

**Name** : Dr. L. Susana Ramya  
**Designation** : Assistant Professor  
**Department** : Mathematics  
**Qualification** : M.Sc., M.Phil., Ph.D.  
**Experience** : Teaching : 5.10 Years      Research : 6 Years  
**Area of Specialization(s)** : Control Theory  
**Email (Official ID)** : susanaramya@drngpasc.ac.in



### Academic Qualifications

| Degree  | Branch      | Institution / University Name                | Year of Graduation |
|---------|-------------|--|--------------------|
| Ph.D.   | Mathematics | Anna University Regional Campus, Coimbatore. | 2020               |
| M.Phil. | Mathematics | Tamilnadu open University, Chennai.          | 2008               |
| M.Sc.,  | Mathematics | Bishop Heber College, Trichy.                | 2000               |
| B.Sc.,  | Mathematics | Holy Cross College, Trichy.                  | 1998               |

### Additional Qualifications

| Diploma / Vocational / Certification | Area of Specialization | Institution / University / Agency Name | Year |
|--------------------------------------|------------------------|--|------|
|                                      |                        | Nil                                    |      |

### Grants Received

| Event Title | Agency | Amount | Date |
|-------------|--------|--------|------|
|             | NIL    |        |      |

### Projects

#### Completed

| Project Title                  | Agency | Amount   | Duration    |
|--------------------------------|--------|----------|-------------|
| Adaptive Reliable mechanism of | DST    | 7,25,000 | 2017 - 2020 |

|                    |  |  |  |
|--------------------|--|--|--|
| bioeconomic system |  |  |  |
|--------------------|--|--|--|

#### On-going

| Project Title | Agency | Amount | Duration |
|---------------|--------|--------|----------|
|               | NIL    |        |          |

#### Research Guidance

| Programme | No. of Scholars |          |
|-----------|-----------------|----------|
|           | Completed       | Pursuing |
| NIL       | -               | -        |

#### Research Publications (Indexed)

##### International

1. **L. Susana Ramya** and A. Leelamani, “Resilient fuzzy control design of singular stochastic biological economic fishery model”, *IET Control Theory & Applications*, vol.5, pages 1–16 (2021). [Impact Factor: 3.343]
2. **L. Susana Ramya**, R. Sakthivel, Y. Ren, Y. Lim and A. Leelamani, “Consensus of uncertain multi-agent systems with input delay and disturbances”, *Cognitive Neurodynamics*, vol.13, pages 367–377(2019). [Impact Factor: 3.021]
3. **L. Susana Ramya**, R. Sakthivel, A. Leelamani, P. Dhanalakshmi and N. Sakthivel,” Output tracking control of switched nonlinear systems with multiple time-varying delays”, *International Journal of Systems Science*, vol.49, pages 2373-2384 (2018). [Impact Factor: 5.20]
4. **L. Susana Ramya**, R. Sakthivel, C.K. Ahn, and Y.Ren, “Reliable resilient finite-time control for stabilization of hyperchaotic fractional-order systems” *IEEE Transactions on Circuits and Systems II: Express Briefs*, vol.66, pages 1537 - 1541 (2018). [Impact Factor: 3.25]
5. **L. Susana Ramya**, “Reliable passive controller design for a class of fuzzy time-delay systems against nonlinear actuator faults”, *American International Journal of Research in Science, Technology, Engineering & Mathematics*, ISSN (Print): 2328-3491. (2018) [Impact Factor 5.01]

6. R. Sakthivel, **L. Susana Ramya**, Y. K. Ma, M. Malik and A. Leelamani, "Stabilization of uncertain switched discrete-time systems against actuator faults and input saturation", *Nonlinear Analysis: Hybrid Systems*, vol.35, pages 271–280(2020). [Impact Factor: 4.010]
7. S. Kanakalakshmi, **L. Susana Ramya** and A. Leelamani, "Reliable non-fragile consensus of nonlinear fractional-order multi-agent systems with switching topology", *SSRG International Journal of Mathematics Trends and Technology*, ISSN-2231-5373. (2019)[Impact Factor: 0.12]
8. R. Sakthivel, **L. Susana Ramya** and P. Selvaraj, "Observer-based state tracking control of uncertain stochastic systems via repetitive controller", *International Journal of Systems Science*, vol.48, pages 2272–2281(2017). [Impact Factor: 5.20]
9. R. Sakthivel, **L. Susana Ramya**, B. Kaviarasan, S. Santra and A. Leelamani "Robust Reliable L2 – L $\infty$  Control for Continuous-Time Systems with Nonlinear Actuator Failures", *Complexity*, vol.21, pages 309-319 (2016). [Impact Factor: 1.738]
10. S. Kanakalakshmi, R. Sakthivel, **L. Susana Ramya**, A. Parivallal and A. Leelamani, "Disturbance estimator based dynamic compensator design for fractional order fuzzy control systems", ***Iranian Journal of Fuzzy Systems***, vol., pages (2021). [Impact Factor: 2.276]
11. V. Tharanidharan, R. Sakthivel, Y. K. Ma, **L. Susana Ramya** and S. M. Anthoni, "Finite-time decentralized non-fragile dissipative control for large-scale systems against actuator saturation", *ISA Transactions*, vol.91, pages 90-98 (2019). [Impact Factor 4.343]

#### Consultancy

| Nature of Consultancy | Client                        | Amount     | Completion Status |
|-----------------------|-------------------------------|------------|-------------------|
| Webpage Design        | Agro Pvt. Ltd.,<br>Coimbatore | Rs. 25,000 | Completed/Ongoing |

#### Presentations in Conference

1. Presented a paper titled "Reliable mechanism for singular fuzzy bio-economic systems" in **International Conference on Mathematical Modelling and Scientific Computing** held at Gandhigram Rural Institute (Deemed to be University), Dindigul on 19 -21 February 2020.

2. Presented a paper titled “Adaptive reliable control for stochastic systems” in **International Conference in Conjunction with 15<sup>th</sup> Biennial Conference of ISIAM** held at Bharathiar University, Coimbatore on 5 -7 December 2019.
3. Presented a paper titled “Reliable control of wheeled mobile robot trailer affected by time delay and disturbances” in **5<sup>th</sup> IEEE ICONSTEM 2019** international conference held at Jeppiaar Engineering College, Chennai on 14 -15 March 2019.
4. Presented a paper titled “Reliable non-fragile consensus of nonlinear fractional-order multi-agent systems with switching topology” in **International conference on future technologies in engineering, science and humanities** held at Sri Guru Institute of Technology, Coimbatore on 22 February 2019.
5. Presented a paper titled “Reliable passive controller design for a class of fuzzy time-delay systems against nonlinear actuator faults” in the **2<sup>nd</sup> International conference on current scenario in pure and applied mathematics** held at Kongunadu Arts and Science College, Coimbatore on 3 January 2019.
6. Presented a paper titled “Extended passivity sampled data control for T-S fuzzy systems with nonlinear actuator failures” in the **4<sup>th</sup> National Conference on advances in differential equations and applications** held at Periyar University, Salem on 23-24 March 2017.
7. Presented a paper titled “Robust reliable dissipative control for continuous-time systems with mixed actuator failures” in the **International Conference on Differential Equations and Applications** held at Bharathiar University, Coimbatore on 15-16 March 2017.
8. Presented a paper titled “Passivity Analysis of T-S fuzzy systems with time varying delay against nonlinear actuators” in the **International Conference on Nonlinear Dynamical Systems** held at Bharathiar University, Coimbatore on 24-26 March 2016.
9. Presented a paper titled “Passivity based T-S fuzzy systems nonlinear actuator failures” in the **National Conference on Recent developments in Differential Equations and their Applications** held at PSGR Krishnammal College for women, Coimbatore on 4-5 March 2016.

## Participation in Conference

### International

1. Participated in a “**Online training/webinar**” organized by IEEE Explore, Dr. NGP Institute of Technology, Coimbatore held on 12 October 2021.

2. Participated in a “**Webinar**” organized by The Department of Mathematics, Hindusthan College of Arts and Science, Coimbatore held on 08 October 2021.
3. Participated in a “**FDP**” organized by The Center of faculty development, Dr. NGP Institute of Technology, Coimbatore held on 01 October 2021.
4. Participated in a “**Online FDP**” organized by The Department of Mathematics, Dr. NGP Institute of Technology, Coimbatore held on 7-12 June 2021.
5. Participated in a “**Value Added Course on Application of Mathematics and Programming in Science and Technology**” organized by The Department of Mathematics, Karunya Institute of Technology and Sciences , Coimbatore held on 1-11 June 2021.
6. Participated in a “**Five Day PDP**” organized by The Department of Mathematics, Patrician College of Arts and Science, Chennai held on 31 May – 04 June 2021.
7. Participated in a “**International Webinar**” organized by The Department of Mathematics, KPR Institute of Engineering and Technology , Coimbatore held on 22 May 2021.
8. Participated in a “**International Webinar**” organized by The Department of Mathematics, KPR Institute of Engineering and Technology , Coimbatore held on 16 December 2020.
9. Participated in a “**Webinar**” organized by The Department of Mathematics, KPR Institute of Engineering and Technology , Coimbatore held on 08 October 2020.
10. Participated in a “**Webinar**” organized by The Department of Mathematics, Kongu Engineering College, Erode on 19 September 2020.
11. Participated in a “**Two One-day Webinar**” organized by The Department of Mathematics, KPR Institute of Engineering and Technology , Coimbatore held on 8-9 September 2020.

12. Participated in a **“Faculty Development Programme”** organized by The Department of Mathematics, KPR Institute of Engineering and Technology , Coimbatore held on 25-28 August 2020.
13. Participated in a **“Webinar”** organized by The Department of Mathematics, Nehru Institute of Engineering and Technology, Coimbatore on 13 August 2020.
14. Participated in a **“Seven Day Online International Faculty Development Programme”** organized by The Department of Mathematics, Kumaraguru College of Technology, Coimbatore on 29 June- 06 July 2020.
15. Participated in a **“Six Day National Webinar Series”** organized by The Department of Mathematics, KPR Institute of Engineering and Technology, Coimbatore on 06-11 July 2020.
16. Participated in a **“Webinar”** organized by The Department of Mathematics, Mahendra College of Engineering, Salem on 12 July 2020.
17. Participated in a **“A Five Day International Faculty Development Programme”** organized by The Department of Mathematics, SNS College of Technology, Coimbatore on 02-06 June 2020.
18. Participated in a **“International Webinar”** organized by The Department of Mathematics, VO Chidambaram College, Thoothukudi 25 June 2020.
19. Participated in a **“Online National Webinar”** organized by The Department of Mathematics, St. Joseph’s Institute of Technology, Chennai on 30 June 2020.
20. Participated in a **“One Week online International Faculty Development Programme”** organized by The Department of Mathematics, GMR Institute of Technology, Rajam, on 25-29 June 2020.
21. Participated in a **“Three Days International Faculty Development Programme”** organized by The Department of Mathematics, NGP College of Technology, Coimbatore held on 24-26 June 2020.
22. Participated in a **“Two Webinar”** organized by The Department of Mathematics, KPR Institute of Engineering and Technology, Coimbatore on 25-26 June 2020.

23. Participated in a “**One day National Seminar**” organized by The Department of Mathematics, KPR Institute of Engineering and Technology, Coimbatore 24 June 2020.
24. Participated in a “**International Web Conference**” organized by The Department of Mathematics, St. Mary’s College, Thoothukudi on 17-19 June 2020.
25. Participated in a “**Webinar**” organized by Anamalai University on 22 June 2020.
26. Participated in a “**Two Days National Level Faculty Development Programme**” organized by The Department of Mathematics, Ramakrishnan College of Engineering, Trichy on 10-11 June 2020.
27. Participated in a “**National Webinar**” organized by The Department of Mathematics, VO Chidamabaram College, Thoothukudi on 07 June 2020.
28. Participated in a “**Online Faculty Development Programme**” organized by The Department of Mathematics, Mepco Schlenk Engineering College, Sivakasi on 10 June 2020.
29. Participated in a “**Webinar**” organized by The Department of Mathematics, University College of Engineering BIT Campus, Trichy on 04 June 2020.
30. Participated in a “**Webinar**” organized by The Department of Mathematics, GTN Arts College, Dindigul on 3 June 2020.
31. Participated in a “**Webinar**” organized by The Department of Mathematics, Hindusthan College of Engineering and Technology, Coimbatore on 04 June 2020.
32. Participated in a “**Webinar**” organized by The Department of Mathematics, Kongunadu Arts and Science College, Coimbatore on 04 June 2020.
33. Participated in a “**Webinar**” organized by The Department of Mathematics, Hindusthan College of Engineering and Technology, Coimbatore on 31 May 2020.

34. Participated in a “**Seven Days National Level Faculty Development Programme**” organized by The Department of Mathematics, Nalla Muthu Goundre Mahalingam College, Pollachi on 27 May-02 June 2020.
35. Participated in a “**Seven Days National Level Faculty Development Programme**” organized by The Department of Mathematics, Bannari Amman Institute of Technology, Erode on 01-07 June 2020.
36. Participated in a “**Webinar**” organized by The Department of Mathematics, Dayananda Sagar College Of Engineering, Bangalore on 07 June 2020.
37. Participated in a “**Webinar**” organized by The Department of Mathematics, GTN Arts College, Pollachi on 03 June 2020.
38. Participated in a National Conference on “**Computational Biology**” organized by The Department of Mathematics, Anna University, Coimbatore held on Bharathiar University 26 June 2018.
39. Participated in a National Conference on “**Computational Topology and Differential Equations**” organized by The Department of Mathematics, Anna University and DRDO BLCS, Coimbatore held on Bharathiar University 21 April 2018.
40. Participated in a “**National Conference on Recent Advances in mathematics and its applications in science and engineering**” organized by The Department of Mathematics, Dr. NGP Institute of Technology, Coimbatore on 3 February 2017.
41. Participated in a “**National Conference on Computational Biology**” organized by The Department of Mathematics, Bharathiar University, Coimbatore held at DRDO-BU CLS on 27-28 June 2016.
42. Presented a paper titled “Passivity Analysis of T-S fuzzy systems with time varying delay against nonlinear actuators” in the **International Conference on Nonlinear Dynamical Systems** held at Bharathiar University, Coimbatore on 24-26 March 2016.
43. Participated in **FDP programme** on “Facilitation skills for teachers under TEQIP II for engineering colleges by DOTE and QIC” at GCT College, Coimbatore on 5-7 November 2014.

#### Membership in Professional Bodies

| Name of the Professional Body | Nature of membership | Duration |
|-------------------------------|----------------------|----------|
|-------------------------------|----------------------|----------|



|  |           |             |
|--|-----------|-------------|
| Indian Society of Industrial & Applied Mathematics   | Life-time | -           |
| Social Informatics and Telecommunication Engineering | 1 Year    | 2013 - 2014 |

#### **Awards / Honors**

| <b>Awards / Honors</b> | <b>Agency / Institute</b>       | <b>Year of Award</b> |
|------------------------|---------------------------------|----------------------|
| University Rank Holder | M. Sc.(Bharadidasan University) | 2000                 |

#### **Recognition National / International**

| <b>Nature of Recognition</b> | <b>Organization / Institution</b> | <b>Year</b> |
|------------------------------|-----------------------------------|-------------|
|                              |                                   |             |