Curriculum Vitae

Dr. K. Phaneendra
Associate Professor, Dept. of Mathematics
University College of Science, Osmania University
Hyderabad-500007
Mobile number: 98497 12466 E Mail: - kollojuphaneendra@osmania.ac.in

---

Academic Qualifications:

Degree	Specialization / Discipline	College/University	Year of passing	Percentage	Remarks
S.S.C.		J.B.S. Govt. High School, Nalgonda	1990	84	School Topper
Intermediate	M.P.C.	Govt. Junior College for Boys, Nalgonda	1992	79	I division
B.Sc.	M.P.C.	Govt. N.G. College, Nalgonda, Osmania University, Hyderabad	1995	76	I division
B.Ed.	Mathematics	D.V.M. College of Education, Nalgonda, Osmania University, Hyderabad	1996	61	I division
M.Sc.	Applied Mathematics	R.E.C., Warangal	1998	75.3	1st rank in 1996-98 Batch
Ph.D.	Numerical Analysis	National Institute of Technology, Warangal	October 2011		
CSIR-UGC JRF/NET	Mathematical Sciences	HRDG, New Delhi	2002, 2003 and 2007		

Research:

Title of the Ph.D. Thesis: Computational Methods for a Class of Singularly Perturbed Two Point Boundary Value Problems

Supervisor : Prof. Y. N. Reddy, Dept. of Mathematics, N.I.T., Warangal

Areas of specialization : Numerical Analysis

Current Area of research: Numerical Solution to Singular Perturbation Problems, Singularly Perturbed Differential Difference Equations, Multi parameter problems and Singular – Singular Perturbation Problems, Singular Perturbation Parabolic time dependent problems, Singular Perturbation Problems with nonlocal boundary conditions, Fractional differential equations etc.

Work experience: -

- **Working as** Associate Professor in Mathematics, Dept. of Mathematics, University College of Science, Osmania University, Hyderabad from 21st Feb 2022 to till date.
- Worked as Assistant Professor in Mathematics, Dept. of Mathematics, University College of Engineering, Osmania University, Hyderabad from 18th June, 2018 to 21st Feb 2022.
- Worked as Assistant Professor in Mathematics, Dept. of Mathematics, University College of Science, Saifabad, Osmania University, Hyderabad from 07th Sept, 2013 to June 18, 2018.
- Worked as Assistant Professor in Mathematics in Kakatiya Institute of Technology and Science, Warangal from Dec, 2000 to 6th Sept 2013.
- Worked as Lecturer in Mathematics at Alluri Institute of Management Sciences, Warangal from Jan, 1999 to Nov, 2000.

Ph.D. Guidance:

- G. Mahesh : Numerical treatment of two parameter singular perturbation boundary value problems (**Awarded, 2018**)
- G. Sangeetha : Computational Techniques for a Class of Singularly Perturbed Two - Point Boundary Value Problems (**Awarded, 2021**)
- M. Lalu (JRF) : Numerical Methods for a Class of Singular Perturbation Problems (**Awarded, 2021**)
- E. Siva Prasad : Numerical treatment for a class of two point singularly perturbed boundary value problems (**Awarded, 2023**)
- V. Ganesh Kumar : Numerical Methods for a Class of Convection Diffusion Problems (**Awarded, 2023**)

- Mamatha Kodipaka : Computational methods for a class of singularly perturbed two-point boundary value problems (**Awarded, 2023**)
- Amala Pandi : Computational Techniques for a Class of Multiparameter Singular Perturbation Problems (**Awarded, 2023**)
- Suresh Devanapalli : Design and cryptanalysis of remote user authentication protocols using smartcards (**Awarded, 2023**)
- Ramavath Omkar (RGNF) : Numerical methods for differential – difference equations with layer behaviour (**Submitted thesis)**
- E. Srinivas : Numerical study of a class of singularly perturbed differential
- equations (JRF-On going …..)
- Vijay : (JRF-On going …..)

Research Publications:

1. P. Chakravarthy, K. Phaneendra, Y. N. ReddyA Seventh order numerical method for singular perturbation problems, *Applied Mathematics and Computation*, 186, 860-871, 2007, **ELSEVIER**. **Science Citation Indexed, Impact factor: 4.091.** https://doi.org/10.1016/j.amc.2006.08.022
2. P. Pramod Chakravarthy, K. Phaneendra and Y. N. Reddy. A Fifth order numerical method for singular perturbation problems, *Journal of Applied Mathematics and Informatics*, Vol. 26, 2008, No. 3-4, pp. 689-706. **SCOPUS Indexed**
3. P. Pramod Chakravarthy, K. Phaneendra and Y. N. Reddy. Fifth order numerical method singularly perturbed differential-difference equations with negative shift, *Journal of Applied Mathematics and Informatics*, Vol. 27, No. 1-2, pp. 441-452, 2009. **SCOPUS Indexed**
4. K. Phaneendra, P. Chakravarthy, Y. N. Reddy A fitted Numerov method for singular perturbation problems exhibiting two layers, *Applied Mathematics & Information Sciences, An International Journal*, 4(3), 341-352, 2010, Dixie W Publishing, Corporation, U. S. A. **SCOPUS Indexed**
5. K. Phaneendra, P. Chakravarthy, Y. N. Reddy, Method of reduction for singularly perturbed boundary value problems with mixed boundary conditions, *Proceedings of International Conference on Challenges and applications of Mathematics in Science and Technology*, National Institute of Technology, Rourkela, MACMILLAN Advanced Research Series, ISBN 10: 0230-32875-X, Jan 11-13, 2010, pp. 775-784.
6. Kolloju Phaneendra, Y.N. Reddy, GBSL Soujanya. Seventh order numerical method singularly perturbed differential-difference equations with negative shift, *Nonlinear Analysis: Modelling and Control*, Vol. 16, No. 2, 206-219, 2011. **Science Citation Index Expanded, Impact factor: 3.257**
7. Kolloju Phaneendra, YN Reddy, GBSL Soujanya, Non-Iterative integration method for singular perturbation problems exhibiting internal and twin boundary layers,

International Journal of Applied Mathematics and Computation, Vol. 3(1), pp. 9-20, 2011. **Peer reviewed**

8. K. Phaneendra, Y. N. Reddy, GBSL. Soujanya, Fourth order finite difference method singularly perturbed two-point singular boundary value problems, *International J. of Math. Sci. & Engg. Appls*., Vol. 5, No. II , pp. 441-452, 2011. **Peer reviewed**
9. GBSL Soujanya, Y.N. Reddy, Kolloju Phaneendra: A Fitted Galerkin Method for Singularly Perturbed Differential Equations with Layer Behaviour, *International Journal of Applied Science and Engineering*, 9 (3), 195-206, 2011. **SCOPUS Indexed**
10. K. Phaneendra, Y. N. Reddy, GBSL. Soujanya, Numerical Solution of Singular Perturbation Problems via Deviating Argument and Exponential Fitting, *American Journal of Computational and Applied Mathematics*, 2(2), 49-54, 2012. **SCOPUS Indexed**
11. K. Phaneendra, Y. N. Reddy, and GBSL. Soujanya Asymptotic – Numerical method for Third-Order Singular Perturbation Problems, *International Journal of Applied Science and Engineering*, 10(3), 241-248, 2012. **SCOPUS Indexed**
12. K. Phaneendra, Y. N. Reddy, E. Siva Prasad, Numerical treatment of singularly perturbed singular two point boundary value problems using non polynomial spline in optimal control problems, *International Review of Automatic Control*, Vol. 5, No. 5, 646-651,2012. **SCOPUS Indexed**
13. Phaneendra. K, Reddy, Y.N., Soujanya, GBSL, Numerical Integration Method for Singularly Perturbed Delay Differential Equations, *International Journal of Applied Science and Engineering*, 10(3), 249-261, 2012. **SCOPUS Indexed**
14. K. Phaneendra, Y.N. Reddy, GBSL. Soujanya Fitted Sixth-Order Tridiagonal Finite Difference Method For Singular Perturbation Problems, International eJournal of Mathematics and Engineering 147 (2012) 1338 – 1351**. Peer reviewed**
15. K. Phaneendra, Y.N. Reddy and Hari Shankar Prasad, Fitted Van Veldhuizen Finite Difference Method For Singular Perturbation Problems With Layer Behaviour, International eJournal of Mathematics and Engineering 153 (2012) 1399 - 1410**. Peer reviewed**
16. Madhulatha, Reddy, Y.N., Phaneendra. K*, Computational Method for Singularly Perturbed Two-Point Boundary Value Problems with One Boundary Layer, *European Journal of Scientific Research*, Vol. 98, No. 2, pp. 227-233, 2013. **SCOPUS Indexed**
17. K. Phaneendra, GBSL. Soujanya, Y. N. Reddy, Numerical integration method for singular perturbation delay differential equations with layer or oscillatory behaviour, *Applied and Computational Mathematics*, Vol.12, No. 2, pp.211-221, 2013. **Science Citation Index Expanded. Impact factor: 3.051**
18. K. Madhu Latha, , K. Phaneendra* and Y. N. Reddy, Numerical Integration with Exponential Fitting Factor for Singularly Perturbed Two Point Boundary Value Problems, *British Journal of Mathematics & Computer Science*, Vol. 3, No. 3, pp. 397-414**,** 2013. **Peer reviewed**
19. GBSL, Soujanya, K. Phaneendra* and Y. N. Reddy, An Exponentially Fitted Non Symmetric Finite Difference Method for Singular Perturbation Problems, *WSEAS Transactions on Mathematics*, Vol. 12, Issue 7, pp. 767-776, 2013. **SCOPUS Indexed**

20. K. Phaneendra, K. Madhulatha, Y.N. Reddy, Integration Technique for Singularly Perturbed Delay Differential Equations, *International Journal of Scientific and Industrial Research*, Vol. 4, Issue 10,pp. 68-72, 2013. **Peer reviewed**
21. GBSL, Soujanya, K. Phaneendra* and Y. N. Reddy, Numerical Solution of Singular Perturbation Problems Exhibiting Dual Layers, *International Journal of Advances in Engineering Sciences and Applied Mathematics*-**Springer**, DOI 10.1007/s12572-013-0095-1, 2013, Volume 5, Issue 4, pp 250–257. **SCOPUS Indexed**
22. D. Kumara Swamy, A. Benerji Babu, Y.N. Reddy, K. Phaneendra*, Integration Technique for Singularly Perturbed Delay Differential Equations, International Journal of Scientific & Engineering Research, Volume 4, Issue 10, 2013, 68-72.
23. K. Phaneendra, GBSL. Soujanya, Y. N. Reddy, Numerical Solution of Second Order Singularly Perturbed Differential– Difference Equations with Negative Shift, *International Journal of Nonlinear Science,* Vol.18, No.3, pp.200-209, 2014. **SCOPUS Indexed**
24. K. Phaneendra, K. Madhulatha, Y.N. Reddy, Special Finite Difference Method for Singular Perturbation Problems with One-End Boundary Layer, *Mathematical and Computational Applications-An International Journal*- Vol. 19, No. 3, pp. 208-217, 2014. **SCOPUS Indexed**
25. D. Kumara Swamy, K. Phaneendra*, A. Benerji Babu, Y.N. Reddy, Computational method for Singularly Perturbed Delay Differential Equations with Twin Layers or Oscillatory Behaviour, *Ain Shams Engineering Journal*, Vol. 6, pp. 391-398, 2015. **Science Citation Index Expanded. Impact factor: 3.180**
26. K. Phaneendra, S. Rakmaiah, M. Chenna Krishna Reddy, Numerical treatment of singular perturbation problems exhibiting dual layers, *Ain Shams Engineering Journal*, Vol. 6, pp. 1121-1127, 2015. **Science Citation Index Expanded. Impact factor: 3.180**
27. GBSL. Soujanya, K. Phaneendra*, Numerical integration method for singular-singularly perturbed two-point boundary value problems, *Procedia Engineering*, Vol. 127, pp. 545-552, 2015. **SCOPUS Indexed**
28. K. Phaneendra, S. Rakmaiah, M. Chenna Krishna Reddy, Computational method for singularly perturbed boundary value problems with dual boundary layer, *Procedia Engineering*, Vol. 127, pp. 370-376, 2015. **SCOPUS Indexed**
29. D. Kumara Swamy, K. Phaneendra*, Y. N. Reddy, Solution of Singularly Perturbed Differential-Difference equations with mixed shifts using Galerkin method with exponential fitting, *Chinese Journal of Mathematics*, Vol. 2016, Article ID 1935853, 10 pages, http://dx.doi.org/10.1155/2016/1935853 **SCOPUS Indexed**
30. K. Phaneendra, G. Mahesh, Uniformly Convergent Second Order Completely Fitted Finite Difference Scheme for Two-Parameters Singularly Perturbed Two Point Boundary Value Problem, Journal de Afrikana, 2016, 3(4); 233-251.
31. K. Phaneendra, E. Siva Prasad, Non standard fitted finite difference method for singular perturbation problems using cubic spline, *Global and Stochastic Analysis*, Vol. 4 (1), 1-10, 2017. **SCOPUS Indexed**
32. K. Phaneendra, G. Mahesh, Solution of two parameter singular perturbation problem using higher order compact numerical method, *Global and Stochastic Analysis*, Vol. 4 (2), 225-236, 2017. **SCOPUS Indexed**

33. K. Phaneendra, Variable Mesh Non Polynomial Spline Method for Singular Perturbation Problems Exhibiting Twin Boundary Layers, WSEAS TRANSACTIONS on COMPUTER RESEARCH, Volume 5, 2017, 124-129.
34. Diddi Kumara Swamy, Kolloju Phaneendra∗, Y.N. Reddy, Accurate numerical method for singularly perturbed differential-difference equations with mixed shifts, *Khayyam J. Math*. 4, No. 2, 110-122, 2018. **SCOPUS Indexed**
35. Kolloju Phaneendra, Emineni Siva Prasad and Diddi Kumara Swamy, Fourth-order method for singularly perturbed singular boundary value problems using non-polynomial spline, *Maejo Int. J. Sci. Technol*. 2018, 12(01), 1-10. **Science Citation Index Expanded. Impact factor: 0.636**
36. Lakshmi Sirisha, K. Phaneendra*, Y.N. Reddy, Mixed finite difference method for singularly perturbed differential difference equations with mixed shifts via domain decomposition, *Ain Shams Engineering Journal* (2018) 9(4), 647–654. **ELSEVIER**, **Science Citation Index Expanded. Impact factor: 3.180**
37. Alavalapati Goutham Reddy, Devanapalli Suresh, Kolloju Phaneendra, Ji Sun Shin, Vanga Odelu, Provably secure pseudo-identity based device authentication for smart cities environment, Sustainable Cities and Society, Vol. 41, 2018, Pages 878-885, **ELSEVIER**, **Science Citation Index Expanded. Impact factor: 11.7**
38. K. Phaneendra, M. Lalu, Gaussian Quadrature for Two-Point Singularly Perturbed Boundary Value Problems with Exponential Fitting, *Communications in Mathematics and Applications*, Vol. 10, No. 3, pp. 447–467, 2019. **Web of Science Indexed**
39. K. Phaneendra, G. Mahesh, Fourth order computational method for two parameters singularly perturbed boundary value problem using non-polynomial cubic spline, *Int. J. Computing Science and Mathematics*, Vol. 10, No. 3, 261 – 275, 2019. **SCOPUS indexed**
40. K Phaneendra, Siva Prasad Emineni, Variable mesh non polynomial spline method for singular perturbation problems exhibiting twin layers, *J. Phys.: Conf. Ser.* **1344** 012011, 2019. **SCOPUS indexed**
41. K. Phaneendra, M. Lalu, Numerical solution of singularly perturbed delay differential equations using Gaussian quadrature method, *J. Phys.: Conf. Ser.* **1344** 012013, 2019. **SCOPUS indexed**
42. S. Rakmaiah, K. Phaneendra*, Numerical Solution of Singularly Perturbed Boundary Value Problems with Twin Boundary Layers using Exponential Fitted Scheme, *Communications in Mathematics and Applications*, 10(4), 797–807, 2019 . **Web of Science Indexed**
43. G. Sangeetha, G. Mahesh, K. Phaneendra*, Numerical Approach for Differential-Difference Equations with Layer Behaviour, *Communications in Mathematics and Applications*, Vol. 10, No. 4, pp. 851–863, 2019 . **Web of Science Indexed**
44. M. Adilaxmi, D. Bhargavi, K. Phaneendra*, Numerical Solution of Singularly Perturbed Differential-Difference Equations using Multiple Fitting Factors, *Communications in Mathematics and Applications*, Vol. 10, No. 4, pp. 681–691, 2019. **Web of Science Indexed**
45. M. Adilaxmi, D. Bhargavi, K. Phaneendra*, Numerical Integration of Singularly Perturbed Differential-Difference Problem Using Non-Polynomial Interpolating

Function, *Journal of Informatics and Mathematical Sciences*, Vol. 11, No. 2, pp. 195–208, 2019. **Peer reviewed journal**.

46. K. Phaneendra, V. Ganesh, A variable mesh finite difference scheme for two-parameters singularly perturbed boundary value problems, *Journal of Mathematical Control Science and Applications* Vol. 6 No. 1, 1-12, 2020. **SCOPUS indexed**
47. V. Ganesh, K. Phaneendra*, Computational technique for two parameter singularly perturbed parabolic convection-diffusion problem, *J. Math. Comput. Sci*. 10 (2020), No. 4, 1251-1261. **SCOPUS indexed**
48. G. Sangeetha, P. Thirupathi, K. Phaneendra*, Non-standard fitted operator scheme for singularly perturbed boundary value problem, *J. Math. Comput. Sci*. 10 (2020), No. 4, 793-804 . **SCOPUS indexed**
49. K. Mamatha, K. Phaneendra*, Solution of convection-diffusion problems using fourth order adaptive cubic spline method, *J. Math. Comput. Sci*. 10 (2020), No. 4, 817-832. **SCOPUS indexed**
50. Ch. Lakshmi Sirisha, K. Phaneendra*, Y.N. Reddy, Computational results of differential difference equations with mixed shifts having layer structure using cubic non-polynomial spline, *J. Math. Comput. Sci*. 10 (2020), No. 4, 1309-1326. **SCOPUS indexed**
51. G. Sangeetha, G. Mahesh, K. Phaneendra*, Fitted difference approach for differential equations with delay and advanced parameters, *J. Math. Comput. Sci*. 10 (2020), No. 3, 479-496. **SCOPUS indexed**
52. M. Lalu, K. Phaneendra*, E. Siva Prasad, Numerical approach for differential-difference equations having layer behaviour with small or large delay using non-polynomial spline, *Soft Computing*, 25(21), 13709–13722, 2021. https://doi.org/10.1007/s00500-021-06032-5, **SPRINGER, Science Citation Index Expanded. Impact factor: 4.1**
53. K. Phaneendra, E. Siva Prasad, Solution of Singularly Perturbed Boundary Value Problems with Singularity Using Variable Mesh Finite Difference Method, *Journal of Dynamical Systems and Geometric Theories*, 19:1, 113-124, 2021. **Taylor & Francis, Web of Science indexed.**
54. M. Lalu, K. Phaneendra*, Quadrature method with exponential fitting for delay differential equations having Layer behaviour, *Journal of Mathematics and Computer Science*, 25 (2022), 191-208. **Scopus & Web of Science indexed.**
55. M. Lalu, K. Phaneendra*, A Numerical Approach for Singularly Perturbed Nonlinear Delay Differential Equations Using a Trigonometric Spline, *Computational and Mathematical Methods* Volume 2022, Article ID 8338661, 10 pages https://doi.org/10.1155/2022/8338661. **Wiley publications**, **Scopus and Web of Science indexed.**
56. E. Srinivas, M. Lalu, K. Phaneendra*, A Numerical Approach for Singular Perturbation Problems with an Interior Layer using an Adaptive Spline, DOI:10.22067/IJNAO.2021.73813.1076 *Iranian Journal of Numerical Analysis and Optimization*, Vol. 12, No. 2, pp 355–370, 2022, **Scopus indexed.**

57. Kodipaka Mamatha, Emineni Siva Prasad, Kolloju Phaneendra*, Difference Scheme for Differential-Difference Problems with Small Shifts arising in Computational Model of Neuronal Variability, *International Journal of Applied Mechanics and Engineering*, 2022, vol.27, No.1, pp.91-106**, Scopus indexed**

58. E. Siva Prasad, R. Omkar, and Kolloju Phaneendra*, Fitted Parameter Exponential Spline Method for Singularly Perturbed Delay Differential Equations with a Large Delay, Computational and Mathematical Methods Volume 2022, Article ID 9291834, 11 pages https://doi.org/10.1155/2022/9291834, 2022, **Wiley publications**, **Scopus and Web of Science indexed.**

59. Amala Pandi, Lalu Mudavath, K Phaneendra*, Computational Approach to solve a Layered Behaviour Differential Equation with Large Delay using Quadrature Scheme, *Int. J. of Applied Mechanics and Engineering,* 2022, vol.27, No.4, pp.117-137 DOI: 10.2478/ijame-2022-0054. **Scopus indexed.**

60. Ramavath Omkar, K Phaneendra*, Numerical Simulation of Singularly Perturbed Delay Differential Equations With Large Delay Using an Exponential Spline, Int. J. Anal. Appl. (2022), 20:63. https://doi.org/10.28924/2291-8639-20-2022-63. **Scopus indexed.**

61. Soujanya GBSL, Kumar Ragula, K Phaneendra*, A difference scheme using a parametric spline for differential difference equation with twin layers, Int. J. Nonlinear Anal. Appl. Vol.14 (1), **2469-2479**, 2023, http://dx.doi.org/10.22075/ijnaa.2022.28237.3841. **WOS Indexed**
62. Srinivas Erla and Phaneendra Kolloju, Computational scheme for a differential-difference equation with a large delay in convection term, Int. J. of Applied Mechanics and Engineering, 2023, vol.28, No.2, pp.34-48, DOI: 10.59441/ijame/168327. **SCOPUS Indexed**
63. P. Amala, M. Lalu, K. Phaneendra, Numerical Simulation for a Differential Difference Equation With an Interior Layer, Communications in Mathematics and Applications,14(1),189–202, 2023,10.26713/cma.v14i1.2047. **WOS Indexed**
64. R. Omkar, M. Lalu, K. Phaneendra, Numerical solution of differential – difference equations having an interior layer using nonstandard finite differences, Bulletin of the Karaganda University, Mathematics series. № 2(110)/2023, 104-11, DOI 10.31489/2023M2/104-115. **SCOPUS Indexed**

65. Suresh Devanapalli1 and Kolloju Phaneendra, Cryptanalysis On "Practical And Provably Secure Three-Factor Authentication Protocol Based On Extended Chaotic-Maps For Mobile Lightweight Devices", International Journal of Advances in Soft Computing and Intelligent Systems (IJASCIS) 2023, Vol 02, Issue 01, 14-26, Science Transactions © 2023

66. Suresh Devanapalli1 and Kolloju Phaneendra, Cryptanalysis on "An Improved RFID-based Authentication Protocol for Rail Transit", Communications in Computer and Information Science, Vol. 1737, 2023, 194–203. **SCOPUS Indexed**

67. Suresh Devanapalli1 and Kolloju Phaneendra, Security analysis of Three-Factor Authentication Protocol Based on Extended Chaotic-Maps, **IEEE *Xplore,*** *OPJU*

International Technology Conference on Emerging Technologies for Sustainable Development (OTCON), Raigarh, Chhattisgarh, India, 2023, pp. 1-6, doi: 10.1109/OTCON56053.2023.10113994.

68. Satyanarayana KAMBAMPATI, Siva Prasad EMINENI, Chenna Krishna REDDY M. and Phaneendra KOLLOJU*, Fourth order computational spline method for two-parameter singularly perturbed boundary value problem, Int. J. of Applied Mechanics and Engineering, 2023, vol.28, No.4, pp.79-93. DOI: 10.59441/ijame/176516. **SCOPUS Indexed.**
69. E. Srinivas, K. Phaneendra, A Novel Numerical Scheme for a Class of Singularly Perturbed Differential-Difference Equations with a Fixed Large Delay, Bulletin of the Karaganda University. Mathematics series, No. 1(113), 2024, pp. 194–207. https://doi.org/10.31489/2024M1/194-207. **SCOPUS Indexed, WOS Indexed.**
70. K. Satyanarayana, E. Siva Prasad, M. Chenna Krishna Reddy, K. Phaneendra∗, Computational approach for a two-parameter convection- diffusion problem using an adaptive spline, accepted for publication in Journal of the Indian Math. Soc. ISSN (Print): 0019–5839.

Book Published:

Computational Methods for a Class of singular Perturbation Problems: Numerical Treatment for a Class of singular Perturbation Problems, Published by LAP LAMBERT Academic Publishing 2012-09-05, 2012. ISBN 10: 3659218596 ISBN 13: 9783659218590

Seminars Organized

1. Organizer for Technical Sessions Management Committee at International Conference on Vibration Problems, Feb 18-20, 2015, Kakatiya University, Warangal.
2. Conducted Mini Symposium entitled “Singular Perturbation Two Point Boundary Value Problems” in the two-day National Conference on “Applied Nonlinear Dynamics”, 21-22 Dec 2016, N.I.T., Warangal
3. Organizing Secretary for a two-Day National Conference on “Recent Advances of Mathematical Techniques in Science & Engineering”, 30-31 July 2017, Osmania University, Hyderabad.
4. Organizing committee member for Five-Day Online International FDP on “Role of Applied Sciences in Industry and Engineering, August 2-6, 2020, Department of Mathematics, University College of Engineering, Osmania University, Hyderabad.
5. Joint Organizing Secretary for International Conference on Mathematics & its Relevance to Science and Engineering (ICMRSE-2022) March 12-14, 2022, Osmania University, Hyderabad.

Papers presented in Conferences:

International Conference (within India):

1. Presented a paper on "A Seventh order Numerical Method for Singular Perturbation Problems", at ISTAM-2005 held on 14-17, December 2005, IIT, Kharagpur.
2. Presented a paper on "Numerical solution of Singularly Perturbed Singular Boundary Value Problems via Non-Polynomial Spline", at ISTAM-2012 held on 17-20, December 2012, D.I.A.T, Pune.
3. Presented a paper on "Fitted Fourth Order Finite Difference Method for Singularly Perturbed Boundary Value Problems", at ICOVP – 2015, Kakatiya University, Warangal.
4. Presented a paper on "Fitted Finite Difference Method for Singularly Perturbed Two-Point Boundary Value Problems using Polynomial Cubic Spline", at 2nd International Conference on Advances in Engineering & Technology (ICAET-15), 25-26, Feb 2015, Anjuman College of Engineering & Technology, Nagpur,
5. Presented a paper on "Computational Method for Singularly Perturbed boundary value problems with dual boundary layer", Internal Conference on Computational Heat and Mass Transfer, 30th Nov-2nd Dec 2015, N.I.T., Warangal
6. Presented a paper on "Non-standard finite difference method for two parameter singular perturbation problems", at CONIAPS XX, 20th International Conference of International Academy of Physical Sciences on Recent Advances in Physical Sciences and Future Challenges", July 14-16, 2017, Osmania University, Hyderabad.
7. Presented a paper on "A First order uniform convergent numerical method for singular perturbation problems with an interior layer, International Conference on Computational Fluid Flow and Heat Transfer (CFFHT-2018), March 28-29, 2018, Osmania University, Hyderabad.
8. Presented a paper on "Numerical treatment of singularly perturbed convection-diffusion two parameter problems", Numerical Heat Transfer & Fluid Flow (NHTFF-2018), Jan 19-21, 2018.
9. Presented a paper on Variable Mesh Non-Polynomial Spline Method for Singular Perturbation Problems Exhibiting Twin Layers", International Conference on Recent Inventions and Innovations in Mathematical Sciences, 28 Feb-1st March 2019, Andhra University, Visakhapatnam.
10. Presented a paper on "Computational approach of two parameter convection diffusion problems using an adaptive cubic spline" at XXX Congress of APTSMS and International Conference on Mathematics & its Relevance to Science and Engineering, (ICMRSE-2022) March 12-14, 2022, Osmania University, Hyderabad.
11. Presented a paper on "Numerical study of layer behaviour differential-difference equations having large delay using a trigonometric spline" at International Conference on Mathematics, Statistics & Applications-22 (ICMSA-22) June 10-11, 2022, Vignan University, Guntur.
12. Presented a paper on "Numerical approach for differential difference equation with an interior layer using nonstandard mixed finite differences" at International Conference

on Mathematical Sciences and Emerging Applications in Technology, (ICMSEAT-2022) Sept 09-11, 2022, Gitam (Deemed to be University), Hyderabad

13. Presented a paper on "Computational approach for a layered behaviour differential equation with a large delay" at XXXI Congress of APTSMS and International Conference on Relevancy of Ancient Mathematics to the Current Digital Trends, (ICRAMCDT-2022) December 09-11, 2022, National Sanskrit University, Tirupati.

National Conference

1. Presented a paper on "A fitted second order finite difference method for singular perturbation problems exhibiting twin layers", at 5th National conference on Applicable mathematics in wave mechanics and vibrations, Dept. of Mathematics, Kakatiya University, Warangal on March 13-15, 2010.
2. Presented a paper on "Solution of Two Point Boundary Value Problem by Galerkin Method by Cubic B Splines", at 13th Congress of Andhra Pradesh Society for Mathematical Sciences, held on 10-12, December 2004 at Dept. of Mathematics, N.I.T., Warangal.
3. Presented a paper on "A Fitted Non-Symmetric method for Singular Perturbation Problems" at conference on New Vistas in Computational Fluid Mechanics in Engineering, N.I.T., Warangal, 27-29, 2012.
4. Presented a paper on "Computational method for singularly perturbed Singular Boundary Value Problems using Non-Polynomial Spline", at 21st Congress of Andhra Pradesh Society for Mathematical Sciences, held on 7-9, December 2012 at Dept. of Mathematics, SVU University, Tirupati.
5. Presented a paper on "Variable Mesh Non-Polynomial Spline Method for Singular Perturbation Problems Exhibiting Twin Layers" at APSMS XXII Congress, Anurag Group of Institutions Hyderabad, 13-15, December 2013.
6. Presented a paper on "Solution of singularly perturbed delay differential equations using Gaussian quadrature", at National conference on Mathematical Sciences and Applications, Department of Mathematics, University College of Science, Osmania University, July 30-31, 2018.
7. Presented a paper on "Multiparameter fitting method for singularly perturbed convection-diffusion problems", Telangana State Science Congress, National Institute of Technology, Warangal, Dec 22-24, 2018.
7. Presented a paper on Numerical treatment of singularly perturbed differential difference equations using parametric spline, Recent Advances and Applications in Mathematics-NCRAAM-2019, Dept. of Mathematics, Osmania University, Feb 26-27, 2019.
8. Delivered a lecture(s) on the topic "Linear Programming" in the Three week Industrial Training Programme for the Faculty of Mathematics of Government Polytechnic Colleges in Telangana State Organized by the UGC-HRDC (Academic Staff College), Osmania University, Hyderabad from 01.06.2022 to 21.06.2022

Workshops / STTP and Conferences attended:

1. A national seminar on "Current trends in Applied Mathematics", at R.E.C., Warangal 6-7, December 1996.
2. A national seminar on "Recent Advances in Applied Mathematics and Computational Methods", at R.E.C., Warangal held on 17-18, August 2001.
3. 12th Congress of Andhra Pradesh Society for Mathematical Sciences, held on 12-14, December 2003 at Dept. of Mathematics, Osmania University, Hyderabad.
4. 15th Congress of Andhra Pradesh Society for Mathematical Sciences, held on 11-13, August 2006 at Dept. of Mathematics, Kakatiya University, Warangal.
5. A National Work Shop on "Bio-Mechanics", on 18-19, March 2005 at KITS, Singapur, Huzurabad.
6. A National Workshop on "Mathematical Modelling and Simulation", on 29-30, July 2005 at Vaagdevi College of Engineering, Warangal.
7. Two weeks AICTE sponsored staff development programme on "Induction Training Program for Young Teachers", on 7-18, June 2004, at KITS, Warangal.
8. A Software Training programme on "Mathematika", on 12th August 2005, at National Institute of Technology, Warangal.
9. One week AICTE sponsored staff development programme on "Object Oriented Modelling", December 11-17, 2006, at KITS, Warangal.
10. A National workshop on "Numerical Methods in Engineering", on 4-5, April 2008, at National Institute of Technology, Warangal.
11. A Short-Term Training Programme on "Scientific Computing and Modelling", on 5-10, May 2008, at National Institute of Technology, Warangal.
12. A Short-Term Training Programme on "Advanced Computational Techniques", on 27-31, January 2009, at National Institute of Technology, Warangal.
13. U.G.C. sponsored programme on "Training Programme on MATLAB, GRAPHICS and LaTeX", on 21-22, March 2009 at Kakatiya University, Warangal.
14. A seminar on "Challenges in current mathematics research" at National Institute of Technology, Warangal on 22nd October, 2010.
15. A Short-Term Training Programme on "Mathematical Modelling & Numerical Techniques", on 17-21, January 2011, at National Institute of Technology, Warangal.
16. A Short-Term Training Programme on "Training program on LaTeX & Simulations", 26-27, March 2013, at Kakatiya University, Warangal.
17. A National conference on "Applications of Mathematics in Engineering and Industry", 26-28, March 2013, at Kakatiya University, Warangal.
18. Attended NPDE-TCA Advanced level workshop on "Stabilization Methods for Singularly Perturbed Differential Equations" at IISc Bangalore during 03-05, October 2013.
19. Attended a One Week Training Programme on "Mathematical Modelling in Engineering", on 02- 06, December 2013, at National Institute of Technology, Warangal.
20. Attended Orientation Programme at Moulana Azad National Urdu University, Hyderabad, 4-30, April, 2014.

21. One-week short term training programme on Mathematical modeling and computational techniques, Dec 7-11, 2015, N.I.T., Warangal.
22. One-week short term training programme on Mathematical modeling and numerical techniques in engineering and science, Oct 9-13, 2018, N.I.T., Warangal.
23. Faculty Development Programme on High Accuracy, High Performance Computing of Fluid Flows, Dec 30-03 Jan, 2020, University College of Engineering, Osmania University, Hyderabad.

Recognitions:

1. Merit certificate and cash prize for getting 1st position in M.Sc. Applied Mathematics course in 1998.
2. Qualified CSIR-JRF NET Exam and awarded JRF/Lectureship three times in 2002, 2003 and 2007.
3. National Merit Scholarship at Intermediate Education.
4. Invite Talk on Fitted Methods at STTP on Contemporary Approaches of Applied Mathematics in Science and Engineering, N.I.T., Warangal, 11-15, May, 2015.
5. Organizer for Technical Sessions Management Committee at International Conference on Vibration Problems, Feb 18-20, 2015, Kakatiya University, Warangal.
6. Session Chair for Technical Sessions at International Conference on Vibration Problems, Feb 18-20, 2015, Kakatiya University, Warangal.
7. Conducted Mini Symposium entitled "Singular Perturbation Two Point Boundary value Problems" in the two day National Conference on "Applied Nonlinear Dynamics", 21-22 Dec 2016, N.I.T., Warangal.
8. Chaired a session on "Computational Methods, at CONIAPS XX, 20th International Conference of International Academy of Physical Sciences on Recent Advances in Physical Sciences and Future Challenges", July 14-16, 2017, Osmania University, Hyderabad.
9. Organizing Secretary for a two-Day National Conference on "Recent Advances of Mathematical Techniques in Science & Engineering", 30-31 July 2017, Osmania University, Hyderabad.
10. Chaired a session on "Numerical Heat Transfer & Fluid Flow (NHTFF-2018)", an International Conference, Jan 19-21, 2018 at National Institute of Technology, Warangal.
11. Coordinator for a two-Day National Conference on "Mathematical Sciences and Applications", 30-31 July 2018, Osmania University, Hyderabad.
12. Resource Person for One Day Seminar on "Current Trends and its Applications in Mathematics, University Post-Graduate College, October, 2018, Osmania University, Hyderabad.
13. Acted as a Judge in the subject Mathematics for Jignasa-Student study projects State level presentations & selection for the academic year 2019-20, Government of Telangana, Commissionerate of Collegiate Education.
14. Delivered Guest lecture on "Ordinary differential equations, Multivariable Integration and Vector calculus", at Siddhartha Institute of Engineering and Technology on 9th June 2021.

15. Joint Organizing Secretary for XXX Congress of APTSMS and International Conference on Mathematics & its Relevance to Science and Engineering, (ICMRSE-2022) March 12-14, 2022, Osmania University, Hyderabad.
16. Chaired a session at XXX Congress of APTSMS and International Conference on Mathematics & its Relevance to Science and Engineering, (ICMRSE-2022) March 12-14, 2022, Osmania University, Hyderabad.
17. Chaired a session at XXXI Congress of APTSMS and International Conference on Relevancy of Ancient Mathematics to the Current Digital Trends, (ICRAMCDT-2022) December 09-11, 2022, National Sanskrit University, Tirupati.
18. Delivered a lecture(s) on the topic "Linear Programming" in the Three week Industrial Training Programme for the Faculty of Mathematics of Government Polytechnic Colleges in Telangana State Organized by the UGC-HRDC (Academic Staff College), Osmania University, Hyderabad from 01.06.2022 to 21.06.2022

Memberships in Professional/Scientific Bodies

1. Indian Science Congress 2. ISTE 3. APTSMS 4. Indian Science Academy
5. ISTAM

Corresponding Address:

Dr. K. Phaneendra
Associate Professor
Dept. of Mathematics
University College of Science
Osmania University,
Hyderabad -500007

(DR. K. PHANEENDRA)