Dr.Manjula G R
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grmanjula@jnnce.ac.in

Career Objective:

To establish myself in the field of education and research, to utilize my skills and experience to help students to achieve greater heights in academic and professional life.

Professional Synopsis

- 23 years experience in industry and Academics.
- Guiding 5 Ph.D students under VTU
- Able to communicate effectively with parents, administrators, and colleagues.

Professional Experience

o Professor and Head, Dept. of CS& E(DS), JNNCE,	Aug 2024 to Till Date
o Professor at JNNCE, Shimoga	March 2022 to Aug2024
o Associate Professor at JNNCE, Shimoga	August 2011 to March 2022
o Assistant Professor at JNNCE, Shimoga	August 2008 to July 2011
o Lecturer at JNNCE, Shimoga	Mar 2006 to Aug 2008
• Lecturer at AIT, Chickmagalore	Sept 2004 to Feb 2006
o IT Engineer in Bex.com Pte Ltd, Singapore	May 1998 to Mar 2001

Educational Qualifications

- Phd, "A Novel Approach to Design and Analysis of Data Hiding and Information Embedding Systems" Kuvempu University, 2016
- M.Tech (NIE), JNNCE, Shimoga, VTU 2005.
- B.E (CSE), JNNCE, Shimoga, Kuvempu University, 1995.

RESEARCH GRANTS SANCTIONED:

Principal Investigator for the project titled **"Design and Implementation of steganographic Techniques in Live Multimedia"** which has got a grant of Rs. **30 Lakhs** under the VGST scheme of CISEE for the financial year 2018-'19. It has been approved by the Government, based on the recommendations of Vision Group on Science and Technology under the Chairmanship of Bharat Ratna Prof. CNR Rao, Honorary President, JNCASR

2 PATENTS Published:
Application No.: 202341038568
Date of Filing: 05/06/2023
Applicants Name: 1. Dr. Manjula G R, 2. Mrs. Sushma R B
Title of Invention: Live Video Steganography Using Machine Learning and Morlet Wavelets
Field of Invention: Computer Science
Publication Date (U/S 11 A): 18/08/2023

Application No.: 202441036030
Date of Filing: 07/05/2024
Applicants Name: 1. Dr. Manjula G R, 2 .Jawaharlal Nehru New College of Engineering
Title of Invention: Encoding and decoding a secret audio in a primary audio.
Field of Invention: Communication
Publication Date (U/S 11 A): 17/05/2024

Subjects Taught

Operating Systems, Data structures, Data Communication, Unix System Programming, Cryptography and Network Security, Web Services, Client Server Programming Database management system and Computer organization and Networks, C# and .Net Programming.

Professional Responsibilities handled

- Working as Head of the department in Computer Science and Engineering (Data science).

- Involved in SAR preparation for NBA and NAAC

- Timetable Co-Ordinator, Project Co-Ordinator and Seminar Co-Ordinator in CS&E dept.

- Resource person for Webinar targeted to research scholar and faculty on "How to write Research Proposals Effectively."

- Resource person for "Technical paper writing" targeted to final year students.

- Successfully coordinated Faculty Development Programme on "Research Avenues in Genomics" at Dept Of CS&E, JNNCE, Shimoga

- Successfully coordinated Faculty Development Programme on "Latex and Matlab" at JNNCE

- Successfully coordinated Faculty Development Programme on "Microsoft .NET" at JNNCE

- Successfully coordinated Faculty Development Programme on "Data warehousing & Data mining", at Dept Of CS&E, JNNCE

- Worked as Project Coordinator and effectively organized the "I2CONECCT" state-level project exhibition under IEEE,

Papers Published:

[1]Sushma R B, Manjula G R, Manjula C. Belavagi, "A Mellin transform based video steganography with improved resistance to deep learning steganalysis for next generation networks", **MethodsX**, Volume 13,2024,102887,ISSN 2215-0161,https://doi.org/10.1016/j.mex.2024.102887. **(Q1 Journal - Scopus Indexed)**

[2] M. V. Namitha, G. R. Manjula and M. C. Belavagi, "StegAbb: A Cover-Generating Text Steganographic Tool Using GPT-3 Language Modeling for Covert Communication Across SDRs," in **IEEE Access**, vol. 12, pp. 82057-82067, 2024, doi: 10.1109/ACCESS.2024.3411288. **(Q1 Journal - Scopus Indexed)**

[3] Sayyed Johar, G.R. Manjula, "Interfering sensed input classification model using assimilated whale optimization and deep Q-learning for remote patient monitoring,Biomedical" Signal Processing and Control, Volume 93,2024, ISSN 1746-8094. **(Q1 Journal** - **Scopus Indexed)**

[4] Sushma RB, Manjula GR. StegVRN: Enhancing Quality of Video Steganography Using CNN-Based Object Selection. SN Computer Science. 2024 Jan 20;5(2):227. **(Q1 Journal - Scopus Indexed)**

[5] Namitha M.V, Manjula G.R, "High-Capacity Steganography through audio fusion and fission" Indonesian Journal of Electrical Engineering and Computer Science, ISSN 2502-4752, DOI: 10.11591/ijeecs.v33.i1.pp643-652, Vol 33, No.1, January 2024. **(Q2 Journal- Scopus Indexed)**

[6] Namitha M V, Manjula G R, "Live audio steganography using LSBWAB to covertly communicate secret data.", ICRAIS-2023, MIT, Manipal during 6th to 7th November 2023.

[7] Sushma R B, Manjula G R, "An Adaptive Steganography approach for live video streams based on edge analysis and frame variability", ICRAIS-2023, MIT, Manipal during 6th to 7th November 2023.

[8] Sayyed Johar Dr. G R Manjula, "Survey of various machine learning techniques for analyzing IoMT based Remote Patient Monitoring System", Published In: Proc. Of the International Conference on Advances in Data Science and Computing Technologies (ADSC-2022) ,Kazi Nazrul University, Asansol, West Bengal, India 713340 during 23rd – 24th June 2022 Indexed: SCOPUS, ISI Proceedings, 2023, 1056 LNEE, pp. 27–31

[9] Sushma R B, Manjula G R, "Hiding of text tunes in video", International Journal of Emerging Technology and Advanced Engineering, ISSN 2250-2459, Volume 10, Issue 8, pg 32-40. Published Online August 2020 in IJETAE. The Paper is Indexed by **SCOPUS**.

[10] Namitha M.V, Manjula G.R, "AUDIO STEGANOGRAPHY USING LIVE AUDIO STREAM AS COVER WITH DYNAMIC KEY GENERATION", International Journal of Engineering Applied Sciences and Technology, 2020 Vol. 5, Issue 4, ISSN No. 2455-2143, Pages 431-436. Published Online August 2020 in IJEAST (http://www.ijeast.com)

[11] Dr. Manjula G R and Namitha M V presented a paper titled "A survey on audio stream steganography" in International Conference on Smart Data Intelligence [ICSMDI 2021] Organized by Kongunadu College of Engineering and Technology, Tamil Nadu, India on April 29-30, 2021. The Paper is published in ELSEVIER-SSRN Digital Library.

[12] Dr. Manjula G R and Sushma R B presented a paper titled " VIDEO STEGANOGRAPHY: A SURVEY OF TECHNIQUES AND METHODOLOGIES" in International Conference on Smart Data Intelligence [ICSMDI 2021] Organized by Kongunadu College of Engineering and Technology, Tamil Nadu, India on April 29-30, 2021. The paper is published in ELSEVIER-SSRN Digital Library.

[13] Sayyed Johar Dr. G R Manjula, "Optimal Feature based Selection of IOMT data based on Feature whale optimization Algorithm", FOUNDRY JOURNAL[ISSN:1001-4977] VOLUME 26 ISSUE 10. 2023

[14] Ajit Danti, G.R.Manjula ,"Secured Data Hiding based on Compression Function and Quantization"*International Journal of Applied Information Systems(IJAIS)*,January2012, ISBN: 978-93-65823-01-1 Digital Library URI: http://ijais.org/archives/volume1number2/ijais12-450109

[15]Ajit Danti ,G.R.Manjula, "Data Encryption by Excluding Repetitive Character in Cipher Text", *International Journal of Innovations in Engineering and Technology(IJIET)*, August 2013, Digital Library URI: http://ijiet.com/wp-content/uploads/2013/09/36.pdf, ISSN: 2319-1058

[16]Ajit Danti, G.R.Manjula, "Image Compression Using Two Orthogonal Transforms" *International Journal of Engg. Research & Industrial Applications (IJERIA)* March 2014 , ISSN 0974-1518

[17]Ajit Danti, G.R.Manjula, " Steganography using Randomized Index Channel with Arnold Cat Map Encryption"published and presented in *Second International Conference on Emerging Research in computing, Information, Communication and Applications (ERCICA2014)* held at Bangalore during Aug-2014. **Elsevier Publication** 2014 .ISBN:9789351072607

[18]G.R.Manjula, Ajit Danti "A Novel Hash Based Least Significant Bit(2-3-3) Image Steganography in Spatial Domain" *International Journal of Security, Privacy and Trust Management (IJSPTM)* Vol. 4, No 1, February 2015**,** ISSN 2277-5498(Online) Print : 2319-4103 **(DBLP LISTED)**

[19]G.R.Manjula, Ajit Danti "Embedding Multiple Images In a Single Image Using Bit Plane Complexity Segmentation (BPCS) Steganography" *Asian Journal of Mathematics and Computer Research, International Knowledge Press* Feb 2015 2(3): 136-142, ISSN: 2395-4205 (Print), 2395-4213 (Online) 2015

[20]G.R.Manjula, Ajit Danti, and S.K.Narasimha Murthy, "Hybrid Approach for Hiding an Image using Video Steganography"published and presented in *International Conference on Research in Business Management and Information Technology (ICRBIT-2015)* held at Bangalore during April-2015.ISBN: 978-81-930411-5-4 Published by **ELK Asia Pacific Journals**

[21]G.R.Manjula, AjitDanti, "Hybrid Steganography using index channel and 2-3-3 hash methods*"* published and presented in International Conference on Research in Business Management and Information Technology (ICRBIT-2015) held at Bangalore during April-2015.ISBN**:**978-81-930411-5-4 Published by **ELK Asia Pacific Journals**

[22]G.R.Manjula, AjitDanti, S.K. Narasimha Murthy "Hybrid Approach for Hiding an Image using Video Steganography", published in International Journal of Computer Science Engineering and Information Technology Research (IJCSEITR). **ISSN(P): 2249-6831; ISSN(E): 2249-7943** Sept 2015.

[23]Ajit Danti, G.R.Manjula, Vidhathri K N, "An Efficient and Secure High Capacity Video Steganography Using BCH Codes (15, 11) in DWT Domain", published in International Journal of Engineering Applied Science and Technology (IJEAST) Vol. 1 Issue 8, ISSN :2455-2143, Pages 229-234, July 2016.

[24]Ajit Danti, G.R.Manjula, Pallavi B M, "Wavelet Based Color Video Steganography Using Sequence and Random Technique", published in International Journal of Engineering Applied Science and Technology (IJEAST) Vol. 1 Issue 8, ISSN :2455-2143, Pages 294-295, July 2016.

[25]Ajit Danti, G.R.Manjula, Priya K, "An Innovative Approach For Video Steganography Using Statistical Features In Round-LSB", published in International Journal of Engineering Applied Science and Technology (IJEAST) Vol. 1 Issue 8, ISSN :2455-2143, Pages 194-199, July 2016.

[26]Hiriyanna G.S, G.R.Manjula, et.al. "Image Steganography in YUV Color Space", published in International Journal of Engineering Applied Science and Technology (IJEAST) Vol. 1 Issue 8, ISSN :2455-2143, Pages 92-96, Apr 2017.

[27]G.R.Manjula, Sushma R B, Sahana. "Edge Based Video Steganography with RSA Algorithm", published in International Journal of Emerging Technology and Advanced Engineering (IJETAE). **ISSN: 2250-2459; Vol.7 Issue 7** July 2017.

[28]Sayyed Johar, G R Manjula et.al "Image Stitching using correlation method", Published in Imperial Journal of Interdisciplinary Research, Vol.3 Issue 7, ISSN:2454 – 1362, pages 282 – 290, July 2017

[29]Sushma R B, Dr. Manjula G R, Sayyed Johar , "Hybrid Selective Steganography", International Journal of Advanced Research and Publications(IJARP), http://www.ijarp.org/online-papers-publishing/aug2017.html, Volume 1 - Issue 2, August 2017 Edition, 84-87 #ijarp

[30]Sushma R B, Manjula G R, "DNA Based Steganography using 2-3-3 technique" has been presented in 2019 IEEE international Conference on data science and communication held during 1st and 2nd Mar 2019 held at, Christ College of Engineering, Bangalore

[31]Fariha, Manjula G R "Video Steganography using Convolutional Neural Network and Temporal Residual Method", International Journal of Computer Applications Sept 2019

Declaration

I hereby declare that all the details furnished above are true to the best of my knowledge and belief.

Dr. Manjula G R