

# Feroz Shah Syed, Ph.D.

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## ACADEMIC EXPERIENCE

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**Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan** **Aug 1993-Present**  
Department of Basic Sciences

MUET Jamshoro is ranked 1<sup>st</sup> in the public sector in Sindh province and falls within the 151-160 bracket in the QS World Rankings, offering quality higher education to underprivileged rural areas of Sindh, Pakistan. I served Mehran UET Jamshoro at different academic positions.

*Meritorious Professor* *(March 2024 – Present)*

*Professor (April 2014 – March 2024), Associate Professor (April 2013 – April 2014), Assistant Professor (July 2004 - April 2013), and Lecturer (August 1993 – July 2004)*

Working as an academician at MUET Jamshoro, I have two primary objectives. First, to develop a **profound understanding of mathematical principles** and **advance computational proficiency** in my students. To this end, I encourage a research-driven approach in both my teaching and mentorship (to fellow faculty members). My teaching fundamentally focusses on practical applications of mathematics and computational techniques to solve real-world engineering and scientific challenges. Second, **to advance the field mathematical modeling and address some of the pressing needs for the betterment of society**. I am particularly engaged in the application of numerical modeling to address complex, real-world problems.

- I have designed and delivered a diverse range of courses aimed at building a solid foundation in both theoretical and applied mathematics. These courses focus on equipping students with essential skills in problem-solving and computational techniques.
  - *Undergraduate level Courses (Bachelor of Engineering in various disciplines)*  
**Applied Calculus, Differential Equations, Linear Algebra, Numerical Methods, Complex Variables, Statistical methods and Estimation, FORTAN programming, and C++ programming.**
  - *Postgraduate Level Courses (MPhil and PhD levels in Applied Mathematics)*  
**Computational Fluid Dynamics, Advanced Linear Algebra, Finite Element Analysis, Modelling & Simulation, Modelling & Scientific Computing, Research Methodology, Advances in Partial Differential Equations, Theory & Application of Transforms, Advanced Numerical Analysis, and Non-Newtonian Fluid Mechanics.**
- As a researcher, I have authored or co-authored over **80 peer-reviewed journal articles** published in both national and international journals, along with contributing to **five conference proceedings** to solve some of the pressing needs of society. My research tackles critical engineering and environmental challenges through advanced mathematical modeling, computational methods, and applied sciences. The key applications of my work include **sustainability and renewable energy, air quality and environmental systems, Fluid Dynamics, non-Newtonian fluid mechanics, and numerical methods.**

To tackle these challenges, I have successfully employed a range of sophisticated tools, including **Computational Fluid Dynamics, Finite Element Analysis, Data Analytics and Machine Learning**, the **Analytical Hierarchy Process**, and **Advanced Numerical methods**.

- During my tenure, I have had the privilege of supervising or co-supervising **09 Ph.D. students** and **28 M.Phil. students**, guiding them through advanced research projects and contributing to the development of the next generation of scholars in engineering and applied mathematics. The produced scholars are serving at different levels in academia.
  - **Kamran Nazir Memon**; Associate Professor, Department of Mathematics and Statistics, *Quaid-e-Awam University of Engineering, Science & Technology Nawab Shah, Sindh, Pakistan.*
  - **Rafique Ahmed Daudpota**; Associate Professor, Department of Statistics, *University of Sindh, Jamshoro, Sindh, Pakistan.*
  - **Khalil Ahmed Memon**; Associate Professor, Petroleum Engineering, *Institute of Petroleum & Natural Gas, Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan.*
  - **Wajid Ali Shaikh**; Associate Professor, *Quaid-e-Awam University of Engineering, Science & Technology Nawab Shah, Sindh, Pakistan.*
  - **Shoaib Ahmed Khatri**; Assistant Professor, Department of Electrical Engineering, *Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan.*
  - **Fozia Shaikh**; Assistant Professor, Department of Basic Sciences, *Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan.*
  - **Afaq Ahmed Bhutto**; Assistant Professor, *Basic Science and related Studies, The University of Larkano, Sindh, Pakistan.*
  - **Rano Khan Wassan**; Assistant Professor, Department of Industrial Engineering and Management, *Dawood University of Engineering and Technology, Karachi, Sindh, Pakistan.*
  - **Prem Kumar**; Assistant Professor, *Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan.*

**Clarkson University, New York**  
Mathematics Department

**July 2024-December 2024**

#### ***Visiting Research Scholar***

- Leading interdisciplinary research on **air quality monitoring and microbial data analytics**, integrating advanced mathematical models and data science techniques to assess environmental health impacts.
- Collaborating with faculty and research teams to develop innovative methodologies for analyzing **air pollutant dispersion and microbial interactions** in urban environments.

#### ***Adjunct Instructor***

- Designed and delivered course content, focusing on fundamental calculus principles, including limits, derivatives, and integrals, to undergraduate students for the course of **MA181 Basic Calculus Fall 2024 Session**.
- Taught and developed curriculum that covers first-order and second-order differential equations, including real-world applications in engineering and natural sciences for the course of **MA232 Elementary Differential Equations Fall 2024 Session**.

**Swansea University, UK**  
School of Computer Science

**July 2007- October 2007**

Swansea University is renowned for its world-class research and innovation in computational sciences and provides an excellent platform for advanced learning and research in computer science.

### ***Visiting Scholar***

- During my time as a Visiting Researcher at Swansea University, I worked with the Computational Fluid Dynamics group on the project titled “Studies on **Contraction Flows and Pressure-Drops** - Extensional Viscosity and Dissipative Stress Effects.” This collaboration with **H.R. Tamaddon-Jahromi** and **M.F. Webster** focused on advanced fluid dynamics, contributing to a deeper understanding of complex flow behaviors in contraction geometries.

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## **ADMINISTRATIVE EXPERIENCE**

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### **Director, Postgraduate Studies**

**October 2019-November 2022**

Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan

- Led the development and implementation of strategic goals for postgraduate programs across various disciplines.
- Facilitated interdisciplinary collaboration between faculty and researchers to enhance research output and innovation.
- Played a key role in securing funding for research projects and postgraduate scholarships.
- Oversaw academic advising, program reviews, and postgraduate curriculum development to ensure academic excellence and alignment with global standards.
- Mentored faculty members in research supervision and career development, fostering an environment of continuous academic growth.

### **Co-Director, Postgraduate Studies**

**February 2017-October 2019**

Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan

- Assisted in the day-to-day administration of postgraduate programs, ensuring efficient operations, compliance with academic regulations, and student success.
- Supported initiatives to increase postgraduate enrollment and enhance student retention through improved academic support services.
- Coordinated with external academic bodies and accreditation agencies to maintain high standards in postgraduate education.

### **Program Coordinator, Postgraduate Program, Applied Mathematics**

**January 2014-February 2017**

Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan

- Designed and implemented advanced coursework and research opportunities for M.Phil. and Ph.D. students in Applied Mathematics.
- Organized workshops, seminars, and guest lectures to expose students to cutting-edge research in computational mathematics and applied sciences.
- Promoted collaboration between students and industry partners, facilitating research that addresses real-world challenges.

### **Member, Syndicate**

**August 2003 – July 2004**

Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan

- Contributed to strategic governance, addressing issues related to university rules, regulations, policies, financial management, and academic integrity.
- Played an active role in decisions on faculty appointments, promotions, and other critical administrative functions.
- Participated in the review and approval of new academic programs, helping align them with the university’s vision and mission.

**Member, Academic Council and Senate****April 2014- Present**

Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan

- Participating in the planning and decisions regarding physical and human resources, space allocation, and budgetary priorities
- Contributed to discussions on faculty development, student affairs, and institutional accreditation processes.
- Worked closely with other Senate members to review and approve key university initiatives, including research grants and academic collaborations.

**Member/Secretary, Advance Studies & Research Board****October 2017-November 2022**

Mehran University of Engineering and Technology, Jamshoro

- Managed the review and approval process for Ph.D. and M.Phil. research proposals, ensuring academic quality and alignment with institutional goals.
- Facilitated communication between students, supervisors, and the university administration to streamline research processes.
- Organized and led meetings to discuss research strategy, the progress of ongoing projects, and opportunities for collaboration with other universities and industry.
- Ensured compliance with ethical research standards and oversaw the evaluation of submitted theses for originality and contribution to the field.

**EDUCATION****Ph.D. in Applied Mathematics,** **2012**

School of Mathematics, Beijing Institute of Technology, Beijing, China.

**Research Area:** Geometric Description of Stochastic Systems and Linear Systems**M.Phil., Mathematics** **2007**

Institute of Mathematics and Computer Sciences, University of Sindh, Jamshoro, Pakistan.

**Research Area:** Numerical Simulation of Reverse Roll Coating Flows for Viscoelastic Fluids with Free Surfaces**Post Graduate Diploma Computer Science** **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

**RESEARCH GRANTS*****Principal Investigator***

Up-gradation and Strengthening Research Lab of Modeling & Simulation at Department of Basic Sciences & Related Studies (BSRS), Mehran University of Engineering & Technology, Jamshoro., funded by Higher Education Commission, Pakistan Under Institutional Strengthening Program (No. 11-11(2015)/HEC/Acad/IS/518 dated: December 30, 2015).

Research Project, titled "Assessment & Forecasting of Drought in Tharparker, Sindh" Under National Research Programme for Universities, by Higher Education Commission, Islamabad vide letter No:6872/Sindh/NRPU/R&D/HEC/2016.

## PUBLICATIONS

### *Peer-Reviewed Journals*

1. Kumar, S., Shaikh, A. A., **F. S. Syed**, Lanjwani, H. B., Anwar, M. I., & Shehzad, S. A. (2023). Numerical investigation of magnetized thermally radiative Fe<sub>3</sub>O<sub>4</sub>-Water base nanofluid. *Chemical Physics Letters*, 824, 140571. (**IF = 2.8, X-Category**)
2. Wassan, R. K., Shaikh, S. A., Marri, H. B., Memon, M. S., & **F. S. Syed**. (2023). Analyzing the impact of GLSS implementation over sustainability in Pakistani SMEs. *Benchmarking: An International Journal*. (**IF = 3.1, W-Category**)
3. Khatri, S.A., Mirjat, N.H., Harijan, K., Uqaili, M.A., **F. S. Syed**, Shaikh, P.H. and Kumar, L., (2022). An Overview of the Current Energy Situation of Pakistan and the Way Forward Towards Green Energy Implementation. *Energies*, 16(1), pp.1-29. (**IF = 3.252, W-Category**)
4. Shaikh, F., **F. S. Syed**, Siddiqui, A.M. and Kumar, L., (2022). Application of recursive approach of pseudoplastic fluid flow between rotating coaxial cylinders. *Alexandria Engineering Journal*, 61(10), pp.7823-7832. (**IF = 6.626, W-Category**)
5. Soomro, H., **F. S. Syed**, Sahito, W.S., Uqaili, M.A., Kumar, L., Nixon, J.D. and Harijan, K., (2022). Assessment of Sustainable Biomass Energy Technologies in Pakistan Using the Analytical Hierarchy Process. *Sustainability*, 14(18), p.11388. (**IF = 3.889, W-Category**)
6. Bhutto, A.A., Harijan, K., Hussain, M., **F. S. Syed** and Kumar, L., (2022). Numerical Simulation of Transient Combustion and the Acoustic Environment of Obstacle Vortex-Driven Flow. *Energies*, 15(16), p.6079. (**IF = 3.252, W-Category**)
7. Shah, S.A.R., Memon, K.N., **F. S. Syed**, Sheikh, A.H. and Siddiqui, A.M., (2022). Delta perturbation method for thin film flow of a third grade fluid on a vertical moving belt. *Statistics, Computing And Interdisciplinary Research*, 4(1), pp.61-73. (**Y-Category**)
8. Khatri, S.A., Harijan, K., Uqaili, M.A., **F. S. Syed**, Mirjat, N.H. and Kumar, L., (2022). A Logistic Modelling Analysis for Wind Energy Potential Assessment and Forecasting its Diffusion in Pakistan. *Frontiers in Energy Research*, 10. (**IF = 3.858, W-Category**)
9. Khatri, S.A., Harijan, K., Uqaili, M.A., **F. S. Syed**, Mirjat, N.H. and Kumar, L., (2022). Solar photovoltaic potential and diffusion assessment for Pakistan. *Energy Science & Engineering*. (**IF = 4.035, )**
10. Shaikh, W.A., **F. S. Syed**, Pandhiani, S.M., Solangi, M.A., Farooq, M., Ahmad, H., Kashuri, A., Jarasthitikulchai, N. and Sudsutad, W., (2022). A hybrid forecasting model based on the group method of data handling and wavelet decomposition for monthly rivers streamflow data sets. *Open Physics*, 20(1), pp.1096-1111. (**IF = 1.361, W-Category**)
11. Shaikh, W.A., **F. S. Syed**, Pandhiani, S.M. and Solangi, M.A., (2022). Wavelet Decomposition Impacts on Traditional Forecasting Time Series Models. *CMES-Computer Modeling in Engineering & Sciences*, 130(3), pp.1517-1532. (**IF = 2.027, X-Category**)
12. Ali, W., Shaikh, A.A., **F. S. Syed** and Hussain, S., (2022). Melting characteristics of a phase change material mixed with nano particles of cobalt oxide bounded in a trapezoidal structure. *Computer Modeling in Engineering and Sciences*.
13. Wassan, R. K., Shaikh, S. A., Shaikh, I. K., Memon, M. S., Rahman, A., & **F. S. Syed** (2022). Initial Screening Of Critical Success Factors For Green, Lean And Six Sigma Implementation In Pakistani Small And Medium Enterprises. *Journal of Applied Engineering Science*, 20(3), 946-956. (**X-Category (2022-2023)**)
14. Ali, A., Memon, K. N., **F. S. Syed**, Amur, M., & Siddiqui, A. M. (2022). The Hydrodynamics of Gravity-Driven Vessel Drainage of Third Order Fluid using Perturbation Method.
15. Kumar, P., **F. S. Syed**, Uqaili, M.A., Kumar, L. and Zafar, R.F., (2021). Forecasting of Drought: A Case Study of Water-Stressed Region of Pakistan. *Atmosphere*, 12(10), p.1248. (**IF = 3.110, W-Category**)
16. Memon, K.R., Muther, T., Abbasi, G.R., Tunio, A.H., **F. S. Syed**, Mahesar, A.A., Mohanty, U.S. and Nasir, U., (2021). Analysis of Mancos Shale gas production scenarios under various stress mechanisms. *Arabian Journal of Geosciences*, 14(18), pp.1-11. (**IF = 1.827, X-Category**)

17. Jatoi, A.S., Baloch, H.A., Mazari, S.A., Mubarak, N.M., Sabzoi, N., Aziz, S., Soomro, S.A., Abro, R. and **F. S. Syed**, (2021). A review on extractive fermentation via ion exchange adsorption resins opportunities, challenges, and future prospects. *Biomass Conversion and Biorefinery*, pp.1-12. **(IF = 4.103, X-Category)**
18. Alam, M.K., Memon, K.N., Siddiqui, A.M., **F. S. Syed**, Farooq, M., Ayaz, M., Nofal, T.A. and Ahmad, H., (2021). Modeling and analysis of high shear viscoelastic Ellis thin liquid film phenomena. *Physica Scripta*, 96(5), p.055201. **(IF = 3.081)**
19. Maher, A. M., Memon, Z. A., Shaikh, P. H., **F. S. Syed**, & Rajput, S. H. (2021). Dc-dc Dc-dc Non-isolated Immense gain converter simulation in MATLAB: converter simulation in MATLAB. *International Journal of Electrical Engineering & Emerging Technology*, 4(SI 1), 37-41.
20. Yusuf, A., Qureshi, S., & **F. S. Syed** (2020). Mathematical analysis for an autonomous financial dynamical system via classical and modern fractional operators. ***Chaos, Solitons & Fractals***, 132, 109552. **(IF = 3.764)**
21. Qureshi, S. S., Sahito, A. R., Jhadav, A., Nizamuddin, S., **F. S. Syed**, & Mubarak, N. M. (2020). Process optimization and empirical model development for lignocellulosic biomass via gravimetric analysis. *Biomass Conversion and Biorefinery*, 10(2), 447-461. **(IF = 2.602)**
22. Akber, A., **F. S. Syed**, Ijaz, M. W., Soomro, H., Alam, N., & Ahmed, L. (2019). Comprehensive Drought Analysis Using Statistical and Meteorological Indices Approach: A Case Study of Badin, Sindh. *International Journal of Environment and Climate Change*, 9(10), 594-604.
23. Perhiyar, M. A., **F. S. Syed**, & Shaikh, A. A. (2019). Modified Trapezoidal Rule Based Different Averages for Numerical Integration. *Mathematical Theory and Modeling*, 9(9), 72-75.
24. Mahessar, A. A., Qureshi, A. L., Laghari, A. N., Qureshi, S., **F. S. Syed**, & Shaikh, F. A. (2018). Impact of Hairdin, Miro Khan and Shahdad Kot Drainage on Hamal Dhand, Sindh. *Engineering, Technology & Applied Science Research*, 8(6).
25. Memon, K. N., Siddiqui, A. M., & **F. S. Syed**. (2017). Exact Solution of Tank Drainage through the Circular Pipe for Couple Stress Fluid. *J. Appl. Environ. Biol. Sci*, 7(12), 27-34.
26. Ali, A., Rundong, L., **F. S. Syed**., Mahar, R. B., WajidIjaz, M., & Muhammad, M. (2016). Predictive modeling of biogas production from anaerobic digestion of mixed kitchen waste at mesophilic temperature. *Int J Waste Resour*, 6(3), 2-4.
27. Salman Ahmed, Baozeng Yue, **F. S. Syed** (2013)“Hamiltonian Structure and Stability Analysis for a Partially Filled Container”, *Journal of Mechanics*, Volume 29, Issue 01, March 2013 PP 79-83
28. Khaskheli, M. A., Memon, K. N., Sheikh, A. H., Siddiqui, A. M., & **F. S. Syed** (2020). Tank Drainage for an Electrically Conducting Newtonian Fluid with the use of the Bessel Function. *Engineering, Technology & Applied Science Research*, 10(2), 5377-5381. **(Y-Category HEC Recognized)**
29. Shah, S. M., Memon, K. N., **F. S. Syed**, Sheikh, A. H., Ghoto, A. A., & Siddiqui, A. M. (2019). Exact Solution for PTT Fluid on a Vertical Moving Belt for Lift with Slip Condition. *Indian Journal of Science and Technology*, 12, 30. **(X-Category HEC Recognized 2018)**
30. Memon, K. N., **F. S. Syed**, & Siddiqui, A. M. (2018). Exact solution of unsteady tank drainage for Ellis Fluid. *Journal of Applied Fluid Mechanics*, 11(6), 1629-1636. **(X-Category HEC Recognized)**
31. **Feroz Shah Syed**, Didong Li, Xun Zhang, ZhenhongGu “Mathematical Modeling in Criminology”, *Malaysian Journal of Mathematical Sciences* 7(1) 125-145 (2013) **(Y-Category HEC Recognized)**
32. Memon, K. N., Khan, S. A., Islam, S., Zafar, N. A., **F. S. Syed**., & Siddiqui, A. M. (2014). Unsteady Drainage of Electrically Conducting Power Law Fluid. *Applied Mathematics & Information Sciences*, 8(5), 2287.
33. Nawaz, Z., Khan, J. R., Saleemi, A. R., & **F. S. Syed** (2009). Mathematical Modelling for Magnetite (Crude) Removal from Primary Heat Transfer Loop by Ion-Exchange Resins. *Bulletin of the Chemical Society of Ethiopia*, 23(1), 129-133. **(Y-Category HEC Recognized)**
34. Qureshi Khalid., Kumar P., Memon, K. N., **F. S. Syed**. (2021). ‘Numerical Iterative Method of Open Methods with Converge Cubically for Estimating Nonlinear Application Equations’. ‘*Journal of Mechanics of Continua and Mathematical Sciences (JMCMS)*, 16(6).
35. Dayo, I., **F. S. Syed**, Shaikh, F., & Kumar, S. (2023). Effects of Heat Transfer on Flow of MHD Maxwell Nanofluid on Stretching and Shrinking Surfaces. *VFAST Transactions on Mathematics*. 11(1), 180–194. <https://doi.org/10.21015/vtm.v11i1.1498>

36. Bhutto, A. A., **F. S. Syed**, Khokhar, R. B., Harijan, K., & Hussain, M. (2023). To Investigate Obstacle Configuration Effect on Vortex Driven Combustion Instability. *VFAST Transactions on Mathematics*, 11(1), 67–82.  
<https://doi.org/10.21015/vtm.v11i1.1411>
37. Kumar, S., Shaikh, A. A., Lanjwani, H. B., & **F. S. Syed** (2023). MHD flow and heat transfer of micropolar nanofluid on a linearly stretching/shrinking porous surface. *VFAST Transactions on Mathematics*, 11(1), 141–154.  
<https://doi.org/10.21015/vtm.v11i1.1456>
38. Kumar, P., **F. S. Syed**, Khokhar, R. B., Uqaili, M. A., Kumar, L., & Zafar, R. F. (2023). Meteorological drought mitigation for combating climate change: a case study of southern Sindh, Pakistan. *Mehran University Research Journal of Engineering & Technology*, 42(3), 129-153.
39. Bhutto, A. A., Hussain, M., **F. S. Syed**, & Harijan, K. (2022). Computation of Vortex Driven Flow Instability through Unsteady RANS and Scale Resolving Simulation. *Institute of Space Technology*, 12(1), 14-22.
40. Ali, W., Shaikh, A. A., **F. S. Syed**, & Hussain, S. (2022). The melting behavior of Paraffin RT-50 in a finned cylindrical surface. *VFAST Transactions on Mathematics*, 10(2), 175–188. <https://doi.org/10.21015/vtm.v10i2.1320>
41. Mahar, M. A., Memon, K. N., **F. S. Syed**, Amur, A. A., & Siddiqui, A. M. (2022). Effect of Slip Condition on Unsteady Tank Drainage Flow of third Order Fluid. *VFAST Transactions on Mathematics*, 10(2), 189–200.  
<https://doi.org/10.21015/vtm.v10i2.1338>
42. Sahito, S., Shaikh, W.A., Shaikh, A.G., Shaikh, A.A. and **F. S. Syed**, 2021. Modification of Vogel's Approximation Method for Optimality of Transportation Problem by Statistical Technique. *Quaid-E-Awam University Research Journal of Engineering, Science & Technology, Nawabshah.*, 19(2), pp.42-48.
43. Daudpoto, M. R., Talpur, M. G. H., **F. S. Syed**, & Khooharo, A. (2021). A Residual Analysis for the Removal of Biological Oxygen Demand through Rotating Biological Contactor. *Mehran University Research Journal of Engineering and Technology*, 40(2), 459-464
44. Shaikh, W., **F. S. Syed**, Solangi, M., & Pandhiani, S. (2019). Forecasting analysis of GMDH model with LSSVM and MARS models for hydrological data sets (Case study). *Indian J Sci Technol*, 12, 1-6.
45. Sahito, M. A., **F. S. Syed**, & Shaikh, A. A. (2018). Scrutiny of Academic Performance of Students using Eigenvalue and Eigenvectors: A case study. *University of Sindh Journal of Information and Communication Technology*, 2(3), 139-142.
46. Daudpoto, M., Talpur, M., **F. S. Syed**, & KHOOHARO, A. (2018). Response Surface Methodology for removal of Biological Oxygen Demand (BOD) through RBC. *Sindh University Research Journal-SURJ (Science Series)*, 50(4), 591-594.
47. Memon, K. N., Siddiqui, A. M., **F. S. Syed**, & Islam, S. (2018). Analytical solution of tank drainage for electrically conducting power law fluid.
48. H. Pirzada, A. A. Shaikh, and **F. S. Syed**, “Modification of Heun’s Iterative Method for the Population Growth Rate Problems,” *University of Sindh Journal of Information and Communication Technology*, vol. 2, no. 1, pp. 11–16, Jan. 2018.
49. Shaikh, A. A., Chandio, M. S., Qureshi, S., & **F. S. Syed** (2017). Computational Analysis of A Non-Newtonian Fluid Past Obstacles of Altered Shapes. *PJCIS* (2017), Vol. 2 No. 1: 51-57
50. S.H. Sandilo, Ah Sheikh, Ar Soomro, **F. S. Syed**, On the Energetics of a Damped Beam-Like Equation for Different Boundary Conditions. *Mehran University Research Journal of Engineering and Technology*, 2017. 36(2): p. 395-400.
51. Feroz Ahmed Soomro, Qiang Zhang, **Feroz Shah Syed**, “Two-Dimensional Stagnation-Point Velocity-Slip Flow and Heat Transfer over Porous Stretching Sheet”, *Mehran University Research Journal of Engineering & Technology*, 32(04) 615-622 (2016)
52. Solangi, R., **F. S. Syed**, Siddiqui, A., & Memon, K. (2016). Effect of slip condition on thin layer flow on an upright cylinder for drainage of electrically conducting power law fluid. *Sindh University Research Journal-SURJ (Science Series)*, 48(4).
53. Soomro, H., **F. S. Syed**, Nixon, J. D., Harijanc, K., & Mirjatd, N. H. (2016). Development of AHP Model for Ranking of Cook Stove Technologies for Sindh Province, Pakistan.
54. Jatoi, A. S., Aziz, S., Mahar, H., **F. S. Syed**, Hussain, S., Unar, I., & Shahzad, K. (2016). Numerical Simulation of ethanol production from molasses using thermos tolerant kluyeromyces Marxian’s. *Journal of the Pakistan Institute of Chemical Engineers*, 44(1), 92-99.

55. Jatoi, A. S., Parkash, A., Aziz, S., Soomro, S. A., & **F. S. Syed**. (2016). Mathematical modeling for ethanol production from molasses using thermotolerant *kluyeromyces marxians*. *Science International*, 28(1), 319-322.
56. Saeed Sarwar, Saeed ur Rehman, **Feroz Shah Syed** "Mathematical Modeling of Unmanned Aerial Vehicles" *Mehran University Research Journal of Engineering & Technology*, 32(04) 615-622 (2013)
57. Qadir, A., Z.A. Memon, and **F.S. Syed**, Validity of the Janssen Model for Layered Structures in a Silo. *Mehran University Research Journal of Engineering & Technology*, 2011. 30(3): p. 405-410.
58. Naleer, H.M., Y. Lu, and **F. S. Syed**, Novel Human Face Hallucination for Real World Setting. *Mehran University Research Journal of Engineering and Technology*, 2013. 32(1): p. 47-54.
59. Channer, S., Memon, K., Ghoto, A., Siddiqui, A., & **F. S. Syed** (2019). Analytical Solution of Lift for Thin Film Flow for Phan Thien Tanner Fluid. *Sindh University Research Journal-SURJ (Science Series)* 51(2), 215-222.
60. Mughal, S., **F. S. Syed**, And M. Chandio, Suitable Space Detecting Method for solving non-linear equations by using Numerical Differentiation. *Sindh University Research Journal-SURJ (Science Series)*, 2018. 50(01): p. 91-94.
61. Q.U. Rana, **F. S. Syed**, J.G.M Sahito, Ms Chandio., An Analytical Hierarchy Process Model for the Evaluation of University Teaching Quality. *Sindh University Research Journal-SURJ (Science Series)*, 2017. 49(4): p. 857-860.
62. K. N. Memon, A. M. Siddiqui, **F. S. Syed**, "Exact Solution of Tank Drainage for Newtonian Fluid with Slip Condition" *Sindh Univ. Res. Jour. (Sci. Ser.)* Vol.49(2) 283-288 (2017)
63. Shaikh, R., A. Shaikh, And **F. S. Syed**, Development of New Technique to Solve Degeneracy in Linear Programming. *Sindh University Research Journal-SURJ (Science Series)*, 2017. 49(3): p. 571-574.
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### **Synergistic Contributions**

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