Faculty Resume

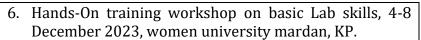
Name:	Dr. Mehnaz
Personal:	Department: Mathematics
	Designation: Assistant Professor
	Email: mehnaz.shakeel@wumardan.edu.pk, Maths.fwu@gmail.com
Experience	1. Lecturer, SBBWUP (14th April 2008-17th April 2023).
	Assistant Professor (18 th April 2023 till date)
Qualification	Ph. D
Honor and	Gold Medalist, SBBWU, Peshawar
Awards	
Memberships	 Board of studies,
	Convener, Academic Calendar Preparation Committee
	Syndicate
Graduate Students	Six M. Sc students
Postdocs	Three BS students
Undergraduate	Two M. Phil students
Students	
Honor Students	
Service Activity	Teaching, Research
Brief Statement of	 Numerical solution of PDEs and fractional PDEs
Research Interest	 Modeling and simulation
	 Meshless methods
	Fractional Inverse Problems
Publications	Mehnaz Shakeel, Iltaf Hussain, Hijaz Ahmad, Imtiaz
	Ahmad, Phatiphat Thounthong, Ying-Fang Zhang,
	Meshless technique for the solution of time-fractional
	partial differential equations having real-world
	applications, Journal of Function Spaces, 2020.
	2. Imtiaz Ahmad, Siraj-ul-Islam, null Mehnaz, Sakhi Zaman,
	Local meshless differential quadrature collocation
	method for time-fractional PDEs, Discrete and
	Continuous Dynamical Systems –S, 13, 2020.
	3. Mehnaz Shakeel, Shahida Parveen, Siraj-ul Islam and Iltaf
	Hussain, Numerical solution and characteristic study of
	time-fractional shocks collision, Physica Scripta, 96,
	2021.
	4. Mehnaz Shakeel, Muhammad Nawaz Khan, Imtiaz
	Ahmad, Sayed Abdel-Khalek, Alghamdi Ahmed
	Mohammed, Mustafa Inc, The generalized time
	fractional Gardner equation via numerical meshless
	collocation method, Thermal Science, 26,2022.
	5. Hajira Irshad, Mehnaz Shakeel, Imtiaz Ahmad, Hijaz
	, , , , , , , , , , , , , , , , , , ,
	Ahmad, Chutarat Tearnbucha, Weerawat Sudsutad,

- Simulation of generalized time fractional Gardner equation utilizing in plasma physics for non-linear propagation of ion-acoustic waves, Thermal Science, 27,2023.
- 6. Mehnaz Shakeel, Muhammad Nawaz Khan, Imtiaz Ahmad, Hijaz Ahmad, Nantapat Jarasthitikulchai, Weerawat Sudsutad, Local meshless collocation scheme for numerical simulation of space fractional PDE, Thermal Science, 27, 2023.
- 7. Muhammad Asif, Faisal Bilal, Mehnaz, Rubi Bilal, Nadeem Haider, Shaimaa A.M. Abdelmohsenc, Sayed M. Eldind, **An efficient algorithm for the numerical solution of telegraph interface model with discontinuous coefficients via Haar wavelets**, Alexandria Engineering Journal, 72, 2023.
- 8. Hina Zahir, Javaria Akram, Mehnaz, Reem K. Alhefthi, Rabbia Fatima, Mustafa Inc, Effect of nonlinear thermal radiation and homogeneous-heterogeneous reactions on peristaltic propulsion of Johnson-Segalman fluid, Ain Shams Engineering Journal, 2023.
- 9. Hina Zahir, Mehnaz, Javairia Gul, Mustafa Inc, Rubayyi T. Alqahtani, Impact of fractional magnetohydrodynamic and hall current on ree-eyring fluid flow by using radial basis function method, Alexandria Engineering Journal, 88, 2024.
- 10. Sumaira Saleem Akhtar, Israr Ahmad, Mehnaz Shakeel, Hina Zahir, Mustafa Inc, **A study of Bianchi type I spacetime according to their Ricci collineations**, Optical and Quantum Electronics, 56, 2024.
- 11. Muhammad Asif, Faisal Bilal, Mehnaz, Imran Khan, Qasem-Al-Mdallal, Extension of Haar wavelet technique for numerical solution of three-dimensional linear and nonlinear telegraph equations, Partial Differential Equations in Applied Mathematics, 9, 2024.
- 12. Muhammad Nawaz Khan, Imtiaz Ahmad, Mehnaz Shakeel, Rashid Jan. Fractional calculus analysis: investigating Drinfeld-Sokolov-Wilson system and Harry Dym equations via meshless procedures, *Mathematical Modelling and Control*, 4, 2024.

Research Grants and Contracts

Nil

1. Organized 3 days workshop on "Latex" for Masters students Other Research or in July 2012 (13th-15th July). Creative 2. Organized 3 days workshop on "Latex" for M. Phil scholars Accomplishments in November 2012 (13th-15th Nov.). 3. Organized International Workshop on Computational Mathematics with Applications on 10th March 2014, sponsored by HEC Pakistan 4. Attended "3rd conference on sustainability in process industry, organized by UET Peshawar." 5. Attended "one day symposium on numerical computing and its application, organized by UET Peshawar." 6. Attended "National Conference on Mathematical Sciences in Engineering Applications, organized by UET Peshawar." 7. Attended "National Conference on Emerging trends in Computing, Statistics and Mathematical Sciences, organized by SBBWU Peshawar." 8. International conference on Food and Applied Sciences. Kumrat, 03-05 August 2023. 9. Online Course organized by Coursera, Introduction to Programming with Matlab, Vanderbilt University. 10. ICFAS, 3-5 August 2023, SBBU Shringal Dir KPK. 11. ICST, 9-10 November 2023, Thal University Bakhar, Pakistan. 12. 1st National Workshop on AI in Healthcare, drug discovery and allied sciences, 23 November 2023, GIK swabi. KP. 13. 5th ICSET, 14-15 December 2023, UET Peshawar. 14. 2 Days workshop on Machine Learning in Mathematics as Comsat University Lahore, 5-6 March 2024. 15. One-day "seminar on Air pollution and its impact on air quality, human health and climate change" at Physics dept. WUM, 13 Nov 2023. 16. ICRMASSD: BIA 2024 at GC university Hyderabad, 26-27 April 2024. 1. Given lecture as a resource person in 3 days workshop Selected on "Latex" for Masters students in July 2012 (13th-15th Professional Presentations 2. Given lecture as a resource person in 3 days workshop on "Latex" for M. Phil scholars in November 2012 (13th-15th Nov.). 3. Given lecture as a resource person in 3 days workshop on "Latex" for Masters students in Dec. 2013 (25th, 26th Dec.). 4. Paper presentation in "International conference on Modeling and Simulation 2013" in Nov. 2013 (25th-27th Nov.) organized by AIR university, Islamabad. 5. Paper presentation at "National Conference on Mathematical Sciences in Engineering Applications, organized by UET Peshawar."



7. 6th International Conference; Scientific outlook of sustainable Development Goals, January 2024, Women University Mardan, KP