

## List of Publications of Dr. Ghazala Akram

### List of Publications

#### Published

- 1). *End Conditions for Interpolatory Septic Spline*  
Ghazala Akram and Shahid S. Siddiqi,  
International Journal of Computer Mathematics, 82 (12): 1525 - 1540, **2005**
- 2). *Solutions of Fifth Order Boundary-Value Problems Using Non-Polynomial Spline Technique*  
Shahid S. Siddiqi and Ghazala Akram,  
Applied Mathematics and Computation, 175 (2): 1574-1581, **2006**
- 3). *Solutions of Sixth Order Boundary-Value Problems Using Non-Polynomial Spline Technique*  
Ghazala Akram and Shahid S. Siddiqi,  
Applied Mathematics and Computation, 181: 708-720, **2006**
- 4). *End Conditions for Interpolatory Sextic Spline*  
Shahid S. Siddiqi and Ghazala Akram  
International Journal of Computer Mathematics, 83 (5-6): 473-485, **2006**
- 5). *Nonic Spline Solutions of Eighth Order Boundary Value Problems*  
Ghazala Akram and Shahid S. Siddiqi,  
Applied Mathematics and Computation, 182 (1): 829-845, **2006**
- 6). *Solutions of Twelfth Order Boundary Value Problems using Thirteen Degree Spline*  
Shahid S. Siddiqi and Ghazala Akram,  
Applied Mathematics and Computation, 182 (2): 1443-1453, **2006**
- 7). *Sextic Spline Solutions of Fifth Order Boundary Value Problems*  
Shahid S. Siddiqi and Ghazala Akram  
Applied Mathematics Letters, (20): 591-597, **2007**
- 8). *Solution of the System of Fourth Order Boundary Value Problems using Non-Polynomial Spline Technique*  
Shahid S. Siddiqi and Ghazala Akram,  
Applied Mathematics and Computation, (185): 128-135, **2007**
- 9). *Solution of Tenth-Order Boundary Value Problems using Eleventh Degree Spline*  
Shahid S. Siddiqi and Ghazala Akram,  
Applied Mathematics and Computation, (185): 115-127, **2007**

- 10). ***Solution of the system of fourth order boundary value problems using cubic spline***  
Shahid S. Siddiqi and Ghazala Akram  
Applied Mathematics and Computation, (187): 1219-1227, **2007**
- 11). ***Quintic Spline Solutions of Linear Sixth-Order Boundary Value Problems***  
Shahid S. Siddiqi, Ghazala Akram and Saima Nazeer  
Applied Mathematics and Computation, (189): 887-892, **2007**
- 12). ***Nonpolynomial Sextic Spline Method for the Solution along with Convergence of Linear Special Case Fifth-Order Two-Point Boundary Value Problems***  
Shahid S. Siddiqi, Ghazala Akram and Salman Amin Malik  
Applied Mathematics and Computation, (190): 532-541, **2007**
- 13). ***Solution of 10th-Order Boundary Value Problems using Non-Polynomial spline Technique***  
Shahid S. Siddiqi and Ghazala Akram  
Applied Mathematics and Computation, (190): 641-651, **2007**
- 14). ***Numerical Solution of a System of Fourth Order Boundary Value Problems using Cubic Non-Polynomial Spline Method***  
Shahid S. Siddiqi and Ghazala Akram  
Applied Mathematics and Computation, (190): 652-661, **2007**
- 15). ***Solution of Eighth Order Boundary Value Problems using Non-Polynomial spline Technique***  
Shahid S. Siddiqi and Ghazala Akram  
International Journal of Computer Mathematics, 84 (3): 347-368, **2007**
- 16). ***Quintic Spline Solutions of Fourth Order Boundary-Value Problems***  
Shahid S. Siddiqi and Ghazala Akram  
International Journal of Numerical Analysis and Modeling, Canada, 5 (1): 101-111, **2008**
- 17). ***Quartic Spline Solution of Linear Fifth Order Boundary Value Problems***  
Shahid S. Siddiqi, Ghazala Akram and Arfa Elahi  
Applied Mathematics and Computation, (196): 214-220, **2008**
- 18). ***Septic Spline Solutions of Sixth Order Boundary-Value Problems***  
Shahid S. Siddiqi and Ghazala Akram,  
Journal of Computational and Applied Mathematics, (215): 288-301, **2008**
- 19). ***Solution of Twelfth Order Boundary Value Problems using Non Polynomial spline Technique***  
Shahid S. Siddiqi and Ghazala Akram  
Applied Mathematics and Computation, 199, 2 (1): 559-571, **2008**

- 20). ***Solution of Eighth Order Boundary Value Problems using Variational Iteration Technique***  
Shahid S. Siddiqi, Ghazala Akram and Sabahat Zaheer  
European Journal of Scientific Research, 30 (3): 361-379, **2009**
- 21). ***Solution of Tenth Order Boundary Value Problems using Variational Iteration Technique***  
Shahid S. Siddiqi, Ghazala Akram and Sabahat Zaheer  
European Journal of Scientific Research, 30 (3): 326-347, **2009**
- 22). ***Solution of Eleventh Order Boundary Value Problems using Variational Iteration Technique***  
Shahid S. Siddiqi, Ghazala Akram and Imran Zulfiqar Cheema  
European Journal of Scientific Research, 30 (4): 505-525, **2009**
- 23). ***Variational Iteration Method for the Solution of Twelfth Order Boundary Value Problems***  
Shahid S. Siddiqi, Ghazala Akram and Imran Zulfiqar Cheema  
European Journal of Scientific Research, 33 (1): 96-114, **2009**
- 24). ***End Conditions for Interpolatory Nonic Splines***  
Shahid S. Siddiqi and Ghazala Akram  
South East Asian Bulletin of Mathematics, (34): 469-488, **2010**
- 25). ***Solution of First Order Singularly Perturbed Initial Value Problem in Reproducing Kernel Hilbert Space***  
Ghazala Akram and Hamood Ur Rehman  
European Journal of Scientific Research, 53 (4): 516-523, **2011**
- 26). ***Solutions of Fifth Order Singularly Perturbed Boundary Value Problems Using Non- Polynomial Spline Technique***  
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- 27). ***Solution of Fifth Order Boundary Value Problems in Reproducing Kernel Space***  
Ghazala Akram and Hamood Ur Rehman,  
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- 28). ***Quartic Spline Solution of a Third Order Singularly Perturbed Boundary Value Problem***  
Ghazala Akram  
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- 29). ***Solution of Seventh Order Boundary Value Problem by Differential Transformation Method***  
Shahid S. Siddiqi, Ghazala Akram and Muzammal Iftikhar  
World Applied Sciences Journal, 16 (11): 1521-1526, **2012**
- 30). ***Solution of a Fourth Order Singularly Perturbed Boundary Value Problem Using Quintic Spline***  
Ghazala Akram and Nadia Amin  
International Mathematical Forum, 7 (44): 2179 - 2190, **2012**
- 31). ***Solution of Seventh Order Boundary Value Problems by Variational Iteration Technique***  
Shahid S. Siddiqi, Ghazala Akram and Muzammil Iftikhar,  
Applied Mathematical Science, 6 (94): 4663-4672, **2012**
- 32). ***Solution of Fourth Order Obstacle Problems Using Quintic B-Splines***  
Shahid S. Siddiqi, Ghazala Akram and Kalsoom Arshad  
Applied Mathematical Sciences, 6 (94): 4651-4662, **2012**
- 33). ***Solution of Delay Differential Equations using Nonic Spline Collocation Methods***  
Shahid S. Siddiqi, Ghazala Akram and Huzaima Baig  
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- 34). ***Reproducing Kernel Method for Fourth Order Singularly Perturbed Boundary Value Problem***  
Ghazala Akram and Hamood ur Rehman  
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- 35). ***Solution of the System of Fourth Order Boundary Value Problem using Reproducing kernel Space***  
Ghazala Akram and Hamood Ur Rehman, Journal of Applied Mathematics and Informatics, 31 (1-2): 55-69, **2013**
- 36). ***Numerical solution of eighth order boundary value problems in reproducing Kernel space***  
Ghazala Akram and Hamood Ur Rehman  
Numerical Algorithms, (62): 527-540, **2013**
- 37). ***A Numerical Solution of a Convection-Dominated Equation Arising in Biology***  
**Ghazala Akram and Hamood ur Rehman**  
Research Journal of Applied Sciences, Engineering and Technology, 5(2): 507-509, **2013**

- 38). ***Solution of Linear Third Order Multi-point Boundary Value Problem Using RKM***  
Ghazala Akram, Mohammad Tehseen, Shahid S. Siddiqi and Hamood Ur Rehman  
British Journal of Mathematics and Computer Science, 3(2): 180-194, **2013**
- 39). ***Solution of Fourth Order Singularly Perturbed Boundary Value Problem Using Septic Spline***  
Ghazala Akram and Afia Naheed  
Middle-East Journal of Scientific Research, 15(2): 302-311, **2013**
- 40). ***A Numerical Solution to the Nonlinear Fifth Order Boundary Value Problems***  
Ghazala Akram and Hamood ur Rehman  
International Journal of Applied Science and Engineering, 11 (4): 415-422, **2013**
- 41). ***Solutions of a Class of Sixth Order Boundary Value Problems using the Reproducing Kernel Space***  
Ghazala Akram and Hamood Ur Rehman  
Abstract and Applied Analysis, Volume **2013**, Article ID 560590, 8 pages
- 42). ***Homotopy Perturbation Method with Reproducing Kernel Method for Third Order Nonlinear Boundary Value Problems***  
Ghazala Akram and Hamood ur Rehman  
Journal of Basic and Applied Scientific Research, 4 (1): 60-67, **2014**
- 43). ***Numerical Solution of Seventh Order Boundary Value Problems Using the Reproducing Kernel Space***  
Ghazala Akram and Hamood ur Rehman  
Research Journal of Applied Sciences, Engineering and Technology, 7(4): 892-896, **2014**
- 44). ***Solution of the System of Fifth Order Boundary Value Problem using Quartic Spline***  
Ghazala Akram and Shahid S. Siddiqi  
Research Journal of Applied Sciences, Engineering and Technology, 7(22): 4696-4701, **2014**
- 45). ***Quartic Non-Polynomial Spline Solution of a Third Order Singularly Perturbed Boundary Value Problem***  
Ghazala Akram and Imran Talib  
Research Journal of Applied Sciences, Engineering and Technology, 7(23): 4859-4863, **2014**
- 46). ***Solution of Seventh Order Boundary Value Problems using Adomian Decomposition Method***  
Shahid S. Siddiqi, Muzammil Iftikhar and Ghazala Akram  
Journal of Advanced Physics, 3(1), 92-96, **2014**

- 47). ***Hierarchical Cascade Model Leading to 7-th Order Initial Value Problem***  
 Ghazala Akram and Christian Beck  
 Applied Numerical Mathematics, 91: 89-97, **2015**
- 48). ***Solution of the System of Fifth Order Boundary Value Problem using Sextic Spline***  
 Ghazala Akram  
 Journal of the Egyptian Mathematical Society, 23(2): 406-409, **2015**
- 49). ***Solution of Fourth order Three-point Boundary Value Problem using ADM and RKM***  
 Ghazala Akram and Irfan Ahmad Aslam  
 Journal of the Association of Arab Universities for Basic and Applied Sciences, 20:61-67, **2016**
- 50). ***An Exponential Spline Technique for Solving Fractional Boundary Value Problem***  
 Ghazala Akram and Hira Tariq  
 Calcolo, 53(4), 545–558, **2016**
- 51). ***Numerical solution for solving special eighth-order linear boundary value Problems using Legendre Galerkin method***  
 Zaffer Elahi, Ghazala Akram and Shahid S. Siddiqi  
 Mathematical Sciences, 10(4), 201–209, **2016**
- 52). ***Solitary wave solutions of the Schäfer–Wayne short-pulse equation using two reliable methods***  
 Akram, G. & Batool, F.  
 Optical and Quantum Electron (2017) 49: 14. doi: 10.1007/s11082-016-0856-8.

### **In Press**

- 1). ***Cubic Polynomial Spline Scheme for Fractional Boundary Value Problems with Left and Right Fractional Operators***  
 Ghazala Akram and Hira Tariq  
 International Journal of Applied and Computational Mathematics  
 DOI 10.1007/s40819-016-0145-z
- 2). ***Quintic spline collocation method for fractional boundary value problems***  
 Ghazala Akram and Hira Tariq  
 Journal of the Association of Arab Universities for Basic and Applied Sciences  
 DOI.org/10.1016/j.jaubas.2016.03.003
- 3). ***Residual power series method for solving time-space-fractional Benney-Lin equation arising in falling film problems***  
 Journal of Applied Mathematics and Computing, (), 1-26  
<http://link.springer.com/article/10.1007/s12190-016-1056-1>

- 4). ***Quintic Spline Technique for Time Fractional Fourth-Order Partial Differential Equation***  
Hira Tariq and Ghazala Akram  
Numerical Methods for Partial Differential Equations  
DOI: 10.1002/num.22088
  
- 5). ***Nonpolynomial spline technique for the solution of ninth order boundary Value problem***  
Ghazala Akram and Zara Nadeem  
Turkish Journal of Mathematics  
DOI: 10.3906/mat-1507-112.
  
- 6). ***Application of Homotopy Analysis Method to the Solution of Ninth Order Boundary Value Problem in AFTI-F16 Fighters***  
Ghazala Akram and Maasoomah Sadaf  
Journal of the Association of Arab Universities for Basic and Applied Sciences  
DOI.org/10.1016/j.jaubas.2016.08.002.