

## BIODATA

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### Academic Qualifications

Sl. No.	Degree	Specialization	Institute/University
1	Ph. D	Computer Science & Engineering	University of Kerala
2	M.E	Computer Science & Engineering	IISc Bangalore
3	B.Tech	Computer Science & Engineering	University of Kerala

### Experience

(i) Teaching : 19 years

(ii) Industry : 10 years

### Number of Publications

Refereed journals : 12

International Conferences : 15

National Conferences : 5

Memberships : Life Member CSI  
Life Member IETE  
Member Indian Science Congress Association (ISCA)

Number of PhD Scholars : 5  
(guiding)

Number of MTech projects : 7  
(guided)

Award Received : CSI Best PhD thesis award

Areas of Interest : Information Security,  
Information Forensics, Natural Language Processing

**Other Contributions :**

- Member, Syllabus Revision Committee, 2008 scheme, University of Kerala
- Department Co-ordinator TEQIP-I from 2005 to 2011
- Member Research Ambience Committee from 2006 to 2011
- Department Co-ordinator for NBA Accreditation in 2007
- Member Organizing Committee for ICCC 2010
- Procurement Co-ordinator for TEQIP-II at LBSITW, Tvm from 2011 to 2016
- Member Research Guidance Committee at LBSITW, Tvm from 2013 to 2016
- Member, Syllabus Revision Committee, 2013 scheme, University of Kerala
- Reviewer In International Conference On Control, Communication & Computing, CET Trivandrum, Dec 2013
- Publication co chair in the first International conference on computational systems and communications held at LBSITW, Tvm, Dec 2014
- Head of Department of Computer Science & Engineering , LBSITW from 2012 to 2016
- Member, Technical Review and Publications Committee of First International Conference on Computational Systems and Communications (ICCSC) organized by LBSITW, Tvm in 2014
- Successfully completed a three year research project sanctioned from Kerala State Council for Science Technolgy and Environment in 2015
- One of the editors of proceedings of 2<sup>nd</sup> National Conference on Advances in Computational Intelligence and Communication Technologies organized by LBSITW, Tvm in 2016
- Member, Technical Review and Publications Committee of National Conference on Advances in Computational Intelligence and Communication Technologies organized by LBSITW, Tvm in 2016
- Reviewer for ICTACT Journal on Image and Video Processing

- Member Curriculum Development Committee, KTU
- Technical Programme Committee Chair, International Conference on Control, Communication, and Computing (IC4) organized by College of Engineering Trivandrum in 2018
- Member, Technical Committee, DTE, Kerala

## List of publications

### Journals

1. R. Shreelekshmi, M. Wilscy, and C. E. Madhavan, "Undetectable least significant bit replacement steganography," *Multimedia Tools and Applications*, vol. 78, no. 8, pp. 10565–10582, (2019).
2. Sajana V S, Shreelekshmi R, "Role of Verbs and Nouns in Text Clustering Using WordNet based Lexical Chains", *Journal of Advanced Research in Dynamical and Control Systems*, No. 11-Special Issue, pp. 506-510, (2017)
3. S. A. Arya, Kavya Vinod, A.V Lekshmi, Lydia Rose Thomas, R. Shreelekshmi, A Hybrid Approach on Uncompressed Images Using LSB Steganography: S-Tool, *International Journal of Engineering and Future Technology*, vol 5, No. 5, pp 27-35. (2016)
4. Nandana V, Jithendran A, Shreelekshmi R, "Survey on RTOS: Evolution, types & current Research", *International Journal of Computer Applications*, Vol 121, No.21, pp. 28-31. (2015)
5. Nandana V, Jithendran A, Shreelekshmi R, "Analysis of porting Free RTOS on MSP430 architecture and study of performance parameters on small factor Embedded Systems", *International Journal for Advance Research in Engineering and Technology*, vol 3, no. 9, pp. 95-99. (2015)
6. Sruthi S, Shreelekshmi R, "Video compression from fundamentals to H.264 and H.265 standards", *International Journal of Engg & computer Science (IJECS)*, vol. 4, no. 1, pp. 13468-13473.(2015)
7. Sruthi S, Shreelekshmi R, "An adaptive video compression technique for resource constraint systems", *International Journal of Engg & advanced technology*, 2015, vol. 4, no. 6, pp. 292-298. (2015)
8. Shreelekshmi, R., M. Wilscy, and CE Veni Madhavan. "Improved LSB steganalysis based on analysis of adjacent pixel pairs." *Signal, Image and Video Processing* vol. 7, issue 5, pp. 811-816. (2013) doi:10.1007/s11760-011-0270-4
9. Shreelekshmi R., M. Wilscy, C. E. Veni Madhavan, "Improving the reliability of detection of LSB replacement steganography," *Int. Journal of Network Security and its Applications*, vol. 2, no. 4, pp. 247-254, Oct. 2010.

10. Shreelekshmi R., M. Wilsy, C. E. Veni Madhavan, "Preprocessing Cover images for more secure LSB steganography," *Int. Journal on Computer Theory and Engineering*, vol. 2, no. 4, pp. 546-551, Aug. 2010.
11. Shreelekshmi R., M. Wilsy, C. E. Veni Madhavan, "An image classification scheme for increasing reliability of least square method and sample pair method," *Int. Journal on Computer and Network Security*, vol. 2, no. 1, pp. 86-90, Jan. 2010.
12. M Agrawal, N Gupta, R Shreelekshmi, M.N. Murthy, "Efficient Pattern Synthesis for nearest neighbour classifier", *Pattern recognition*, vol. 38, issue 11, pp. 2200–2203 (2005), doi: 10.1016/j.patcog.2005.03.029

### **Conferences (International)**

1. Anju J., Shreelekshmi R. 'Secure Content-based Image Retrieval using Combined Features in Cloud', *International Conference on Distributed Computing and Internet Technology (Springer-LNCS)*, January 12-15, 2020 (Accepted )
2. Nishy Reshmi S, Shreelekshmi R "Textual Entailment based on Semantic Similarity Using WordNet", in *International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICICT)*. IEEE, (2019) (presented).
3. Anju J., Shreelekshmi R., 'Modified feature descriptors to enhance secure content-based image retrieval in cloud.', in *International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICICT)*. IEEE, (2019) (presented).
4. N. R. Neena Raj and R. Shreelekshmi, "Security analysis of Hash Based Fragile Watermarking Scheme for Image Integrity," in *International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICICT)*. IEEE, (2019) (presented).
5. Neena Raj N. R., and R. Shreelekshmi. "Blockwise Fragile Watermarking Schemes for Tamper Localization in Digital Images." *International Conference on Control, Communication, and Computing (IC4)*, pp. 441-446., (2018).
6. Sajana V S, Shreelekshmi R, "WordNet based Word Similarity Measures", *IETE Int. Conference on Robotics and Automation*, pp. 24-27. (2016)
7. S. A. Arya, Kavya Vinod, A.V Lekshmi, Lydia Rose Thomas, R. Shreelekshmi, A Hybrid Approach on Uncompressed Images Using LSB Steganography: S-Tool, *International Conference on Emerging Trends in Science, Engineering, Business and Disaster Management* (2015)
8. Harisha R, Gresshma Jayan, Anusa M, Agnes Alish, Shreelekshmi R, "A minutae based fingerprint recognition system", *International Conference on Emerging Trends in Engineering. & Technology (ICEE-15)* (2015)

9. Shreelekshmi R and Baby Vijilin, "Color Image Compression using Bit Plain Reduction", International Conference on Advances in Computing, Communication and Information Science 2014
10. Shreelekshmi R and Baby Vijilin, Quality enhancement of adaptively compressed images using bit plane removal, First International Conference on Computational Systems and Communications (ICCSC), IEEE, pp. 260-265. (2014)
11. Shreelekshmi R., M. Wilscy, C. E. Veni Madhavan, "Image classification for more reliable steganalysis," in Proc. of Int. Conference on Network Security and applications, 2010, Springer CCIS, pp. 66-74.
12. Shreelekshmi R., M. Wilscy, C. E. Veni Madhavan, "Image analysis for more reliable steganalysis," in Proc. of Int. Conference on Control, Communication and Computing, 2010, pp. 223-225.
13. Shreelekshmi R., M. Wilscy, C. E. Veni Madhavan, "Cover image preprocessing for more reliable LSB replacement steganography," in Proc. of IEEE Int. Conference on Signal Acquisition and Processing, 2010, pp. 153-156.
14. Shreelekshmi R., M. Wilscy, C. E. Veni Madhavan, "Modeling Cover Images for more reliable LSB steganography", in Proc. of Int. Conference on Modeling and Simulation, 2009, pp. 402-405.
15. Shreelekshmi R., Sophia S, Suresh V, Veni Madhavan C. E., Statistical and Image Analysis Techniques for Steganography, Proceedings of Int. Workshop on Recent Advances in Biometric Systems, IIT Kanpur, April 2005, pp. 283-288.

### **Conferences (National)**

1. Sakila K S and Dr.Shreelekshmi R, "Survey on document level sentiment analysis", National Conference on Advances in Computational Intelligence and Communication Technologies", pp. 33-36. (2016)
2. Reshma V K and Dr.Shreelekshmi R, "Sentence Level Sentiment Analysis: A Survey", National Conference on Advances in Computational Intelligence and Communication Technologies", pp. 29-32. (2016)
3. Athira R, Gopika Unnikrishnan, Hitha G S, "Image Quality Assessment Using Objective Matrix", National Conference on Recent Trend in Engineering and Technology. (2015)
4. Shreelekshmi R and Baby Vijilin, "Color Image Compression using Bit Plain Reduction", National Conference on Advances in Computational Intelligence and Communication Technologies", pp. 16-19. (2013)
5. Shreelekshmi R., M. Wilscy, "Transforming Cover Images for more reliable LSB steganography," in Proc. of Indian Science Congress, 2010, p. 79.