

Name of Faculty Dr. Kadiyala Ramana  
 Designation Associate Professor & HOD  
 Nature of Job/Appointment Regular  
 Date of Joining 12 – 05 - 2022  
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**Education Qualifications**

	Name of the Degree	Class
Postdoc	Postdoc	Pursuing
Ph. D	Doctor of Philosophy (CSE)	Awarded
PG	M. Tech. (IT)	First with Distinction
UG	B. Tech (IT)	First

**Work Experience**

Teaching	15 Years
Research	06 years
Industry	--
Others	--
Area of Specialization	High Performance Computing, Image Processing, Artificial Intelligence, Machine Learning,
Professional Memberships	IEEE 93098440 ISTE LM134721 IACSIT, Singapore 80338110 IAENG, Hongkong 107592 WASE, Hongkong WASE0000663
Responsibilities held at Institution Level	--
Responsibilities held at Department Level	--
Research Guidance	Ongoing - 03
Awards Received	--

Courses Handled at Under Graduate / Post Graduate Level. Computer Networks, Computer System Architecture, Python Programming, OOP, Unix and Shell Programming, DBMS, Network Programming, C Programming and Data Structures.

No. of Papers Published National Journals – 02 International Journals – 52  
 National Conference – 11 International Conference – 13

Projects Carried out --

- Patents
1. Patent is published on “Healthcare and Fitness Data Management using AI Blockchain Platform”, with Application number 202241064068 on 25.11.2022 India.
  2. Patent is published on “SYSTEM AND COMPUTER IMPLEMENTED METHODS FOR ANALYSING FEATURES OF DIGITAL MEDICAL IMAGES”, with Application number 201941049665 on 20.12.2019 India.
  3. Patent is published on “SYSTEM AND METHOD FOR DETECTION AND CONTROL OF CYBERATTACKS IN LARGE NETWORK USING DATA MINING”, with Application number 202011005996 on 21.02.2020 India.
  4. Patent is granted on “EARLY COVID PREDICTION: NEURO FUZZY MULTI-LAYERED DATA CLASSIFIER” with Application number 2020102448 on 27-09-2020 Australia.
  5. Copyright is Granted on “INTERNET OF THINGS (IOT) ENABLED SECURE SMART CITY APPLICATION” with Registration number L-105142 / 2021 on 06-07-2021 India.

## Invited Speaker

1. Expert Talk on "Research Directions on Federated Learning" in National Level Workshop on Insights of Federated Learning in Computing organized by School of Computing, SRM university, Chennai on 25th September 2021.
2. Session Chair for the track "Emerging Technologies" in the DST SERB sponsored International Conference on "Data Science, Intelligent Computing and Cyber Security" organized by Sree Vidyanikethan Engineering College, Tirupati during 29-30 December 2021.
3. Session Chair for the National Conference on Knowledge, Innovations and Technologies for Sustainability organized by Sree Vidyanikethan Engineering College, Tirupati during 28<sup>th</sup> April 2022.
4. Session Chair for the AICTE Sponsored 6th International Conference on Intelligent Computing and Communication (ICICC-2022) organized by G.Narayanamma Institute of Technology and Science, Hyderabad from 18th and 19th November 2022.

## No. of Books/Chapter Published with details

1. Dr.K.Prasanna, Dr.M.Seetha, Dr. Kadiyala Ramana, "ASSOCIATION RULE MINING CONCEPTS AND APPROACHES: A DATA STRUCTURES PERSPECTIVE", VSRD Academic Publishing, First Edition, April 2020, ISBN-13 : 978-93-87610-58-3
2. Dr. Annaluri Sreenivasa Rao, Dr. M. Rudra Kumar, Dr. Kalli Srinivasa Nageswara Prasad, Dr. Kadiyala Ramana, "NOMENCLATURE OF DATASTREAMS, MINING STRATEGIES, CONCEPT DRIFT AND RESEARCH OBJECTIVES", Shineeks Publishers, First Edition, March 2022 ISBN: 978-1-63278-953-2

## Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops.Other Trainings (Attended and/or organized).

1. Eight Weeks International MOOCs AICTE approved Faculty Development Programme on "Creating Open Source Cloud based Gnomio Moodle of Your Own Subject for OBE" organized by D.Y.Patil College of Engineering, Pune, 15th April – 10th June 2019.
2. A Two-week AICTE approved Faculty Development Programme on "Big Data Analytics and Machine Learning" organized by AITS, Rajampet, 18th – 30th December 2019.

## Details of Journal Publications/Conferences (National and International)

## International Journal

1. Balakrishnan, Amutha, Kadiyala Ramana, Gokul Ashok, Wattana Viriyasitavat, Sultan Ahmad, and Thippa Reddy Gadekallu. "Sonar glass—Artificial vision: Comprehensive design aspects of a synchronization protocol for vision based sensors." *Measurement* (2023): 112636. <https://doi.org/10.1016/j.measurement.2023.112636>
2. Ramana, Kadiyala, Gautam Srivastava, Madapuri Rudra Kumar, Thippa Reddy Gadekallu, Jerry Chun-Wei Lin, Mamoun Alazab, and Celestine Iwendi. "A Vision Transformer Approach for Traffic Congestion Prediction in Urban Areas." *IEEE Transactions on Intelligent Transportation Systems* (2023). <https://ieeexplore.ieee.org/abstract/document/10012036>
3. Victor, Nancy, Rajeswari Chengoden, Mamoun Alazab, Sweta Bhattacharya, Sindri Magnusson, Praveen Kumar Reddy Maddikunta, Kadiyala Ramana, and Thippa Reddy Gadekallu. "Federated Learning for IoUT: Concepts, Applications, Challenges and Future Directions." *IEEE Internet of Things Magazine* 5, no. 4 (2022): 36-41. <https://ieeexplore.ieee.org/abstract/document/10012478>
4. Ramana, Kadiyala, A. Revathi, A. Gayathri, Rutvij H. Jhaveri, CV Lakshmi Narayana, and B. Naveen Kumar. "WOGRU-IDS—An intelligent intrusion detection system for IoT assisted Wireless Sensor Networks." *Computer Communications* 196 (2022): 195-206. <https://doi.org/10.1016/j.comcom.2022.10.001>
5. Jhaveri, Rutvij H., A. Revathi, Kadiyala Ramana, Roshani Raut, and Rajesh Kumar Dhanaraj. "A Review on Machine Learning Strategies for Real-World Engineering Applications." *Mobile Information Systems* 2022 (2022). <https://doi.org/10.1155/2022/1833507>
6. Singh, Saurabh, C. Rajesh Babu, Kadiyala Ramana, In-Ho Ra, and Byungun Yoon. "BENS– B5G: Blockchain-Enabled Network Slicing in 5G and Beyond-5G (B5G) Networks." *Sensors* 22, no. 16 (2022): 6068. <https://doi.org/10.3390/s22166068>
7. Babu, C. Rajesh, Kadiyala Ramana, R. Jeya, and Asadi Srinivasulu. "COCO: Coherent Consensus Schema for Dynamic Spectrum Allocation For 5G." *Complexity* 2022 (2022). <https://doi.org/10.1155/2022/1388941>
8. Babu, C. Rajesh, Amutha Balakrishnan, Kadiyala Ramana, Saurabh Singh, and In-Ho Ra. "Elite-CAM: An Elite Channel Allocation and Mapping for Policy Engine over Cognitive Radio Technology in 5G." *Sensors* 22, no. 13 (2022): 5011. <https://doi.org/10.3390/s22135011>
9. Jothi Kumar, C., V. Deeban Chakravarthy, Kadiyala Ramana, Praveen Kumar Reddy Maddikunta, Qin Xin, and G. Surya Narayana. "OTP-ER: An ordered transmission paradigm for effective routing in IoT based wireless sensor networks." *Optical and Quantum Electronics* 54, no. 7 (2022): 1-15. <https://doi.org/10.1007/s11082-022-03837-y>

10. Venaktesh, C., Dr Ramana, L. Siva Yamini, Emad Abouel Nasr, Ali K. Kamrani, and Mohamed K. Aboudaif. "A neural network and optimization-based lung cancer detection system in CT images." *Frontiers in Public Health* (2022): 188. <https://doi.org/10.3389/fpubh.2022.769692>
11. Ramana, Kadiyala, Rajanikanth Aluvala, Madapuri Rudra Kumar, G. Nagaraja, Akula Vijaya Krishna, and Pidugu Nagendra. "Leaf Disease Classification in Smart Agriculture using Deep Neural Network Architecture and IoT." *Journal of Circuits, Systems and Computers* (2022). <https://doi.org/10.1142/S0218126622400047>
12. Ramana, Kadiyala, Madapuri Rudra Kumar, K. Sreenivasulu, Thippa Reddy Gadekallu, Surbhi Bhatia, Parul Agarwal, and Sheikh Mohammad Idrees. "Early prediction of lung cancers using deep saliency capsule and pre-trained deep learning frameworks." *Frontiers in oncology* 12 (2022). <https://doi.org/10.3389/fonc.2022.886739>
13. G. Senthil Kumar, Kadiyala Ramana, Rasineni Madana Mohana, Rajanikanth Aluvalu, Vinit Kumar Gunjan, Ninni Singh, "An Effective Bootstrapping Framework for Web Services Discovery Using Trigram Approach", *Mobile Information Systems*, vol. 2022, Article ID 2373596, 12 pages, 2022. <https://doi.org/10.1155/2022/2373596>
14. Ramana, Kadiyala, Rajanikanth Aluvalu, Vinit Kumar Gunjan, Ninni Singh, and M. Nageswara Prasadhu. "Multipath Transmission Control Protocol for Live Virtual Machine Migration in the Cloud Environment." *Wireless Communications and Mobile Computing* 2022 (2022). <https://doi.org/10.1155/2022/2060875>
15. Singh, Ninni, Vinit Kumar Gunjan, Ramana Kadiyala, Qin Xin, and Thippa Reddy Gadekallu. "Performance Evaluation of SeisTutor Using Cognitive Intelligence-Based "Kirkpatrick Model".  
*Computational Intelligence and Neuroscience* 2022 (2022). <https://doi.org/10.1155/2022/5092962>
16. A. Revathi, R. Kaladevi, Kadiyala Ramana, Rutvij H. Jhaveri, Madapuri Rudra Kumar, M. Sankara Prasanna Kumar, "Early Detection of Cognitive Decline Using Machine Learning Algorithm and Cognitive Ability Test", *Security and Communication Networks*, vol. 2022, Article ID 4190023, 13 pages, 2022. <https://doi.org/10.1155/2022/4190023>
17. R. Durga, E. Poovammal, Kadiyala Ramana, R. H. Jhaveri, S. Singh and B. Yoon, "CES Blocks—A Novel Chaotic Encryption Schemes-Based Blockchain System for an IoT Environment," *IEEE Access*, vol. 10, pp. 11354-11371, 2022, doi: 10.1109/ACCESS.2022.3144681 <https://ieeexplore.ieee.org/document/9686727>
18. Babu, J. Chinna, Nuka Mallikharjuna Rao, Kadiyala Ramana, and Vidhyacharan Bhaskar. "A Dynamic Hybrid Decoder Approach Using EG-LDPC Codes for Signal Processing Applications." *Wireless Personal Communications* 122, no. 2 (2022): 1435-1454. <https://doi.org/10.1007/s11277-021-08956-5>
19. Prashanth, Duddela Sai, R. Mehta, Kadiyala Ramana, and Vidhyacharan Bhaskar. "Handwritten Devanagari Character Recognition Using Modified Lenet and Alexnet Convolution Neural Networks." *Wireless Personal Communications* 122, no. 1 (2022): 349-378. <https://doi.org/10.1007/s11277-021-08903-4>
20. Amutha Balakrishnan, Ramana Kadiyala, Gaurav Dhiman, Gokul Ashok, Sandeep Kautish, Kusum Yadav, J. Maruthi Nagendra Prasad, "A Personalized Eccentric Cyber-Physical System Architecture for Smart Healthcare", *Security and Communication Networks*, vol. 2021, Article ID 1747077, 36 pages, 2021. <https://doi.org/10.1155/2021/1747077>
21. Amutha Balakrishnan, Kadiyala Ramana, Gaurav Dhiman, Gokul Ashok, Vidhyacharan Bhaskar, Ashutosh Sharma, Gurjot Singh Gaba, Mehedi Masud, Jehad F. Al-Amri, "Multimedia Concepts on Object Detection and Recognition with F1 Car Simulation Using Convolutional Layers", *Wireless Communications and Mobile Computing*, vol. 2021, Article ID 5543720, 21 pages, 2021. <https://doi.org/10.1155/2021/5543720>
22. Medabalimi S. Rao, Bodireddy E. Reddy, Ramana Kadiyala, Kottapalli Prasanna, and Saurabh Singh "Texture classification using Minkowski distance measure-based clustering for feature selection," *Journal of Electronic Imaging* 31(4), 041204 (17 November 2021). <https://doi.org/10.1117/1.JEI.31.4.041204>
23. Balakrishnan, Amutha, Kadiyala Ramana, Karthick Nanmaran, Manikandan Ramachandran, Vidhyacharan Bhaskar, and Suresh Kallam. "RSSI based localization and tracking in a spatial network system using wireless sensor networks." *Wireless Personal Communications* (2021): 1-37. <https://doi.org/10.1007/s11277-021-09161-0>
24. B. Sowmiya, E. Poovammal, Kadiyala Ramana, S. Singh and B. Yoon, "Linear Elliptical Curve Digital Signature (LECDs) With Blockchain Approach for Enhanced Security on Cloud Server," in *IEEE Access*, vol. 9, pp. 138245-138253, 2021, <https://doi.org/10.1109/ACCESS.2021.3115238>
25. Cherian, Aswathy K., Eswaran Poovammal, Ninan S. Philip, Kadiyala Ramana, Saurabh Singh, and In-Ho Ra. 2021. "Deep Learning Based Filtering Algorithm for Noise Removal in Underwater Images" *Water* 13, no. 19: 2742. <https://doi.org/10.3390/w13192742>
26. Kranthi Kumar Singamaneni, Kadiyala Ramana, Gaurav Dhiman, Saurabh Singh, and Byungun Yoon. 2021. "A Novel Blockchain and Bi-Linear Polynomial-Based QCP-ABE Framework for Privacy and Security over the Complex Cloud Data" *Sensors* 21, no. 21: 7300. <https://doi.org/10.3390/s21217300>
27. G. Suseela, Y. A. V. Phamila, G. Niranjana, Kadiyala Ramana, S. Singh and B. Yoon, "Low Energy Interleaved Chaotic Secure Image Coding Scheme for Visual Sensor Networks Using Pascal's Triangle Transform," in *IEEE Access*, vol. 9, pp. 134576-134592, 2021, <https://doi.org/10.1109/ACCESS.2021.3116111>
28. Obulesu, O., Suresh Kallam, Gaurav Dhiman, Rizwan Patan, Ramana Kadiyala, Yaswanth Raparathi, and Sandeep Kautish. "Adaptive Diagnosis of Lung Cancer by Deep Learning Classification Using Wilcoxon Gain and Generator." *Journal of Healthcare Engineering* 2021 (2021). <https://doi.org/10.1155/2021/5912051>
29. Prasanna, K., Kadiyala Ramana, Gaurav Dhiman, Sandeep Kautish, and V. Deeban Chakravarthy. "PoC Design: A Methodology for Proof-of-Concept (PoC) Development on Internet of Things Connected Dynamic Environments." *Security and Communication Networks* 2021 (2021). <https://doi.org/10.1155/2021/7185827>
30. C. Jothikumar, Kadiyala Ramana, V. Deeban Chakravarthy, Saurabh Singh, In-Ho Ra, "An Efficient Routing Approach to Maximize the Lifetime of IoT-Based Wireless Sensor Networks in 5G and Beyond",



Mobile Information Systems, vol. 2021, Article ID 9160516, 11 pages, 2021. <https://doi.org/10.1155/2021/9160516>

31. G. Kothai, E. Poovammal, Gaurav Dhiman, Kadiyala Ramana, Ashutosh Sharma, Mohammed A. AlZain, Gurjot Singh Gaba, Mehedi Masud, "A New Hybrid Deep Learning Algorithm for Prediction of Wide Traffic Congestion in Smart Cities", *Wireless Communications and Mobile Computing*, vol. 2021, Article ID 5583874, 13 pages, 2021. <https://doi.org/10.1155/2021/5583874>
32. S.Suraj Kamal, N.Penchalaiah, Kadiyala Ramana, "Control Toxic Waste by using Wireless Sensors, Arduino and Connecting Chip", *Journal of Interdisciplinary Cycle Research*, Volume 12, Issue 5, May 2020, PP. 1184-1190 (ISSN 0022-1945)
33. D. Naga Maheswari, C. B. Sujitha, Kadiyala Ramana, "Routing Optimization in SDN using Deep Reinforcement Learning", *Journal of Engineering, Computing and Architecture*, Volume 10, Issue 5, May 2020, PP. 40-47 (ISSN 1934-7197)
34. N.Penchalaiah, Kadiyala Ramana, Rajesh Mallela, "Energy Efficient Communication Approach towards the Green Internet of Things", *Journal of Information and Computational Science*, Volume 10, Issue 4, April 2020, PP. 116-127 (ISSN 1548-7741)
35. Kadiyala Ramana and M.Ponnaivaikko, "AWSQ: An Approximated Web Server Queuing Algorithm for Heterogeneous Web Server Cluster", *International Journal of Electrical and Computer Engineering*, Volume 9, Issue 3, June 2019. ISSN 2088-8708 <http://doi.org/10.11591/ijece.v9i3.pp2083-2093> [Scopus Indexed]
36. Kadiyala Ramana and M.Ponnaivaikko, "A Multi-Class Load Balancing Algorithm (MCLB) for Heterogeneous Web Cluster", *Studies in Informatics and Control*, ISSN 1220-1766, vol. 27(4), pp. 443-452, 2018. <https://doi.org/10.24846/v27i4y201808> [Scopus Indexed, SCIE Indexed]
37. Rajesh Mallela, Pidugu Nagendra, Kadiyala Ramana, "Internet of Things – Future Internet Technologies, Elements and Applications", *International Journal of Research and Analytical Reviews*, Volume 5, Issue 4, October-2018, PP. 960-967 (ISSN 2348-1269)
38. Kadiyala Ramana, M.Ponnaivaikko and A.Subramanyam, "NDLB: Nearest Dispatcher Load Balancing Approach for Web Server Cluster", *Helix – The Scientific Explorer*, ISSN 2319-5592, Volume 8, Issue 1 (2018) pp 3023-3030 <https://doi.org/10.29042/2018-3023-3030> [ESCI Indexed]
39. Kadiyala Ramana and M.Ponnaivaikko, "Content Aware Request Distribution Policies in Web Clusters: A Survey", *Journal of Advanced Research in Dynamical and Control Systems*, Volume 9, Special Issue 18 (2017) pp 2765-2779. [Scopus Indexed] IF – 0.16 SNIP – 0.135
40. Rajesh Mallela, K.Suresh, Kadiyala Ramana, M.Subba Rao, "Reducing Power Consumption at Computer Architectures to Improve the Performance", *International Journal of Scientific & Engineering Research*, Volume 7, Issue 3, March-2016, PP. 235-241 (ISSN 2229-5518)
41. Kadiyala Ramana and Dr.M.Ponnaivaikko, "Web Cluster Load Balancing Techniques: A Survey", *International Journal of Applied Engineering Research*, Vol.10, No.19, October 2015, PP. 39983-39998 (Print: ISSN 0973-4562 & Online: ISSN 1087-1090)

#### International /National Conferences

1. Deeban Chakravarthy, KLNC Prakash, Kadiyala Ramana, Thippa Reddy Gadekallu, "A Novel DDOS attack detection and prevention using DSA-DPI Method", *International Conference on Innovative Computing and Communication*, organized by organized by Shaheed Sukhdev College of Business Studies, University of Delhi, New Delhi, India in association with National Institute of Technology Patna, India and Korea Institute of Digital Convergence, South Korea and University of Valladolid, Spain on 19th - 20th February, 2022.
2. Kadiyala Ramana and L.Kalyani, "Analysis of Network Traffic and Dynamic Load Balancing using Software Defined Networks", *2nd International Conference on Cognitive Informatics and Soft Computing*, organized by Annamacharya Institute of Technology and Sciences (Autonomous), Rajampet, 09-10 April 2019.
3. Kadiyala Ramana and Dr.M.Ponnaivaikko, "GDLB: Global Dispatcher Load Balancing approach for Web Server Cluster", *1st International Conference on Communications and Cyber Physical Engineering*, organized by CMR Institute of Technology, Hyderabad, 24-25 January 2018.
4. K.Ramana, M.Ponnaivaikko, "Content Aware Request Distribution Policies in Web Clusters : A Survey", *National Conference on Research Trends in Engineering & Technology*, organized by TechFluent Solutions Pvt. Ltd., 6th March 2017.