Resume

Name	**Dr.Umesha V**	
Designation	**Assistant professor** **Department of Mathematics** **BMSCE, Bangalore-19**	
Specialization:	Mathematical Analysis	
Education Qualification	M.Sc., Ph.D.	
Teaching Experience	11.8 years	
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Qualification:

Ph.D. in Mathematics from VTU in 2019
M.Sc. from Bangalore University with First class in 2011
B.Sc. from Bangalore University with First class in 2009

Technical course: PGDCA from NICT

Area of Interest

- Control Theory
- Stability Analysis of delay differential systems
- Linear matrix Inequality

Proficiency Course:

- "Numerical Methods" August-October 2019, NPTEL Online certification.
- "Descriptive Statistics with R Software" February-April 2020, NPTEL Online certification
- "Python 3.4.3" Spoken Tutorial, April 2020, IIT Bombay Online certification

Members in Professional bodies

- Institute for Engineering Research and Publication **(IFERP).**
- Life member in International Association of Engineers **(IAENG).**
- Associate member in the institute of research engineers and doctors **(IRED).**

Editor/Reviewer for Journals

- Proceedings of the Jangjeon Mathematical society **(Scopus)**
- Journal of Critical review **(Scopus)**
- **Editorial Board Member of *Engineering Mathematics(ENGMATH),*** Science publishing group,1Rockfeller plaza,10th and 11th floors, New york, NY 10020, USA, ISSN Print: 2640-0855; ISSN Online: 2640-088X.,https://www.sciencepg.com/j/engmath

Patent Published:

- "Down-hole fluid flow control system and method having dynamic response to local well conditions" Intellectual Property of India (http://ipindia.nic.in/index.htm)
  Application Number: 202241039559
  Publication Date: 15/07/2022

- Grinding roughness prediction method based on multivariate statistics nonlinear fitting and BP Neural network Intellectual Property of India (http://ipindia.nic.in/index.htm)
  Application Number: 202241047819
  Publication Date: 22/08/2022

Books Published:

- Authored the chapter entitled "Mathematical relationship between LMI's and Delay differential equations", Book: Topics in pure and Applied Mathematics, Cape camorin publisher; Volume 1, PP: 90-109, ISBN: 978-93-88761-68-0.

International Publication:

- "Chebyshev and Block Pulse Wavelet Approach for the Non-Linear Quasi-Singular Integral Equation" Vol.13 / Issue 76 / February / 2023, pp: 52994-5300, Indian Journal of Natural Sciences, ISSN: 0976 – 0997, February -2023 (Web of science).

- "An LMI approach to exponential stability analysis for neutral Delay differential systems" Volume 7 ~ Issue 12 (2021) pp: 14-18, Journal of Research in Applied Mathematics, ISSN (Online): 2394-0743, ISSN (Print):2394-0735.December-2021.

- "A study on Compartmental models, Epidemiological Characteristics and Stability Analysis of pandemic COVID-19 in INDIA", GIS science journal, volume 7, issue 6, pp:375-402, ISSN: 1869-9391,June-2020. **DOI:20.18001.GSJ.2020.V7I4.20.35473 (Scopus).**

- "A Novel Delay Dependent Stability Analysis of Neural Networks Using LMI Approach' in the International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT), Volume 4, Issue 9, pp 196-199, ISSN: 2456-3307, November-December,2019. DOI : **10.32628/CSEIT1949137.**

- An asymptotic stability analysis of neutral time delays system with nonlinear uncertainty, South East Asian journal of mathematics and mathematical sciences. Vol.15, no.2 pp-127-134, ISSN: 0972-7752 August-2019.

- Exponential stability of neutral time delay differential systems with LMI approach, South East Asian journal of mathematics and mathematical sciences. Vol.15, no.2 pp:59-64,ISSN:0972-7752 August-2019.

- Exponential stability analysis for delay-differential systems of neutral type With an LMI approach. Khayyam Journal of. Mathematics. 5, no.1, 11-20, ISSN 2423-4788 January-2019. DOI:10.22034/KJM.2018.73499 **(Scopus)**

- Exponential passivity for uncertain neural networks with time-varying delays based on weighted integral inequalities. Neuro computing 314, 429–436, July-2018**.** ISSN: 0925-2312, https://doi.org/10.1016/j.neucom.2018.07.009 **(Elsevier)**

- Delay-dependent criterion for finite-time stability analysis of neural networks with time-varying delays. International Journal of Pure and Applied Mathematics, Volume 118, No. 23, PP.213-221, ISSN: 1314-3395, June-2018**.(Scopus)**

- New exponential stability criterion for a class of Markovian jumping recurrent neural networks with time varying delays: An event-triggered approach. International Journal of Pure and Applied Mathematics, Volume 118, No. 23, PP.263-271, ISSN: 1314-3395, June-2018**.(Scopus)**

- 'LMI Approach for Stability analysis for neutral delay-differential systems'. International Journal of Recent scientific Research. Vol. 8, Issue, 8, pp. 19499-19503, ISSN: 0976-3031, August- 2017. DOI: http://dx.doi.org/10.24327/ijrsr.2017.0808.0706

- A Brief Study on Stability of Neutral Time Delay Differential System. International Journal of Applied Science and Mathematics Volume 4, Issue 4, pp:112-115.,ISSN (Online): 2394-2894, July-2017

- A stability analysis for linear delay-differential systems. International journal for Innovative research in science and technology, Volume III, Issue 8: Page No.52 – 54, ISSN: 2349-6010, January-2017.

- A comparative study of robust stability in time interval delay systems with delay-dependence. International journal of Multidisciplinary research centre, Volume II, Issue 9: Page No.23 – 28, ISSN: 2454-3659 (P), 2454-3861(E). March-2016.

- Numerical evaluation of integral with weight function x^kusing Gauss legendre quadrature rules, International organization of scientific Research, Journal of Mathematics, Vol. 11, Issue 3, pp.1-6, *e-ISSN: 2278-5728, p-ISSN: 2319- 765X.* June-2015.

International Conference:

- Presented Paper: 'A novel delay dependent stability analysis of neural networks using LMI approach' International conference on Innovative Research in Engineering, Management and sciences (ICIREMS-2019).19th -21st December-2019. New Horizon college of Engineering, Bengaluru-560083, Karnataka.

- Presented Paper: 'A study on stability of neutral and neural time delay differential systems with LMI approach' International conference on Global Advancement of Mathematics (GAM-2019).25th -26th June-2019. Acharya institute of graduates studies, Bengaluru-560107, Karnataka.

- Presented Paper: 'Stability analysis for delay-differential systems of neutral type with an LMI approach' International Conference on Applied Analysis, Mathematical Modeling and computing techniques (ICAAMMCT-2018).15th -17th March-2018, Gandhigram University, Gandhigram, Tamilnadu. Associated with UGC, MHRD, SERB, and CSIR New Delhi.

National Publication:

- Umesha.V. A Stability Analysis of linear time delay differential system. National Conference on Current Advances in Science and technology (NCCAAST-2017) KSIT, Bangalore . Page no 35-39, **ISBN: 978-81-929425-4-4.**

- Umesha.V. A Brief Survey of Linear Matrix Inequalities. National Conference on Advances in mechanical engineering and applied sciences (AMEAS-2016). 19th -20th February-2016, DSCE, Bangalore .page no 03-10, **ISBN: 978-93-84935-77-1.**

- Umesha.V. Improved solution for Extension to stability of interval time-delay systems. National Conference on Convergence of Science, Technology & Management (NCCSTM-2016). 5th May-2016, DSATM, Bangalore. **ISBN: 978-93-84935-97-9.**

- Umesha.V. A brief analysis on stability of a continuous linear system of equation. National Conference on Convergence of Science, Technology & Management (NCCSTM-2016). 5th May-2016, DSATM, Bangalore. **ISBN: 978-93-84935-97-9.**

- Umesha.V. A Simple Quadrilateral Finite Element Mesh Generator In Maple. National Conference on Convergence of Science, Technology & Management (NCCSTM-2016). 5th May-2016, DSATM, Bangalore. **ISBN: 978-93-84935-97-9.**

- Umesha.V. Finite Element Mesh Generation Technique for Numerical Evaluation of Integrals over a Convex Polygonal Domain. National Conference on Convergence of Science, Technology & Management (NCCSTM-2016). 5th May-2016, DSATM, Bangalore. **ISBN: 978-93-84935-97-9.**

- Umesha.V. Quadrilateral mesh generation using finite element method. II-National conference on EMERGING TRENDS IN SCIENCE AND TECHNOLOGY (ETST- 2015) Sapthagiri College of engineering. Bangalore.