

**Dr. LAKSHMIPRIYA N**

Assistant Professor

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Date of Birth : 07 May 1993  
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## **Educational Qualifications**

SSLC	2008 Institution : Govt. Vocational Higher Secondary School Mananthavady, Wayanad Percentage of Marks : 95% (Full A plus).
HSE	2010 Institution : Govt. Vocational Higher Secondary School Mananthavady, Wayanad Percentage of Marks : 91%
B.Sc.(Mathematics)	2013 University : University of Calicut, Kerala Percentage of Marks : 95%
M.Sc.(Mathematics)	2015 University : Central University of Kerala Percentage of Marks: 87% (First Rank.)
M.Phil.	2016 University : University of Kerala
PhD	2022 University : Central University of Kerala Research Area : Differential Equations Thesis Title : A study on existence and blow-up of weak solutions of certain parabolic PDEs with variable exponents

## Awards

- UGC- NET 2017 June.
- First rank holder in Master Degree.
- KSCSTE Research Fellowship (2015).
- INSPIRE Research Fellowship(2017).
- Senior Research Fellow -DST INSPIRE.
- Bharat Scouts & Guides Rashtrapati Award.
- NCC C-certificate.
- First Prize holder in Inter-collegiate Mathematics quiz competition conducted by Central University of Kerala.
- Prize holder in many other inter-collegiate Mathematics quiz competitions conducted by colleges affiliated to Calicut university.
- Reviewer in Web of Science

**Topic of Interest** : Partial Differential Equations.

## List of Papers

1. Narayanan, L., & Soundararajan, G. (2020). *Existence and blow-up studies of a  $p(x)$ -Laplacian parabolic equation with memory*. Mathematical Methods in the Applied Sciences.
2. Lakshmipriya, N., & Gnanavel, S. (2021). *Quasilinear  $p(x)$ -Laplacian parabolic problem: upper bound for blow-up time*. Journal of Physics: Conference Series (Vol. 1850, No. 1, p. 012007). IOP Publishing.
3. Lakshmipriya, N., Gnanavel, S., Balachandran, K., & Ma, Y. K. (2022). Existence and blow-up of weak solutions of a pseudo-parabolic equation with logarithmic nonlinearity. *Boundary Value Problems*, 2022(1), 1-17.  
(<https://boundaryvalueproblems.springeropen.com/articles/10.1186/s13661-022-01611-3>)
4. Narayanan, Lakshmipriya, and Gnanavel Soundararajan. "Nonexistence of global solutions of a viscoelastic  $p(x)$ -Laplacian equation with logarithmic nonlinearity." *AIP Conference proceedings*. Vol. 2451. No. 1. AIP Publishing LLC, 2022.  
(<https://doi.org/10.1063/5.0095323> )
5. Narayanan, Lakshmipriya, and Gnanavel Soundararajan . 'Existence of Solutions of a Viscoelastic  $p(x)$ -Laplacian Equation with Logarithmic Nonlinearity'. *Discontinuity, Nonlinearity, and complexity*. 12(3) (2023) 485-495. (DOI: 10.5890/DNC.2023.09.002)
6. Narayanan, Lakshmipriya and Gnanavel Soundararajan. "Concavity method: A concise survey." *3c Empresa: investigación y pensamiento crítico* 11.2 (2022): 94-102.  
(<https://dialnet.unirioja.es/servlet/articulo?codigo=8749991>)
7. Lakshmipriya, N., & Gnanavel, S. *Upper Bound for Blow-up Time for the Semilinear Parabolic Problem with Memory term*.(Accepted for publication in Indian Journal of Industrial and Applied Mathematics).

## List of Presentations

- *Blow-up of Solutions for a  $p(x)$ -Laplacian Heat Equation using Concavity Method*, 29<sup>th</sup> International Conference of Indian Society of Industrial and Applied Mathematics (IC-ISIAM 2019) held at Bharathiar University, Coimbatore, Tamil Nadu, during December 05 - 07, 2019.
- *Quasilinear  $p(x)$ -Laplacian parabolic problem: upper bound for blow-up time*, 2<sup>nd</sup> International Conference on Mathematical Modeling and Computational Methods in Science and Engineering (ICMMCMSE-2020) at Alagappa University, Karaikudi, Tamil Nadu, during January 22-24, 2020.
- *Blow up studies of a  $p(x)$ -Laplacian equation with memory*, National Conference on Mathematical Analysis and Applications (NCMAA - 2021) held during 23-24 April 2021, National Institute of Technology Tiruchirappalli, Tamil Nadu.
- *Nonexistence of global solutions of a viscoelastic  $p(x)$ -Laplacian equation with logarithmic nonlinearity*, International Conference on Advances in Multi-Disciplinary Sciences and Engineering Research (ICAMSER-2021) July 2 - 3, 2021, Chitkara University, Himachal Pradesh.
- *Existence of solutions of a viscoelastic  $p(x)$ -Laplacian equation with logarithmic nonlinearity*, National Conference on New Trends in Applied Mathematics (NCNTAM 2021), University Institute of Engineering & Technology (U.I.E.T.), Chhatrapati Shahu Ji Maharaj University Kanpur, UP, during October 11 - 12, 2021.

## Programs attended

2014

- Three day workshop on Topological Dynamics, Central University of Kerala
- Three day workshop on Functional Analysis, Central University of Kerala
- Workshop on Module Theory, Central University of Kerala
- MTTTS Programme, RIE Mysore. May 19-June 14.

2015

- NPDE-TCA Advance Level Training Programme, BITS Pilani-Goa, May 25- June 14.

2016

- Indo- Hungarian school on Discrete Mathematics, University of Kerala, 15-16 February.
- CALDAM International Conference, University of Kerala 18-20 February.
- National Conference on Control and Inverse Problems, CUTN, Thiruvapur, 26-27 Feb.

2017

- Advanced Workshop on Partial Differential Equations and Applications CUTN, Thiruvapur, May 29- June 11.
- Science Academies' Refresher Course on " Partial Differential Equations and their Applications". IISER Bhopal, 03-15 July.
- Instructional School for Teachers on Functional Analysis Bhaskaracharya Pratishthana, Pune, October 23- November 4.
- Annual Foundation School-I , Kerala School of Mathematics, 04-30 December.

2018

- Annual Foundation School- II at Central University of Rajasthan, 03-29 December.

2019

- National Workshop on Glimpses of Differential Geometry at in Central University of Kerala, from 30 January – 02 February.
- Worked as a Visiting Research Scholar at the Department of Applied Sciences, National Institute of Technology Goa under the guidance of Dr. L. Shangerganesh, Assistant Professor of Mathematics, NIT Goa in the research area of Blow-up of Partial Differential Equations with Variable Exponents, April 09- June 27.
- International Conference in Conjunction with 15th Biennial Conference of Indian Society of Industrial and Applied Mathematics - ICISIAM 2019, Bharathiyar University, Tamil Nadu, 05-07 December.
- Advance Workshop on Partial Differential Equations and Applications organized by the Department of Mathematics, Central University of Kerala, 16-30 December.

2020

- Workshop on Probability Theory and its Applications at Central University of Kerala. 12- 16 February.
- 2nd International Conference on Mathematical Modeling and Computational Methods in Science and Engineering (ICMMCMSE-2020), Alagappa University, Tamil Nadu, 22-24 January.
- Webinar on 'An introduction to optimal control theory' organized by St. Thomas College , Kozhencherry on 30 July.
- International Webinar on Applications of Partial Differential Equations and Recent Trends in Mathematics Education organized by the Postgraduate Department of Mathematics, St. Dominic's College, Kanjirapally, Kerala on 18 August.

2021

- Two-days National Conference on Mathematical Analysis and Applications (NCMAA - 2021) organized by the Department of Mathematics, National Institute of Technology Tiruchirappalli, 23-24 April
- International Conference on Advances in Multi-Disciplinary Sciences and Engineering Research (ICAMSER-2021) organized by Chitkara University, Himachal Pradesh, 02-03 July.
- International Webinar on Introduction to Differential Equations and its Approximate Solutions, organized by Department of Basic Science, Sri Venkateshwara College of Engineering, Bengaluru on 12 August.
- 27<sup>th</sup> International Conference of the International Academy of Physical Sciences on Mathematical Analysis and its Applications, Central University of Kerala, 26- 28 October.

2022

- Webinar on *Recent Trends and Applications of Mathematics* held on 28 September 2022, organized by the Department of Computational Science and Humanities, Indian Institute of Information Technology Kottayam.

2023

- Two Weeks “REFRESHER COURSE IN MATHEMATICS (Theme : Python & Vedic Mathematics)” organized by the Teaching Learning Centre & Department of Mathematics Ramanujan College, University of Delhi during 13 - 26 July, 2023.

- International Seminar on Global Horizon: Exploring Research Opportunities organized by the school of mathematics and statistics & school of data analysis, Mahatma Gandhi University, Kottayam on 07 September.
- International Conference on Mathematical Modeling in Public Health and Epidemiology(ICMMPHE-23) organized by the Department of Mathematics, Phuket Rajabhat University, Thailand on 09 November.
- 4-Week Faculty Induction/Orientation Programme for “Faculty in Universities/ Colleges/Institutes of Higher Education” from 22 November - 21 December.

## **Programs Organized**

- International Seminar on Recent Trends in Mathematics (ISRTM-2024), Department of Mathematics, NSS College Nemmara on 26 March 2024.

## **Invited Talks**

- At IHRD Ayalur in association with Fibonacci Day celebration on 22 November 2023