

Brief-Resume

Prof. Dr.Gopinathan Sudheer

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Andhra Pradesh, India
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Professional body Membership:

1. Fellow, Institute of Mathematics and Applications, UK since 2022
2. Senior Member, Institute of Electrical and Electronics Engineers (IEEE) 2019, member since 2010
3. Senior Member Association for Computing Machinery(ACM), 2019 ,Member since 2009
4. Member of American Mathematical Society (AMS) since 2006
5. Member of Society for Industrial and Applied Mathematics (SIAM) since 2009
6. Life member of Indian Mathematical Society (IMS)
7. Life member of Indian Academy for Mathematical Modeling and Simulation (IAMMS)
8. Life member of Computer Society of India (CSI)

Board of Studies:

Member, Board of Studies in Mathematics JNTUK, Kakinada R16 Regulations (2016-19)
Member, Board of Studies in Mathematics, GVP College of Engineering (Autonomous)
Visakhapatnam (2014 –till date)
Member, Board of Studies in Mathematics, Vignan Institute of Information Technology, Visakhapatnam
(2016-19)

Current Areas of Research:

Time Series Analysis, Ultrasonic Modeling for NDT of bonded interfaces, Guided Waves,
Pseudo-Spectral methods , Image Processing.

RESEARCH GUIDANCE:

PhD

1. One student M.Hemantha Lakshmi awarded PhD from JNTU Hyderabad
2. Guiding four students towards their PhD degree from JNTU Kakinada

M.Phil Dissertations :

Three students under my guidance were awarded M.Phil Degree by Sri Venkateswara University,
Tirupati

- Application of Wavelets to Electrical Load Forecasting
- Spectral Methods for solving wave propagation problems in Elastic Media.
- Application of Ring Theory in Modern Cryptosystems

Volunteering:

1. One of the Judges for SCUDEM (SIMIODE Challenge Using Differential Equations Modelling) in 2021, 2022
2. Reviewer for Neural Computing and Applications (Springer), IEEE (ACCESS), Energy Engineering (ASCE), Applied Mathematical Modeling (Elsevier)

Academic Record (starting with Bachelor’s Degree):

Course Name	University	Yr.of passing	% of marks	Specialization
B.Sc	Andhra	1989	73	Mathematics,Physics,Statistics
M.Sc	Andhra	1991	78	Applied Mathematics
PhD	Andhra	2006	Applied Mathematics	

Publications :

1. R.Sridevi , G.Sudheer and D.Lalitha Bhaskari, “ Identification of Spatial relations in Mathematical Expressions”, RT&A Journal, Volume 16, No.4 (65), 346-353, Dec 2021, Scopus
2. S.Anand Kumar and G.Sudheer, “ Influence of the oxide layer on the quality of bonding in adhesively bonded metallic structures by ultrasonic guided waves”, Journal of Adhesion and Adhesives, Vol.111, Dec 2021, 102981, SCI/SCIE
3. G.Srikanth and G.Sudheer, “ A note on the solutions of cubic equations of state in low temperature region” , J.Molecular Liquids, Vol. 315,1Oct 2020, 113808, SCI/SCIE
4. M. Hemantha lakshmi, G.Sudheer and Y. Vasudeva Rao, “Effect of Pleural Membrane on the Propagation of Rayleigh Waves in Inflated Porous Lungs - A Study”, IEEE Access, 7:85169-77, 2019. DOI: 10.1109/ACCESS.2019.2924740, SCI/SCIE

5. Harikrishna P, **G.Sudheer** and Y Vasudeva Rao, "Free longitudinal vibrations of functionally graded tapered Axial Bars by Pseudo Spectral Method", Journal of Vibroengineering, 20(5), 2137-2150, 2018. ISSN: 1392-8716, Scopus
6. **G.Sudheer**, M. Hemantha lakshmi, Y. Vasudeva Rao, "A note on formulas for the Rayleigh wave speed in elastic solids", Ultrasonics, 73: 82-87, 2017, SCI/SCIE
7. **G. Sudheer**, P. Hari Krishna, Y. Vasudeva Rao, "Free vibration analysis of tapered columns under self-weight using pseudospectral method", Journal of Vibroengineering, 18(7): 4583-4591, 2016, Scopus, SCIE.
8. **G.Sudheer**, A.Suseelatha, "A Wavelet-nearest neighbor model for short-term load forecasting", Energy Science & Engineering, 3(1): 51-59, 2015, SCI/SCIE.
9. **G.Sudheer**, A.Suseelatha, "Short term load forecasting using wavelet transform combined with Holt-Winters and Weighted nearest neighbor models", International Journal of Electrical power and Energy systems, 64: 340-46, 2015, SCI/SCIE.
10. M.S.L.R.Mallika, S.Anand Kumar, **G.Sudheer**, "Influence of the interfacial stiffness constants on Lamb wave propagation in a bi-layer", International Journal of Applied Mathematics, 28(6): 789-99, 2015, Scopus.
11. S.S.V.D. Prakash V, **G.Sudheer**, "A study of different wavelets in filtering of load signals", Far East Journal of Applied Mathematics, 92: 191-201, 2015.
12. **G. Sudheer**, A.Suseelatha, "A methodology for short term load forecasting based on wavelet filters", International Journal of Energy and Statistics, 2(3): 169-181, 2014.
13. A.Suseelatha, **G.Sudheer**, Bharathi D, "A Simple Hybrid Model for Short- Term Load Forecasting", Journal of Engineering, Article Id: 760860:1-7, 2013. doi:10.1155/2013/760860, Scopus.

14. **G.Sudheer**, B.V.S Renuka Devi, “A Hybrid Image Cryptosystem Based on OMFLIP Permutation Cipher”, *Signal & Image Processing: An International Journal*, 3(1): 67-74, 2012.
15. R.Y.Vasudeva, **G.Sudheer**, Anuradha Vema, “Dispersion of circumferential waves in cylindrically anisotropic layered pipes in plane strain”, *The Journal of the Acoustical Society of America* 123 (6), 4147-4151, 2008, SCI/SCIE.
16. R.Y.Vasudeva and G.Sudheer, “Lamb mode stresses as means of identifying voids in the adhesive zone of bilaminates, *International J.Solids and Structures*, 39(3), 559-569, 2002, SCI/SCIE.
17. R.Y.Vasudeva and G.Sudheer, Application of the Theory of Linear Elastic Materials with Voids to NDT of interfaces of bilaminates”, *J. Adhesion Science andTechnology*, 15(4), 1695-1709, 2001, SCI/SCIE.

Publons Verified Record

PREPARED BY PUBLONS ON SEPTEMBER 4TH 2019



Gopinathan Sudheer

<https://publons.com/a/1373242>

Peer Review Summary

Performed 26 reviews for journals including *IEEE Access* and *International Journal of Electrical Power & Energy Systems*; placing in the 91st percentile for verified review contributions on Publons up until September 2019.

	7	IEEE Access
	4	International Journal of Electrical Power & Energy Systems
	3	Electric Power Components and Systems
	3	Neural Computing and Applications
	3	International Journal of Energy Sector Management
	1	IEEE Transactions on Industrial Electronics
	1	Applied Mathematical Modelling
	1	Journal of Forecasting
	1	Journal of Energy Engineering
	1	IET Generation, Transmission & Distribution
	1	Sustainable Cities and Society

Editor Record Summary

Managed the reviewing process for 3 publications for journals including *Asian Journal of Research in Computer Science*. These are all the editor records added to Publons up until September 2019.

	3	Asian Journal of Research in Computer Science
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Publication List

A list of all publications authored up until September 2019.

	2019	IEEE Access	<i>Effect of Pleural Membrane on the Propagation of Rayleigh Waves in Inflated Porous Lungs-A Study</i>
	Aug 2018	Journal of Vibroengineering	<i>Free longitudinal vibrations of functionally graded tapered axial bars by pseudospectral method</i>
	Jan 2017	Ultrasonics	<i>A note on formulas for the Rayleigh wave speed in elastic solids</i>
	Nov 2016	Journal of Vibroengineering	<i>Free vibration analysis of tapered columns under self-weight using pseudospectral method</i>
	Dec 2015	International Journal of Applied Mathematics	<i>INFLUENCE OF THE INTERFACIAL STIFFNESS CONSTANTS ON LAMB WAVE PROPAGATION IN A BI-LAYER</i>
	Jan 2015	International Journal of Electrical Power & Energy Systems	<i>Short term load forecasting using wavelet transform combined with Holt-Winters and weighted nearest neighbor models</i>
	2015	Energy Science & Engineering	<i>A wavelet-nearest neighbor model for short-term load forecasting</i>
	Dec 2014	Proceedings of the International Congress on Computational Mechanics and Simulation	<i>Application of the Pseudospectral Method to the Longitudinal Vibrations of Non-Uniform Rods</i>
	Sep 2014	International Journal of Energy and Statistics	<i>A methodology for short term load forecasting based on wavelet filters</i>
	2013	Journal of Engineering	

A Simple Hybrid Model for Short-Term Load Forecasting

-  Feb 2012 Signal & Image Processing: An International Journal
A Hybrid Image Cryptosystem Based On OMFLIP Permutation Cipher
 -  Oct 2008 Joint International Conference on Power System Technology and IEEE Power India Conference
Day-ahead Electricity Price forecasting using Wavelets and Weighted Nearest Neighborhood
 -  Jun 2008 The Journal of the Acoustical Society of America
Dispersion of circumferential waves in cylindrically anisotropic layered pipes in plane strain
 -  Jul 2004 Testing, Reliability, and Application of Micro- and Nano-material Systems li
Continuum simulation of adhesive-adherend interface layers for USNDE
 -  Feb 2002 International Journal of Solids and Structures
Lamb mode stresses as means of identifying voids in the adhesive zone of bilaminates
 -  Jan 2001 Journal of Adhesion Science and Technology
Application of the theory of linear elastic materials with voids to NDT of interfaces of bilaminates
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Conferences attended/Papers presented:

1. A.Suseelatha, VSSVD Prakash and **G.Sudheer**, “An improved short term load forecasting methodology based on pattern sequences”, International conference on Recent Inventions and Innovations in Mathematical Sciences (ICRIIMS-2019), 28th Feb – 1st March 2019, Andhra University, Visakhapatnam, AP, India.
2. G.Srikanth, A.Suseelatha and **G.Sudheer**, “On the solution of cubic equation for physical applications”, International conference on Recent Inventions and Innovations in Mathematical Sciences (ICRIIMS-2019), 28th Feb – 1st March 2019, Andhra University, Visakhapatnam, AP, India.
3. M.S.L.R Mallika and **G.Sudheer**, “A study on the effective elastic properties of porous solids”, International conference on Recent Inventions and Innovations in Mathematical Sciences (ICRIIMS-2019), 28th Feb – 1st March 2019, Andhra University, Visakhapatnam, AP, India.
4. S. Anand Kumar and **G.Sudheer**, “A comparison of mass-spring and equivalent boundary conditions in modelling the adhesive-adherend interface”, International conference on Recent Inventions and Innovations in Mathematical Sciences (ICRIIMS-2019), 28th Feb – 1st March 2019, Andhra University, Visakhapatnam, AP, India.

5. P.Harikrishana, **G.Sudheer**, R.Y.Vasudeva, “Application of the Pseudospectral method to the longitudinal vibrations of non-uniform rods”, 5th International Congress on Computational Mechanics and Simulation, 10th-13th Dec 2014, CSIR-Structural Engineering Research Centre, Chennai in association with Indian Association for Computational Mechanics, Chennai, India.
6. VSSVD Prakash, A.Suseelatha, and **G.Sudheer**, “A wavelet based multiscale analysis of data”, National conference on Emerging Trends in Mathematical Sciences and Engineering Applications held on 23- 24th May, 2014, JNTU Kakinada, AP.
7. Vasudeva R.Y., Anu Radha Vema and **G.Sudheer**, “ A pseudo-pseudo Spectral method for Shear Horizontal Circumferential waves in Non-homogenous Anisotropic cylinders”, 12th US National Congress on Computational Mechanics, July 22-25, 2013, Raleigh,NC, USA
8. A.Suseelatha,V.S.S.V.D.Prakash, **G.Sudheer**,D.Bharati, “ Short-term load forecasting using a combination of Discrete wavelet transforms and Support Machines”, NCAMES-2011, June29-30, 2011, Andhra University , Visakhapatnam
9. A.Sanka, **G.Sudheer**, Y.Vasudeva Rao, “ Vibrations of anisotropic layered pipes-A pseudo-pseudo spectral method”, ICTACEM-2010, IIT Kharagpur, 27th -29th Dec 2010, India
10. V.S.S.V.D.Prakash,C.V.K.Bhanu and **G.Sudheer** “ A Forecasting methodology for short term load forecasting using wavelets”, ICRDMSA-2010, 9th -11th Dec 2010, Kolkata, India.
11. B.V.S.Renuka Devi and **G.Sudheer**, “Wavelet transforms for feature extraction in face recognition”, Modern trends in Applied Mathematics, 9th -10th Oct, 2010, Andhra University, Visakhapatnam, India.
12. A.Suseelatha, VSSVD Prakash and **G.Sudheer**, “ On Some issues in the Application of Wavelet Transforms to time series analysis” Modern trends in Applied Mathematics, 9th -10th Oct, 2010, Andhra University, Visakhapatnam, India.
13. N.Vishali, **G.Sudheer** and P.Raja Mani, “ Steganography based on discrete domain techniques” in International conference on Recent Trends on Mathematical Sciences and its

Applications RAMSA-2009, 19th -22nd , 2009, GVP College of Engineering, Visakhapatnam, India.

14. C.V.K.Bhanu, **G.Sudheer**, C.Radhakrishna and V.Phanikanth “Day-ahead Electricity Price forecasting using Wavelets and Weighted Nearest Neighborhood”, Joint International Conference on Power System Technology And IEEE Power India Conf. 2008, New-Delhi.
15. R.Y.Vasudeva and **G.Sudheer** “ Modeling Kissing bonds for Ultrasonic leaky Lamb wave NDT” Presented at the 14th USNCTAM held in June 2002 at Blacksburg, Virginia, USA.

Expert Talks :

1. A talk on “ Spectral Methods in Solid Mechancis” on 12th June 2017 at IIT Bhubaneswar As part of GIAN –Spectral Methods
2. A talk on “ Application of Pseudospectral Methods to solve boundary value problems coccurring in Applied Engineering” at JNTUK, Kakinada on 24th May 2014 as part of ETMSEA-2014

Other activities (Workshops/Conferences Organized)

- *Organized a Staff Development Programme on “Mathematical Applications in Engineering” from 22nd June to 5th July, 2009 sponsored by AICTE, New Delhi.*