

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

A. Teaching

Organization	Post held	Period
Govt. Engineering College, Barton Hill	Professor	Sept 2021 - till date
Govt. Engineering College, Thrissur	Professor	Mar. 2019 – Sept 2021
College of Engineering, Trivandrum	Professor	Sept. 2017 - Mar. 2019
Govt. Engineering College, Thrissur	Professor	Nov. 2016 - Sept. 2017
College of Engineering, Trivandrum	Professor	June 2016 - Nov. 2016
LBS Institute of Technology for Women, Poojappura	Professor	Apr. 2013 - June 2016

LBS Institute of Technology for Women, Poojappura	Associate Professor	June 2011 - Apr. 2013
College of Engineering, Trivandrum	Associate Professor	Aug. 2008 - June 2011
College of Engineering, Trivandrum	Assistant Professor	Sept. 2000 – Aug. 2008

B. Industry

Organization	Post held	Period
National Thermal Power Corporation Ltd.	Deputy Manager (EDP)	Apr. 1998 - Sept. 2000
National Thermal Power Corporation Ltd.	Senior Engineer (EDP)	Apr. 1995 - Mar. 1998
National Thermal Power Corporation Ltd.	Engineer (EDP)	Oct. 1991 - Mar. 1995
National Thermal Power Corporation Ltd.	Executive Engineering Trainee (EDP)	Oct. 1990 - Oct. 1991

Number of Publications

Refereed journals : 13

International Conferences : 15

National Conferences : 5

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

Number of PhD Scholars : 5
(guiding)

Number of M Tech projects : 7
(guided)

Award Received : CSI Best PhD thesis award

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

Research Projects completed : A three year research project titled 'Design and Development of Techniques for increasing the reliability of steganography/ steganalysis on Digital images' sanctioned from Kerala State Council for Science Technology and Environment completed in 2015

Other Contributions :

- Instrumental in computerization activities in the National Capital Regional Office, Delhi, NTPC during 1991 to 1995
- Instrumental in design of campus wide fibre optic network at NTPC power plant Kayamkulam during 1999 to 2000
- Instrumental in implementation and maintenance of Online applications for Materials Management, Finance Management, and Operations Management at NTPC power plant Kayamkulam during 1998 to 2000

- Member, Syllabus Revision Committee, 2008 scheme, University of Kerala
- Member, Syllabus Revision Committee, 2013 scheme, University of Kerala
- Member, Curriculum Development Committee, 2015 scheme, APJ Abdul Kalam Technological University

- Department Co-ordinator TEQIP-I from 2005 to 2011
- Department Co-ordinator for NBA Accreditation in 2007
- Procurement Co-ordinator for TEQIP-II from 2011 to 2016
- Head of Department of Computer Science & Engineering, LBSITW from 2012 to 2016
- Head of Department of Computer Science & Engineering, College of Engineering Trivandrum, from 2017 to 2019
- Member, Technical Committee, Directorate of Technical Education, Kerala since 2019

- Member Research Ambience Committee from 2006 to 2011
- Member Organizing Committee for ICCC 2010
- Member Research Guidance Committee at LBSITW, Trivandrum from 2013 to 2016
- Reviewer In International Conference On Control, Communication & Computing, CET Trivandrum, Dec 2013
- Publication co chair in the first International Conference on Computing Systems and Communications held at LBSITW, Trivandrum, Dec 2014
- Member, Technical Review and Publications Committee of First International Conference on Computational Systems and Communications (ICCSC) organized by LBSITW, Trivandrum in 2014
- One of the editors of proceedings of 2nd National Conference on Advances in Computational Intelligence and Communication Technologies organized by LBSITW, Trivandrum in 2016
- Member, Technical Review and Publications Committee of National Conference on Advances in Computational Intelligence and Communication Technologies organized by LBSITW, Trivandrum in 2016
- Reviewer for ICTACT Journal on Image and Video Processing
- Technical Programme Committee Chair, International Conference on Control, Communication, and Computing (IC4) organized by College of Engineering Trivandrum in 2018

- Member Research Guidance Committee at LBSITW, Trivandrum since June 2021

List of publications

Journals

1. N. R. Neena Raj and R. Shreelekshmi, "A survey on fragile watermarking based image authentication schemes," *Multimed. Tools. Appl.*, vol. 80, no. 13, pp. 19307-19333, May 2021.
2. R. Shreelekshmi, M. Wilscy, and C. E. Madhavan, "Undetectable least significant bit replacement steganography," *Multimed. Tools. Appl.*, vol. 78, no. 8, pp. 10565–10582, Apr. 2019.
3. Sajana V S, Shreelekshmi R, "Role of Verbs and Nouns in Text Clustering Using WordNet based Lexical Chains," *J. Adv. Res. in Dynamical Control Syst.*, no. 11-Special Issue, pp. 506-510, 2017.
4. S A Arya, Kavya Vinod, A V Lekshmi, Lydia Rose Thomas, R Shreelekshmi, "A Hybrid Approach on Uncompressed Images Using LSB Steganography: S-Tool," *Int. J. Eng. Future Technol.*, vol. 5, no. 5, 2016, pp 27-35.
5. Nandana V, Jithendran A, Shreelekshmi R, "Survey on RTOS: Evolution, types & current Research," *Int. J. Comput. Appl.*, vol. 121, no.21, 2015, pp. 28-31.
6. Nandana V, Jithendran A, Shreelekshmi R, "Analysis of porting Free RTOS on MSP430 architecture and study of performance parameters on small factor Embedded Systems," *Int. J. Advance Res. Eng. Technol.*, vol 3, no. 9, 2015, pp. 95-99.
7. Sruthi S and Shreelekshmi R, "Video compression from fundamentals to H.264 and H.265 standards," *Int. J. Eng. Comput. Sci.*, vol. 4, no. 1, 2015, pp. 13468-13473.
8. Sruthi S and Shreelekshmi R, "An adaptive video compression technique for resource constraint Syst.," *Int. J. Eng. Adv. Technol.*, vol. 4, no. 6, 2015, pp. 292-298.
9. Shreelekshmi R, M Wilscy and C E Veni Madhavan. "Improved LSB steganalysis based on analysis of adjacent pixel pairs," *Signal, Image and Video Process.* vol. 7, issue 5, pp. 811-816, Sept. 2013, doi:10.1007/s11760-011-0270-4.
10. Shreelekshmi R, M Wilscy, C E Veni Madhavan, "Improving the reliability of detection of LSB replacement steganography," *Int. J. Netw. Secur. its Appl.*, vol. 2, no. 4, Oct. 2010, pp. 247-254.
11. Shreelekshmi R, M Wilscy, C E Veni Madhavan, "Pre-processing Cover images for more secure LSB steganography," *Int. J. Comput. Theory Eng.*, vol. 2, no. 4, Aug. 2010, pp. 546-551.

12. Shreelekshmi R, M Wilsy, C E Veni Madhavan, "An image classification scheme for increasing reliability of least square method and sample pair method," *Int. J. Comput. Netw. Secur.*, vol. 2, no. 1, Jan. 2010, pp. 86-90.
13. M Agrawal, N Gupta, R Shreelekshmi, M N Murthy, "Efficient Pattern Synthesis for nearest neighbour classifier," *Pattern recognit.*, vol. 38, issue 11, Nov. 2005, pp. 2200–2203, 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," in Proc. *Int. Conf. Distrib. Comput. and Internet Technol.*, in Lecture Notes in Comput. Sci., Springer, vol.11969, Jan. 2020, pp 179-197, doi:10.1007/978-3-030-36987-3_11.
2. Nishy Reshmi S and Shreelekshmi R, "Textual Entailment based Semantic Similarity Using WordNet," in Proc. *IEEE Int. Conf. Intell. Comput., Instrum. and Control Technologies*, July 2019, pp. 1188-1192, doi: 10.1109/ICICICT46008.2019.8993180.
3. Anju J. and Shreelekshmi R, "Modified feature descriptors to enhance secure content-based image retrieval in cloud," in Proc. *IEEE Int. Conf. Intell. Comput., Instrum. Control Technologies*, July 2019, pp. 674-680, doi: 10.1109/ICICICT46008.2019.8993195.
4. N. R. Neena Raj and R. Shreelekshmi, "Security analysis of Hash Based Fragile Watermarking Scheme for Image Integrity," in Proc. *IEEE Int. Conf. Intell. Comput., Instrum. Control Technologies*, July 2019, pp. 651-654, doi: 10.1109/ICICICT46008.2019.8993317.
5. Neena Raj N R and R Shreelekshmi, "Blockwise Fragile Watermarking Schemes for Tamper Localization in Digital Images," *Int. Conf. Control, Communication, Comput. (IC4)*, July 2018, pp. 441-446.
6. Sajana V S and Shreelekshmi R, "WordNet based Word Similarity Measures," in Proc. *IETE Int. Conf. Robot. Automat.*, 2016, pp. 24-27.
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," in Proc. *Int. Conf. Emerg. Trends Sci., Eng., Bus. Disaster Manage.*, 2015.
8. Harisha R, Gresshma Jayan, Anusa M, Agnes Alish, Shreelekshmi R, "A minutae based fingerprint recognition system," in Proc. *Int. Conf. Emerg. Trends Eng. & Technol.*, 2015.
9. Shreelekshmi R and Baby Vijilin, "Color Image Compression using Bit Plain Reduction," in Proc. *Int. Conf. Advances in Comput., Communication Inf. Sci.*, 2014
10. Shreelekshmi R and Baby Vijilin, "Quality enhancement of adaptively compressed images using bit plane removal", in Proc. *IEEE Int. Conf. Comput. Syst. Commun.*, 2014, pp. 260-265.

11. Shreelekshmi R, M. Wilscy, C E Veni Madhavan, "Image classification for more reliable steganalysis," in *Proc. Int. Conf. Netw. Secur. Appl.*, 2010, Springer CCIS, pp. 66-74.
12. Shreelekshmi R., M. Wilscy, C. E. Veni Madhavan, "Image analysis for more reliable steganalysis," in *Proc. Int. Conf. Control, Communication Comput.*, 2010, pp. 223-225.
13. Shreelekshmi R, M Wilscy, C E Veni Madhavan, "Cover image pre-processing for more reliable LSB replacement steganography," in *Proc. IEEE Int. Conf. Signal Acquisition Process.*, 2010, pp. 153-156.
14. Shreelekshmi R, M Wilscy, C E Veni Madhavan, "Modeling Cover Images for more reliable LSB steganography," in *Proc. Int. Conf. Model. Simul.*, 2009, pp. 402-405.
15. Shreelekshmi R, Sophia S, Suresh V, Veni Madhavan C E, "Statistical and Image Analysis Techniques for Steganography," in *Proc. Int. Workshop Recent Advances Biometric Syst.*, IIT Kanpur, Apr. 2005, pp. 283-288.

Conferences (National)

1. Sakila K S and Shreelekshmi R, "Survey on document level sentiment analysis," *Nat. Conf. Advances Comput. Intell. Communication Technologies*, 2016, pp. 33-36.
2. Reshma V K and Shreelekshmi R, "Sentence Level Sentiment Analysis: A Survey," *Nat. Conf. Advances Comput. Intell. Communication Technologies*, 2016, pp. 29-32.
3. Athira R, Gopika Unnikrishnan, Hitha G S, Shreelekshmi R "Image Quality Assessment Using Objective Matrix," *Nat. Conf. Recent Trend Eng. and Technol.*, 2015.
4. Shreelekshmi R and Baby Vijilin, "Color Image Compression using Bit Plain Reduction," *Nat. Conf. Advances Comput. Intell. Communication Technologies*, 2013, pp. 16-19.
5. Shreelekshmi R, M Wilscy, "Transforming Cover Images for more reliable LSB steganography," in *Proc. Indian Sci. Congr.*, 2010, p. 79.