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**Dr. S.P.Maniraj** is working as Assistant Professor in the Department of CSE at SRMIST, Ramapuram campus. He holds a Ph. D degree in the field of Medical Image Processing from Sathyabama Institute of Science and Technology since 2022. He has 13 years of teaching experience with good programming skills. He got certified in various courses from NPTEL, Coursera, Udemy and Cisco. He also got a NPTEL Discipline and Motivated Learner Award. He has published more than 25 articles in National and International Journals, Conferences and Symposiums.

**Area of Research:**

Image Processing, Artificial Intelligence, Machine Learning, Networking.

**Selected Publications:**

- Thamizhamuthu, R., S P Maniraj (2023) et al., "Deep Learning-Based Dermoscopic Image Classification System for Robust Skin Lesion Analysis," *Traitement du Signal*", vol. 40, no.3, pp. 1145–1152, 2022. <https://doi.org/10.18280/ts.400330>
- S P Maniraj, Thamizhamuthu.R (2022) et al, "Efficient Feature Based Melanoma Skin Image Classification Using Machine Learning Approaches" *Traitement du Signal*", vol. 39, no.5, pp. 1663–1671. <https://doi.org/10.18280/ts.390524>.
- Maniraj, S.P. Maran, P.S.,(2022) et al, "Analysis of CBC and FCMC Clustering approaches for Skin Melanoma Segmentation using Dermoscopic Images". *Research Journal of Pharmacy and Technology*, vol. 15, no.10, pp. 4807–4811 (2022). [DOI: 10.52711/0974-360X.2022.00807](https://doi.org/10.52711/0974-360X.2022.00807)
- Maniraj, S.P. Maran, P.S.,(2022) et al, "A hybrid deep learning approach for skin cancer diagnosis using subband fusion of 3D wavelets" in "Journal of Supercomputing", Vol. 78, No. 10, pp.12394–12409. <https://doi.org/10.1007/s11227-022-04371-0>
- Maniraj, S.P., Sardarmaran, P.(2021) et al "Classification of Dermoscopic Images using soft computing techniques", in "Neural Computing and Application" Vol.33, No.19, pp. 13015–13026. <https://doi.org/10.1007/s00521-021-05998-5>.

- Maniraj, S.P., Maran, P.S.(2021), et al "3D- wavelet transform based skin cancer classification of VGG-16 network model", in "Indian Journal of Computer Science and Engineering". Vol.12, No.5, pp. 1510–1518. [DOI: 10.21817/indjcse/2021/v12i5/211205117](https://doi.org/10.21817/indjcse/2021/v12i5/211205117)
- Maniraj, S.P., Kiranmayee, T.S., Thakur, A., ...Bhagyashree, M., Gupta, R., "Traffic Violation Tracker and Controller" in "New Trends in Computational Vision and Bio-Inspired Computing - Selected Works Presented at the ICCVBIC 2018",pp. 335-343.
- Maniraj, S.P., Kiranmayee, T.S., Thakur, A., ...Bhagyashree, M., Gupta, R.," Analyzing DFA Attack on AES-192", in "Lecture Notes on Data Engineering and Communications Technologies",31, pp. 211-218
- Maniraj, S.P., Chaudhary, D., Deep, V.H., ...Singh, V.P., Bhardwaj, A., "Self Driving Car Using Machine Learning Implementation" in the "International Journal of Control and Automation" in May 2020, 13(2), pp. 757-763.
- Maniraj, S.P., Prem, P., Augustine, T.A., ...Humrith, K., Krishna, P.S. "Block Chain and IOT Based Physiological Feature Edge Framework for sharing Economy Service in a very Sensible Town " in the "International Journal of Control and Automation" in May 2020, 13(2), pp. 368-372
- Published the paper titled "Intelligent Bus Fare Management System using Naïve Bayes Algorithm " in the "International Journal of Recent Technology and Engineering" in March 2020
- Published the paper titled "Financial Market Prediction using ML " in the "International Journal of Advanced Science and Technology" in April 2020
- Published the paper titled "Design and Fabrication of Smart Air Conditioner with Internet of Things " in the "International Journal of Advanced Science and Technology" in April 2020
- Published the paper titled "Hyper spectral Image Super Resolution using Deep Learning " in the "International Journal of Advanced Science and Technology" in April 2020
- Published the paper titled "Real Time Vehicle Flow Prediction based on Random Forest Algorithm " in the "International Journal of Advanced Science and Technology" in May 2020
- Published the paper titled "A Novel approach for dynamic data replication and transfer in the cloud to reduce redundancy and cost" in the "International Journal of Advanced Science and Technology" in June 2020.

- Maniraj, S.P., Lakshmanan, M., Roy, S., ...Dutta, M., Sharma, A. (2019),“Advanced discriminative transfer learning for general image restoration” in the “International Journal of Engineering and Advanced Technology” 8(4), pp. 325-327.
- Maniraj, S.P., Sreenidhi, G., Sravani, P., ...Reddy, Y.(2019),” Object boundary detection using neural network in deep learning”, in the “International Journal of Engineering and Advanced Technology”, 9(1), pp. 4453-4457.
- Maniraj, S.P., Harie Krishnan, G., Surya, T., ...Pranav, R.,(2019),” Fake account detection using machine learning and data science”, in the “International Journal of Innovative Technology and Exploring Engineering”, 9(1), pp. 583-585.
- Maniraj, S.P., Prabhu, D., Thakur, A., ...Bhagyashree, M., Gupta, R. ,(2019)“Automatic paper drafting bot” in the “International Journal of Engineering and Advanced Technology” 8(6), pp. 401-403.
- Maniraj, S.P., Raj, A., Saseendran, N., ...Shekhar, S., Haridas, R. (2019)“Feature extraction and selection for traffic monitoring system using machine learning” in the “International Journal of Innovative Technology and Exploring Engineering” 8(6), pp. 401-403.
- Maniraj, S.P., Pranay Sharma, R., Venkata Siva Kumar, M., ...Sai Mohan Krishna, B.V., Sree Ram Pavan, G. (2019)“Vulnerabilities and security issues in Cps and IOT for Wire Less Communication ” in the “International Journal of Recent Technology and Engineering” 7(5), pp. 164-167
- Maniraj, S.P., Prabhu, D., Krishna, S., ...Pal, I., Mohanan, A.,(2019),” Smart public transport and ticketing system with real time analysis”, in “Journal of Advanced Research in Dynamical and Control Systems”,11(9 Special Issue), pp. 1043-1051
- Maniraj, S.P., Sardar Maran, P.,(2018)” Skin cancer - computer aided diagnosis by feature analysis and machine learning: A survey” in “Indian Journal of Public Health Research and Development”, 9(6), pp. 544-549.

### **IEEE Conference**

- S P Maniraj; Ayush Gupta; Venkata Yaswanth MullaMuri; Prateek Soumya,(2023), “Breast Cancer Detection and comparative analysis of Convolutional Neural Networks and VGG-16” in “IEEE Conference on 3rd International Conference on Intelligent Technologies (CONIT)”, [DOI: 10.1109/CONIT59222.2023.10205580](https://doi.org/10.1109/CONIT59222.2023.10205580).
- Imran Khan; S P Maniraj; K Santosh Reddy; V Balaji; K Kalaivani; Mukesh Singh(2023), “Congenital Heart Disease Prediction based on Hybrid Approach of CNN-GRU-AM” in “

IEEE on 7th International Conference on Intelligent Computing and Control Systems (ICICCS)", [DOI: 10.1109/ICICCS56967.2023.10142526](https://doi.org/10.1109/ICICCS56967.2023.10142526).

- K. Balasubadra; X.S.Asha Shiny; Pramila P V; P. Solainayagi; S P Maniraj(2023), "Hidden Markov Model with Machine Learning-Based Black hole Attack Identification in Wireless Sensor Networks" in " IEEE on International Conference on Intelligent and Innovative Technologies in Computing, Electrical and Electronics (IITCEE)", [DOI: 10.1109/IITCEE57236.2023.10090993](https://doi.org/10.1109/IITCEE57236.2023.10090993).
- B. Shadaksharappa; B. Maruthu Kannan; S. Yuvaraj; S.P. Maniraj(2023), "Mobile-based Cloud Computing with Autonomous Assets Supply" in " IEEE on 4th International Conference on Electronics and Sustainable Communication Systems (ICESC)", [DOI: 10.1109/ICESC57686.2023.10193179](https://doi.org/10.1109/ICESC57686.2023.10193179).
- V.G. Hamsaveni; S P Maniraj; R Krishnaswamy; K Radhika; V. Venkataramanan; S. Renukadevi(2022), "Intelligent Classification of Brain Cancers by Deep Learning with Inception Network" in " IEEE on International Conference on Computer, Power and Communications (ICCPC)", [DOI: 10.1109/ICCPC55978.2022.10072278](https://doi.org/10.1109/ICCPC55978.2022.10072278).
- S. P Maniraj; P. Sardarmaran(2021), "Hybrid Wavelet Domain Features For Dermoscopic Image Classification" in " IEEE on International Conference on Communication, Control and Information Sciences (ICCISc)", [DOI: 10.1109/ICCISc52257.2021.9484997](https://doi.org/10.1109/ICCISc52257.2021.9484997).
- S. P. Maniraj; S. Shriram; Meghna Anand; P. Sai Prasanth; Anurag Chakraborty(2018)," Information Technology Language Encryption Register (ITLER)" in "IEEE on 3rd International Conference on Communication and Electronics Systems (ICES)", [DOI: 10.1109/CESYS.2018.8724046](https://doi.org/10.1109/CESYS.2018.8724046).
- S.P. Maniraj; R. Rishi; R. Amrita; R. Aparna; B. Jashmitha(2018)," Automated Light Intensity Control Circuit" in "IEEE on 3rd International Conference on Communication and Electronics Systems (ICES)", [DOI: 10.1109/CESYS.2018.8723984](https://doi.org/10.1109/CESYS.2018.8723984).

#### **Patents:**

1. IOT, AI, ML BASED PADDY-DISEASE PREVENTION SYSTEM USING (DNN) DEEP-NEURALNETWORKS AND IMAGE- PROCESSING, Application No-202241006977, Publication Date: 04/03/2022.
2. SMART WOMEN SELF DEFENSE SYSTEM USING IOT BASED DEVICE. Application No-202241025471, Publication Date:30/04/2022.
3. Smart Intrusion Detection System for Network Security Situational Awareness. Application No-202241028183, Publication Date: 27/05/2022.

4. A MACHINE LEARNING BASED AUTOMATED TOILET CLEANSING SYSTEM WITH AUTOMATED DOORS, Application No-202041044307, Publication Date: 16/10/2020.
5. Enhanced Machine Learning approach for the Detection of IOT Cyber Attacks in the Smart Environment, Application No-202031025563, Publication Date: 17/07/2020.

#### **Book Publications:**

1. Published a Book Titled “Recent Trends in Intelligent Automation and Computing Techniques”- Editor by Dr S P Maniraj, March 2023, ISBN: 978-93-94639-07-2 by Dipti Press Publisher.
2. Contributed a Chapter as “Recurrent Neural Network(RNN) for Diabetes Prediction using Decision Tree Classifier” in Book titled as “Machine Learning and Applications” by S P Maniraj, November 2020, ISBN: 978-93-86923-47-9 by Dipti Press Publisher.

#### **Achievements:**

1. Certificate of Appreciation-Recognized as NPTEL Motivated Learner from January 2023 to April 2023 organised by SWAYAM.
2. Certificate of Appreciation-Recognized as NPTEL Discipline Star from January 2023 to April 2023 organised by SWAYAM.
3. Certificate of Appreciation-Recognized as NPTEL Discipline Star from July 2019 to December 2019 organised by SWAYAM.
4. Certificate of Recognition- Publications Contributed to the SRM IST Ramapuram by publishing more than two Research papers in the Indexed Journals during 2022-2023.

#### **Professional Bodies:**

1. Association for Computing Machinery (ACM) Professional Membership (Member ID: 0694007)
2. International Association of Engineers (IAENG) (Member No: 247456), Hongkong, HK.
3. The Indian Society for Technical Education(ISTE) (Member ID: LM 83058 )

#### **Google Scholar:**

<https://scholar.google.com/citations?user=X6eTuqwAAAAJ&hl=en>

#### **Scopus:**

<https://www.scopus.com/authid/detail.uri?authorId=57204028554>