	2018-20	Numerical study of Maxwell visco-elasticity based micro polar nanoparticles with slip effects through porous medium	2020
29.	Sidra Yasmeen	2016-GCUF-016352	2018-20	Bio convection on MHD flow of jeffery fluid suspended with nano particles and motile microorganisms	2020
30.	Saleha Umar	2018-GCUF-000711	2018-20	Numerical study of maxwell viscoelastic-based micropolar nanoparticles in	2020

				porous medium with slip	
31.	Fatima Kiran	2018-GCUF-000651	2018-20	Radiative flow of micropolar nanoparticles with a gyrotactic microorganism, nield's condition in porous stretching surface	2020
32.	Najma Sadiq	2012-GCUF-30494	2017-19	Study of rotational motion of fractional Oldroyd-B fluid due to time dependent stress on the surface of cylinder	2020
33.	Madiha Iram	2008-GCUF-2529-31 8	2017-19	Study of translational flow of fractional Oldroyd-B due to tension on the boundary of cylinder	2020
34.	Muhammd Tayyab	2017-GCUF-011610	2017-19	Unsteady flow of Sisko fluid through a circular pipe	2020
35.	Zainab Ali	2008-GCUF-1015-51 7	2017-19	Semi Analytical Solution for unsteady rotational flow of Maxwell fluid	2020
36.	Anosha Kafait	2013-GCUF-012296	2017-19	Combined magnetic and porosity effects of nanoparticles in a tangent hyperbolic fluid with gyrotactic microorganism past over a stretching sheet with convective Nield boundary conditions	2019
37.	Rabia Naseem	2013-GCUF-13146	2017-19	Multiple slip effects on Bio-convected radiative flow of nanoparticles over a porous rotating disk.	2019
38.	Ali Raza	2013-GCUF-46259	2017-19	Study of boundary layer flow of Sisko nanofluid in the presence of magnetic effect over a circular stretching sheet	2019
39.	Abaid Ullah	2012-GCUF-09526	2017-19	Dissipation effects on MHD boundary layer flow of Sisko nanofluid over an uniform stretching cylinder	2019
40.	Nazma	2017-GCUF-012852	2017-19	Unsteady flow of Maxwell fluid through a moving circular cylinder	2019
41.	Aqsa Yousaf	2013-GCUF-02526	2017-19	Flow of magnetohydrodynamics Oldroyd-B fluid through a sliding circular cylinder	2019
42.	Sadaf Nasir	2013-GCUF-13191	2017-19	Flow of MHD Maxwell fluid through a rotating cylinder	2019
43.	Samar	2013-GCUF-	2017-19	Unsteady Flow of an	2019

	Rehman	03299		Oldroyd-B Fluid Through a Rotating Pipe	
44.	Tahir Javaid	2012-GCUF-30524	2017-19	Effect of magnetic field on an axisymmetric flow of nanofluid due to non-linear stretching sheet	2019
45.	Muhammad Maqsood	2012-GCUF-30447	2016-18	Chemically reactive solute transfer and heating effect in boundary layer flow of nano-fluid along a stretching permeable cylinder in porous medium	2018
46.	Muhammad Junaid Saeed	2012-GCUF-30446	2016-18	Effect of magnetic and temperature on nano-fluid over a stretching cylinder in the presence of suction/injection with heat source/sink	2018
47.	Rohee Bano	2012-GCUF-02148	2016-18	Mixed convection boundary layer flow of nano-fluid along stretching cylinder in porous medium	2018
48.	Samina Ramzan	2012-GCUF-06932	2016-18	A study of unsteady flow of Maxwell fluid through an infinite cylinder	2018
49.	Umair Iftikhar	2013-GCUF-010614	2016-18	Heat transfer analysis in mixed convection flow of nano-fluid along stretching cylinder in thermally graded medium	2018
50.	Arshad Hussain	2016-GCUF-09835	2016-18	Semi analytical solutions for the translational flow of Oldroyd-B fluid through a cylinder	2018
51.	Mariam Akber	2012-GCUF-02115	2016-18	Semi analytical solution for Maxwell fluid through an oscillating pipe	2018
52.	Asma Siddique	2012-GCUF-02041	2016-18	Flow of second grade fluid through a translating cylinder	2018
53.	Sawaira Shafique	2014-GCUF-S00567	2016-18	Flow of Magnato-hydrodynamic Maxwell fluid through a translating cylinder	2018
54.	Saba Noreen	2016-GCUF-010521	2016-18	Semi-analytical solutions for the translational flow of second grade fluid in a cylinder	2018
55.	Amna Mariam	2013-GCUF-13139	2016-18	Chemical reaction and radiation effects on MHD flow of Casson fluids due to	2018

				moving boundary surfaces	
56.	Sonia Ajaz	2013-GCUF-S06148	2016-18	Unsteady rotational flow of second grade fluid with fractional derivatives through infinite pipe	2018
57.	Akaash Rehmat	2011-GCUF-02521	2016-18	Unsteady flow of an Oldroyd-B fluid between two parallel pipes	2018
58.	Zohaib Masood	2015-GCUF-24110	2015-17	Unsteady flow of Maxwell fluid through a pipe	2017
59.	Iqra Anam	2011-GCUF-01414	2015-17	On Couette flow of an Oldroyd-B fluid in concentric cylinders	2017
60.	Safdar Abbas Nasir	2011-GCUF-02494	2015-17	On exponential convexity for discrete majorization	2017
61.	Muhammad Arslan	2011-GCUF-01399	2015-17	Unsteady flow of second grade fluid between two side walls perpendicular to plate	2017
62.	Naveed Ijaz	2011-GCUF-01434	2015-17	Flow of a viscoelastic fluid with the fractional Maxwell model between two side walls perpendicular to a plate	2017
63.	Amna Ismail	2011-GCUF-04023	2015-17	Exact solutions for rotational unsteady flow of an Oldroyd-B fluid in an annulus	2017
64.	Mehvish Kiran	2015-GCUF-025000	2015-17	Exact solutions for unsteady flow of a fractional Oldroyd-B fluid between two pipes	2017
65.	Saba Farooq	2011-GCUF-20917	2015-17	On Unsteady flow of Oldroyd-B fluid with fractional derivatives between two walls	2017
66.	Beenish Sehar	2007-GCUF-1151-318	2015-17	Analytic solution for rotatory flow of an Oldroyd-B fluid between two cylinders	2017
67.	Abida Batool	2010-GCUF-4919-517	2014-16	Some exact solutions of the oscillatory motion of fractional Maxwell fluid in cylindrical domain.	2016
68.	Abid Hussain	2012-GCUF-08004	2015-17	On rotational flow of Maxwell fluid between two cylinders	2016
69.	Aqsa Usman	2010-GCUF-4912-517	2014-16	Study of Oscillatory motion of fractional second grade fluid between two rotating cylinders	2016
70.	Noureen Maqbool	2010-GCUF-4905-517	2014-16	Study of Rotational flow of fractional Maxwell fluid in cylindrical domain	2016

71.	Anwar Ali	2005-GCUF-719-514	2015-17	MHD oscillating flows of rotating Maxwell fluid in a porous medium	2017
72.	Taiba Kousar	2010-GCUF-4959-318	2015-17	Exact Solution for oscillatory flow of an Oldroyd-B fluid within two cylinders	2017
73.	Nafeesah Sattar	2010-GCUF-5012-318	2013-15	Longitudinal flows of a fractional second grade fluid in a circular cylinder	2015
74.	Maria Javid	2009-GCUF-1545-514101	2013-15	Critical Study of Oldroyd-B fluid in cylindrical domains	2018
75.	Ayesha Majeed	2013-GCUF-010225	2013-15	Rotational flow of second grade fluid in circular cylinder	2018
76.	Faiz Muhammad	13-MSMTH-F-10	2013-15	Numerical Simulation of Cassan Fluid in Channel with Shrinking walls	2018
77.	Muhammad Akmal Sarkani	13-MSMTH-F-16	2013-15	Conjugate boundary value problem of Nabla Fractional difference equation	2018
78.	Humera Naz	13-MSMTH-F-22	2013-15	A comparative study of midpoint derivative based closed newton cotes quadrature with midpoint derivative based open newton cotes quadrature	2018
79.	Sara Bibi	13-MSMTH-F-24	2013-15	Solution of numerical three boundary value problem by using collection method	2018
80.	Shahzana Manzoor	13-MSMTH-F-25	2013-14	Solution of numerical two boundary value problems by subdivision scheme	2014
81.	Muhammad Shahbaz Younas	2012-GCUF-09170	2012-14	On MHD oscillating flow of rotating second grade fluid	2014
82.	Muhammad Irfan	2007-GCUF-1185-318	2012-14	On MHD flows of second grade fluid between two porous plates	2014
83.	Iram Naz	2008-GCUF-2530-318	2012-14	Some results on couette flow of second grade fluids	2014
84.	Madeeha Tahir	2010-GCUF-5014-318	2012-14	Exact Solutions for the flow of a second grade fluid between two parallel plates in which one them is under time dependent shear stress	2014
85.	Muzammal Bashir	2003-GCUF-1039-3	2011-13	Exact solutions for the longitudinal flow of an Oldroyd-B	2013
86.	M. Khurshid	2011-GCUF-05568	2011-13	Longitudinal flow of a second grade fluid in	2013

	Azam			cylinder	
87.	Farwa	2005-GCUF-1026-517	2011-13	Some Numerical results in theory of Maxwell fluids for the longitudinal motion in an infinite circular cylinder	2013
88.	Abu baker Siddiq	2004-GCUF-1742-517	2011-13	Abu baker Siddiq (Exact solutions for the rotational flow of an Oldroyd-B fluid in circular cylinder	2013
89.	Zain ul Abidin	2008-GCUF-2577-318	2011-13	On the unsteady rotational flow of a second grade flow through a cylinder	2013
90.	Maryam Shahid	2011-GCUF-05553	2011-13	Critical study of Maxwell Fluid in cylindrical domain	2013

Course Taught During TTS Service

Sr. #.	Course Title (with Code)	Semester	Department	Credit Hours	Class (PhD / M Phil / M. Sc. / BS)
1.	Fluid Mechanics-II MTH-610	Spring 2024	Mathematics	3(3-0)	BS Bridging 8 th Mathematics Evening
2.	Viscous Fluid MTH-718	Spring 2024	Mathematics	3(3-0)	Phil Mathematics Evening
3.	Fluid Mechanics-II MTH-610	Spring 2024	Mathematics	3(3-0)	BS Mathematics Evening
4.	Statistics for Research MTH-795	Spring 2024	Mathematics	3(3-0)	Phil Mathematics Morning
5.	Advanced Fluid Mechanics MTH-717	Fall 2023-24	Mathematics	3(3-0)	M Phil Mathematics Morning
6.	Seminar (General) MTH-758	Fall 2023-24	Mathematics	1(0-1)	PhD Mathematics Morning
7.	Seminar (Research) MTH-759	Fall 2023-24	Mathematics	1(0-1)	PhD Mathematics Morning
8.	Viscous Fluid MTH-718	Fall 2023-24	Mathematics	3(3-0)	M Phil Mathematics Morning
9.	Fluid Mechanics-I MTH-609	Fall 2023-24	Mathematics	3(3-0)	BS Bridging 8 th Mathematics Evening
10.	Seminar (Research) MTH-729	Fall 2023-24	Mathematics	1(0-1)	M Phil Mathematics Evening
11.	Non - Newtonian Fluid Mechanics MTH-707	Spring 2023	Mathematics	3(3-0)	PhD Mathematics Morning
12.	Fluid Mechanics-II MTH-610	Spring 2023	Mathematics	3(3-0)	MSc Mathematics Morning
13.	Viscous Fluid MTH-718	Spring 2023	Mathematics	3(3-0)	Phil Mathematics Moring
14.	Viscous Fluid MTH-718	Spring	Mathematics	3(3-0)	Phil Mathematics Evening

		2023			
15.	Fluid Mechanics-II MTH-610	Spring 2023	Mathematics	3(3-0)	BS Mathematics Evening
16.	Statistics for Research MTH-795	Spring 2023	Mathematics	3(3-0)	Phil Mathematics Morning
17.	Advanced Fluid Mechanics MTH-717	Fall 2022-23	Mathematics	3(3-0)	M Phil Mathematics Morning
18.	Seminar (General) MTH-758	Fall 2022-23	Mathematics	1(0-1)	PhD Mathematics Morning
19.	Seminar (Research) MTH-759	Fall 2022-23	Mathematics	1(0-1)	PhD Mathematics Morning
20.	Viscous Fluid MTH-718	Fall 2022-23	Mathematics	3(3-0)	M Phil Mathematics Morning
21.	Seminar (Research) MTH-729	Fall 2022-23	Mathematics	1(0-1)	M Phil Mathematics Evening
22.	Fluid Mechanics-II MTH-610	Spring 2022	Mathematics	3(3-0)	MSc Mathematics Morning
23.	Viscous Fluid MTH-718	Spring 2022	Mathematics	3(3-0)	Phil Mathematics Morning
24.	Viscous Fluid MTH-718	Spring 2022	Mathematics	3(3-0)	Phil Mathematics Evening
25.	Fluid Mechanics-II MTH-610	Spring 2022	Mathematics	3(3-0)	BS Mathematics Evening
26.	Statistics for Research MTH-795	Spring 2022	Mathematics	3(3-0)	Phil Mathematics Morning
27.	Advanced Fluid Mechanics MTH-717	Fall 2021-22	Mathematics	3(3-0)	M Phil Mathematics Morning
28.	Seminar (General) MTH-758	Fall 2021-22	Mathematics	1(0-1)	PhD Mathematics Morning
29.	Seminar (Research) MTH-759	Fall 2021-22	Mathematics	1(0-1)	PhD Mathematics Morning
30.	Viscous Fluid MTH-718	Fall 2021-22	Mathematics	3(3-0)	M Phil Mathematics Morning
31.	Seminar (Research) MTH-729	Fall 2021-22	Mathematics	1(0-1)	M Phil Mathematics Evening
32.	Fluid Mechanics-II MTH-610	Spring 2021	Mathematics	3(3-0)	BS Mathematics Evening
33.	Non - Newtonian Fluid Mechanics MTH-707	Spring 2021	Mathematics	3(3-0)	PhD Mathematics Morning
34.	Fluid Mechanics-II MTH-610	Spring 2021	Mathematics	3(3-0)	MSc Mathematics Evening
35.	Fluid Mechanics-II MTH-610	Spring 2021	Mathematics	3(3-0)	MSc Mathematics Morning
36.	Functional Analysis MTH-702	Spring 2021	Mathematics	3(3-0)	Phil Mathematics Evening
37.	Functional Analysis MTH-02	Spring 2021	Mathematics	3(3-0)	Phil Mathematics Morning
38.	Advanced Fluid Mechanics MTH-717	Fall 2020-21	Mathematics	3(3-0)	Ph.D Mathematics Morning
39.	Research Seminar MTH-759	Fall 2020-	Mathematics	1(0-1)	Ph.D Mathematics

		21			Morning
40.	General Seminar MTH-758	Fall 2020-21	Mathematics	1(0-1)	Ph.D Mathematics Morning
41.	Viscous Fluid MTH-718	Fall 2020-21	Mathematics	3(3-0)	M Phil Mathematics Morning
42.	Research Seminar MTH-729	Fall 2020-21	Mathematics	1(0-1)	M Phil Mathematics Evening
43.	Non - Newtonian Fluid Mechanics MTH-707	Spring 2020	Mathematics	3(3-0)	Ph.D Mathematics Morning
44.	Fluid Mechanics II MTH-660	Spring 2020	Mathematics	3(3-0)	MSc Mathematics Evening
45.	Viscous Fluid MTH-718	Spring 2020	Mathematics	3(3-0)	M Phil Mathematics Evening
46.	Fluid Mechanics-II MTH-620	Spring 2020	Mathematics	3(3-0)	BS Mathematics Morning
47.	Fluid Mechanics-II MTH-620	Spring 2020	Mathematics	3(3-0)	BS Mathematics Evening
48.	Fluid Mechanics-I MTH-659	Fall 2019-20	Mathematics	3(3-0)	MSc Mathematics Morning
49.	Fluid Mechanics-I MTH-621	Fall 2019-20	Mathematics	3(3-0)	BS Mathematics Morning
50.	Seminar (Research) MTH-759	Fall 2019-20	Mathematics	1(0-1)	PhD Mathematics Morning
51.	Seminar (General) MTH-758	Fall 2019-20	Mathematics	1(0-1)	PhD Mathematics Morning
52.	Fluid Mechanics-I MTH-659	Fall 2019-20	Mathematics	3(3-0)	MSc Mathematics Evening
53.	Fluid Mechanics-I MTH-621	Fall 2019-20	Mathematics	3(3-0)	BS Mathematics Evening
54.	Functional Analysis MTH-702	Fall 2019-20	Mathematics	3(3-0)	Phil Mathematics Evening
55.	Seminar (Research) MTH-729	Fall 2019-20	Mathematics	1(0-1)	Phil Mathematics
56.	Fluid Mechanics-II MTH-618	Spring 2019	Mathematics	4(4-0)	BS Mathematics Morning
57.	Computing Tools for Mathematics MTH-668	Spring 2019	Mathematics	3(2-1)	MSc Mathematics Morning
58.	Seminar (General) MTH-758	Spring 2019	Mathematics	1(0-1)	PhD Mathematics Morning
59.	Seminar (Research) MTH-759	Spring 2019	Mathematics	1(0-1)	PhD Mathematics Morning
60.	Computing Tools for Mathematics Sec A MTH-668	Spring 2019	Mathematics	3(3-0)	MSc Mathematics Evening Sec A
61.	Fluid Mechanics-II MTH-618	Spring 2019	Mathematics	4(4-0)	BS Mathematics Evening
62.	Viscous Fluid Flow MTH-718	Spring 2019	Mathematics	3(3-0)	Phil Mathematics Evening
63.	Advanced Fluid Dynamics MTH-717	Fall 2018-19	Mathematics	3(3-0)	PhD Mathematics Morning
64.	Fluid Mechanics-I MTH-621	Fall 2018-	Mathematics	4(4-0)	BS Mathematics Morning

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65.	Seminar (Research) MTH-729	Fall 2018-19	Mathematics	1(0-1)	Phil Mathematics
66.	Fluid Mechanics-I MTH-659	Fall 2018-19	Mathematics	3(3-0)	MSc Mathematics Evening
67.	Fluid Mechanics-I MTH-621	Fall 2018-19	Mathematics	4(4-0)	BS Mathematics Evening
68.	Mechanics-I MTH-403	Fall 2018-19	Mathematics	3(3-0)	BS Mathematics Evening
69.	Viscous Fluid Flows MTH-718	Spring 2018	Mathematics	3(3-0)	M. Phil Mathematics Evening
70.	Advanced Fluid Mechanics MTH-717	Spring 2018	Mathematics	3(3-0)	PhD Mathematics
71.	Computing Tools for Mathematics MTH-654	Spring 2018	Mathematics	3(2-1)	M.Sc Mathematics Morning
72.	Fluid Mechanics-II MTH-618	Spring 2018	Mathematics	4(4-0)	BS Mathematics Evening
73.	Fluid Mechanics-II MTH-672	Spring 2018	Mathematics	3(3-0)	M.Sc Mathematics Morning
74.	Fluid Mechanics-II MTH-672	Spring 2018	Mathematics	4(4-0)	M.Sc Mathematics Evening
75.	Real Analysis-I MTH-551	Spring 2018	Mathematics	4(4-0)	M.Sc Mathematics Morning
76.	Viscous Fluid Flows MTH-718	Spring 2018	Mathematics	3(3-0)	M. Phil Mathematics Weekend
77.	Viscous Fluid Flows MTH-718	Spring 2018	Mathematics	3(3-0)	M. Phil Mathematics Weekend
78.	Functional Analysis MTH-702	Fall 2017-18	Mathematics	3(3-0)	M. Phil Mathematics Weekend
79.	Fluid Mechanics-I MTH-671	Fall 2017-18	Mathematics	3(3-0)	M.Sc Mathematics Morning
80.	Fluid Mechanics-I MTH-621	Fall 2017-18	Mathematics	4(4-0)	BS Mathematics Morning
81.	Fluid Mechanics-I MTH-671	Fall 2017-18	Mathematics	3(3-0)	M.Sc Mathematics Evening
82.	Fluid Mechanics-I MTH-621	Fall 2017-18	Mathematics	4(4-0)	BS Mathematics Evening
83.	Vector and Tensor Analysis MTH-505	Fall 2017-18	Mathematics	4(4-0)	BS Mathematics Evening
84.	General Seminar MTH-728	Fall 2017-18	Mathematics	1(0-1)	M. Phil Mathematics Weekend
85.	Research Seminar MTH-729	Fall 2017-18	Mathematics	1(0-1)	M. Phil Mathematics Weekend
86.	Viscous Fluid Flows MTH-718	Spring 2017	Mathematics	3(3-0)	M. Phil Mathematics Evening
87.	Fluid Mechanics-II MTH-618	Spring 2017	Mathematics	4(4-0)	BS Mathematics Evening
88.	Fluid Mechanics-II MTH-668	Spring 2017	Mathematics	4(4-0)	M.Sc Mathematics Morning
89.	Fluid Mechanics-II MTH-668	Spring	Mathematics	4(4-0)	M.Sc Mathematics

		2017			Evening
90.	Mathematical Methods-II MTH-304	Spring 2017	Mathematics	4(4-0)	M.Sc Mathematics Morning
91.	Viscous Fluid Flows MTH-718	Spring 2017	Mathematics	3(3-0)	M. Phil Mathematics Weekend
92.	Research Seminar MTH-729	Spring 2017	Mathematics	1(0-1)	PhD Mathematics Weekend
93.	Functional Analysis MTH-702	Spring 2017	Mathematics	3(3-0)	M. Phil Mathematics Evening
94.	Advanced Fluid Mechanics MTH-717	Fall 2016-17	Mathematics	3(3-0)	PhD Mathematics
95.	Fluid Mechanics-I MTH-671	Fall 2016-17	Mathematics	4(4-0)	M.Sc Mathematics Morning
96.	Fluid Mechanics-I MTH-621	Fall 2016-17	Mathematics	4(4-0)	BS Mathematics Morning
97.	Fluid Mechanics-I MTH-671	Fall 2016-17	Mathematics	4(4-0)	M.Sc Mathematics Evening
98.	Fluid Mechanics-I MTH-621	Fall 2016-17	Mathematics	4(4-0)	BS Mathematics Evening
99.	Functional Analysis MTH-702	Fall 2016-17	Mathematics	3(3-0)	M. Phil Mathematics Weekend
100.	General Seminar MTH-728	Fall 2016-17	Mathematics	1(0-1)	M. Phil Mathematics Weekend
101.	Research Seminar MTH-729	Fall 2016-17	Mathematics	1(0-1)	M. Phil Mathematics Weekend
102.	Viscous Fluid Flows MTH-718	Spring 2016	Mathematics	3(3-0)	M. Phil Mathematics Evening
103.	Advanced Fluid Mechanics MTH-717	Spring 2016	Mathematics	3(3-0)	PhD Mathematics
104.	Fluid Mechanics-II MTH-618	Spring 2016	Mathematics	4(4-0)	BS Mathematics Evening
105.	Fluid Mechanics-II MTH-668	Spring 2016	Mathematics	4(4-0)	M.Sc Mathematics Morning
106.	Fluid Mechanics-II MTH-668	Spring 2016	Mathematics	4(4-0)	M.Sc Mathematics Evening
107.	Numerical Analysis MTH-406	Spring 2016	Mathematics	2(2-0)	M.Sc Mathematics Morning
108.	Viscous Fluid Flows MTH-718	Spring 2016	Mathematics	3(3-0)	M. Phil Mathematics Weekend
109.	Research Seminar MTH-729	Spring 2016	Mathematics	1(0-1)	PhD Mathematics Weekend
110.	Functional Analysis MTH-702	Fall 2015-16	Mathematics	3(3-0)	M. Phil Mathematics Evening
111.	Fluid Mechanics-I MTH-671	Fall 2015-16	Mathematics	4(4-0)	M.Sc Mathematics Morning
112.	Fluid Mechanics-I MTH-621	Fall 2015-16	Mathematics	4(4-0)	BS Mathematics Morning
113.	Fluid Mechanics-I MTH-671	Fall 2015-16	Mathematics	4(4-0)	M.Sc Mathematics Evening
114.	Fluid Mechanics-I MTH-621	Fall 2015-	Mathematics	4(4-0)	BS Mathematics Evening

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115.	Functional Analysis MTH-702	Fall 2015-16	Mathematics	3(3-0)	M. Phil Mathematics Weekend
116.	Viscous Fluid Flows MTH-718	Fall 2015-16	Mathematics	3(3-0)	M. Phil Mathematics Weekend
117.	Real Analysis-II MTH-552	Fall 2015-16	Mathematics	4(4-0)	M.Sc Mathematics Morning
118.	Viscous Fluid Flows MTH-732	Spring 2015	Mathematics	3(3-0)	M. Phil Mathematics
119.	Fluid Mechanics-II MTH-668	Spring 2015	Mathematics	4(4-0)	M. Sc Mathematics Moring
120.	Fluid Mechanics-II MTH-618	Spring 2015	Mathematics	4(4-0)	BS Mathematics Moring
121.	Fluid Mechanics-II MTH-668	Spring 2015	Mathematics	4(4-0)	M. Sc Mathematics Evening
122.	Fluid Mechanics-II MTH-618	Spring 2015	Mathematics	4(4-0)	BS Mathematics Evening
123.	Calculus-III MTH-403	Spring 2015	Mathematics	4(4-0)	BS Mathematics Morning
124.	Functional Analysis MTH-703	Fall 2014 15	Mathematics	3(3-0)	M.Phil Mathematics Evening
125.	Fluid Mechanics-I MTH-671	Fall 2014 15	Mathematics	4(4-0)	M. Sc Mathematics Morning
126.	Fluid Mechanics-I MTH-621	Fall 2014 15	Mathematics	4(4-0)	BS Mathematics Morning
127.	Mechanics-I MTH-403	Fall 2014 15	Mathematics	4(4-0)	BS Mathematics Morning
128.	Mechanics-I MTH-403	Fall 2014 15	Mathematics	4(4-0)	BS Mathematics Evening
129.	Functional Analysis MTH-703	Fall 2014 15	Mathematics	3(3-0)	M.Phil Mathematics Evening
130.	Viscous Fluid Flows MTH-732	Spring 2014	Mathematics	3(3-0)	M. Phil Mathematics
131.	Fluid Mechanics-II MTH-668	Spring 2014	Mathematics	4(4-0)	M.Sc Mathematics Moring
132.	Fluid Mechanics-II MTH-618	Spring 2014	Mathematics	4(4-0)	BS Mathematics Moring
133.	Fluid Mechanics-II MTH-668	Spring 2014	Mathematics	4(4-0)	M. Sc Mathematics Evening
134.	Fluid Mechanics-II MTH-618	Spring 2014	Mathematics	4(4-0)	BS Mathematics Evening
135.	Mathematical Statistics-II MTH-610	Spring 2014	Mathematics	4(4-0)	BS Mathematics Morning
136.	Fluid Mechanics-I MTH-671	Fall 2013-14	Mathematics	4(4-0)	M. Sc Mathematics Morning
137.	Fluid Mechanics-I MTH-601-A	Fall 2013-14	Mathematics	4(4-0)	BS Mathematics Evening
138.	Fluid Mechanics-I MTH-671	Fall 2013-14	Mathematics	4(4-0)	M. Sc Mathematics Evening
139.	Fluid Mechanics-I MTH-621	Fall 2013-	Mathematics	4(4-0)	BS Mathematics Morning

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140.	Mechanics-I MTH-403	Fall 2013-14	Mathematics	4(4-0)	BS Mathematics Morning
141.	Mechanics-I MTH-403	Fall 2013-14	Mathematics	4(4-0)	BS Mathematics Evening
142.	Fluid Mechanics-II MTH-668	Spring 2013	Mathematics	4(4-0)	M. Sc Mathematics Morning
143.	Fluid Mechanics-II MTH-618	Spring 2013	Mathematics	4(4-0)	BS Mathematics Morning
144.	Advanced Fluid Dynamics MTH-724	Spring 2013	Mathematics	3(3-0)	M. Phil Mathematics Evening
	Total Credit Hours:			425	

Membership in Academic Professional Societies:

- National Mathematical Society of Pakistan
- Pure Mathematical Society of Pakistan

Computer Literacy:

- Linux and Windows OS (use and installation)
- Professional Microsoft Word, PowerPoint, Excel knowledge
- Typesetting with TeX & LaTeX
- Mathematical software Mathematics, MATLAB, Mathcad, Maple, Mathematica