

PROFILE

Name	Dr. Josephine Prem Kumar
Position & Affiliation	Professor, Department of CSE
Areas of Interest	Artificial Intelligence, Machine Learning, Data Science, Computer Graphics, Image Processing, Data Structures and Algorithms,
Email	josephine.cse@cambridge.edu.in
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Educational Qualifications:

Ph.D	Dr. MGR Educational and Research Institute, Dr. MGR University, Chennai	India	2010
MTech	Regional Engineering College (now National Institute of Technology), Warangal.	India	1992
BE	Regional Engineering College (now National Institute of Technology), Warangal.	India	1988
MBA	IGNOU, New Delhi	India	2000

Areas of Research:

Machine Learning, Computer Graphics, Image Processing.

Brief Profile: (write about yourself)

Dr. Josephine Prem Kumar received her B.Tech. degree in Electronics and Communication Engineering and M.Tech. degree in Computer Science from Regional Engineering College, (now National Institute of Technology), Warangal and Ph.D. in Computer Science and Engineering from Dr. MGR Educational and Research Institute, Dr. MGR University, Chennai. She has also received MBA degree in Operations Management from IGNOU, New Delhi. She has undergone training in different areas and has participated in various conferences and workshops conducted by different organizations. She has completed NPTEL

Domain certification in Artificial Intelligence and in Data Science.

After serving ITI Limited, Bangalore for over fifteen years and Infycons Creative Software Private Ltd., Bangalore for a brief period, she has taken up the teaching profession. She has worked as Professor (CSE/ISE), in MVJ College of Engineering and East Point College of Engineering and Technology for over 14 years and is currently working as Professor(CSE) in Cambridge Institute of Technology since July 2019.

She has guided B.E. and M.Tech students in their seminars and project dissertations. Three candidates have completed their Ph.D. under Visvesvaraya Technological University (VTU) under her guidance. Seven other students are currently being guided for Ph.D. under Visvesvaraya Technological University.

Awards/Achievements/Others:

- Best Teacher Award – 2004-05 – Dept. of Computer Science and Engg., MVJ College of Engg., Bangalore – 560067
- “Best Educationist Award” – 2017 – by International Institute of Education and Management.
- “National Mahila Gold Medal” – 2017 – by Indian Solidarity Council.
- National Merit Scholarship – 1982-83.
- State Special Merit Scholarship, A.P. for the year 1984-85.
- Fifth rank in the Senior Level at the Mathematical Olympiad sponsored by A.P. Association of Mathematics Teachers.
- Third rank in class in B.Tech.
- Secured 91.23 as overall percentile score in GATE88.
- 5th Topper in NPTEL Advanced Computer Architecture Course – Sept. 2019.
- Gold medal in the Workshop on Convolutional Neural Networks for Transfer Learning by Cognitron Techademy – July 2020.
- NPTEL Online Certification Course “Python for Data Science”, securing “Elite+Silver” certificate and within the top 5% of the candidates who have taken the course – March 2021.
- PyImageSearch University Certification - Object Detection 101 - Easy Object Detection – May 2021.
- PyImageSearch University Certification - Object Detection 201- Fundamentals of Deep Learning Object Detection – May 2021.
- PyImageSearch University Certification - Object Detection 202 - Bounding Box Regression – May 2021.
- PyImageSearch University Certification – OpenCV 101 – OpenCV Basics – May 2021.
- PyImageSearch University Certification – OpenCV 102 – Basic Image Processing Operations – May 2021.
- PyImageSearch University Certification – Face Recognition 101 – Fundamentals of Facial Recognition – May 2021.
- PyImageSearch University Certification – Face Applications 101 – Face Detection – May 2021.
- PyImageSearch University Certification – Face Applications 102 – Fundamentals of Facial Landmarks – May 2021.
- PyImageSearch University Certification – Deep Learning 120 – Regression with CNNs – May 2021.
- NPTEL Online Certification Course “Deep Learning”, securing “Elite+Silver” certificate – Aug. 2021.
- NPTEL Online Certification Course “Introduction to Machine Learning”, securing “Elite+Silver” certificate – Sept. 2021.
- Best Teacher Award – 2021-22 – Cambridge Institute of Technology, Bangalore – 560049.
- Certificate of Appreciation for Completion of the Project - Samsung Prism - Tamil NLU & ASR model for Rasa using Spacy, Fast Text, Jarvis – July 21 to Feb 22.

- First Place in Bible Quiz Competition held on 30th July 2022 at Indiranagar Methodist Church
- NPTEL Online Certification Course “Artificial Intelligence: Knowledge Representation and Reasoning” April 2022.
- NPTEL Online Certification Course “Artificial Intelligence: Search Methods for Problem Solving”, securing “Elite+Silver” certificate and within the top 2% of the candidates who have taken the course – October 2022.
- Recognised as NPTEL DISCIPLINE STAR in Jul-Dec 2022.
- Certificate of Excellence for providing valuable guidance to the team working in Samsung PRISM Project Worklet “Secure Confidential Data in Logs” from Nov ’22 to Jul ’23 from Samsung Research Institute, Bangalore.
- NPTEL Online Certification Course “Artificial Intelligence: Constraint Satisfaction”, securing the ‘Topper’ among the candidates who have taken the course – March 2023.
- NPTEL Online Certification Course “Data Science for Engineers”, securing “Elite+Silver” certificate – September 2023.
- NPTEL Online Certification Course “Natural Language Processing”, securing “Elite+Silver” certificate and within the top 5% of the candidates who have taken the course – October 2023.
- SWAYAM-NPTEL Domain Certification in Artificial Intelligence – October 2023. Was eligible for SWAYAM-NPTEL Domain Certification in Data Science also.
- Best Faculty Coordinator - International Level Student Workshop 2024 on Data Science using Python organized by Bainovision Solutions India Pvt. Ltd. In association with AICTE during the period 19th to 23rd Feb 2024.
- NPTEL Online Certification Course “Programming, Data Structures and Algorithms Using Python”, securing “Elite+Silver” certificate and within the top 5% of the candidates who have taken the course – March 2024.
- NPTEL Online Certification Course “Programming in Java”, securing “Elite+Silver” certificate and within the top 2% of the candidates who have taken the course – October 2024.

Courses Taught:

Data Structures and Applications, Artificial Intelligence, Computer Graphics and Image Processing, Computer Graphics and Image Processing Laboratory, Fundamentals of Data Science, Artificial Intelligence and Machine Learning, Computer Graphics and Visualization, Computer Graphics and Visualization in OpenGL Lab, Data Science, Computer Networks and Security, Deep Learning, Data Science Laboratory, System Software and Compiler Design, Discrete Mathematical Structures, Advanced Computer Architecture, Computer Graphics Lab with Mini Project, Cryptography and Network Security, Computer Networks Lab, Automata Theory and Computability, Computer Networks, Object Oriented Concepts, DAA Lab with Java, Data Structures in C Lab, File Structures, File Structures Laboratory, Object Oriented Modeling and Design, Systems Software & Operating Systems Laboratory, Compiler Design, Unix System Programming and Compiler Design Laboratory, UNIX System Programming, System Modeling and Simulation, Data Mining, Programming the Web, Web Programming Lab, Data Structures with C, Computer Systems Performance Analysis, Computer Graphics, Product Engineering, Programming Languages and Paradigms, Embedded Systems Design, Data Communications, Database Management Systems, Object Oriented Programming with C++ Lab.

Publications/Patents:

Publications	Journal Publications: 1. Josephine Prem Kumar (2007), ‘Entrusted to Excel’, Campus Link, Jan-Feb 2003, pp. 14. 2. D. Jawahar and Josephine Prem Kumar (2007), ‘<i>Software Applications in Surface Representation</i>’, Bulletin of Association of Consulting Civil Engineers (India), Vol. No. 6, Serial No. 4, April-June 2007, pp.13-24 & 55.
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3. Josephine Prem Kumar (2007), 'Adversity', **Campus Link**, Nov-Dec 2007, pp. 20-21.
4. Josephine Prem Kumar (2008), 'Meshing Algorithms For Surface Representation', **International Journal of Systemics, Cybernetics and Informatics (ISSN 0973-4864)**, Pentagram Research Centre (P) Limited, Jan 2008, pp. 54-61.
5. Josephine Prem Kumar, D. Jawahar, Dr. K.V. Ramakrishnan (2008), 'Application of Finite Element Methods in Surface Representation', **Civil Engineering and Construction Review**, Computer Software Special, March 2008, pp. 28-35.
6. Josephine Prem Kumar, D. Jawahar, Dr. K.V. Ramakrishnan (2008), 'Models for Surface Representation', **Bulletin of Association of Consulting Civil Engineers (India)**, Vol. No. 7, Serial No. 4, April-June 2008, pp. 41-44 & 47-51.
7. Josephine Prem Kumar, D. Jawahar, Dr. K.V. Ramakrishnan (2008), 'Improved Models for Surface Representation', accepted for publication in **Civil Engineering and Construction Review**, in the first half of 2009.
8. Josephine Prem Kumar, D. Jawahar, Dr. K.V. Ramakrishnan (2009), 'Enhanced Models for Terrain Modelling', **International Journal of Systemics, Cybernetics and Informatics (ISSN 0973-4864)**, Pentagram Research Centre (P) Limited, Jan 2009, pp. 42-48.
9. Ganashree T.S., Dr. Josephine Prem Kumar (2014), 'A Prototype Modelling of EBERS for Video Transmission in Wireless Adhoc Network', **Global Journal of Computer Science and Technology**, Global Journals Inc. (USA), Volume 14, Issue 8, Online ISSN: 0975-4172 & Print ISSN: 0975-4350, 2014, pp. 71-76.
10. Ganashree T.S., Dr. Josephine Prem Kumar (2014), 'Estimation based Error Reduction Scheme (EBERS) for Scalable HEVC to Support Real Time Video Communication in Wireless AD-HOC Networks', **International Journal of Emerging Science and Engineering (IJESE)**, ISSN: 2319-6378 (Online), Blue Eyes Intelligence Engineering and Sciences Publication (BEIESP), Volume 3, Issue 2, Dec. 2014, pp. 30-38.
11. Graceline Abigail P., Dr. Josephine Prem Kumar (2016), 'Study of Content Based Image Retrieval Techniques', **International Journal of Advanced Research in Computer Science and Software Engineering**, ISSN: 2277 128X, Volume 6, Issue 2, Feb. 2016, pp. 543-548.
12. Nanda P, Dr. Josephine Prem Kumar (2016), 'A Survey on QOS Improvement in Wireless Mesh Network', **International Journal of Innovative Technology and Exploring Engineering™ (IJITEE)**, ISSN: 2278-3075 (Online), Volume-5 Issue 11, April 2016, Page No.:27-29.
13. Nanda P, Dr. Josephine Prem Kumar (2016), 'Aggregating Mesh Network to Increase Throughput in Collision Rate and Reduce Energy Consumption', **International Journal of Computer Trends and Technology**, ISSN: 2231-2803, Volume 39, Number 1, pp. 12-17, September 2016.
14. Nanda P, Dr. Josephine Prem Kumar (2016), 'Safe and Protected Data Propagate in Wireless Mesh Network', **International Journal of Information Technology and Computer Engineering, IJITC**, E-ISSN 2455-5290, Volume No. 1, Issue No. 5, September 2016.
15. Nanda P, Dr. Josephine Prem Kumar (2016), 'Gateway Placement in Mesh Network Using Traffic off Loading Through 2g/3g Networks', **Global Journal of Computer Science and Technology: E-Network, Web and Security**, Global Journals Inc. (USA), Volume 16, Issue 6, Online ISSN: 0975-4172 & Print ISSN: 0975-4350, 2016, pp. 19-24.
16. Nanda P, Dr. Josephine Prem Kumar (2016), 'QOS improvement in Mesh Network using traffic offloading through 2G/3G Networks', **International Journal of Engineering Studies**, ISSN 0975-6469 Volume 8, Number 2 (2016), pp. 117-128.

17. Sharavana K, Asghar Pasha, Dr. Josephine Prem Kumar (2018), "Approach for deploying the hybrid cloud in diverse open-source tools", **IOSR Journal of Computer Engineering (IOSR-JCE)**, e-ISSN: 2278-0661, p-ISSN: 2278-8727, Volume 20, Issue 3, Ver. IV, pp. 25-34, May-June 2018.
18. Mathiyalagan R., Saravana Balaji B., Josephine P (2019), 'An Efficient Routing and Distributed Denial of Service (DDOS) Attack Detection Technique for Centralized Control Plane', **International Journal of Engineering Research and Technology**. ISSN 0974-3154, Volume 12, Number 1 (2019), pp. 124-130 © International Research Publication House. <http://www.irphouse.com>, Jan 2019, http://www.irphouse.com/ijert19/ijertv12n1_19.pdf.
19. Dr. Josephine Prem Kumar (2020), 'Identification of Factors Causing Breast Cancer using Factor Analysis', **International Journal of Engineering Research & Technology (IJERT)**, ISSN: 2278-0181, Volume 9, Issue 2, Feb. 2020, pp. 66-69, <http://dx.doi.org/10.17577/IJERTV9IS020031>.
20. Manimegalai A., Dr. Josephine Prem Kumar (2020), 'Automating Image Retrieval using Ulpath(RPA) by Extricating Color Feature with String comparison in CBIR', **International Journal of New Innovations in Engineering and Technology**, ISSN: 2319-6319, Volume 14, Issue 2, July 2020, pp. 14-20, <http://www.ijniet.org/wp-content/uploads/2020/07/31.pdf>.
21. Divya U H, Dr. Josephine Prem Kumar (2020), 'Detection of Abnormal Human Activities in Surveillance Video - A Survey', **Journal of Interdisciplinary Cycle Research**, ISSN No:0022-1945, Volume XII, Issue VIII, August 2020, pp. 929-935, DOI:18.0002.JICR.2020.V12I8.008301.317121900, <http://www.jicrjournal.com/gallery/119-jicr-august-2020.pdf>.
22. A. Devakumari, Dr. Josephine Prem Kumar, Dr. V. S. Prakash, Divya K. S. (2020), Supervised Learning Algorithms: A Comparison, **Kristu Jayanti Journal of Computational Sciences (KJCS)**, Volume 1, Issue 1, Nov. 2020, pp.01-12, Retrieved from <http://52.172.208.163/index.php/ijcs/article/view/1259>.
23. Anusha B., Dr. Josephine Prem Kumar (2021), 'A Survey on Object Location with Imaging System', **International Journal of Scientific Research in Engineering and Management (IJSREM)**, ISSN: 2582-3930, Volume: 05, Issue: 01, January 2021, pp. 1-7, <http://ijsrem.com/volume-05-issue-01-january-2021/>.
24. Manimegalai A., Dr. Josephine Prem Kumar (2021), 'Prediction Model For Pneumonia Using Convolutional Neural Network And RPA', **Lino Journal**, ISSN No.: 0211-2574, Volume 11, Issue 01, January 2021, Paper Id: LN-0121-25, <http://linojournal.com/index.php/vol11issue1/>.
25. Divya U.H., Dr. Josephine Prem Kumar (2021), 'A Survey on Detection of Malpractices in Examination Surveillance Video', **Lino Journal**, ISSN No.: 0211-2574, Volume 11, Issue 01, January 2021, Paper Id: LN-0121-54, <http://linojournal.com/index.php/vol11issue1/>.
26. K. Komaladevi, Dr. Josephine Prem Kumar, K. Kavitha, P. Anitha, M. Sathish Kumar, R. Mahaveerakannan (2021), 'A Review: Smart Farming Using IOT in the Area of Crop Monitoring', **Annals of the Romanian Society for Cell Biology**, Association of Cell Biology, Romania, ISSN :1583-6258, Volume: 25, Issue: 05, May 2021, pp. 3887 – 3896, Retrieved from <https://www.annalsofrscb.ro/index.php/journal/article/view/5053>.
27. Arem Kiran Kumar Reddy, Jithesh C J, Merline Biju, Sneha S Ganer, Dr. Josephine Prem Kumar, (2021), 'Smart Parking using IoT, Computer Vision and Android Application', **International Journal of Scientific Research in Engineering and Management**, ISSN: 2582-3930, Volume 5, Issue 6, 2021, <http://ijsrem.com/volume-05-issue-06-june-2021/>.

28. Dr. Josephine Prem Kumar, Anshika Dixit, Ateev Gupta, Harsh Raj (2021), 'Windows Software for Image labelling for Creating Database for Insight into Images', **International Journal of Scientific Research in Engineering and Management**, ISSN: 2582-3930, Volume 5, Issue 6, 2021, <http://ijsrem.com/volume-05-issue-06-june-2021/>.
29. Anusha B., Dr. Josephine Prem Kumar (2021), 'Near Duplicate Image Detection Using Image Net Model', **International Journal for Research in Applied Science & Engineering Technology (IJRASET)**, ISSN: 2321-9653, Volume 9 Issue VII July 2021, pp. 3809-3813, DOI : <https://doi.org/10.22214/ijraset.2021.37243>.
30. Sharavana. K, Josephine Prem Kumar, Shivamurthy, "An Empirical Approach of Performance and Energy-Aware Scheduling [PEAS] Mechanism in the HPC-Cloud Model", **International Journal of Engineering Trends and Technology**, ISSN: 2231-5381, vol. 70, no. 7, July 2022, pp. 238-249. Crossref, <https://doi.org/10.14445/22315381/IJETT-V70I7P224>.
31. P. Jellin Jarald, Dr. Josephine Prem Kumar, "Arduino Controller Octapad", **GIS Science Journal**, ISSN NO.: 1869-9391, Vol. 9, Issue 6, July 2022, pp. 1797-1799, DOI:20.18001.GSJ.2022.V9I6.22.39497.
32. Sharavana. K, Josephine Prem Kumar, "A Novel Multilevel Cost Effective Fault Tolerance (CEFT) Framework Approach for High Performance Computing [HPC] Cloud", **International Journal of Health Sciences (IJHS)**, ISSN: 1303 5150, Vol. 20, Issue 9, September 2022, pp. 6800-6812, doi: 10.14754/nq.2022.20.9.NQ44795, <https://www.neuroquantology.com/data-cms/articles/20221117105252pmNQ44795.pdf>.
33. Kesavan M.V., Dr. Josephine Prem Kumar, Manimegalai A., Shammi L., "Analysis of Parallel Data Processing for The Sentimental Analysis Technique Using Spark and Machine Learning Algorithms", **International Journal of Scientific Research in Computer Science, Engineering and Information Technology**, ISSN:2456-3307, Vol. 9, Issue 9, July-August 2023, pp. 80-90.
34. Manimegalai A., Dr. Josephine Prem Kumar, Kesavan M.V., Shammi L., "Detection and Classification of Arthritis Severity based on Kellgren-Lawrence grading Using CNN models", **International Journal of Scientific Research in Computer Science, Engineering and Information Technology**, ISSN:2456-3307, Vol. 9, Issue 9, July-August 2023, pp. 101-107.
35. Dr. Josephine Prem Kumar, "Detection of Driver Wearing Helmet Using Computer Vision and Machine Learning", **Gradiva Review Journal**, ISSN NO. 0363-8057, Vol. 9, Issue 8, August 2023, pp. 471-477.
36. Rajesh Kumar S., Dr. Josephine Prem Kumar, "A Comprehensive Overview of Deep Learning Techniques for Food Recognition", **Gradiva Review Journal**, ISSN NO. 0363-8057, Vol. 10, Issue 1, Jan 2024, pp. 447-456.
37. Komaladevi K , Dr. Josephine Prem Kumar, "Sustainable Food Development Based on Ensemble Machine Learning Assisted Crop and Fertilizer Recommendation System", **Journal of Machine and Computing**, ISSN (Online) : 2788-7669, ISSN (Print) : 2789-1801, Volume 04, Issue 02, April 2024, pp. 317-326, <https://doi.org/10.53759/7669/jmc202404030>, Scopus Indexed-Q2.
38. Dr. Josephine Prem Kumar, Asfiya Taj, Bhavana K, Harshitha K, Zaiba Sultana, "Car Driving Simulator on Real-Time 3D Platform", **International Journal of Creative Research Thoughts (IJCRT)**, ISSN: 2320-2882, Volume 12, Issue 4, April 2024, pp. k66-k69.
39. Ayush Saxena, Mahesh Miskin, Praphul Kumar, Sharad Singh, Dr. Josephine Prem Kumar, "Handwritten Text Recognition", **International Journal of Creative Research Thoughts (IJCRT)**, ISSN: 2320-2882, Volume 12, Issue 5, May 2024, pp. 153-160.

40. Divya U.H., Dr. Josephine Prem Kumar, "Explainable AI for Abnormal Human Activity Detection in Surveillance Videos: A Review", *International Journal of Innovative Research in Information Security*, ISSN: 2349-7017, Volume 10, Issue 4, May 2024, pp. 215-220.
41. Kesavan M.V., Dr. Josephine Prem Kumar, Manimegalai A., "Survey on MapReduce Scheduler Algorithms in Hadoop Framework", *International Journal of Innovative Research in Information Security*, ISSN: 2349-7017, Volume 10, Issue 4, May 2024, pp. 314-319.
42. Rajesh Kumar S., Dr. Josephine Prem Kumar, "Real-Time Food Detection and Localization Using Deep Learning: A Comparative Study of Single Shot Detection, Faster R-CNN, YOLO, EfficientDet, RetinaNet, and Mask R-CNN", *Journal of Emerging Technologies and Innovative Research (JETIR)*, ISSN-2349-5162, Volume 11, Issue 8, August 2024, pp. g195-g205.
43. Manimegalai A., Josephine Prem Kumar, Nanda Ashwin, "Deep ensemble architectures with heterogeneous approach for an efficient content-based image retrieval", *International Journal of Artificial Intelligence IAES*, Dec 2024, 13(4), pp. 4843-4855, ISSN/e-ISSN 2089-4872/2252-8938, DOI: <http://doi.org/10.11591/ijai.v13.i4.pp4843-4855>. (Q3)
44. Mamatha S., Dr. Josephine Prem Kumar, "A Survey on Methodologies Available for Predicting the Recurrence of Breast Cancer Post Treatment", **International Journal of New Innovations in Engineering and Technology**, ISSN: 2319-6319, Volume 25, Issue 3, Dec 2024, pp. 4-7, <https://www.ijniet.org/wp-content/uploads/2025/01/2.pdf>.

National / International Conference Papers Presented:

1. Josephine Prem Kumar, '3D Visualization', Proceedings of the **National Conference on "Recent Trends in Information Technology"**, Sir M. Visvesvaraya Institute of Technology, Bangalore, Aug. 2-3, 2005.
2. a) Josephine Prem Kumar, 'Meshing Algorithms for Surface Representation', Souvenir - 19th National Convention of **Aerospace Engineers**, Jaipur, Nov 19-20, 2005, Technical Session III – S.No. 1.
b) Josephine Prem Kumar, 'Meshing Algorithms for Surface Representation', Proceedings of the **National Seminar on "Indian Aerospace Engineering Perspective – 2020"** at the 19th National Convention of Aerospace Engineers, Institution of Engineers (India), Rajasthan State Centre, Jaipur, Nov 19-20, PP Technical Session III – S.No. 1, 2005.
3. Josephine Prem Kumar, 'Meshing Algorithms and Data Structures', Proceedings of the **National Conference on "Advanced Multimedia Processing & Applications, NAMA-2005"**, R.V. College of Engineering, Bangalore, Oct 28-29, PP 49-59, 2005.
4. Josephine Prem Kumar, 'Meshing Algorithms & Data Structures For Surface Representation'. Paper presented and published in the Conference Proceedings of ICSCI 2006, "**International Conference on Systemics, Cybernetics and Informatics, Hyderabad, India**", Pentagram Research Centre Pvt. Ltd., Hyderabad, Jan 04-08, 2006, Volume 1 of 2, PP 896-901.
5. Josephine Prem Kumar, 'Computer Applications in Terrain Modeling', Seminar Document of **National Seminar & Exhibition REDECON 2007 - Recent Developments in Design & Construction Technologies**, Association of Consulting Civil Engineers (India), Bangalore Centre, January 18-20, PP 200-213, 2007.
6. Josephine Prem Kumar, D. Jawahar, Dr. K.V. Ramakrishnan, 'Analysis of models in Terrain Modelling', Conference Proceedings of **National Conference on Recent Trends in Electronics Communication Engineering and Information Technology**

(**NACTECIT – 2008**), Department of Electronics and Communication Engineering, CMR Institute of Technology, Bangalore, Aug 26-27, 2008.

7. Sharavana. K, Dr. Josephine Prem Kumar, 'Dual Clouds: An Architecture for Security Trusted Cloud and a Commodity Cloud Computing', National Conference on "Frontiers in Virtualization and Computing Technology", organized by MVJ College of Engineering, Bangalore, 4th and 5th October 2012.
8. Ganashree T.S., Dr. Josephine Prem Kumar, 'Algebraic Code-Excited Linear Predictive Coding Mechanism for 3GPP Codec', **International Conference on Recent Trends in Signal Processing, Image Processing & VLSI**, Department of Electronics and Communication Engineering, Don Bosco Institute of Technology, Bangalore, Feb 21-22, 2014.
9. P. Nanda, Dr. Josephine Prem Kumar, 'Optimal Gateway Placement in Mesh Network using Artificial Fish Swarm Technique', **International Conference on Communication and Computing**, Computer Networks and Security, ICC 2014, Bangalore, June 12-14, 2014, pp. 439-445.
10. Ganashree T.S., Dr. Josephine Prem Kumar, 'A Comparative Study on Different MPEG Standards', **Fifth National Conference on Information Sciences – NCIS 2014**, School of Information Sciences, Manipal University, Manipal, Sept. 26-27, 2014.
11. Dr. Josephine Prem Kumar, 'An Approach for Fast Retrieval of Images by Deploying CBIR on Cloud', **International Conference on Electrical, Electronics, Computers, Communication, Mechanical and Computing (EECCMC) - 2018**, catalog "CFP18037-PRI:978-1-5386-4303-7", Priyadarshini Engineering College, Vellore District, Tamil Nadu, Jan 28-29, 2018.
12. Usha Rani K, Taneem Tabassum, Dr. Josephine Prem Kumar, 'Content Based Image Retrieval Using Colour Strings Comparison', **3rd National Conference on Advances in Engineering Management and Sciences – NCAEMS 2020**, Santhiram Engineering College, Nandyal, Kurnool District, A.P., June 13, 2020, ISBN NO:978-81-945588-1-1, pp.101-105.
13. Divya U.H., Dr. Josephine Prem Kumar, 'Detection of Abnormal Human Activities in Surveillance and Video – A Survey', **International e-Conference on Advanced Research in Science, Engineering, Technology and Management (ICARSETM-2020)**, Shadan Women's College of Engineering and Technology, July 24-25, 2020, Conference Proceedings pp. 56-62.
14. Manimegalai A., Dr. Josephine Prem Kumar, 'Prediction Model for Pneumonia Using Convolutional Neural Network and RPA', **International Conference on Multidisciplinary Technologies and Challenges in Industry-4.0 (ICMTCI-4.0)**, East Point College of Engineering and Technology, Bengaluru, September 18-19, 2020, PID-83, Conference Proceedings pp.136-140.
15. Divya U.H., Dr. Josephine Prem Kumar, 'A Survey on Detection of Malpractices in Examination Surveillance Video', **International Conference on Multidisciplinary Technologies and Challenges in Industry-4.0 (ICMTCI-4.0)**, East Point College of Engineering and Technology, Bengaluru, September 18-19, 2020, PID-110, Conference Proceedings pp.225-230.
16. Kesavan M.V., Dr. Josephine Prem Kumar, 'Disease Prediction Using Improved C4.5 and SVM Classification Algorithms on Hadoop Map Reduce', **International Conference on Multidisciplinary Technologies and Challenges in Industry-4.0 (ICMTCI-4.0)**, East Point College of Engineering and Technology, Bengaluru, September 18-19, 2020, PID-132, Conference Proceedings pp. 284-288.
17. Komaladevi K., Dr. Josephine Prem Kumar, 'A Review: Smart Farming Using IOT in the Area of Crop Monitoring', **International Conference on Multidisciplinary**

Technologies and Challenges in Industry-4.0 (ICMTCI-4.0), East Point College of Engineering and Technology, Bengaluru, September 18-19, 2020, PID-160, pp. 338-344.

18. Dr. Josephine Prem Kumar, 'Analysis of Fitness Level: BMI Prediction Using Data Mining', National Conference on "Recent Trends in Engineering and Technology", Cambridge Institute of Technology, Bengaluru, 17th-18th June 2022, pp.31.
19. Dr. Josephine Prem Kumar, 'MNIST Digit Classification with Audio Output', **National Conference on "Recent Trends in Engineering and Technology"**, Cambridge Institute of Technology, Bengaluru, 17th-18th June 2022, pp.17.
20. Dr. Josephine Prem Kumar, Karan Desai, M S Prajwal, M Monish Kumar, Sanjith Kumar E, 'Helmet Detection using Computer Vision and Machine Learning', **National Conference on Emerging Trends in Engineering, Technology and Management 2023 (NCETETM 2023)**, ISBN: 7421 | ISBN | 2023 | A, Cambridge Institute of Technology, Bengaluru, 26th April 2023, pp.1.
21. Dr. Josephine Prem Kumar, Robin Singh, Sanjana Pradhan, Amarjeet Kumar, Prateek Hebsur, 'Voice Assistant for Admission Related Inquiries', **National Conference on Emerging Trends in Engineering, Technology and Management 2023 (NCETETM 2023)**, ISBN: 7421 | ISBN | 2023 | A, Cambridge Institute of Technology, Bengaluru, 26th April 2023, pp.4.
22. Dr. Josephine Prem Kumar, Komaladevi K, 'An Efficient Data Collection Tool for Crop Recommendations Model Using Robotic Process Automation', **The Fourteenth International Conference on Computing, Communication and Networking Technologies (ICCCNT)**, held at IIT-Delhi, in association with IEEE Electronics Packaging Society during 6th – 8th July, 2023.
23. Kesavan M.V., Dr. Josephine Prem Kumar, Manimegalai A., Shammi L., "Analysis of Parallel Data Processing for The Sentimental Analysis Technique Using Spark and Machine Learning Algorithms", **National Conference on Recent Advances of Computational Intelligence Techniques in Science, Engineering and Technology (NCRACITSET-2023)** organized by Department of Computer Science and Engineering, East Point College of Engineering and Technology, Bengaluru held on 22nd July 2023.
24. Manimegalai A., Dr. Josephine Prem Kumar, Kesavan M.V., Shammi L., "Detection and Classification of Arthritis Severity based on Kellgren-Lawrence grading Using CNN models", **National Conference on Recent Advances of Computational Intelligence Techniques in Science, Engineering and Technology (NCRACITSET-2023)** organized by Department of Computer Science and Engineering, East Point College of Engineering and Technology, Bengaluru held on 22nd July 2023.
25. Dr. Josephine Prem Kumar, "Car Driving Simulator on Real-Time 3D Platform", **Two Days National Conference on Advances in Computing, Communication and Recent Trends in Technology (ACCRT - 2024)**, Cambridge Institute of Technology, Bengaluru, 3-4 May 2024.
26. Dr. Josephine Prem Kumar, "Handwritten Text Recognition", **Two Days National Conference on Advances in Computing, Communication and Recent Trends in Technology (ACCRT - 2024)**, Cambridge Institute of Technology, Bengaluru, 3-4 May 2024.
27. Dr. Josephine Prem Kumar, Komaladevi K., "Trend analysis of principal crop production and use of modern Technologies in Agriculture: A case study of state Tamilnadu", **2024 Sixth IEEE Sponsored International Conference on Electrical, Computer and Communication Technologies (IEEE ICECCT 2024)**, held at Chhattisgarh Swami Vivekanand Technical University (CSVТУ), Bhilai, Chhattisgarh,

	India organized by the IEEE Student Branch of CSVTU and Technically Co-Sponsored by IEEE Madhya Pradesh section during 26 - 28, June 2024 – published in IEEE Xplore - Scopus indexed.
Patents	202241053960, An Empirical Approach of Performance and Energy-Aware Scheduling [PEAS] Mechanism in the HPC-Cloud Model, Prof. Sharavana Kanniyappan, Dr. Josephine Prem Kumar, 21-09-2022, 30-09-2022. 202341000002, Food processing and quality assurance using AI and ML, Dr. Josephine Prem Kumar, Mr. Rajesh Kumar S, Mrs. Yashaswini S, Mr. Praveen N, Mrs. Pushplata Dubey, Mrs. Subhashini R, 01-01-2023, 13-01-2023. 202341028706, System and Method of Voice Assistant for Admission Related Inquiry, Mr. Robin Singh, Ms. Sanjana Pradhan, Dr. Josephine Prem Kumar, 20-04-2023, 16-06-2023. 202341030010, System and Method of Helmet Detection Using Computer Vision and Machine Learning, Mr. Karan Desai, Mr. M. Monish Kumar, Mr. Prajwal M.S., Mr. Sanjith Kumar E., Dr. Josephine Prem Kumar, 26-04-2023, 05-05-2023. 202341037149, RPA enabled agriculture Crop Recommendation Tool (CRT) for precision farming, K.Komala Devi, Dr. Josephine Prem Kumar, 30-05-2023, 16-06-2023. 202441006447 A, Abnormal Human Activity Recognition From Surveillance Video, Divya U.H., Dr. Josephine Prem Kumar, 31-01-2024, 09-02-2024. 202441043130, AGRIGUIDE: Explainable AI Based Crop Suggestion Tool To Empower Farmer With Transparent Recommendations, K.Komala Devi, Dr. Josephine Prem Kumar, 04-06-2024, 14-06-2024.
Book/Book Chapters	“Computer Graphics and Visualization”, Subhas Stores Publishers, Bangalore, 2010. “Computer Graphics and Visualization – Super Scanner”, Subhas Stores Publishers, Bangalore, 2013. “R Programming & Data Science Lab Manual”, ISBN Number: 978-93-340-2352-7, February 2024. “Computer Graphics and Image Processing Lab Manual”, ISBN Number : 978-93-341-7352-9, Dec 2024.

Research and Consultancy:

1. Samsung Research Institute, Bangalore- Samsung Prism - “Tamil NLU & ASR model for Rasa using Spacy, Fast Text, Jarvis” – from Sept 2021 to Feb 2022 - Received Certificate of Appreciation for Completion of the Project.
2. Samsung Research Institute, Bangalore - Samsung Prism – “Secure Confidential Data in Logs” - from 18th November 2022 to July 2023 – received **Excellence Award**.
3. Samsung Research Institute, Bangalore - Samsung Prism – “AI, NLU/P, ASR | Telugu NLU & ASR model for Rasa using Spacy, Fast Text, Jarvis” - from December 2022 to June 2023.