

Dr. Syed Feroz Shah

Professor

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Academic Qualifications

Ph.D. Applied Mathematics (2012): *Department of Mathematics, Beijing Institute of Technology, Beijing, China.*

Thesis Title: "*Geometric Description of Stochastic Systems and Linear Systems*".

M.Phil. Mathematics (2007): *Institute of Mathematics and Computer Sciences, University of Sindh, Jamshoro, Pakistan.*

Thesis Title: "*Numerical Simulation of Reverse Roll Coating Flows for Viscoelastic Fluids with Free Surfaces*"

Post Graduate Diploma Computer Science (July 1998- Dec 1998): *University Grants Commission, Islamabad, Pakistan*

M.Sc. Mathematics (1992): *Institute of Mathematics and Computer Sciences, University of Sindh, Jamshoro, Pakistan.*

B.Sc. (Hons.) Mathematics (1991): *Institute of Mathematics and Computer Sciences, University of Sindh, Jamshoro, Pakistan.*

Academic Experiences

Visiting Researcher (July, 2007): *Computational Fluid Dynamics Group, School of Computer Science, Swansea University, UK.*

“Studies on Contraction Flows and Pressure-Drops-Extensional Viscosity and Dissipative Stress Effects”, H.R. Tamaddon-Jahromi, **F.S Syed**, and M. F. Webster.

CSR 9-2008 www.swan.ac.uk/compsci/research/reports/2008/index.html

Associate Professor (April’ 2013 – present), *Department of Basic Sciences, Mehran University of Engineering and Technology, Jamshoro, Pakistan.*

Teaching and Research

Teaching various subjects of Engineering Mathematics and Computer Programming to undergraduate and Post Graduate students of this university.

Assistant Professor (July’2004 - April’ 2013), *Department of Basic Sciences, Mehran University of Engineering and Technology, Jamshoro, Pakistan.*

Teaching various subjects of Engineering Mathematics and Computer Programming to undergraduate students of this university. Courses taught during this period include Computational Mathematics, Numerical Analysis, FORTRAN Programming, and C ++ programming.

Lecturer (Aug'1993 - July'2004), *Department of Basic Sciences, Mehran University of Engineering and Technology, Jamshoro, Pakistan.*

Teaching various subjects of Engineering Mathematics to undergraduate students of this university. The courses taught during this period include Applied Calculus, Linear Algebra, Analytical Geometry, Differential Equations, Laplace Transforms, Complex Variables, Numerical Analysis with Computer Applications, and Introduction to Computers.

Computer and Programming Skills

- 1 Computer programming in FORTRAN 90/95, C++ and MATLAB
- 2 Working experience with Mesh Generation Software's.
- 3 Working experience with Windows NT/2000/XP/7, LINUX and Microsoft office.

Research Interest

1. NEWTONIAN AND NON-NEWTONIAN FLUID MECHANICS
2. NUMERICAL SIMULATION
3. BLOOD FLOW PROBLEMS
4. NON-LINEAR ANALYSIS
5. BOUNDARY VALUE PROBLEMS
6. ORDINARY AND PARTIAL DIFFERENTIAL EQUATIONS
7. MATHEMATICAL MODELLING
8. STATISTICAL ANALYSIS

Supervision / Co-Supervision (M.Phil / M. S / M.E / Ph.D)

M.Phil Student:

Muhammad Rafique Daudpoto, *“Empirical study of Regression & correlation analysis on Rotating Biological Contactor simulator for treatment of wastewater”*

Department of Statistics, University of Sindh, jamshoro.

M. E student:

Abdul Sattar Jatoi, *“Numerical simulation of ethanol production”.*

Directorate of Post Graduate Studies, Mehran University of Engg: and Tech:, Jamshoro

Publications

1. Shah, S.S., Chandio, M.S., **Shah, F.** and Shaikh, A., “*Numerical Simulations of viscoelastic stretching at constant pulling velocity*”, Sindh University Research Journal, 40(01), 79-86 (2008).
2. Zeeshan Nawaz, J.R.Khan, A.R.Saleemi and **Feroz Shah**, “*Mathematical Modelling for Magnetite (Crude) Removal from primary Heat Loop by Ion-Exchange Resins*”, Bull. Chem.Soc.Ethiop. 2009, 23 (1), 1-5
3. A.A.Shaikh, **F.Shah** and M.S.Chandio “*Finite Element Simulation of Newtonian Flows Past an Irregular Solid Obstacle*” Sindh University Research Journal, 41(02), 93-98.(2009)
4. H.M.M.Naleer, Yao Lu and **Feroz Shah Syed** “*Efficient Computational Approach for Coupled Problem Optimization and Post-Processing*” Sci. Int. (Lahore), 22(02), 99-106.(2010)
5. **F.S.Syed**, S.Huang, J.Chu and T.Cai “*Prediction of the location of the crime, using statistical model*” Sindh University Research Journal, 43(01), 01-08.(2011)
6. Ning Liu, Kun Guo, Yunjiang Ge, Hongzhou Wang and **Feroz Shah Syed** “*A Numerical Study of the location of sweet spots on a Baseball Bat*” Sci. Int. (Lahore), 23(01), 37-41.(2011)
7. Abdul Qadir, Zubair Ahmed Memon and **Feroz Shah Syed** “*Validity of Janssen model for Layered structures in Silo*” Mehran University Research Journal of Engineering & Technology, 30(03) 405-410.(2011)
8. **Feroz Shah Syed**, Xue-Yuan Zhang, Song Hong and Xiao Sun “*The Applications of the Variational Method to Optimize a Snowboard Course*”, Gen. Math. Notes, Vol. 4, No. 2, June 2011, pp. 71-86
9. **Feroz Shah Syed**, Muhammed Shoib Arif, Huafei Sun, “*On Interval-Valued Fuzzy Prime Bi-Ideals of Semigroups*”, World Applied Sciences Journal 16 (12): 1709-1721, 2012.
10. A. K. SHAH, **F. S. SYED**, A. R. MEMON, F.A. SHAH, K. HARIJAN “*Efficient Coupling Optimization of Coagulants with the Adsorbent for Depollution of Dyes Manufacturing Effluent*” Sindh Univ. Res. Jour. (Sci. Ser.) Vol.44 (4) 605- 608 (2012)
11. E. SABA, I.A. QURESHI, **S. F. SHAH**, M. H. DEPAR, A. LATIF “*On the Security Vulnerabilities in Mobile Adhoc Networks*” Sindh Univ. Res. Jour. (Sci. Ser.) Vol.44 (4) 609-612 (2012)
12. H.M.M.Naleer, Yao Lu, **Feroz Shah Syed** “*Novel Human Face Hallucination for Real World Setting*”, Mehran University Research Journal of Engineering & Technology, Vol 23(1) 2013
13. Shaheen Aziz, Abdul Rehman Memon, **Syed Feroz Shah**, Suhail A. Soomro, Anand

Parkash “Prototype Designing And Operational Aspects Of Microbial Fuel Cell Review Paper” Sci.Int.(Lahore),25(1),49-56, 2013

14. Shaheen Aziz, Abdul Rehman Memon, **Syed Feroz Shah**, Suhail A. Soomro, Anand Parkash , Abdul Sattar Jatoi “Electricity Generation From Sewage Sludge Using Environment-Friendly Double Chamber Microbial Fuel Cell” Sci.Int.(Lahore), 25(1),57-61,2013
15. Salman Ahmed, Baozeng Yue, **Syed Feroz Shah** “Hamiltonian Structure and Stability Analysis for a Partially Filled Container”, Journal of Mechanics, Volume 29, Issue 01, March 2013 PP 79-83 (**SCI , I.F 0.333**)
16. A.A. Chandio, Z. Yu, **F. S. Syed**, I.A. Korejo, “A Case Study On Job Scheduling Policy For Workload Characterization And Power Efficiency” Sindh Univ. Res. Jour. (Sci. Ser.) Vol.45 (A-1) 23-28 (2013)
17. A.A.memon, A.F. habib, Z.A.Almani, **S.F.Shah**, A. A. Shaikh “Simulation of Transient Ground water Flow in a well penetrating confined aquiferin southern Rohri Command” Sindh Univ. Res. Jour. (Sci. Ser.) Vol.45 (1) 07- 10 (2013)
18. A. G. Memon, K. Harijan, **S. F. Shah**, R. A. Memon, M. A. Uqailee, “ Exergy Analysis Of 144 Mw Combined Cycle Power Plant Kotri Pakistan” Sindh Univ. Res. Jour. (Sci. Ser.) Vol.45 (1) 107- 112 (2013)
19. Z.A.Almani A.A.memon, A.F. Habib, K. Lal, **S.F.Shah**, “ 3-D Numerical Modelling of Liquefaction-induced settlements and its Mitigations” Sind Univ. Res. Jour. (Sci. Ser.) Vol.45 (2) 301-304 (2013)
20. M. S. Chandio, M. U. Jhatial, **S. F. Shah** “Finite Element Simulation of Newtonian Lid-Driven Cavity Flow” Sindh Univ. Res. Jour. (Sci. Ser.) Vol.45 (2) 253-262 (2013)
21. K. B. Amur, **S. F. Shah**, A. A. Shaikh “An Adaptive control for Tikhonov Regularization on Unstructured Grid for A Variational Denoising Problem” Sindh Univ. Res. Jour. (Sci. Ser.) Vol. 45 (3) 553-558 (2013)
22. A. R. Sahito, R. B. Mahar, **F. S. Syed**, K. M. Brohi “a correlation for estimating element composition of lignocellulosic biomass from its volatile and fixed solids content” Sindh Univ. Res. Jour. (Sci. Ser.) Vol.45 (4) 665-672 (2013)
23. **Feroz Shah Syed**, Didong Li, Xun Zhang, Zhenhong Gu “Mathematical Modeling in Criminology”, Malaysian Journal of Mathematical Sciences 7(1) 125-145 (2013)
24. Saeed Sarwar, Saeed ur Rehman, **Syed Feroz Shah** “ Mathematical Modeling of Unmanned Aerial Vehicles” Mehran University Research Journal of Engineering & Technology, 32(04) 615-622 (2013)

25. K. N. Memon, Sher Afzal Khan , S. Islam, Nazir Ahmad Zafar, **Syed Feroz Shah** and A. M. Siddiqui, “*Unsteady Drainage of Electrically Conducting Power Law Fluid*” Appl. Math. Inf. Sci. 8, No. 5, 2287-2296 (2014)

Conference

H.R. Tamaddon-Jahromi, **F.S Syed**, and M. F. Webster “*Studies on Contraction Flows and Pressure-Drops-Extensional Viscosity and Dissipative Stress Effects*”,. AIP Conf. Proc. 1027, 225 (2008)
<http://dx.doi.org/10.1063/1.2964643>

Feroz Shah Syed, Asif A. Shaikh, M. Saleem Chandio, Zahid Mehmood and Hua-Fei Sun “*Study of Newtonian and non-Newtonian fluids through numerical simulation of Reverse Roller Coating flows with free surface*”, The 2010 International Conference on Chemical Engineering and Applications, (CCEA-2010) February 26-28, 2010, Singapore, <http://www.iacsit.org/ccea/index.htm>