

**Name:** Dr. Siraj-ul-Islam

**Current Position:** Professor

**Personal Details:**

**Address:** Dean, Faculty of Architecture,  
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**Scopus Citations: 1150**

**Google Scholar Citations: 1650**

**Education:**

2009-2010 Post-Doctoral Fellowship Laboratory for Multiphase Processes, University of Nova Gorica, Slovenia, Europe.

2001-2006 PhD in Computational Mathematics GIK Institute of Engineering Sciences & Technology, Topi, Pakistan  
**Field of Specialization:** Numerical Solution of Ordinary and Partial Differential Equations Using Non-polynomial Spline Functions

1994-1996 **M. Phil** Quaid-e-University, Islamabad, Pakistan,  
Field of Specialization: Quasi Potentials on G/P.

1990-1992 **Master of Science in Mathematics**, University of Peshawar,  
Peshawar, Pakistan

1987-1989 **Bachelor of Science**  
University of Peshawar, Peshawar, Pakistan.

## Research interests

Numerical Methods for PDEs, Integral Equations, Numerical Integration, Modeling and Simulation of Biological Systems, Heat Transfer, Numerical Linear Algebra, Wavelets and RBFs

### **International & National Work Experience (Teaching & Research)**

May 19 2011 to Present	Professor of Mathematics, Department of Basic Sciences, University of Engineering & Technology, Peshawar, Pakistan
Jan 12 2015 to Dec 10 2015	Visiting Professor, South Asian University, New Delhi, India
May 2015- AUG 2015	Visiting Scientist, Izmir Technical University, Turkey
09 Dec 2009 to 31 Dec 2010	Associate Professor of Mathematics, Laboratory for Multiphase Processes, University of Nova Gorica, Slovenia Europe
06 Oct 2007 to 09 Dec 2009	Associate Professor of Mathematics, Department of Basic Sciences, University of Engineering & Technology, Peshawar & Technology, Pakistan
21 Apr 2005 to 05 Oct 2007	Assistant Professor of Mathematics, Department of Basic Sciences, University of Engineering & Technology, Pakistan
10 Oct 1997 to 20 Apr 2004	Lecturer, Department of Basic Sciences, University of Engineering & Technology, Pakistan
01 Jan 1996 to 01 Jan 1997	Lecturer, Department of Mathematics, Federal Government College, H-8, Islamabad, Pakistan
01 Jan 1994 to 31 Dec 1996	Junior Research Assistant, Department of Mathematics, Quaid-e-Azam University, Pakistan

### **Professional Administrative Experience**

- October 10, 2016-July 18, 2018, **Head of the Department** of Basic Sciences, University of Engineering & Technology, Peshawar.
- June 12, 2018-till date, **Dean Faculty of Architecture, Allied Sciences and Humanities**, University of Engineering & Technology, Peshawar.

### **National & International Collaborations**

- Laboratories of Multi-Phase Process Slovenia: Atomization Store Steel Industry Slovenia, Meshless Methods
- Department of Mathematical Sciences & Center for Computational Science Middle Tennessee State University USA: Mathematical Modeling & Simulation in Finance
- Faculty of Mathematics & Computer Science, South Asian University New-Delhi India: Meshless Methods for Reaction-Diffusion Modeling
- Department of Mathematics, Izmir Technical University Izmir Turkey: Splitting Techniques & Meshless Methods
- School of Engineering and Computing Sciences, Durham University, UK:Topology Optimization with Element Free Galerkin Method

- Department of Mathematics University of Peshawar: Haar Wavelets & Meshless Methods
- NESCOM Islamabad: Topology Optimization with Element Free Galerkin Method

## Awards

1994-1996	University Grants Commission Merit Scholarship for M. Phil Studies
2001-2006	Higher Education Commission Scholarship for PhD Studies
2009-2010	<b>Post-Doctoral Fellowship</b> Laboratories for Multiphase Processes University of Nova Gorica Slovenia Europe
2011	<b>Research Productivity Award</b> (Pakistan Council for Science and Technology)
2011	<b>Best Teacher Award</b> (Higher Education Commission Islamabad Pakistan)
2012	<b>Research Productivity Award</b> (Pakistan Council for Science and Technology)

## HEC Research Projects

1. **Modeling and Simulation of Structural Optimization Problems**, Total Cost of Rs 1495814 (P. I.)
2. **Mathematical Models for Segmentation of MRI and Mamogram Images and Applications**, Total Cost Rs 149000 (Co-P.I.)

## Book Chapter

- **Mathematical Physics**, Published by World Scientific, Singapore

## International Journals Publications

[2018]

1. V. Singh, **Siraj-ul-Islam**, R. K. Mohanty “Local meshless method for convection dominated steady and unsteady partial differential equation”, **Engineering with Computers**, 2018, [Impact factor 1.95](#), [Scopus Citations \(\)](#), [Google Scholar Citations \(\)](#)
2. M. Ahmad, **Siraj-ul-Islam** “Meshless analysis of parabolic interface problems”, **Engineering Analysis with Boundary Elements**, 94, 134-152, 2018, [Impact factor 2.13](#), [Scopus Citations \(\)](#), [Google Scholar Citations \(\)](#)
3. M. Ahsan, **Siraj-ul-Islam**, and I. Hussain “Haar wavelets multi-resolution collocation analysis of unsteady inverse heat problems”, **Inverse Problems in Science and Engineering**, 1-23, 2018 [Impact factor 1.003](#), [Scopus Citations \(\)](#), [Google Scholar Citations \(\)](#)
4. **Siraj-ul-Islam**, I. Aziz and N. Haider “Meshless and multi-resolution collocation techniques for parabolic interface models”, **Applied Mathematics and Computation**, 335 (15), 313-332, (2018) [Impact factor 1.73](#), [Scopus Citations \(\)](#), [Google Scholar Citations \(\)](#)
5. **Siraj-ul-Islam**, M. Ashan and I. Hussian “A multi-resolution collocation procedure for time-dependent inverse heat problems”, **International Journal of Thermal Sciences**, 128, 160-174, (2018) [Impact factor 3.615](#), [Scopus Citations \(\)](#), [Google Scholar Citations \(\)](#)

6. **Siraj-ul-Islam** and Z. uddin “Meshless methods for two-dimensional oscillatory Fredholm integral equations”, **Journal of Computational and Applied Mathematics**, 335, 33-50, (2018), [Impact factor 1.357](#), [Scopus Citations \(\)](#), [Google Scholar Citations \(\)](#)
7. Z.-uddin and **Siraj-ul-Islam** “Meshless methods for one-dimensional oscillatory Fredholm integral equations”, **Applied Mathematics and Computation**, 324, 156-173, (2018), [Impact factor 1.738](#), [Scopus Citations \(\)](#), [Google Scholar Citations \(\)](#)
8. **Siraj-ul-Islam** and S. Zaman, “Numerical methods for multivariate highly oscillatory integrals”, **International Journal of Computer Mathematics**, in press (2017), 90 (5), 1024-1044, (2018) [Impact factor 0.8](#), [Scopus Citations \(\)](#), [Google Scholar Citations \(\)](#)
9. I. Aziz, **Siraj-ul-Islam** and N. Haider “Meshless and multi-resolution collocation techniques for steady state interface models”, **International Journal of Computational Methods**, 15 (1), 1-37, (2018) [Impact factor 1.112](#), [Scopus Citations \(2\)](#), [Google Scholar Citations \(2\)](#)
10. **Siraj-ul-Islam** and M. Ahmad “Meshless analysis of elliptic interface boundary value problems”, **Engineering Analysis with Boundary Element**, 92, 38-49, (2018) [Impact factor 1.89](#), [Scopus Citations \(1\)](#), [Google Scholar Citations \(1\)](#)

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11. **Siraj-ul-Islam** and S. Ismail, “Meshless collocation procedure for time dependent inverse heat problems”, **International Journal of Heat and Mass Transfer**, 113, 1152-1167, (2017), [Impact factor 3.45](#), [Scopus Citations \(3\)](#), [Google Scholar Citations \(3\)](#)
12. **Siraj-ul-Islam** and I. Ahmad, “Local meshless method for PDEs arising from models of wound healing”, **Applied Mathematical Modelling**, 48, 688-710, (2017), [Impact factor 2.29](#), [Scopus Citations \(4\)](#), [Google Scholar Citations \(4\)](#)
13. I. Ahmad, **Siraj-ul-Islam** and A. Q. M. Khaliq “Local RBF method for multi-dimensional partial differential equations”, **Computer Mathematics with Applications**, 72(2), (2017)292-324, [Impact factor 1.89](#), [Scopus Citations \(3\)](#), [Google Scholar Citations \(3\)](#)
14. W. Khan, **Siraj-ul-Islam** and B. ullah “Analysis of meshless weak and strong formulations for boundary value problems”, **Engineering Analysis with Boundary Element**, 80, (2017), 1-17, [Impact factor 1.89](#), [Scopus Citations \(1\)](#), [Google Scholar Citations \(1\)](#)
15. B. Ullah, J. Trevelyan and **Siraj-ul-Islam** “A boundary element and level set based bi-directional evolutionary structural optimization with a volume constraint”, **Engineering Analysis with Boundary Element**, 80, (2017), 152-161, [Impact factor 1.89](#), [Scopus Citations \(1\)](#), [Google Scholar Citations \(1\)](#)
16. I. Aziz, **Siraj-ul-Islam** and M. Asif “Haar wavelet collocation method for three-dimensional elliptic partial differential equations”, **Computer Mathematics with Applications**, 73 (9)(2017), 2023-2034, [Impact factor 1.89](#), [Scopus Citations \(2\)](#), [Google Scholar Citations \(4\)](#)
17. S. Zaman, **Siraj-ul-Islam** “An efficient numerical method for Bessel type of oscillatory integrals”, **Journal of Computational and Applied Mathematics**, 315,(2017), 161-174, [Impact factor 1.328](#), [Scopus Citations \(3\)](#), [Google Scholar Citations \(4\)](#)

18. **Siraj-ul-Islam**, V. Singh “A local meshless method for steady state convection dominated flows”, **International Journal of Computational Methods**, 14 (1), (2017), 1750067 (1-15), [Impact factor1.011](#) [Scopus Citations \(1\)](#), [Google Scholar Citations \(1\)](#)
19. **Siraj-ul-Islam**, V. Singh and S. Rajput “Estimation of dispersion in an open channel from an elevated source using an upwind local meshless method”, **International Journal of Computational Methods**, 14 (1), (2017), 1750009 (1-14), [Impact factor1.112](#), [Scopus Citations \(2\)](#), [Google Scholar Citations \(2\)](#)
20. I. Aziz and **Siraj-ul-Islam** “An efficient modified Haar wavelet collocation method for numerical solution of two-dimensional elliptic PDEs”, **Differential Equations and Dynamical Systems**, 25(2)(2017), 347-360, [Scopus Citations \(1\)](#), [Google Scholar Citations \(1\)](#)

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21. I. Aziz, **Siraj-ul-Islam** and M. Nisar “An efficient numerical algorithm based on Haar wavelet for solving a class of linear and nonlinear nonlocal boundary-value problems”, **Calcolo**, 53 (4), (2016), 621-633, [Impact Factor 1.2](#), [Scopus Citations \(4\)](#), [Google Scholar Citations \(5\)](#)
22. **Siraj-ul-Islam** and I. Ahmad “A comparative analysis of local meshless formulation for multi-asset option models”, **Engineering Analysis with Boundary Element**, 65, (2016), 159-176, [Impact Factor1.39](#), [Scopus Citations \(8\)](#), [Google Scholar Citations \(8\)](#)
23. **Siraj-ul-Islam** and R. Zaman “A computational modeling and simulation of spatial dynamics in biological systems”, **Applied Mathematical Modeling**, 40 (7-8), 2016, 4524-4542, [Impact Factor 2.582](#), [Scopus Citations \(0\)](#), [Google Scholar Citations \(0\)](#)

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24. **Siraj-ul-Islam**, I. Aziz and Z. Ahmad “Meshless methods for multivariate highly oscillatory Fredholm integral equations”, **Engineering Analysis with Boundary Element**, 2, (2015), 100-112, [Impact Factor1.39](#), [Scopus Citations \(4\)](#), [Google Scholar Citations \(4\)](#)
25. **Siraj-ul-Islam**, I. Aziz and M. Ahmad “Numerical solution of two-dimensional elliptic PDEs with nonlocal boundary conditions”, **Computer Mathematics with Applications**, 69, (2015), 180-209, [Impact Factor 1.697](#), [Scopus Citations \(9\)](#), [Google Scholar Citations \(14\)](#)
26. **Siraj-ul-Islam** and U. Naseeb “A comparative study of meshless complex quadrature rules for highly oscillatory integrals”, **Engineering Analysis with Boundary Element**, 52, (2015), 71-80, [Impact Factor1.39](#), [Scopus Citations \(1\)](#), [Google Scholar Citations \(1\)](#)
27. **Siraj-ul-Islam** and S. Zaman “New quadrature rules for highly oscillatory integrals with stationary points”, **Journal of Computational and Applied Mathematics**, 278, (2015) 75-89, [Impact Factor1.266](#), [Scopus Citations\(9\)](#), [Google Scholar Citations \(8\)](#)
28. I. Aziz, **Siraj-ul-Islam**, M. Fayyaz and M. Azram “New algorithms for numerical assessment of nonlinear integro-differential equations of second-order using Haar wavelets”, **Walilak Journal of Science and Technology**, 12 (11), (2015), 995-1007, [Impact Factor 0.325](#), [Scopus Citations \(0\)](#), [Google Scholar Citations \(0\)](#)

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29. I. Aziz, **Siraj-ul-Islam** and F. Khan “A new method based on Haar wavelet for numerical solution of two-dimensional nonlinear integral equations”, **Journal of Computational and Applied Mathematics**, 270 (2014) 70-80, [Impact Factor1.266](#), [Scopus Citations \(12\)](#), [Google Scholar Citations \(32\)](#)
30. **Siraj-ul-Islam** and N. Haider “Numerical solution of compartmental models by meshless and finite difference methods”, **Applied Mathematics and Computation**, 238, (2014) 408-435, [Impact Factor1.551](#), [Scopus Citations \(2\)](#), [Google Scholar Citations \(2\)](#)
31. **Siraj-ul-Islam**, I. Aziz and A. S. Al- Fahid “An improved method based on Haar wavelets for numerical solution of nonlinear integral and integro-differential equations of first and higher orders”, **Journal of Computational and Applied Mathematics**, 260, (2014) 449-469, [Impact Factor1.266](#), [Scopus Citations \(13\)](#), [Google Scholar Citations \(14\)](#)

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32. **Siraj-ul-Islam**, I. Aziz and A. S. Al- Fahid and A. Shah “A numerical assessment of parabolic partial differential equations using Haar and Legendre wavelets”, **Applied Mathematical Modelling**, 37 (2013) 9455-9481, [Impact Factor 2.582](#), [Scopus Citations \(18\)](#), [Google Scholar Citations \(26\)](#)
33. **Siraj-ul-Islam**, A. S. Al-Fahid and S. Zaman “Meshless and wavelets based complex quadrature of highly oscillatory integrals and the integrals with stationary points”, **Engineering Analysis with Boundary Element**, 37 (2013) 1136-1144, [Impact Factor 1.39](#), [Scopus Citations \(9\)](#), [Google Scholar Citations \(7\)](#)
34. **Siraj-ul-Islam**, I. Aziz and M. Fayyaz “A new approach for the numerical solution of integro-differential equations via Haar wavelets”, **International Journal of Computer and Mathematics**, 90 (2013) 1971-1989, [Impact Factor 0.825](#), [Scopus Citations \(16\)](#), [Google Scholar Citations \(32\)](#)
35. I. Aziz and **Siraj-ul-Islam** “New algorithms for numerical solution of nonlinear Fredholm and Volterra integral equations using Haar wavelets”, **Journal of Computational and Applied Math**, 239 (2013), 333-345, [Impact Factor1.266](#), [Scopus Citations \(28\)](#), [Google Scholar Citations \(62\)](#)
36. I. Aziz, **Siraj-ul-Islam** and B. Sarler “Wavelets collocation methods for the numerical solution of elliptic BV problems”, **Applied Mathematical Modeling**, 37 (2013) 676-694, [Impact Factor 2.582](#), [Scopus Citations \(26\)](#), [Google Scholar Citations \(37\)](#)
37. **Siraj-ul-Islam**, B. Sarler and R. Vertnik “Local radial basis function collocation method along with explicit time stepping for hyperbolic partial differential equations”, **Applied Numerical Mathematics**, 67 (2013) 136-151, [Impact Factor 1.221](#), [Scopus Citations \(33\)](#), [Google Scholar Citations \(37\)](#)

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38. G. Yao, **Siraj-ul-Islam** and B. Sarler “Assessment of global and local meshless methods based on collocation with radial basis functions for parabolic partial differential equations in three dimensions”, **Engineering Analysis with Boundary Elements**, 36 16401648 (2012), [Impact Factor 1.39](#), [Scopus Citations \(32\)](#), [Google Scholar Citations \(38\)](#)

39. **Siraj-ul-Islam**, I. Aziz and Wajid Khan "Numerical integration of multi-dimensional highly oscillatory, gentle oscillatory and non-oscillatory integrands based on wavelets and radial basis functions", **Engineering Analysis with Boundary Elements**, 36 (2012) 1684-1695 , [Impact Factor 1.39](#), [Scopus Citations \(14\)](#), [Google Scholar Citations \(12\)](#)
40. **Siraj-ul-Islam**, R. Vertnik, B. Sarler and G. Kosec "Radial basis function collocation method for the numerical solution of the two-dimensional transient nonlinear coupled Burgers' equations", **Applied Mathematical Modeling**, 36 (3) (2012) 1148-1160, [Impact Factor 2.582](#), [Scopus Citations \(35\)](#), [Google Scholar Citations \(34\)](#)

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41. U. Hanoglu, **Siraj-ul-Islam** and B. Sarler "Numerical solution of hot shape rolling of steel", **Materials and Technology**, 45(6) 545 (2011), [Impact Factor 0.58](#), [Scopus Citations \(1\)](#), [Google Scholar Citations \(1\)](#)
42. U. Hanoglu, **Siraj-ul-Islam** and B. Sarler "Thermo-mechanical analysis of hot shape rolling", **Procedia Engineering**, 10 (2011) 3173-3178, [Impact Factor 0](#), [Scopus Citations \(10\)](#), [Google Scholar Citations \(12\)](#)
43. I. Aziz, **Siraj-ul-Islam** and W. Khan "Quadrature rules for numerical integration based on Haar wavelets and hybrid function", **Computer Mathematic with Applications**, 16 (2011) 2770-2781, [Impact Factor 1.697](#), [Scopus Citations \(19\)](#), [Google Scholar Citations \(25\)](#)
44. **Siraj-ul-Islam**, B. Sarler, I. Aziz and F. Haq "Haar wavelet collocation method for the numerical solution of boundary layer fluid flow problems", **International Journal of Thermal Sciences**, 52 (2011), 686-697, [Impact Factor 2.697](#), [Scopus Citations \(26\)](#), [Google Scholar Citations \(29\)](#)
45. F. Haq, **Siraj-ul-Islam** and I. Aziz "A Numerical solution of singularly perturbed two-point BVPs using non-uniform Haar wavelets", **International Journal for Computational Methods in Engineering Science & Mechanics**, 12 (2011) 168-175, [Scopus Citations \(3\)](#), [Google Scholar Citations \(8\)](#)

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46. **Siraj-ul-Islam**, I. Aziz and B. Sarler "The numerical solution of second-order boundary-value problems by collocation with Haar wavelets", **Mathematics and Computer Modeling**, 52 (2010) 1577-1590, [Impact Factor 2.03](#), [Scopus Citations \(57\)](#), [Google Scholar Citations \(91\)](#)
47. **Siraj-ul-Islam**, A. Ali and S. Haq "A Computational Modeling of the Behavior of the Two-dimensional Reaction-diffusion Brusselator system", **Applied Mathematical Modeling**, Vol. 34 (2010) 38963909, [Impact Factor 2.582](#), [Scopus Citations \(30\)](#), [Google Scholar Citations \(33\)](#)
48. F. Haq, **Siraj-ul-Islam** and S. Tirmizi "A Numerical technique for solution of the MRLW equation using quartic B-splines" **Applied Mathematical Modeling**, 34 (2010) 41514160, [Impact Factor 2.582](#), [Scopus Citations \(17\)](#), [Google Scholar Citations \(30\)](#)
49. G. Yao, **Siraj-ul-Islam** and B. Sarler "A Comparative study of global and local meshless methods for diffusion-reaction equation", **Computer Modeling in Engineering &**

**Sciences (CMES)**, 59 (2010) 127-154, [Impact Factor 0.7](#), [Scopus Citations \(22\)](#), [Google Scholar Citations \(22\)](#)

50. S. Haq, A. Hussian and **Siraj-ul-Islam** “Solutions of coupled Burgers fifth-order KdV and Kawahara equations using differential transform method with Pad approximants”, **Seluk Journal of Applied Mathematics** 11 (2010) 43-62, [Scopus Citations \(4\)](#), [Google Scholar Citations \(4\)](#)
51. M. Idrees, S. Islam, and **Siraj-ul-Islam** Application of optimal homotopy asymptotic method to squeezing flow”, **Computers and Mathematics with Applications**, 59 (11) (2010), 3858-3866, [Impact Factor 1.697](#), [Scopus Citations \(36\)](#), [Google Scholar Citations \(54\)](#)
52. **Siraj-ul-Islam**, F. Haq and S. Tirmizi “Collocation method using quartic B-Spline for the numerical solution of the modified equal width wave equation”, **J. Applied. Mathematic & Informatics**, 28 (2010) 611-624, [Scopus Citations \(4\)](#), [Google Scholar Citations \(4\)](#)
53. **Siraj-ul-Islam**, I. Aziz and F. Haq “A Comparative Study of Numerical Integration Based on Haar wavelets and Hybrid Functions”, **Computer Mathematics with Applications**, 59 (2010), 2026-2036, [Impact Factor 1.697](#), [Scopus Citations \(35\)](#), [Google Scholar Citations \(44\)](#)
54. F. Haq, I. Aziz and **Siraj-ul-Islam** “A Haar wavelets based numerical method for eight-order boundary problems”, **International Journal of Mathematics and Computer Sciences**, Vol. 6 (2010) 25-31, [Scopus Citations \(5\)](#), [Google Scholar Citations \(5\)](#)
55. J. Ali, S. Islam and **Siraj-ul-Islam** “The solution of multipoint boundary-value problems by the optimal homotopy asymptotic method”, **Computer Mathematics with Applications**, 59 (2010) 2000-2006, [Impact Factor 1.697](#), [Scopus Citations \(36\)](#), [Google Scholar Citations \(50\)](#)
56. Y. Khan, S. Islam, J. Ali, **Siraj-ul-Islam** and Q. Wu “Numerical solution of the steady two-dimensional radial flow of viscous fluid via differential transform method” **J. Adv. Research Sci. Comp.**, 2 (2010) 13-20, [Scopus Citations \(0\)](#), [Google Scholar Citations \(0\)](#)

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57. I. Aziz, F. Haq and **Siraj-ul-Islam** “Numerical solution of sixth-order singular boundary-value problems using Haar wavelets”, **Journal of Wavelets Theory and its Applications**, 3 (2009), 157-168, [Scopus Citations \(0\)](#), [Google Scholar Citations \(0\)](#)
58. M. Uddin S. Haq and **Siraj-ul-Islam** “Numerical solution of complex modified Korteweg-de Vries equation by meshfree collocation method”, **Computer Mathematics with Applications**”, 58 (2009) 566578, [Impact Factor 1.697](#), [Scopus Citations \(17\)](#), [Google Scholar Citations \(20\)](#)
59. S. Haq, **Siraj-ul-Islam** and M. Uddin “Numerical solution of nonlinear Schrodinger equations by collocation method using radial basis functions”, **Computer Modelling in Engineering and Sciences (CMES)**, 44 (2009) 115-135, [Impact Factor 2.00](#), [Scopus Citations \(9\)](#), [Google Scholar Citations \(9\)](#)



60. S. Haq, **Siraj-ul-Islam** and M. Uddin "A Mesh-free numerical method for solution of the family of Kuramoto-Sivashinsky equations", **Applied Mathematics Computation**, 212 (2009) 458469, [Impact Factor 1.551](#), [Scopus Citations \(25\)](#), [Google Scholar Citations \(43\)](#)
61. A. Ali, **Siraj-ul-Islam** and S. Haq "A computational meshfree technique for the numerical solution of the two-dimensional coupled Burgers' equations", **International Journal for Computational Methods in Engineering Science & Mechanics**, 10 (2009) 406-422, [Scopus Citations \(16\)](#), [Google Scholar Citations \(25\)](#)
62. A. J. Khattak, I. A. Tirmizi and **Siraj-ul-Islam** "Application of meshfree collocation method to a class of nonlinear partial differential equations", **Engineering Analysis with Boundary Elements**, 33 (2009) 661-667, [Impact Factor 1.39](#), [Scopus Citations \(34\)](#), [Google Scholar Citations \(56\)](#)
63. **Siraj-ul-Islam**, S. Haq and M. Uddin "A Meshfree interpolation method for the numerical solution of the coupled nonlinear partial differential equations", **Engineering Analysis with Boundary Element**, 33 (2009) 399-409, [Impact Factor 1.39](#), [Scopus Citations \(32\)](#), [Google Scholar Citations \(39\)](#)
64. **Siraj-ul-Islam**, S. Haq and A. Ali "A meshfree method for the numerical solution of RLW Equations", **Journal of Computational and Applied Mathematics** 223 (2009) 9971012, [Impact Factor 1.266](#), [Scopus Citations \(66\)](#), [Google Scholar Citations \(90\)](#)
65. **Siraj-ul-Islam**, S. Haq and J. Ali "Numerical solution of special twelfth-order boundary value problems using differential transform method", **Communications in Nonlinear Science and Numerical Simulation** 14 (2009), 11321138, [Impact Factor 2.866](#), [Scopus Citations \(25\)](#), [Google Scholar Citations \(43\)](#)
66. S. Haq, Siraj-ul-Islam and M. Uddin "A Mesh-free method for the numerical solution of the KdV-Burgers equation", **Applied Mathematical Modeling**, 33 (2009) 3442-3449, [Impact Factor 2.251](#), [Scopus Citations \(7\)](#), [Google Scholar Citations \(22\)](#)

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67. S. Haq, **Siraj-ul-Islam** and A. Ali "A numerical meshfree technique for the solution of the MEW equation", **Computer Modeling in Engineering & Sciences (CMES)**, 1022 (2008) 1-23, [Impact Factor 0.7](#), [Scopus Citations \(12\)](#), [Google Scholar Citations \(12\)](#)
68. **Siraj-ul-Islam**, A. J. Khattak and I. A. Tirmizi "A meshfree method for numerical solution of KdV equation", **Engineering Analysis with Boundary Element** 32 (2008) 849855, [Impact Factor 1.39](#), [Scopus Citations \(21\)](#), [Google Scholar Citations \(26\)](#)
69. A. J. Khattak, **Siraj-ul-Islam** "A comparative study of numerical solutions of a class of KdV equation", **Applied Mathematics and Computation**, 199, (2008), 425-435, [Impact Factor 1.551](#), [Scopus Citations \(16\)](#), [Google Scholar Citations \(18\)](#)
70. **Siraj-ul-Islam**, I. A. Tirmizi and F. Haq "Non-polynomial splines approach to the solution of sixth-order boundary-value problems", **Applied Mathematics and Computation**, 195 (2008), 270-284, [Impact Factor 1.551](#), [Scopus Citations \(18\)](#), [Google Scholar Citations \(29\)](#)

71. I. A. Tirmizi, F. Haq and **Siraj-ul-Islam** "Non-polynomial spline solution of singularly perturbed boundary-value problems", **Applied Mathematics and Computation**, 196 (2008), 6-16, [Impact Factor 1.551](#), [Scopus Citations \(17\)](#), [Google Scholar Citations \(29\)](#)
72. **Siraj-ul-Islam**, I. A. Tirmizi, F. Haq and S. K. Taseer "A family of numerical methods based on non-polynomial splines for solution of contact problems", **Communications in Nonlinear Science and Numerical Simulation**, 13, (2008) 1448-1460, [Impact Factor 2.866](#), [Scopus Citations \(11\)](#), [Google Scholar Citations \(38\)](#)

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73. **Siraj-ul-Islam**, M. A Khan and S. I. Tirmizi "Quartic non-polynomial spline approach to the solution of a system of third-order boundary-value problems", **Journal of Mathematical Analysis and Applications**, 335 (2007) 1095-1104, [Impact Factor 1.121](#), [Scopus Citations \(6\)](#), [Google Scholar Citations \(12\)](#)
74. **Siraj-ul-Islam**, F. Haq and S. I. Tirmizi "Quartic non-polynomial splines approach to the solution of a system of second-order boundary-value problems", **International Journal of High Performance Computing**, 21 (2007) 42-49, [Impact Factor 1.62](#), [Scopus Citations \(7\)](#), [Google Scholar Citations \(7\)](#)

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75. **Siraj-ul-Islam**, S. I. Tirmizi "A smooth approximation for the solution of special non-linear third-order boundary-value problems based on non-polynomial splines", **International Journal of Computer Mathematics**, 83 (2006), 397-408, [Impact Factor 0.825](#), [Scopus Citations \(3\)](#), [Google Scholar Citations \(4\)](#)
76. **Siraj-ul-Islam**, M. A. Noor, I. A. Tirmizi and M. A. Khan "Quadratic non-polynomial spline approach to the solution second-order boundary-value problems", **Applied Mathematics Computation**, 179 (2006) 153-160, [Impact Factor 1.551](#), [Scopus Citations \(13\)](#), [Google Scholar Citations \(22\)](#)
77. M. A. Khan, **Siraj-ul-Islam**, I. A. Tirmizi, E. H. Twizell and S. Asharaf "A class of methods based on non-polynomial sextic spline functions for the solution of special fifth-order boundary-value problems", **Journal of Mathematical Analysis and Applications** Vol. 321, (2006) 651-660, [Impact Factor 1.62](#), [Scopus Citations \(12\)](#), [Google Scholar Citations \(26\)](#)
78. **Siraj-ul-Islam**, I. A. Tirmizi and S. Asharaf "A class of methods based on non-polynomial spline functions for the solution of special fourth-order boundary-value problems with engineering applications", **Applied Mathematics Computation**, Vol. 174, Issue 2, (2006), 1169-1180, [Impact Factor 1.551](#), [Scopus Citations \(15\)](#), [Google Scholar Citations \(23\)](#)
79. **Siraj-ul-Islam**, I. A. Tirmizi "Nonpolynomial spline approach to the solution of a system of second-order boundary-value problems", **Applied Mathematics Computation**, 173 (2006) 1208-1218, [Impact Factor 1.551](#), [Scopus Citations \(18\)](#), [Google Scholar Citations \(31\)](#)

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80. **Siraj-ul-Islam**, I.A. Tirmizi, M. A. Khan and E. H. Twizell, “A Non-polynomial spline approach to the solution of a system of third-order boundary-value problems using non-polynomial splines”, **Applied Mathematics Computation**, 168 (2005) 152-163, [Impact Factor 1.551](#), [Scopus Citations \(36\)](#), [Google Scholar Citations \(57\)](#)
81. I. A. Tirmizi, E. H. Twizell, Siraj-ul-islam, “A numerical method for third-order non-linear boundary-value problems in engineering”, **International Journal of Computer Mathematics**, 82 (2005), 103-109, [Impact Factor 0.825](#), [Scopus Citations \(11\)](#), [Google Scholar Citations \(12\)](#)

## Refereed Conference Papers

1. M. Rehamn, Z. Uddin **Siraj-ul-Islam** “Meshfree methods of 1D Fredholm integral equation having oscillatory discontinuous kernel” First Two-Day Conference Mathematical Sciences in Engineering Applications April 18 -19, 2018, Department of Basic Sciences UET Peshawar.
2. Yahya, **Siraj-ul-Islam** and S. Zaman “A global weak form meshless method for the numerical solution of elasto-static problems” First Two-Day Conference Mathematical Sciences in Engineering Applications April 18 -19, 2018, Department of Basic Sciences UET Peshawar.
3. W. Khan, **Siraj-ul-Islam** and B. Ullah “A global weak form meshless method for the numerical solution of elasto-static problems” First Two-Day Conference Mathematical Sciences in Engineering Applications April 18 -19, 2018, Department of Basic Sciences UET Peshawar.
4. S. Mazhar, **Siraj-ul-Islam** and Sakhi Zaman “On numerical computation of three dimensional highly oscillatory integrals” First Two-Day Conference Mathematical Sciences in Engineering Applications April 18 -19, 2018, Department of Basic Sciences UET Peshawar.
5. M. Saleem, **Siraj-ul-Islam** and Sakhi Zaman “Numerical evaluation of two-dimensional highly oscillatory integrals” First Two-Day Conference Mathematical Sciences in Engineering Applications April 18 -19, 2018, Department of Basic Sciences UET Peshawar.
6. Iqrar Hussain, Sakhi Zaman and **Siraj-ul-Islam** “On numerical evaluation of the Bessel oscillatory integrals of Bessel Type” First Two-Day Conference Mathematical Sciences in Engineering Applications April 18 -19, 2018, Department of Basic Sciences UET Peshawar.
7. Farooq Khan, Masood Ahmad, and **Siraj-ul-Islam** “A Comparative analysis of meshless and sinc-collocation method for some PDE” First Two-Day Conference Mathematical Sciences in Engineering Applications April 18 -19, 2018, Department of Basic Sciences UET Peshawar.
8. Suliman, S. Zaman and **Siraj-ul-Islam** “Suliman, Sakhi Zaman, Siraj-ul-Islam, Meshless collocation method for one-dimensional highly oscillatory integrals” First Two-Day Conference Mathematical Sciences in Engineering Applications April 18 -19, 2018, Department of Basic Sciences UET Peshawar.
9. Z. uddin and **Siraj-ul-Islam** “A numerical solution technique of 1D Fredholm integral equation having oscillatory kernel with stationary points” CONFERENCE ON APPLIED

MATHEMATICS May 22 -24, 2017, Centre for Advances Studies in Mathematics (CASM), LUMS.

10. M. Sulaiman and **Siraj-ul-Islam** “Numerical solution of one-dimensional highly oscillatory integrals with stationary point” CONFERENCE ON APPLIED MATHEMATICS May 22 -24, 2017, Centre for Advances Studies in Mathematics (CASM), LUMS.
11. Z. Khan and **Siraj-ul-Islam** “Meshless procedure for numerical solution of the elliptic partial differential equations” 3rd Conference on Sustainability in Process Industry SPI-2016, Oct. 19-20, 2016. Deptt. of Chem. Engg. UET Peshawar
12. S. Zaman and **Siraj-ul-Islam** “Numerical Approximation of rapidly oscillatory Bessel integral transforms” 3rd Conference on Sustainability in Process Industry SPI-2016, Oct. 19-20, 2016. Deptt. of Chem. Engg. UET Peshawar
13. M. Ahsan and **Siraj-ul-Islam** “Wavelets based numerical scheme for convection diffusion equation” 3rd Conference on Sustainability in Process Industry SPI-2016, Oct. 19-20, 2016. Deptt. of Chem. Engg. UET Peshawar
14. S. Ismael and **Siraj-ul-Islam** Numerical solution of Inverse Heat Problems” 3rd Conference on Sustainability in Process Industry SPI-2016, Oct. 19-20, 2016. Deptt. of Chem. Engg. UET Peshawar
15. H. Nawaz and **Siraj-ul-Islam** “Numerical evaluation of multi-dimensional Integrals over planer and non-planer” 3rd Conference on Sustainability in Process Industry SPI-2016, Oct. 19-20, 2016. Deptt. of Chem. Engg. UET Peshawar
16. Z. ddin and **Siraj-ul-Islam** “A numerical solution technique of 1D Fredholm integral equation having oscillatory kernel with stationary-points” 3rdConference on Sustainability in Process Industry SPI-2016, Oct.19-20, 2016. Deptt. of Chem. Engg.UET Peshawar
17. Z. uddin and **Siraj-ul-Islam** “RBF solution method of 1D oscillatory Fredholm integral equations having kernel function free of stationary-points” 14th Regional Conference on Mathematical Physics, Nov. 9-15, 2015 Q.A. U. Islamabad
18. H. Naseen, **Siraj-ul-Islam** and F. Jan, “Numerical solutions of reaction diffusion P arising in electronegative plasma” 14th Regional Conference on Mathematical Physics Nov. 9-15, 2015 Q.A. U. Islamabad
19. I. Aziz, **Siraj-ul-Islam** “An improved wavelet collocation method for numerical solution of two dimensional elliptic partial differential equations” Third International Conference on Computational Methods for Thermal Problems ThermaComp 2014 June 02-04, Lake Bled Slovenia.
20. **Siraj-ul-Islam** and S. Jan” Evolution modeling of NPZ and SIR models with and without diffusion” International Conference in Pure and Applied Mathematics (ICRAPAM14) Nov.06-09, 2014 Anatalya Turkey, Istanbule Commerce University.
21. **Siraj-ul-Islam** (Keynote Speaker) and Rahim Zaman “Modelling and Simulation of Biological System” National Conference on Computational Methemathical Sciences Sep. 03-06 2014 University of Malakand.

22. M. Zaheer and **Siraj-ul-Islam** “Numerical Numerical Solution of Highly Oscillatory Fredholm Integral Equation A Mesh free Approach” Second Conference on Sustainibility in Process Industry SPI-2014 22nd of May 2014 University of Engineering and Technology Peshawar Pakistan
23. M. Tariq and **Siraj-ul-Islam** “Numerical Solution Method of Highly Oscillatory 1D Fredholm Integral Equation” Second Conference on Sustainibility in Process Industry SPI-2014 22nd of May 2014 University of Engineering and Technology Peshawar Pakistan
24. M. Ahsan and **Siraj-ul-Islam** “Numerical simulation of pure diffusion model by Haar wavelets” Second Conference on Sustainibility in Process Industry SPI-2014 22nd of May 2014 University of Engineering and Technology Peshawar Pakistan
25. M. Ahmad and **Siraj-ul-Islam** “Solving two-dimensional Poisson equation with nonlocal boundary conditions by meshless method” Second Conference on Sustainibility in Process Industry SPI-2014 22nd of May 2014 University of Engineering and Technology Peshawar Pakistan
26. U. Naseeb and **Siraj-ul-Islam** “Meshless based complex quadrature solution for highly oscillatory integrals” Second Conference on Sustainibility in Process Industry SPI-2014 22nd of May 2014 University of Engineering and Technology Peshawar Pakistan
27. S. Jan and **Siraj-ul-Islam** “Numerical Solution of SIR Model by Meshless and Finite Difference Methods” Second Conference on Sustainibility in Process Industry SPI-2014 22nd of May 2014 University of Engineering and Technology Peshawar Pakistan
28. **Siraj-ul-Islam (Keynote Speaker)** “Radial Basis Functions in Numerical Computing” International Workshop on Computational Methematics with Application 2014Shaheed Benazir Bhutto Women University PeshawarMarch10.
29. N. Haider and **Siraj-ul-Islam** “Numerical Solutions Of SVIRES Model By Meshless And Finite Difference Methods” International Conference on Computations & Social Sciences December 19-20, 2013 AWKUM Mardan Pakistan
30. S. Zaman and **Siraj-ul-Islam** “Numerical solution of highly oscillatory integrals” ICOMS 2013 Air University Islamabad Nov 24-27.
31. M. Majid and **Siraj-ul-Islam** “Approximation of Two-dimensional functions using radial basis functions and wavelets” ICOMS 2013 Air University Islamabad Nov 24-27.
32. M. Taufiq and **Siraj-ul-Islam** “Approximation of one-dimensional functions using radial basis functions and wavelets” ICOMS 2013 Air University Islamabad Nov 24-27.
33. **Siraj-ul-Islam** M. Gul “Numerical solution of one one-dimensional PDEss using radial basis functions ” ICOMS 2013 Air University Islamabad Nov 24-27.
34. **Siraj-ul-Islam (Keynote Speaker)** “Wavelets and Radial basis functions in scientific computing” ICOMS 2013 Air University Islamabad Nov 24-27.
35. G. Yao and **Siraj-ul-Islam**, B. Sarler “Comparison of global and local meshless methods based on collocation with radial basis functions for parabolic and hyperbolic partial differential equations in two and three dimensional space” Fourth International Conference on

- Mathematical Sciences ICM 2012 United Arab Emirates University Al Ain (March 11-14, 2012)
36. Umut Hangole, **Siraj-ul-Islam** and B. Sarler, "Hot Shape Rolling of Steel" International conference on material and technology 2010, Congress Center Portoroz Slovenia (Nov 15-17)
  37. **Siraj-ul-Islam** and B. Sarler, "Non-Oscillatory Local Radial Basis Function Collocation Method for Hyperbolic Differential Equations" International conference on Numerical Analysis NumAn2010, Chania Crete Greece (Sep 14-18)
  38. B. Sarler, **Siraj-ul-Islam**, U. Hangole, "Solution of Hot Shape Rolling by the Local Radial Basis Function Collocation Method" International conference on boundary element method Beteq 2010 Berlin Germany (July 11-14)
  39. **Siraj-ul-Islam**, S. Haq and M. Uddin, "A meshfree collocation method for numerical solution of the modified Burgers equation" International conference on Experimental Engineering and Sciences ICCES MM08 Suzhou, China (13-17 October 2008)
  40. **Siraj-ul-Islam** and I.A. Tirmizi, "A meshfree method for the numerical solution of KdV equation" , 22nd BIENNIAL Conference on Numerical Analysis University of Dundee, Scotland UK (26th -29th June, 2007).
  41. Azzam-ul-Asar, **Siraj-ul-Islam** and M. Sadeeq, "An Adaptive Perturbation Scheme in Finite-Difference Gradient Approximation" , 6th International IEEE Conference, Islamabad Pakistan (7th -9th August 2007).
  42. **Siraj-ul-Islam**, I.A. Tirmizi, "A non-polynomial spline based family of methods for the solution of one dimensional diffusion equation" , SANUM 2007 University of Stellenbosch South Africa (2nd -4th April 2007).
  43. **Siraj-ul-Islam**, I.A. Tirmizi and S. Ashraf "Quadratic non-polynomial spline approach to the solution of a system of second-order boundary-value problems" , International Conference on Computational Science and Engineering, Informatics Institute Istanbul Technical University, Istanbul, Turkey (27th -30th June 2005).
  44. **Siraj-ul-Islam**, I.A. Tirmizi and S. Ashraf, "Non-polynomial spline approach to the solution of a system of second-order boundary-value problems" ,4th International Bhurban Conference on Applied Sciences and Technologies(IBCASP), Bhurban, Pakistan (16th -18th June 2005).
  45. **Siraj-ul-Islam** and I.A. Tirmizi, "A smooth approximation for the solution of special non-linear third-order boundary-value problems based on quartic non polynomial splines" , School of Mathematical Sciences GC University Lahore, Pakistan (4th - 6th March 2005).
  46. H. Nouri, S.N. Kharin , S. I. Tirmizi and **Siraj-ul-Islam**, "Modeling of ARC duration and erosion in electrical contacts of circuit breakers" 39th International IEEE Universities Power Engineering Conference, University of Bristol England UPEC 2004 - Conference Proceedings ( 2004).

## International Conferences and Invited Lectures:

1. **Keynote Speaker “Exploring the Relevance of Mathematic Knowledge to the Real World Problems”**, National conference on the role of mathematics in solving real world problems November 29-30, 2017, Department of Mathematics KUST.
2. **Keynote Speaker “National Conference on Emerging Trends in Computing, Statistics and Mathematical Sciences-NCETCSM -2017”**, November 14, 2017, Department of Mathematics Shaheed benazir buhtto women university Peshawar.
3. **Contributed Talk “Haar Wavelets Based Algorithms of Direct & Inverse Problems”**, Biennial Numerical Analysis Conference June 26-30, 2017, Department of Mathematics & Statistics, University of Strathclyde, Glasgow, UK.
4. **Keynote Lecture “Meshless Weak & Strong Formulation for Engineering Applications with its Pros & Cons”**, Conference on Applied Mathematics May 22-24, 2017, Centre for Advance Studies in Mathematics & Department of Mathematics LUMS.
5. **Keynote Lecture “Modelling & Simulation of Wound Healing Process and Natural Calamities”**, Two days workshop April 18-19, 2017, Department of Mathematics KUST Kohat.
6. **Keynote Lecture “Mathematical Modeling and Simulation of Wound Healing Processes”** A three days International Conferences on Mathematics and Physics, Feb, 14-16, 2017, Dept. of Mathematics, Air University Islamabad
7. **Keynote Lecture “Some Critical issues in Numerical Integration” A one day Workshop on Mathematical Sciences**, December, 13, 2016, Dept. of Mathematics, University of Malakand
8. **Keynote Lecture “Mathematical Modelling and Simulation” Third Conference on Sustainability in Process Industry SPI-2016**, Oct. 19-20, 2016. Dept. of Chem. Engg. UET Peshawar
9. **Invited Lecture “Mathematical Modelling and Numerical Simulation” Department of Mathematics University of Peshawar**, 01 Oct. 2016.
10. **Invited Lecture “Mathematics in a Real Life Perspective” Indraprastha College for Women, New Delhi**, Sep.30, 2015.
11. **Invited Lecture “Application of Wavelets and Radial Basis Functions in Scientific Computing”** Department of Mathematics Aligarh Muslim University Aligarh India, September 19, 2015.
12. **Invited speaker, Workshop on Numerical Solution of Nonlinear PDEs via Meshless Methods** arranged by Department of Mathematics, Izmir Technical University Turkey June 26, 2015.
13. **Invited Lecture “Application of Wavelets in Scientific Computing** Jamia Millia Islamia New Delhi March 09, 2015.

14. **Invited Lecture** “Variants of Meshless Methods for Numerical PDES” at **The International Workshop on Finite Difference Methods For Differentials Equations**” arranged by Department of Mathematics, South Asian University, New Delhi, March 13-17, 2015.
15. **Invited Lecture** “Variants of Wavelets for Numerical Solution of Ordinary and Partial Differential Equations” at **The International Workshop on Finite Difference Methods For Differentials Equations** arranged by Department of Mathematics, South Asian University, New Delhi, March 13-17, 2015.
16. **Contributed Talk** “Modeling and Simulation of Biological Processes ”at **International Conference in Pure and Applied Mathematics (ICRAPAM14)** Nov.06-09, 2014 Anatalya Turkey, Istanbul Commerce University Turkey.
17. **Keynote Speaker**, “**National Conference on Computational Mathematical Sciences** Sep. 03-06 2014 University of Malakand
18. **Second Conference on Sustainability in Process Industry SPI-2014** 22nd of May 2014 University of Engineering and Technology Peshawar Pakistan
19. **Keynote Speaker**, “**First International Workshop on Computational Mathematics with Application 2014**”, Shaheed Benazir Bhutto Women University Peshawar March 10
20. **Keynote Speaker**, **First International Conference on Modeling and Simulation ICOMS 2013**, Islamabad Pakistan Air University Islamabad (Nov 24-27, 2013)
21. **Contributed Talk**, **Fourth International Conference on Mathematical Sciences ICM 2012**, United Arab Emirates University Al Ain, (March 11-14, 2012)
22. **Contributed Talk**, **International Conference on Experimental Engineering and Sciences ICCES MM08**, Suzhou, China, 13-17 October, 2008.
23. **Contributed Talk**, **International Conference on Computational and Mathematical Methods in Science and Engineering**, Dundee Scotland, UK, (20th-23th Sept 2007).
24. **Contributed Talk**, **International Conference on Computational and Mathematical Methods in Science and Engineering**, University of Stellenbosch, South Africa (20th-23th Sept 2006).
25. **Contributed Talk**, **International Conference on Computational Science and Engineering**, Informatics Institute, Istanbul Technical University, Istanbul, Turkey, (27th-30th June 2005).
26. **Contributed Talk**, **4th International Bhurban Conference on Applied Sciences and Technologies (IBCAST)**, Bhurban Pakistan (16th-18th June 2005). 28.
27. **Contributed Talk**, **International Conference on Models and Methods in Fluid Dynamics**, COMSATS Islamabad Pakistan, (4th 6th July 2005).
28. **Contributed Talk**, **Second World Conference on the 21st Century Mathematics**, School of Mathematical Sciences, GC University Lahore, Pakistan, (4th-6th March 2005).



29. Mathematical Modeling, Simulation, and related issues, COMSATS Headquarters, G-5, **Islamabad Pakistan**. (29th Oct - 2nd Nov 2002).
30. Two days workshop on Mathematics, Holiday Inn, **Islamabad Pakistan** (29th - 30th July, 2002).
31. International Conference on Models and Methods in Fluid Dynamics, **COMSATS Campus Abbottabad, Pakistan** (21st - 27th June 2004).

## Editorial Activities

- Member of Editorial Board of **International Journal of Computer Mathematics (IJCM)** published by Taylor and Francis
- Member of Editorial Board of **International Journal of International Journal of Novel Ideas: Mathematics** published by Science Tech Publishers

## Peer-review Activities

1. Engineering Analysis with Boundary Element (Elsevier)
2. Journal of Computational Physics (Elsevier)
3. Journal of Computational and Applied Mathematics (Elsevier)
4. International journal of Computer mathematics with Applications (Elsevier)
5. International Journal of Computer Mathematics (Taylor & Francis)
6. Applied Mathematics and Computation (Elsevier)
7. Journal of Non-linear Dynamics (Springer)
8. Applied Mathematics Letters (Elsevier)
9. Journal of Mathematical Analysis and its Application (Elsevier)
10. Mathematics and Computer Modeling (Elsevier)
11. Journal of Applied Mathematics and Computing (Springer)
12. Computer Physics Communications (Elsevier)
13. Journal of Applied Sciences and Engineering (Hindawi)
14. Journal of the Franklin Institute (Elsevier)
15. Communications in Nonlinear Science and Numerical Simulations (Elsevier)

## Conference Organization and Committee Services

- **Chief Organizer**, First 2-Day National Conference on Mathematical Sciences and Engineering Application, April 18-19, 2018, University of Engineering and Technology Peshawar
- **Chief Organizer** One Day Symposium on Numerical Computing and Its Applications, UET Peshawar, Feb 28th, 2017
- **Chief Organizer** International Workshop on Computational Mathematics with Application, March 10 2014, Shaheed Benazir Bhutto Women University Peshawar
- **Member of Board of Studies**, KUST
- **Member Departmental Review Committee**, KUST
- **Member Quality Assurance Committee** SBBWU Peshawar
- **Member of Faculty Promotion Committee**, Al-Qaseem University Kingdom of Saudi Arabia
- **Member of External Ph. D Evaluation Committee**, Department of Mathematics, UPM, Malaysia
- **Member of Faculty Evaluation Committee**, AWKUM
- **Member of External Ph. D Evaluation Committee**, Department of Mathematics, Izmir Tech. University, Turkey
- **Member of External Ph. D Evaluation Committee**, Delhi University New Delhi India
- **Member of External Ph. D Evaluation Committee**, COMSATS Islamabad
- **Member of Graduate Committee**, Shaheed Banizer Bhutto Women University, Peshawar
- **Member of External Assessment Committee**, Department of Mathematics, Shaheed Banizer Bhutto Women University, Peshawar
- **(Session Chair)**, ICOMS 2013 Air University Islamabad
- **(Session Chair)**, ICM 2012 University Al Ain, United Arab Emirates
- **(Member Organizing Committee)**, 7th Annual ICCES Symposium on “Meshless & Other Novel Computational Methods”, held in Zonguldak, Turkey, during 6-9 September, 2011
- **(Member Organizing Committee)**, Joint International Workshop on Trefftz Method VI and Method of Fundamental Solutions II, Department of Applied Mathematics National Yat-Sen University, Coahsiung, Taiwan March 15-18, 2011
- **(Member Organizing Committee)**, ICCES Special Symposium on Meshless & Other Novel Computational Methods held in Busan Korea 17-21 September 2010

- **(Member Organizing Committee)**, ICCES Special Symposium on Meshless & Other Novel Bistra Castle, Ljubljana, Slovenia Computational Methods Aug 31- Sep 2, 2009,
- **(Member Organizing Committee)**, International Conference on Information Technology KUST 2007 Kohat University of Science and Technology
- **Member of Board of Advance Studies and Research (BOSAR)** NWFP UETNWFP University of Engg. & Tech. Peshawar
- **Member of Board of Studies**, Shaheed Benazir Bhutto Woman University, Peshawar
- **Member of Scrutiny Committee**, Shaheed Benazir Bhutto Woman University, Peshawar
- **Member of Self Assessment Committee**, Shaheed Benazir Bhutto Woman University, Peshawar
- **Member of Board of Studies**, Malakand University, Chakdara
- **Member of Board of Studies**, Islamia College University, Peshawar
- **Member of Scrutiny Committee**, Islamia College University, Peshawar
- **Member of Board of Studies**, Department of Mathematics, AWKUM
- **Convener** of Departmental PREC, BSI
- **Member of Scrutiny Committee**, BSI, UET Peshawar
- **Member of Board of Faculty**, University of Peshawar
- **Member of Board of Studies**, Department of Mathematics, University of Peshawar
- **Member of Ph.D Thesis Evaluation Committee**, Department of Computer Science, PIEAS, Islamabad
- **Member of Ph.D Thesis Evaluation Committee**, Department of Mathematics, University of Peshawar
- **Member of Ph.D Thesis Evaluation Committee**, Department of Mathematics, University of Punjab

## Research Students Supervision

### MS Level Supervision (Completed)

1. Hamid Khan      A simple and efficient algorithm for matrix inversion and solution of system of linear equations, KUST, 2007
2. Javid Ali        Numerical solution of fifth, sixth and twelfth order boundaries value problems using differential transform method , KUST, 2008
3. Fazal Haq        Non-polynomial splines solution of second-order boundary-value problems, GIKI, Topi, 2006

4. Izaz Ali                      Numerical solution fo parabolic partial differential equation using radial basis functions (RBFs) and meshless technique, KUST, 2008
5. Marjan Uddin                Numerical solutions of Partial Differential Equations by collocation method using radial basis function, GIKI, Topi, 2008
6. Iltaf Hussian                A computational messfree technique for the numerical solution of two dimensional Burgers equation, FAST, Peshawar Campus, 2009
7. Rehan Ali                    Meshfree methods for the numerical solution of reaction diffusion Partial Differential Equations, FAST, Peshawar Campus, 2008
8. Arshad Hussian              Application of modified differential transform methods to Partial Differential Equation, GIKI, Topi, 2009
9. Tania Arshad                Solution of second-order differential equation with Neumann boundary condition using B-Spline and semi-orthogonal wavelet, KUST, 2009
10. M. Shoab                    Classes of ordinary differential equation which can be exactly solved by a given multi-step method, FAST, Peshawar Campus, 2010
11. Wajid Khan                The study of numerical integration based on Haar Wavelets and Hybrid functions, UET Peshawar, 2011
12. Ajmal Shah                The study of numerical solution of Parabolic PDEs based on Haar wavelets, UET Peshawar, 2012
13. M. Fayyaz                A new numerical technique for solution of linear and nonlinear integro-differential equation based on Haar wavelets, UET Peshawar, 2012
14. Sakhi Zaman                The Study of numerical integration of highly oscillatory kernel functions based on radial basis and Hybid functions, UET Peshawar, 2013
15. Nadeem Haider              The study of numerical solution of a system of diffusion reaction PDEs based on meshless methods, UET Peshawar, 2013
16. Miss H. Maheen            Quintic B-Spline collocation method for the numerical solution of Burgers Huxley equation, SBBWU, 2013
17. Miss Mehnaz                Meshless Method of lines for the numerical solution of combined KdV-mKdV equation using radial basis function, SBBWU, 2013
18. Miss Nousheen              Meshless method of lines coupled with radial basis function for numerical solution of generalized Burgers-Huxley equation, SBBWU, 2013
19. Miss Sakina                Meshless method of lines for the numerical solution of higher order generalized Korteweg De Vries equation, SBBWU, 2013
20. M. Taufiq                    The Use of Radial basis functions and wavelets in one-dimensional interpolation, UET Peshawar, 2014

21. M. Majid                      The use of radial basis functions, Haar and Legendre wavelets for two-dimensional interpolation, UET Peshawar, 2014
22. Saeed ullah Jan              The study of numerical solution of biological models with diffusion term based on meshless methods, UET Peshawar, 2014
23. M. Ahsan                        Numerical simulation of pure diffusion and reaction diffusion models by Haar wavelets, UET Peshawar, 2014
24. M. Masood                      Solving two-dimensional poisson equations with nonlocal boundary conditions by the Haar wavelets and meshfree method, UET Peshawar, 2014
25. Uzma Naseeb                  Comparative study of oscillatory and non-oscillatory RBF for highly oscillatory integrals, UET Peshawar, 2015
26. Zaheeruddin                  Meshless methods for highly oscillatory integral equations, UET Peshawar, 2015
27. Rahim Zaman                  Modeling & simulation of spatial dynamics in biological systems, UET Peshawar, 2015
28. Hajjia Naseem                  Numerical solution of a system of different reaction PDEs arising in EN Plasma, UET Peshawar, 2016
29. K. Hina Janjua                  A comparative analysis of the numerical solutions of two-dimensional cubic nonlinear Schrodinger equation via meshless and other numerical methods, SBBWU, 2015
30. Fozia Munawar                  A numerical solution of two dimensional traveling model by meshless and other classical methods, SBBWU, 2016
31. Asmara Kenwal                  Modeling and simulation of transient heat diffusion in a rubberized concrete slab, UET Peshawar, 2016
32. Divyansh Verma                  Finite difference method for two sided space fractional partial differential equations, 2016 (South Asian University New Delhi India)
33. Ajay Gupta                      Finite difference method for two sided space fractional partial differential equations, 2016 (South Asian University New Delhi India)
34. Himanshu Sharma                  A numerical technique for the solution of MRLW equation using Meshfree Method, 2016(South Asian University New Delhi India)
35. M. Shafique                      Quadrature rules for numerical evaluation of singular integrals, UET Peshawar, 2017
36. Samreen Ismail                  Numerical solution of inverse heat problems using meshless methods, UET Peshawar, 2016
37. Suleman                         Numerical solution of one-dimensional highly oscillatory integrals with stationary point, UET Peshawar, 2017

38. Zahid Khan                      Different strategies for selecting shape parameters in meshless numerical solution of elliptic boundary value problems, UET Peshawar, 2017
39. Abbas Khan                      Element Free Galerkin method with numerical integration based on multi-resolution technique for boundary value problems, UET Peshawar, 2017
40. Habib Nawaz                      Efficient numerical methods for multivariate integrals over regular domain, UET Peshawar, 2017
41. Laique Zada                      Numerical solution of elliptic boundary value problems via Chebyshev wavelets, UOP, 2014
42. Mehwish Saleem                      Numerical Solution of Highly Oscillatory Integrals, UET Peshawar, 2018
43. Shomaila Mazhar                      Efficient Cubature Rules for Evaluation of Three Dimensional Highly Oscillatory Integrals,UET Peshawar, 2018

### **MS level Supervision (In progress)**

1. Iqrar Hussain                      Numerical Solution of Highly Oscillatory Integrals of Special Type
2. Muhammad Farooq                      Numerical Solution of PDEs via Local and Global Meshless Methods
3. Khwaja Shamsuddin                      Numerical Solution of Inverse Problems

### **PhD level Supervision(Completed)**

1. Fazal Haq                      Numerical Solution of Boundary-Value Problems Using Non-polynomial Spline Functions, GIKI, Topi, (2009)
2. Arshad Ali                      Meshfree Methods for Highly Nonlinear Coupled PDEs , GIKI, Topi, (2009)
3. Imran Aziz                      Wavelets and Radial Basis Functions in Scientific Computing, Peshawar, (2014)
4. Sakhi Zaman                      Numerical Evaluation of Highly Oscillatory Integrals, UET, Peshawar, (2017)
5. Imtiaz Ahmad                      Local Meshless Collocation Method for Numerical Solution of Partial Differential Equations, UET, Peshawar, (2017)
6. Muhammad Asif                      Haar Wavelet Approach for Numerical Solution of Three-dimensional Partial Dierential Equations, UOP, Peshawar, (2018)
7. Nadeem. Haider                      Haar Haar Wavelet and Meshless Techniques for Elliptic and Parabolic Models With Interfaces, UOP, Peshawar, (2018)

## PhD level (Supervision in Progress)

1. Zaheer-uddin      Meshless Methods for Oscillatory Integral Equations
2. Masood Ahmad      Meshless Methods for Interface Problems
3. Wajid Khan      Modelling and Simulation of Topology Optimization  
Models by Meshless Procedures in Strong and Weak Forms
4. Muhammad Hijaz      Modelling and Simulation of Inverse Problems
5. Muhammad Ahsan      Modelling and Simulation of Inverse Problems using Multi-resolution  
Analysis

## Courses Taught

### Graduate level (1999-2016)

- Numerical Solution of Partial Differential Equations
- Advance Numerical Methods For PDEs
- Graph Theory and its Applications to Mining Engineering
- Computational Fluid Dynamics
- Advance Numerical Methods for Chemical Engineers
- Advance Numerical Methods of Ordinary Differential Equations
- Numerical Linear Algebra
- Advance Numerical Methods for Structures in Civil Engineering
- Meshless and Spectral Methods
- Theory and Application of Splines and Wavelets
- Probability and Measure Theory

### Undergraduate level (1997-2016)

- Numerical Analysis
- Calculus I
- Calculus II
- Differential Equations
- Linear Algebra
- Numerical Linear Algebra
- Complex Variables
- Discrete Mathematics
- Mathematical Statistics

## Technical Skills

Programming in Matlab, C++, Mathematica and Word processor Latex

## References

1. Prof. Dr. Bozidar Sarler      Head of the Laboratory for Multiphase Processes,  
University of Nova Gorica, Vipavska 13, SI-5000 Nova Gorica,  
Slovenia.  
Email: bozidar.sarler@p-ng.s
2. Prof. C S Chen                Department of Mathematics, University of Southern  
Mississippi, Hattiesburg, MS 39406-5045, USA  
Email: cschen.math@gmail.com
3. Prof. Wen Chen                Vice Dean, College of Civil Engineering, Hohai University,  
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