

# Elayarani M



## OBJECTIVE

My primary objective is to provide a safe and nurturing learning environment that encourages student growth and development. I aim to facilitate engaging and challenging instruction that fosters a love for learning, critical thinking, and problem-solving skills.

## SKILLS

Communication  
Problem-solving  
Critical thinking  
Time management  
Lesson planning  
Leadership  
Creative writing

## ADDRESS

6A, Second Street,  
Abiramipuram, Pudur,  
Ambattur, Chennai600053

## PHONE

9940036494

## EMAIL

elaya.1205@gmail.com

## EXPERIENCE

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FEBRUARY 2018 – JANUARY 2022

**Junior Research Fellow – Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam**

JUNE 2015 – APRIL 2017

**Post Graduate Teacher - Hussain Memorial Matriculation Higher Sec School, Ambattur**

JUNE 2011 – APRIL 2013

**Post Graduate Teacher - M.E.S. Razeena Matriculation Higher Sec School, Kilpauk**

Key responsibilities: planning and delivering effective instruction across various subjects and grade levels, assessing and monitoring student progress, and providing individualized support and intervention as needed.

## EDUCATION

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Ethiraj College for Women, Egmore  
BSc in Mathematics – 2009

CEG Campus, Anna University  
MSc in Applied Mathematics – 2011

Anna University  
PhD – Fluid Mechanics - 2022

## AREA OF SPECIALIZATION

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Computational Fluid Dynamics, Newtonian and Non-Newtonian Fluids, Nanofluids, Heat and Mass Transfer, Numerical Simulation, Artificial Intelligence Techniques

## **WORKSHOP/TRAINING PROGRAMME/WEBINAR ATTENDED**

1. Science Academies' Lecture Workshop on Theoretical and Computational Fluid Dynamics held from 04th to 06th October 2017 at the Department of Mathematics, Bharathiar University, Coimbatore.
2. Research documentation-LATEX workshop held on 9th February 2018 at the Department of Computer Science, SSN College of Engineering, Chennai.
3. Training Programme on "URKUND: Plagiarism Detection Service" held on 3rd April 2019 at College of Engineering, Guindy, Anna University, Chennai.
4. Workshop on "Genetic Algorithm & Fuzzy Logic" held on 4th March 2020 at the Department of Mechanical Engineering, SSN College of Engineering, Chennai.
5. TEQIP III Workshop on "Mathematical Tools for Boundary Value Problems and Applications" during 9th to 13th March 2020 at the Department of Mathematics, IIT Kharagpur.
6. "One day National Webinar on Mathematics in Machine Learning" held on 20th May 2020 organized by the Department of Mathematics, SSN College of Engineering, Chennai.
7. "One Day National Webinar on Computational Fluid Dynamics" held on 4th June 2020 organized by the Department of Mathematics, SSN College of Engineering, Chennai.
8. National Webinar on "Fluid Dynamics" held on 23rd June 2020 organized by the Department of Mathematics and Statistics, School of Basic Sciences, Manipal University, Jaipur.
9. "Two Days National Webinar on Fluid Mechanics" from 29th to 30th June 2020 organized by the Department of Science and Humanities, KGiSL Institute of Technology, Coimbatore.
10. AICTE Training And Learning (ATAL) Academy Online FDP on "Computational Fluid Dynamics" from 28th September to 2nd October, 2020 at Govt College of Engineering and Research Avasari.

## **CONFERENCE ATTENDED**

1. "National Conference on Fluid Mechanics" held from 27th to 28th October at the Department of Mathematics, SSN College of Engineering, Chennai.
2. National Conference on "Sustainable Energy Resources for Thermal Systems (SERTS 2018)" held on March 16, 2018 at SSN college of Engineering, Chennai.
3. "International Conference on Mathematical Methods, Modeling and Simulation in Chemical Sciences" held during December 06 – 08, 2018 at SSN college of Engineering, Chennai.
4. "Second International Conference on Sustainable Energy Resources, Materials and Technologies (ISERMAT-2019)" held during March 14-15, 2019 at SSN College of Engineering, Chennai.
5. "International Conference on Mechanical Engineering Design" held during April 25-26, 2019 at SSN College of Engineering, Chennai.
6. "First International Conference on Recent Trends in Clean Technologies for Sustainable Environment (CTSE-2019)" held during September 26-27, 2019 at SSN College of Engineering, Chennai.
7. "International Conference on Applied Mathematics & Civil Structures (ICAMCS-2021)" held during February 12-13, 2021 at SSN College of Engineering, Chennai.
8. "International Conference on Mathematical Techniques and Applications (e-ICMTA-2021)" held during March 24-26, 2021 at SRM Institute of Science and Technology, Kattankulathur.
9. "Virtual International Conference on Sustainable Practices and Innovations in Civil Engineering (SPICE) 2022", held during March 16-17, 2022 at SSN College of Engineering, Chennai.

## **LIST OF PUBLICATIONS**

1. Shanmugapriya, M, Sundareswaran R, Senthil Kumar P, Elayarani, M (2023), "An ANFIS Approach for Predicting MHD Radiative Hybrid Nanofluid Flow Attributes with Activation Energy Effect", Arabian Journal for Science and Engineering. (IF- 2.9)
2. Elayarani, M & Shanmugapriya, M (2022), "Entropy Minimization in Non-Linear Radiative Heat Transfer of Magnetized Carreau Nanofluid using PSO Technique", AIP Conference Proceedings, vol. 2516, no. 1, pp. 170014. (IF- 0.41)

3. Elayarani, M, Shanmugapriya, M & Senthil Kumar, P (2021), "Intensification of Heat and Mass Transfer Process in MHD Carreau Nanofluid Flow containing Gyrotactic Microorganisms", Chemical Engineering and Processing - Process Intensification, vol. 160, pp. 108299. (IF-4.3)
4. Seenivasan, D, Elayarani, M & Shanmugapriya, M (2020), "Heat and Mass Transfer Analysis of Al<sub>2</sub>O<sub>3</sub>-water and Cu-water Nanofluids over a Stretching Surface with Thermo-Diffusion and Diffusion-ThermoEffects using Artificial Neural Network", Lecture Notes in Mechanical Engineering, pp. 417-434. (IF- 0.46)
5. Elayarani, M, Shanmugapriya, M & Senthil Kumar, P (2019), "Estimation of Magnetohydrodynamic Radiative Nanofluid Flow over a Porous Non-Linear Stretching Surface: Application in Biomedical Research", IET Nanobiotechnology, vol. 13, no. 9, pp. 911-922. (IF- 2.050)
6. Elayarani, M & Shanmugapriya, M (2019), "Artificial Neural Network Modeling of MHD Stagnation Point Flow and Heat Transfer Towards a Porous Stretching Sheet", AIP Conference Proceedings, vol. 2161, no. 1, pp. 020043. (IF- 0.41)
7. Elayarani, M & Shanmugapriya, M (2018), "The MHD Stagnation Point Flow over a Stretching Sheet in a Porous Medium with Heat Generation", International Journal of Mechanical and Production Engineering Research and Development, vol. 8, no. 7, pp. 568-576.
8. Elayarani, M, Shanmugapriya, M, Sundareswaran, R & Senthil Kumar, P, "Hybrid ANN-PSO Approach for Predicting Heat and Mass Transfer Rates in Aligned Magnetic Flow of Radiative Walter-B Nanofluid influenced by a Non-Linear Stretched Surface". (communicated)