Dr. R. BARANITHA
Assistant Professor in Mathematics
Email : baranitharajaram89@gmail.com

Address for Communication: 197, West Street,
                           Thangamuthu Nagar, Pulikuthi,
                           Pannaipuram (via),
                           Theni (DT)-625 524
                           Tamil Nadu

ACADEMIC PROFILE

Course   : **Ph.D (Mathematics)**
Institute/University : Bharathiar University, Coimbatore
Thesis Title   : Synchronization Analysis of Teleoperation Systems
                         with Time-varying Delays

Course   : **M. Phil (Mathematics)**
Institute/University : PSG College of Arts & Science, Coimbatore
Percentage Secured   : 73%

Course   : **M. Sc (Mathematics)**
Institute/University : Lady Doak College for Women, Madurai
Percentage Secured   : 81%

Course   : **B.Sc (Mathematics)**
Institute/University : HKRH College of Arts & Science, Uthamapalayam
Percentage Secured   : 80%

LIST OF PUBLICATIONS:

1. K Janani, R Baranitha, CP Lim, R Rakkiyappan, "Observer-based fuzzy integral sliding mode control for bilateral teleoperation systems with time-varying delays", Mathematics and Computers in Simulation, 2023

2. R. Rakkiyappan, **R. Baranitha**, Zhigang Zeng, "Hidden Markov-model based control design for Multilateral teleoperation system with asymmetric time-varying delays". IEEE Transactions on Systems, Man and Cybernetics: Systems, DOI: 10.1109/TSMC. 2020. 3034652.

3. **R. Baranitha,** R. Rakkiyappan, Xiaodi Li, "T-S fuzzy model based single-master multi-slave teleoperation systems with Decentralized communication structure and varying time delays", IEEE Transactions on Fuzzy systems, DOI: 10.1109/TFUZZ.2019.2952789, 2019.

4. **R. Baranitha**, R. Mohajerpoor, R. Rakkiyappan, "Bilateral Teleoperation of Single-master Multi-slave Systems with Semi-Markovian Jump Stochastic Interval Time-varying Delayed Communication Channels", IEEE Transactions on Cybernetics, DOI:10.1109/TCYB.2018.2876520.

5. **R. Baranitha**, R. Rakkiyappan, Reza Mohajerpoor, Saba Al-Wais, "Stability analysis of nonlinear telerobotic systems with time-varying communication channel delays using general integral inequalities", Information Sciences, vol. 465,pp. 353-372, 2018.

PARTICIPATION IN CONFERENCES and WORKSHOPS

- International conference on "Mathematical Analysis and Computing", Department of Mathematics, SSN College of Engineering, Chennai, India, 2019.

- International conference on "Mathematical Modelling in Science and Engineering", Department of Mathematics, Bharathiar University, Coimbatore, India, 2019.

- Participated in the International School for Teachers "Differential Equations-Theory, Methods and Applications", National Centre for Mathematics, Bharathiar University, Coimbatore, India, 2019.

- International conference on "Advances in Applicable Mathematics", Department of Mathematics, Bharathiar University, Coimbatore, India, 2017.

- Participated in "Workshop on Interconnection Networks", Department of Mathematics, Amritha Vishwa Vidhyapeetham University, Coimbatore, India, 2017.

PAPERS PRESENTED

- *Stability Analysis of Bilateral Teleoperation systems with time-varying delays*, International conference on Advances in Applicable Mathematics, Department of Mathematics, Bharathiar University, Coimbatore, 2017.

- *T-S Fuzzy model based single-master multi-slave teleoperation with time delays*, International conference on Mathematical Modelling in Science and Engineering, Department of Mathematics, Bharathiar University, Coimbatore, 2019.

- *Multi-master Multi-slave teleoperation system with hidden Markov model based control consisting of asymmetric time-varying delays*, International conference on Mathematical Analysis and Computing, Department of Mathematics, SSN College of Engineering, Chennai, 2019.