

Personal Information

Name	Dr. C Nageswaranath
Years of Experience	Teaching: 28 Years Research: 11 years
Email Id	nageswaranath.c@bvrithyderabad.edu.in
Areas of Specialization	Solid Mechanics, Wave Propagation in Poroelastic Solids



Educational Qualifications

Doctoral Degree	Ph.D.	Mathematics
PG Degree	M.Phil.	Mathematics
	M.Sc.	Mathematics
UG Degree	B.Ed.	Mathematics
	B.A.	Economics, Mathematics, Statistics

Papers Published

International Journal Publications

1. **C. Nageswaranath**, V. Sravana Kumar, K.Elangovan, ‘Love waves in the Newtonian viscous liquid layer in contact with transversely isotropic poroelastic layer and in-homogeneous half-space’, ZKG International (2024) 9(1) 2008-2023. ISSN: 2366-1313. (WOS)
2. **C. Nageswaranath**, V. Sravana Kumar, K.Elangovan, ‘Propagation of Love waves at the interface of initially stressed transversely isotropic poroelastic layer and in-homogeneous half-space’ Africal Journal of Biological Sciences 6(4) (2024) 458-474. ISSN: 2663-2187. [https://doi.org/ 10.33472/AFJBS.6.4.2024.458-474](https://doi.org/10.33472/AFJBS.6.4.2024.458-474). (SCOPUS INDEXED)
3. **C. Nageswaranath**, V. Sravana Kumar, K.Elangovan, ‘Wave Propagation in a Homogeneous Poroelastic Layer Bounded Between Transversely Isotropic Poroelastic Half-space and an in-homogeneous Elastic Half-space’ has been published in Indian J Journal of Science and Technology (2023) 16(20):1527-1537. [https://doi.org/ 10.17485/IJST/v16i20.23](https://doi.org/10.17485/IJST/v16i20.23). (WOS)
4. K. Kavita, **C. Nageswaranath**, P. Shantan Kumar, ‘Edutech Tools in Flipped Class Room in Engineering’ has been published in the journal Journal of University of Shanghai for Science and Technology vol. 22, 2080-2089, 2020. (ISSN 1007-6735). (SCOPUS INDEXED)

5. **C. Nageswaranath**, M. Ramesh, S. Ahmed Shah and M.V. Ramana Murthy, 'A Study on Propagation of Waves in a Transversely Isotropic Poroelastic Layer Bounded between Two Viscous Liquids' has been published in the journal *Open Journal of Acoustics*, vol. 9, 1-12, 2019. (ISSN 2162-5786).
6. **C. Nageswaranath**, J. Manoj Kumar and S Ahmed Shah, 'Effect of viscosity on waves propagating in a liquid loaded on poroelastic layered half-space' has been published in the journal *Advanced Mathematical Model & Applications*, vol. 2, 144-154, 2017. (ISSN 2519-4445).
7. S. Ahmed Shah, **C. Nageswaranath**, M. Ramesh and M.V. Ramana Murthy, 'Torsional vibrations of coated hollow poroelastic spheres' has been published in the journal *Open Journal of Acoustics*, vol. 7, 18-26, 2017. (ISSN: 2162-5786).
8. J. Manoj Kumar, **C. Nageswaranath** and S. Ahmed Shah, 'Analysis of flexural wave propagation in poroelastic composite hollow cylinder' has been published in the journal *International Journal of Engineering, Science and Technology*, vol. 8, 13-33, 2016. (ISSN: 2141-2820).
9. J. Manoj Kumar, **C. Nageswaranath** and S. Ahmed Shah, 'A study on vibrations in a composite poroelastic concentric cylinder' has been published in the journal *Caribbean Journal of Science and Technology*, vol.3, 805-831, 2015 (ISSN 0799-3757).
10. B. Shanker, **C. Nageswaranath**, Ahmed Shah and J. Manoj Kumar, 'Free vibrations of a fluid-loaded poroelastic hollow Sphere surrounded by a fluid' has been published in the journal *International Journal of Applied Mathematics and Mechanics*, vol. 9, 14-34, 2013.(ISSN:0973-0184).
11. B. Shanker, J. Manoj Kumar, Ahmed Shah and **C. Nageswaranath**, 'A Study on Plane-Strain Vibrations in a Poroelastic Composite Hollow Cylinder' has been published in the journal *Journal of vibration analysis, measurement, and control*, vol. 1, 1-28, 2013. (ISSN:2162-9854).
12. B. Shanker, **C. Nageswaranath**, Ahmed Shah and P. Mallareddy, 'Vibrations in a fluid-loaded poroelastic hollow cylinder surrounded by a fluid in plane-strain form' has been published in the journal *International Journal of Applied Mechanics and Engineering*, vol. 18, 189-216 2013. (ISSN: 1734-4492). (SCOPUS INDEXED)
13. B. Shanker, **C. Nageswaranath**, Ahmed Shah and J. Manoj Kumar, 'Vibration analysis of a poroelastic composite hollow sphere' has been published in the journal *Acta*

Mechanica, vol.224, 327-341, 2013.(ISSN: 0001-5970). (SCOPUS INDEXED) (Impact Factor - 2.113)

14. B. Shanker, J. Manoj Kumar, Ahmed Shah and **C. Nageswaranath** ‘Radial vibrations of an infinitely long poroelastic composite hollow circular cylinder’ has been published in the journal *International Journal of Engineering, Science and Technology*, vol.4, 17-33, 2012. (ISSN: 2141-2820).
15. **C. Nageswaranath**, M. Tajuddin and J. Manoj Kumar ‘On the parametric model of loose bonding between two poroelastic half spaces’ has been published by *Journal of Vibration and Control*, vol.18, 1261-1274, 2012. (ISSN: 1077-5463). (SCOPUS INDEXED) (Impact Factor - 2.197)
16. M. Tajuddin, **C. Nageswaranath** and J. Manoj Kumar, ‘Axial-shear vibrations in an infinitely long composite poroelastic circular cylinder’, has been published in the journal *Special Topics and Reviews in Porous Media*, vol.2, 133-143, 2011.(ISSN: 2151-4798) (SCOPUS INDEXED)

International Conference Publications

1. J Manoj Kumar, **C. Nageswaranath**, K. Kavitha ‘Radial Vibrations in a Fluid-Loaded Two Layered Poroelastic Cylindrical Shell Surrounded by a Fluid’ has been published in *International Conference on Mathematical Sciences and Applications (ICMSA-2019)* AIP Conf. Proc. 2246, AIP Conf. Proc. 2246, 020063-1–020063-9 (<https://doi.org/10.1063/5.0015000>) (SCOPUS INDEXED)
2. **C. Nageswaranath**, S Ahmed Shah, G Apsar, ‘Effect of imperfect bonding on torsional vibrations of composite poroelastic cylinders’ has been published in *International Conference on Mathematical Sciences and Applications (ICMSA-2019)* AIP Conf. Proc. 2246, 020062-1–020062-8 (<https://doi.org/10.1063/5.0014998>) (SCOPUS INDEXED)
3. **C. Nageswaranath**, J Manoj Kumar, ‘Wave propagation in layered poroelastic cylinder in contact with fluid’ has been published in *International Conference on Recent Inventions and Innovations in Mathematical Sciences (ICRIIMS-2019)*, Proceedings Journal of Physics: Conf. Series 1344 (2019) 012005 (SCOPUS INDEXED) (<https://doi.org/10.1088/1742-6596/1344/1/012005>)
4. **C. Nageswaranath**, V. Sravan Kumar and M. Rajendar, ‘Propagation of Love waves in an isotropic poroelastic layer bounded between two viscous fluids’ has been published in *International Conference on Materials Research and Applications (ICMRA-2016)*,

Materials today: proceedings 3 (2016) 4187–4192. (ELSEVIER PUBLICATIONS) (ISSN 2214-7853) (SCOPUS INDEXED)

5. S. Ahmed Shah and **C. Nageswaranath**, ‘Torsional vibrations of circular poroelastic plates’ has been published in an International Conference on Vibration Problems (ICOVP-2015), Journal of Physics: Conference Series 662 (2015) 012009.(doi:10.1088/1742-6596/662/1/012009) (PRINT ISSN:1742-6588) (SCOPUS INDEXED)
6. **C. Nageswaranath**, Ahmed Shah and J. Manoj Kumar, ‘On propagation of Love waves in an infinite transversely isotropic poroelastic layer’ has been published in International Conference on Vibration Problems (ICOVP-2015), Journal of Physics: Conference Series 662 (2015) 012004. (doi:10.1088/1742-6596/662/1/012004) (PRINT ISSN: 17426588) (SCOPUS INDEXED)

National Journal Publications:

1. **C. Nageswaranath** and J. Manoj Kumar, ‘A study on propagation of Love waves in viscous liquid bounded between poroelastic layers’ has been published in the journal *Open Journal of Applied and Theoretical Mathematics*, vol. 2, 806-819, 2016. (ISSN: 2455-7102).
2. **C. Nageswaranath** and S. Ahmed Shah, ‘The effect of rigidity on torsional vibrations in a two layered poroelastic cylinder’ has been published in the journal *International Journal of Advances in Applied Mathematics and Mechanics*, vol.3, 116 – 121, 2015. (ISSN: 2347-2529).

Indian patents Published:

1. On axially symmetric vibrations in a poroelastic composite bore.
Publication date: 14/6/2024, Patent office journal no. 24/2024.
2. Robotic trash disposal system for bed reading individuals and the elderly
Publication date: 5/1/2024, Patent office journal no. 01/2024.
3. And automatic controlling system for rail gate movement and method thereof
Publication date: 8/9/2023, Patent office journal no. 36/2023.
4. Impact of statistics and probability in real time object recognition using data science
Machine learning.
Publication date: 26.08.2022, Patent office journal no. 34/2023.

National Conference Presentations:

1. 'Torsional vibrations in a two layered poroelastic cylinder' in an International Conference on Recent Trends in Mathematics and its Applications (ICRTMA- 2021)' conducted by Department of Mathematics, GITAM University, Bengaluru, held from 2nd and 3rd December 2021.
2. 'Effect of Imperfect Bonding on Torsional Vibrations of Composite Poroelastic Cylinders' in an International Conference 'International Conference on Mathematical Sciences and Applications (ICMSA-2019)' conducted by Department of Mathematics, GITAM University, Hyderabad, held from 9th to 11th August 2019.
3. 'Radial vibrations in a fluid loaded two layered poroelastic cylindrical shell surrounded by a fluid' has been presented in an International Conference on Innovation and sustainable development in Science, Social science, Management and Tecnology' (ISDSSMT-19) conducted by DMI-ST.EUGENE university, Lusaka, Zambia held on 8th April 2019 (ISBN 978-81-940502-3-0).
4. 'Wave propagation in layered poroelastic cylinder in contact with fluid' in an International Conference on Recent Inventions and Innovations in Mathematical Sciences conducted by Department of Mathematics, Andhra University, Visakhapatnam, A.P. held on 28th February and 1st March 2019.
5. 'A study on wave propagation in a transversely isotropic poroelastic layer bounded between two viscous fluids' in an International Conference on Computational Fluid Flow and Heat Transfer' conducted by Department of Mathematics, Osmania University, Hyderabad, Telangana, held on 28th and 29th March 2018.
6. 'Love wave propagation in a transversely isotropic poroelastic layer immersed in a viscous liquid' in 62nd Congress of ISTAM-2017 conducted by IIT Kharagpur in University College of Engineering, Osmania University, Hyderabad, Telangana, held from 15th to 18th December, 2017.
7. 'Wave propagation in a Liquid loaded on poroelastic layered half-space' in a National Conference on Recent Advances in Mathematics (XXVI Congress of Andhra Pradesh Society for Mathematical Sciences 2017), conducted by Department of Mathematics, Kakatiya University, Warangal, Telangana, held from 11th to 13th August, 2017.
8. 'Torsional vibrations of coated hollow poroelastic spheres' in a National Conference on Recent Advances in Mathematics (XXVI Congress of Andhra Pradesh Society for Mathematical Sciences 2017), conducted by Department of Mathematics, Kakatiya University, Warangal, Telangana, held from 11th to 13th August, 2017.
9. 'Propagation of waves in a transversely isotropic layered half-space' in a National Conference on Recent Advances of Mathematical Techniques in Science and

Engineering, conducted by Department of Mathematics, Osmania University, Hyderabad, Telangana, held from 30th & 31st July, 2017.

10. 'Axial-shear vibrations in a composite poroelastic cylinder' in a National Conference on Recent Advances of Mathematical Techniques in Science and Engineering, conducted by Department of Mathematics, Osmania University, Hyderabad, Telangana, held from 30th & 31st July, 2017.
11. 'A study on flexural vibrations in a poroelastic composite hollow cylinder' in a National Conference on 'Recent Advances in Fluid Mechanics', conducted by Department of Mathematics, Osmania University, Hyderabad, Telangana State on 31st May, 2016.
12. 'Torsional vibrations of circular poro-elastic plates' in a National Conference 'Recent Advances in Civil Engineering, held in CMRTC, Hyderabad, Telangana State on 31st March, 2015.
13. 'The effect of rigidity on Torsional vibrations in a two layered poroelastic cylinder' in National conference on role of Mathematics in real world problems, held in Aurora college, Hyderabad, Telangana State on 27-28 February, 2015.

FDPs Attended / Conducted

1. A three-day FDP on 'The 4 C's the need of the hour' conducted by Dept of Basic Sciences & Humanities from 8th June 2022 to 10th June 2022 in BVRITH College of Engineering for Women, Hyderabad.
2. A three-day FDP on 'Symposium on engineering mathematics with MATLAB' conducted by IUCEE foundation, RV college of Engineering and MathWorks India Limited from 6th to 8th September 2021.
3. A five-day FDP on "Recent Trends in Applications of Mathematics (RTAM)" organized by Department of Freshman Engineering, Chadalawada Ramanamma Engineering College (Autonomous), Tirupati from 12th - 17th July 2021.
4. A three-day FDP on 'Professional Etiquette & Emotional Intelligence' conducted by Dept of Basic Sciences & Humanities from 8th July 2019 to 10th July 2019 in BVRITH College of Engineering for Women, Hyderabad.
5. A two week Faculty Development Programme on 'Entrepreneurship' organized by Centre for Entrepreneurship Development, Hyderabad (sponsored by NSTEDB, Govt. of India) in BVRITH College of Engineering for Women, Hyderabad from 18-03-2019 to 30-03-2019.
6. A one day workshop on Unconscious Bias In The Work Place (UBW) conducted by VEDIC on 8th December 2019 in BVRITH College of Engineering, Hyderabad.

7. Three day workshop on “Inspire – Impact- Introspect – Leadership Program” at VEDIC, SVES from 30th October to 1st November 2017.
8. Three day workshop on “SEP” at VEDIC, SVES from 5th to 7th July 2017.

Professional Memberships:

- Life time member in Indian Mathematical Society with Member Ship No. L/2016/81.
- Life time member in Association of Mathematics Teachers of India
- Life time member in Andhra Pradesh State Mathematical Society with Member ship No. LM No.440

Certifications

- Completed an NPTEL online certified (8-week) course on ‘**Programming, Data Structures and Algorithms using Python**’ in March 2024.
- Completed an NPTEL online certified (12-week) course on ‘Foundations of R software’ in October 2023.
- Completed an NPTEL online certified (8-week) course on ‘**Matrix analysis with applications**’ in September 2023.
- Completed an NPTEL online certified (4-week) course on ‘Statistics’ in ELITE, June 2020.
- Completed a COURSERA online certified (12-week) course on ‘MATLAB Programming’ from Stanford University (USA) in February 2020.
- Completed an NPTEL online certified (12-week) course on ‘Discrete Mathematics’ in ELITE SILVER, May 2019.
- Completed an NPTEL online certified (12-week) course on ‘Engineering Mathematics’ in ELITE, May 2019.
- Completed a COURSERA online certified (12-week) course on ‘Introduction to Mathematical Thinking’ from Stanford University (USA) in February 2019.
- NPTEL online certified (12-week) course on ‘Numerical Linear Algebra’ given ELITE, June 2018.
- NPTEL online certified (12-week) course on ‘Multivariable Calculus’ in ELITE, June 2018.

- NPTEL online certified (12-week) course on ‘Mathematical Methods’ with 5% Topper, June 2017.

Any Other Achievements

- Reviewed a Research Article titled "Love-type surface wave propagation due to interior impulsive point source in a homogeneous-coated anisotropic poroelastic layer over a non-homogeneous extended substance” for the journal ‘Waves in Random and Complex media’ (SCOPUS INDEXED JOURNAL) in February, 2022.
- Reviewed a Research Article titled ‘On the Group Velocity of Love-Type Waves in Composite Structure Loaded with Viscous Fluid’ in ‘Waves in Random and Complex media’ (SCOPUS INDEXED JOURNAL) in May, 2020.
- Reviewed a Research Article titled ‘Vibration behavior of poroelastic thick curved panels with graded open-cell porosity’ in European Journal of Mechanics / A Solids (SCOPUS INDEXED JOURNAL) in January, 2019.
- Reviewed a research paper titled ‘Study of Radial Vibrations in Thick Walled Hollow Dissipative Poroelastic Spherical Shell on Elastic Foundation’ of the journal *Journal of Applied Mathematics (Hindawi publications)* in October, 2018.
- Chaired a session in a National Conference on Recent Advances of Mathematical Techniques in Science and Engineering, conducted by Department of Mathematics, Osmania University, Telangana, held from 30th & 31st July, 2017.
- Delivered a guest lecture on the topic ‘Applications of Laplace Transforms in a one-week refresher course on ‘Engineering Mathematics’ held from 12th to 17th June, 2017 at CMR Engineering College.
- Delivered duty as a subject expert for Mathematics in JNTUH selection committee conducted in Aurora’s Engineering College on 28th February 2017.
- Reviewed a research paper titled ‘Modeling of elastic waves in a fluid loaded and immersed Piezoelectric Hollow fiber’ of the journal *International Journal of Applied and Computational Mathematics (Springer publications)* in August, 2016.
- Delivered duty as a subject expert for Mathematics in JNTUH selection committee conducted in Narsimha Reddy Engineering College on 5th March 2016.
- Rendered services as an Enumerator for House hold survey conducted by Telangana Government on 19th August 2014.

- Reviewed a Research Article titled "Axially Symmetric Vibrations of Composite Poroelastic Spherical Shell" of the journal *International Journal of Engineering Mathematics* in February, 2014.
- Discharged duties as a Judge for Mathematical Fest 'ALFAMATICA-2K13' conducted by Geethanjali College of Engineering and Technology on 20th March, 2013.