# **Personal Information**

Name	Saikumar Tara
Years of Experience	Teaching: 12.6 Industry: -
Email Id (College Mail ID)	saikumar.tara@bvrithyderabad.edu.in
Areas of Specialization	Image and Video Processing



# Educational Qualifications

Doctoral Degree	PhD	Pursuing from JNTUA (Video Enhancement and Restoration)
PG Degree	M.Tech.	Digital Communication Engineering
UG Degree	B.Tech/B.E	Electronics and Communication Engineering

## ORCID: http://orcid.org/0000-0003-3961-2533

Scopus: <a href="https://www.scopus.com/authid/detail.uri?authorId=53664379800">https://www.scopus.com/authid/detail.uri?authorId=53664379800</a>

ResearcherID: K-8979-2018

**Scopus Author ID**: 53664379800

# **Papers Published**

International Journal Publications:

- 1. Dr. Sasanko Sekhar Gantayat, Dr. M.Vanitha, **Saikumar Tara**. LOCAL AND GLOBAL HISTOGRAM MATCHING FOR ENHANCING IMAGE QUALITY USING SPATIAL REPRESENTATION. JCR. 2020; 7(4): 1757-1760. doi:10.31838/jcr.07.04.289 (Scopus).
- Saikumar T, S.Aruna Masatani, "A Review on Video Enhancement Methods and Algorithms for haze removal" JECA Journal, ISSN NO: 1934-7197, Volume 10, Issue 2, February 2020.DOI: 17.0002.JECA.2020.V10I2.200786.4911.
- **3.** Saikumar Tara, R.Nirmala Devi, "Radon Transform Based Modified Nonlinear Access for Segmentation of Mammogram Application", International Journal of Recent Technology and Engineering (IJRTE)ISSN: 2277-3878, Volume-8 Issue-2, July 2019 (Scopus)
- **4. Saikumar Tara**, "Mammogram Segmentation using a Improved Nonlinear Access of Level Set Method", International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8 Issue-12S, October 2019.

## International Conference Publications:

- **5.** T.Saikumar, "Computer Vision Based Automated Attendance System Using Face Recognition Approach" in First International Conference on Advances in Signal Processing Communications and Computational Intelligence (ASCCI), July 2021 (Scopus and web of science Accepted).
- **6.** T.Saikumar, "Artificial Neural Network for Cryptography based Image Encryption" in First International Conference on Advances in Signal Processing Communications and Computational Intelligence (ASCCI), July 2021 (Scopus and web of science Accepted).
- **7.** T. Saikumar, "Design of HCI for Handwriting Character: A Comprehensive Review" in First International Conference on Advances in Signal Processing Communications and Computational Intelligence (ASCCI), July 2021 (Scopus and web of science Accepted).
- **8.** T.Saikumar, "Prediction of Health Diseases using Soft Computing Techniques: A Comprehensive Review" in First International Conference on Advances in Signal Processing Communications and Computational Intelligence (ASCCI), July 2021 (Scopus and web of science Accepted).
- **9.** T.Saikumar, "Design and Implementation of High Efficient UAV Quad copter" in First International Conference on Advances in Signal Processing Communications and Computational Intelligence (ASCCI), July 2021 (Scopus and web of science Accepted).
- 10. T.Saikumar, "Detection of classification of Skin Cancer Using Back Propagated Artificial Neural Network" in First Virtual AICTE Sponsored International Conference on Recent Trends in Electrical Electronics Communication and Instrumentation (ICRTEECI 2021) Dec 2021 (Scopus and web of science, Accepted).
- **11.** T.Saikumar, "Machine Learning Based Approach for Classification of weed Images" in First International Conference on Innovations in Signal processing and Embedded Systems (ICISPES 2021), Oct 2021, Springer as Publication Partner.
- **12. Saikumar, Tara**., Kota S. Raju, K. S. Srinivas and M. V. Rao. "Statistical Metric Measurement Approach for Hazy Images." ICC 2018 (2018) (Scopus)
- **13. T.Saikumar,** Presented a paper titled as "**Optimized of Fuzzy Clustering Algorithms for image Segmentation**", in International Journal of Electronics, Electrical and Computational System (IJEECS), ISSN 2348-117X, Vol 6, Iss 11, Nov 2017.
- 14. T.Saikumar, Presented a paper titled as "Modified Improved Kernel Fuzzy Adaptive Threshold Algorithm on Modified Level Set Method for Picture Segmentation", in 5th International Conference on Engineering Technology, Science and Management Innovation (ICETSMI-2017) organized by Conference info in association with Academic Science at IETE, Lodhi Road, Delhi, India on 30<sup>th</sup> April 2017.(Skype Presentation).
- **15. T.Saikumar,** Presented a paper titled as "**Visibility Metric (VM) for Haze images based on Color Channel**" in 5th International Conference on Engineering Technology, Science and Management Innovation (ICETSMI-2017) organized by **Conference info** in association with **Academic Science** at IETE, Lodhi Road, Delhi, India on 30<sup>th</sup> April 2017.(Skype Presentation).
- 16. T.Saikumar, presented a paper titled as "Blind Channel (BC) Equalization based on Fractional Spaced CMA and CS-LMS Using Adaptive MMSE Equalizer" at International Conference on Communications, Signal processing Computing and Information Technologies (ICCSPCIT-2016) organized by Malla Reddy College of Engineering & Technology during 16<sup>th</sup> -17<sup>th</sup> December 2016.

- 17. Tara Saikumar, "Constrained Stability Least Mean Square (CSLMS) Algorithm for Adaptive MMSE Equalizer Based On Blind Fractional Spaced CMA Channel Equalization", in 3<sup>rd</sup> IEEE International Conference on Electronics and Communication System (ICECS), on 25th to 26th Feb 2016, vol.3, Feb 2016.
- 18. Tara Saikumar, "Tara Kernel Fuzzy C-Means (TKFCM) Clustering Algorithm on Level Set Method for Noisy", in 3<sup>rd</sup> IEEE International Conference on Electronics and Communication System (ICECS), on 25th to 26th Feb 2016, vol.3, Feb 2016.
- 19. Tara Saikumar, "MR Image Segmentation based on Improved Hyper KFCM (IHKFCM) Clustering Algorithm and Modified Level Set Method using Radon Transform", in 6<sup>th</sup> International Conferences on Swarm Evolutionary and Memetic Computing (SEMCCO2015), on 18th to 19th Dec 2015, Springer as Partner.
- 20. Tara Saikumar, "Segmentation of image with DT-CWT and NLM filtering using fuzzy c-means clustering", in 2015 International Conferences on Computational Intelligence and Computing Research (ICCIC-2015), on 10th to 12th Dec 2015.
- 21. Tara Saikumar, "Design and Verification of Ethernet, VME IP Core Using ACE and CDC", in 2<sup>nd</sup> IEEE International Conference on Electronics and Communication System (ICECS-2015), on 26th to 27th Feb 2015.
- 22. Tara Saikumar, "Mean-Shift Tracking Algorithm for Salient Object detection in Videos", in 2<sup>nd</sup> International Conference on Advances in Computer Science and Engineering (ICACSE-2016), on 20th August 2016.
- **23. Tara Saikumar**, "Effective Optimizing Data Encoding Schemes For Reducing Energy Consumption in NOC", in 2<sup>nd</sup> International Conference on Advances in Computer Science and Engineering (ICACSE-2016), on 20th August 2016.
- 24. Tara Saikumar, "Estimation of Adaptive Minimum Mean Square Equalizer for blind Channel Equalization using NLMS Algorithm", in 2<sup>nd</sup> International Conference on Advances in Computer Science and Engineering (ICACSE-2016), on 20th August 2016.
- 25. Tara Saikumar, B.Shashidhar, V.Harshavardhan, Kotha.ShobhaRani, "MRI Brain Image Segmentation Algorithm Using Watershed Transform and Kernel Fuzzy C-Means Clustering on Level Set Method" in International Journal on Computer Science Engineering(IJCSE),volume 3,Issue 4, April 2011.
- 26. Tara Saikumar, P.Yugander, P.S.Murthy, B.Smitha, "Image Segmentation Algorithm Using Watershed Transform on Fuzzy C-Means Clustering on Level Set Method", in International Journal of Computer Theory and Engineering (IJCTE), vol.5, No.2, April 2013.
- 27. Tara Saikumar, P.Yugender, P.S.Murthy, B.Smitha, "Improved Fuzzy C-Means Clustering Algorithm Using Watershed Transform on Level Set Method for Image Segmentation", in International Journal of Machine Learning and Computing (IJMLC), vol.2, No.1, Feb 2012.

- 28. Tara Saikumar, R.Nirmala Devi, Dr.K.Kishna Rao, "Adaptive MMSE Equalizer for Blind Fractional Spaced CMA channel Equalization through LMS Algorithm", in International Journal of Ad hoc, Sensor & Ubiquitous Computing" (IJASUC), Vol.3, No.1, February 2012.
- 29. Tara Saikumar, B.Smitha, P.S.Murthy, "CMA Channel Equalization Through An Adaptive MMSE Equalizer Based RLS Algorithm", in International Journal of Computer & Communication Technology(IJCCT), Special Issue of IJCCT, ISSN(Online):2231-0371, ISSN(Print):0975-7449, vol.3, Issue-1, 2012.
- **30.** Tara Saikumar, S.Amit, P.Dinesh, "Improved Kernel Fuzzy Adaptive Threshold Algorithm on Level Set Method for Image Segmentation", in International Journal of Communication Network Security, ISSN: 2231-1882, vol.2, Issue-2, 2013.
- **31.** T.Saikumar, **P.Yugander**, B.Simtha and K.L.N.Srinivas Gupta "**An adaptive threshold algorithm for MRI brain image segmentation on level set method**," in Proc of UACEE International Journal of Advances in Computer Networks and its Security (IJCNS), pp. 367-370, Vol. 1, August 2011,(ISSN: 2250-3757).
- **32. Tara Saikumar**, B.Shashidhar, "Adaptive Fuzzy C-Means Clustering Algorithm on Level Set Method for Noisy Images" in an International Journal of Advanced Computer Technology (IJACT), ISSN: 2320-0790, volume 2,Issue 8, Aug- 2013.
- **33. Tara Saikumar**, B.K.Anoop, P.S.Murthy , "**Tara Kernel Fuzzy Clustering (TKFCM) for a Robust Adaptive Threshold Algorithm on Level Set Method** ", in International Journal of Information Technology Convergences and services(IJITCS), vol.2, No.1, Feb 2012.
- **34.** Tara Saikumar, "An Adaptive Fuzzy C-Means Clustering Algorithm for Breast Image Segmentation," in International Journal of Image Processing and Applications" (IJIPA), 2 (1), 2011, (ISSN 0975-8178), pp: 79-83.
- **35.** Tara Saikumar, Dr.Sundarana Reddy, "Optimized Kernel Fuzzy C-Means Clustering for Bio-Images Using Level Set Method ", in International Journal of Electronics Communication and Computer Engineering , vol.4, Issue(6),NCRTCST-2013(ISSN 2249-071X).
- 36. G.Raghotham Reddy, Tara Sai Kumar, R.Rameshwar Rao "Image Segmentation Using Kernel Fuzzy C-Means Clustering on Level Set Method" at Proceedings of 2010 International Conference on Graphic and Image Processing (ICGIP2010), (ISBN: 978-1-4244-9017-2),(ISBN: 978-1-4244-9017-2),Manila, Philippines, 4th 5th Dec. 2010 pp 144-148.(Indexed SPIE Digital Library).
- 37. Tara.SaiKumar,R.NirmalaDevi,P.Yugander,B.Smitha," An BioMetric Finger Print Segmentation Using Kernel Fuzzy C-MeansClustering on Level Set Method" at Proceedings of 2011 International Conference on Machine Learning and Computing (IEEE ICMLC 2011) Singapore, Feb 26-28 20.

- 38. Tara.SaiKumar, P. Yugander, P.S. Murthy, B.Smitha," Image Segmentation Algorithm Using Watershed Transform and Fuzzy C-Means Clustering on Level Set Method" at Proceedings of 2011 4th IEEE International Conference on Computer Science and Information Technology(IEEE ICCSIT 2011) Chengu, China Manila, Jun 10-12 201.
- 39. Tara.SaiKumar, P.Yugander, P.S.Murthy, B.Smitha," MRI Brain Image Segmentation Algorithm Using Watershed Transform and Kernel Fuzzy C-Means Clustering on Level Set Method " at Proceedings of 2011 International Conference on Information and Network Technology(ICINT 2011), IPCSIT vol.4(2011) Singapore, pp. 188-195, April 29-30 2011.
- 40. Tara.SaiKumar, P. Yugander, P.S. Murthy, B.Smitha, "Color Based Image Segmentation Using Fuzzy C-Means Clustering " at Proceedings of 2011 International Conference on Computer and Software Modelling (ICCSM 2011) Singapore, Sept 16-18 2011.
- 41. R.NirmalaDevi, Tara Sai Kumar, Dr. Kishan Rao, "Adaptive MMSE Equalizer through LMS algorithm based CMA Channel Equalization," at proceedings published by Springer Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering (LNICST) during 2-4 January-2012, at Net-Com Bangalore ,A.P., India.
- **42. Tara Sai Kumar,** P.Yugander, B.Smitha, Ch.Narshima Chary, **"Image Segmentation Using An Adaptive Threshold Algorithm based on FCM Clustering level Set method"** at Joint International Conference on Fuzzy And Neural Computing Conference (FANCCO-2011) 2011 during 19-21 December-2011, at ANITS Visakhapatnam, A.P., India.
- **43.** Tara Sai Kumar, B.Smitha, B.K.Anoop, P.S.Murthy, "Image Segmentation Using Improved Fuzzy C-Means Clustering on Level Set Method for Noisy Images" at Proceeding 2011 IEEE ICCIC, Cape Institute of Technology, India, during 15-18 Dec 2011, ISBN:978-1-61284-693-4.
- **44. Tara Sai Kumar,** B.K.Anoop, B.Smitha , **"Blind Fractional Spaced CMA Channel Equalization through an Adaptive MMSE Equalizer based NLMS algorithm"** at Proceeding 2011 IEEE ICCIC, Cape Institute of Technology, India, during 15-18 Dec 2011,ISBN:978-1-61284-693-4..
- **45. Tara Sai Kumar**, B.K.Anoop, Ch.Narshima Chary ,B.Smitha , **"Kernel Fuzzy Adaptive Threshold Algorithm on Level set method for Image Segmentation"** at Proceeding of The First International Conference on Information Technology Convergence and Services (ITCS 2012), Bangalore, India during 3~4 2012.
- 46. Tara.Saikumar, M.Nagarani ,K.Yojanna,B.Shashidhar," Image Segmentation of An Adaptive Threshold Algorithm using Watershed Transform and Fuzzy C-Means Clustering on Level Set Method" in IEEE International Conferences on Advances in Engineering Science & Management(ICAESM-2012).during 30-31 March 2012, at EGS Pillay Engineering College,Nagapattinam,TN.(Indexed in IEEE Xplore).

- 47. Tara.Saikumar ,K.Yojanna,Madhava Rao, C., Murthy,P.S,''Fast Improved Kernel Fuzzy C-Means Clustering for Image Segmentation on Level Set Method''in IEEE International Conferences on Advances in Engineering Science & Management(ICAESM-2012).during 30-31 March 2012, at EGS Pillay Engineering College,Nagapattinam,TN.(Indexed in IEEE Xplore).
- 48. Tara Saikumar, P.Yugander, M.Ravindra, B.K.Anoop, "Image Segmentation of an Adaptive Threshold Algorithm Using Watershed Transform and Fuzzy C -Means Clustering on Level Set Method" International Conference on Signal, Image and Video Processing (ICSIVP 2012), IIT Patna. Held during 13th -15th Jan 2012.
- **49. Tara SaiKumar**, P.Yugander, P.S.Murthy, B.Smitha," **Colour Based Image Segmentation Using Fuzzy C-Means Clustering** " at 2011 International Conference on Computer and Software Modelling(ICCSM), IPCSIT vol.14(2011), IACSIT Press, Singapore, pp. 180-185.
- 50. Tara.Saikumar, B.K.Anoop, Md.Ameenuddin, "Image Segmentation Using Quick Improved Fuzzy C-Means Clustering on Level Set Method" in International Conferences on Computing, Communications, Systems and Applications (ICCCSA-2012), during 30-31 March 2012, at Malla Reddy College of Engineering & Technology, Hyderabad, A.P.
- 51. Tara.Saikumar, M.Ravinder, B.K.Anoop, P.Nideesh, "A Novel Combination of an Adaptive Threshold Algorthim and Fuzzy C-MeansUsing Watershed Transform Clustering on Level Set Method" in "Advances in Communication, Navigation and Computer Network (ACNCN-2012), during 17-18 March 2012, at AU Engineering Campus, Visakhapatnam, A.P.
- 52. Tara Sai Kumar, P.Yugander, B.Smitha, Ch.Narshima Chary, "Image Segmentation Using An Adaptive Threshold Algorithm based on FCM Clustering Level Set Method" at Joint International Conference on Fuzzy And Neural Computing Conference (FANCCO-2011) 2011 during 19-21 December-2011, at ANITS Visakhapatnam, A.P, India.
- 53. Tara Sai Kumar, Khaja Fasi Uddin, B.V.Reddy,Md.Ameen Uddin, "Image Segmentation Using Variable Kernel Fuzzy C-Means(VKFCM) Clustering on Modified Level Set Method," at proceedings published by Springer Lecture Notes in Electrical Engineering (LNEE) during 22-23 December -2013, at NetCom2013,Chennai, India ISBN: 978-1-4614-6153-1.(Indexed in Springer)
- **54.** Tara.SaiKumar, B.K.Anoop, P.S.Murthy, "Robust Adaptive Threshold Algorithm Based on Kernel Fuzzy Clustering on Image Segmentation " at Proceedings of The First International Conference on Information Technology Convergence and Services (ITCS 2012), pp 99-103, Bangalore, India, Jan 4 2012.
- **55. Tara Sai Kumar**, Neenu Preetam. I, **"Optimized Kernel Fuzzy C-Means (OKFCM) Clustering Algorithm on Level Set Method for Noisy Images"** in IEEE International Conferences on Computational Intelligence and Computing Research(ICCIC), during 26-28 Dec 2013, at Vickram College of Engineering, Madurai, TN.(ISBN:978-1-4799-1595-8).

National Conference Publications:

- T.Saikumar, Participated/presented a paper titled "Fuzzy Clustering and Improved LB Method using Level Set Method for Image Segmentation" in the 6<sup>th</sup> National conference on Emerging & Innovative Trends in Computer science, NCEITCS-2017 March 30-31,2017 organized by Department of CSE, Vasavi College of Engineering, Hyderabad.
- Tara.Saikumar, Y.N.V.Satish, Dr.M.SundaranaReddy, " Dynamic Finger Print Segmentation Algorithm Using Level Set Methods", in National Conferences on Computer Networks & Information Security, Sponsored by(Seminar grant) AICTE, pp 200-204, during 4<sup>th</sup>-5<sup>th</sup> March 2014, at Vasavi College of Engineering, Hyderabad, India.(ISBN: 978-93-82570-23-3).
- T.Saikumar, R.Nirmala Devi, I. Neenu Preetam, "Improved Sobel Algorithm for MRI Image segmentation Using LSM", in National Conferences on Computer Networks & Information Security, Sponsored by(Seminar grant) AICTE, pp 197-199, during 4<sup>th</sup>-5<sup>th</sup> March 2014, at Vasavi College of Engineering, Hyderabad, India.(ISBN: 978-93-82570-23-3).
- 4. T.Saikumar, "Ultrasonic Segmentation using Hyper Kernel Fuzzy C Means Clustering on Level Set Method in 3<sup>rd</sup> National Conference on "Emerging & Innovative Trends in Computer Science (NCEITCS -2014)", during April 1-2, 2013.
- 5. T.Saikumar, Khaja Fassi Uddin, I. Neenu Preetam, "Fast Global minimization of Active Contour using GAC and GVF Models", in National Conferences on Computer Networks & Information Security, Sponsored by(Seminar grant) AICTE, pp 54-57, during 4<sup>th</sup>-5<sup>th</sup> March 2014, at Vasavi College of Engineering, Hyderabad, India. (ISBN: 978-93-82570-23-3).
- T.Saikumar, P.Akhil Reddy, "Clustering Algorithm on Modified Level Set Method for Noisy Images in 5th National Conference on "Emerging & Innovative Trends in Computer Science (NCEITCS -2016)", during April 11-12, 2016.
- 7. T.Saikumar, S.Sowmya, Shaik Irfan, P.Sai RamaDevi, P.Akhil Reddy, "Design and Implementation of Edge Detection Method Using Improved Sobel Algorithm and Level set Method", in 5th National Conference on "Emerging & Innovative Trends in Computer Science (NCEITCS -2016)", during April 11-12, 2016.
- T.Saikumar, N.Mamatha Reddy "Medical Imaging Application for Optimized Clustering Algorithm Using Modified Level Set Method", in 5th National Conference on "Emerging & Innovative Trends in Computer Science (NCEITCS -2016)", during April 11-12, 2016.
- 9. T.Saikumar, "Image Segmentation Using Improved Sobel Algorithm on Level Set Method", in two day 5th National Conference on "Emerging & Innovative Trends in Computer Science (NCEITCS -2012)", during May 1-2, 2012.
- 10. T.Saikumar, "Optimized Kernel Fuzzy C-means Clustering for Bio-Images Using Level Set Method", in 2<sup>nd</sup> National Conference on "Research Trends in Computer Science and Technology (NCRTCST -2013)", during November 15-162, 2013.

- 11. T.Saikumar, "Adaptive MMSE Equalizer based CMA Channel Equalization through LMS algorithm", in 3-day National Conferences on "Signal Processing & Embedded systems Applications" supported by AICTE and DRDO conducted by CMRCET during 8<sup>th</sup> -10<sup>th</sup> July 2011.
- **12. T.Saikumar, "CMA Channel Equalization through an Adaptive MMSE Equalizer based NLMS Algorithm"** in National Conference on "Emerging Trends in Communication and Signal Processing (NCECS-2011)", during October 12-13, 2011.
- 13. T.Saikumar, "TFCM Clustering Algorithm using Level Set Method for Noisy Image " in National Conference on "Advances in Communication & Electrical Engineering (NCACEE-2013)", during September 6<sup>th</sup> -7<sup>th</sup>, 2013.
- 14. T.Saikumar, "Image Segmentation using Fuzzy C- Means Clustering on Level Set Methods for Noisy Images " in National Conference on "Emerging Trends in Communication and Signal Processing (NCECS-2011)", during October 12-13, 2011.
- 15. T.Saikumar ,Presented a paper tited as "Kernel Fuzzy Adaptive Threshold Algorthim on Level Set Method For Image Segmentation Image Segmentation using Fuzzy C-Means Clustering on Level Set Methods for Noisy Images" in National Conference on Information & Software Engineering (NCISE-2012), during 9<sup>th</sup> -10<sup>th</sup> March, 2012.

## FDPs Attended

- 1. 1) Saikumar Tara, has participated in AICTE sponsored 6 days Online Short term Training Programme on "Data Analytics and Machine Learning Tools-Phase II" organized by CSE, AJCE from 17th 22nd August 2020.
- Saikumar Tara, has participated in AICTE sponsored 6 days Online Short term Training Programme on "Cognitive Inspired Computing for Machine Intelligence" during 24th to 29th August 2020 by Dept., of CSE, Hindustan Institute of Technology & Science (Deemed to be University).
- 3. Saikumar Tara, has participated in One Week Online National Level FDP on "Recent Trends & Innovations in Digital Forensic" organized by Dept., of CSE,AISSMS IIOT Pune, in association with ACM Student Chapter and IEEE Pune Section from 25th t0 30th May 2020.
- 4. Saikumar Tara, has participated and Completed in ATAL Academy Online FDP On "Deep Learning and Artificial Intelligence" from12-09-2020 to 25-09-2020 at Indira Gandhi Delhi Technical University for Women.
- Saikumar Tara, has participated in one week FDP on "ICT based tools and its applications in teaching learning Process" organized by BSVS Educational Learning Centre, Nagpur during 27th -02nd June 2020.

- 6. Saikumar Tara, has Participated in One Week TEQIP-Online Faculty Development Program on "Machine Learning and Deep Learning Applications in Engineering and Science (MLDLAES -2020)"from 16thMay-20thMay 2020 (Sponsored by Technical Education Quality Improvement Program -III) Organized by Civil Engineering Department, Government College of Engineering, Karad.
- 7. Saikumar Tara, has participated in one week FDP on "Recent Advances in Biomedical Applications and Communication Networks" organized by Dept., of ECE, GMR Institute of Technology, Rajam, A.P during 13th-18th July 2020.
- Saikumar Tara, has participated in one week FDP on "Embracing the creative Side of Teaching and Learning Methods" organized by RMK College of Engineering and Technology during 29th -3rd July 2020.
- 9. Saikumar Tara, has participated in one week online Workshop on "Internet of Medical Things: Challenges and Solutions" organized by Region –IV, CSI during 17th 22nd August 2020.
- 10. Saikumar Tara, has participated in one week FDP on "Advanced Python Programming using Django" organized by Dept., of CSE in association with Data Point Solutions, Hyderabad, by Malineni Lakshmaiah Women's Engineering College, A.P during 21st -25th May 2020.
- Saikumar Tara, has participated in one week FDP on "Recent Trends and Future Applications in Electronics and Communication Technologies" organized by Dept., of ECE, MLR Institute of Technology, during 29th May – 02nd July 2020.
- 12. Saikumar Tara, has participated in one week FDP on "ICT based Teaching and Learning Process" organized by Hindusthan College of Arts and Science, Coimbatore, TN during 01st 05th July 2020.
- 13. Saikumar Tara, has participated in Five Day national Level Online FDP Program on "Recent Trends in Computer Science ", organized by Dept., of CSE, RGMCET, during 30th June to 04th July 2020.
- 14. Saikumar Tara, has participated in one week FDP on "Technologies for Teaching Learning Pedagogy" organized by Dept., of ECE, GMR Institute of Technology, Rajam, A.P during 6th-9th August 2020.
- 15. Saikumar Tara, has participated in one week Online International FDP on "Wireless Communications and Mobile Technologies" organized by Dept., of ECE in association with QCARES, Qualcomm from 06th 10th July 2020.
- 16. Saikumar Tara, has participated in Webinar on "NAAC Assessment and Accreditation Process" organized by UGC HRDC, JNTUH on 03rd July 2020.
- 17. Saikumar Tara, has participated in one week FDP on "Research Opportunities in Image Processing and Machine Learning" organized by Dept., of ECE, CBIT during 29th June to 03rd July 2020.
- 18. Saikumar Tara, has participated in Five Days Online FDP on "Machine Learning and Data Science" organized by Dept., of CSE in Technical Association with IEEE Bangalore Section, from 31st August to 04th September 2020.
- 19. Saikumar Tara, has participated in one week Online STTP on "Research Avenues in Machine Learning Approaches for Pattern Recognition" organized by Dept., of ECE, MGIT Hyderabad during 24th to 29th July 2020.

- 20. Saikumar Tara, has participated in one week Online STTP on "Optimization Techniques through Machine Learning for Wireless and IOT" organized by Dept., of ECE, MRECW Hyderabad during 13th t0 18th July 2020.
- 21. Saikumar Tara, has participated in AICTE- AQIS Sponsored one week Online STTP on "Image Processing and its Application" organized by Dept., of Computer Engineering, Poornima Institute of Engineering and Technology, Jaipur during 24th to 29th August 2020.
- 22. Saikumar Tara, has participated in AICTE Sponsored one week Online STTP on "Image Processing and its Application" organized by Dept., of Computer Engineering, Poornima Institute of Engineering and Technology, Jaipur during 07th to 12th September 2020.
- 23. Saikumar Tara, has participated a TEQIP-III Sponsored Two week FDP on "Digital Design and emerging Trends in Signal Processing "organized by Dept., of ECE, Government Engineering College, Bikaner during 10th to 22th August 2020.
- 24. Saikumar Tara, has participated in Five day Online FDP on "Challenges in Computer Vision Using Deep Learning and IoT Protocols" organized by Dept., of ECE, GNITS ,Hyderabad during 20th to 24th July 2020.
- 25. Saikumar Tara, has participated in AICTE Sponsored one week Online STTP on "SciLab: An Effective Open Source Tool for Computer Vision and Machine Learning", organized by Dept., of ECE, VJIT (A), during 02th to 07th November 2020.
- 26. Saikumar Tara, has participated in AICTE Sponsored one week Online STTP on "Block chain Architecture Design and Use cases" organized by Dept., of ECE, Gudlavalleru Engineering College, A.P during 10th to 15th August 2020.
- 27. Saikumar Tara, has participated in the Two Day Online Workshop on "Online Tools and Software for Remote Teaching-Learning" organized by UGC HRDC, JNTUH during 24th -25th April 2020.
- 28. Saikumar Tara, has participated in one week Online International FDP on "Machine Learning and Computer Vision" Applications, research Challenges (MLCV 2020)", Jointly organized as twinning Programme by NIT Silchar, Assam and Gauhati University Institute of science & Technology, Guwahati, Assam during 24th to 28th August 2020.
- 29. Saikumar Tara, has participated in AICTE Recognized FDP on Internet of Things Conducted by Dept., of CSE, at NITTTR, Chandigarh during 10th to 14th April 2020. (Certificate No: ICT-955/20)
- 30. Saikumar Tara, has participated in Online STC on "Recent Advances in Computational Intelligence for signal Processing" (RACISP-2020) organized by Dept., of ECE, JUIT Waknaghat during 10th to 15th August 2020.
- **31. Saikumar Tara** has participated in Five Day TEQIP-III Sponsored online Workshop on **"MATLAB and its Applications"** Organized by Rajasthan Technical University, Kota, Sri Balaji College of Engineering and Technology from 04-08 Jan 2021.
- **32.** Saikumar Tara has participated in AICTE Sponsored online Short Term Training Programme on **"Research Aspects on Deep learning in Image and Video Processing"** Organized by Dept of ECE, Velammal Institute of Technology from 04-09 Jan 2021.
- **33. Saikumar Tara** has participated in IEEE SPS Summer School on "Internet of Things for Biomedical and Healthcare Applications" organised by IEEE VNRVJIET Student Branch in association with IEEE SPS and WIE AG IEEE Hyderabad Section from 28-31 Dec 2020.

- **34. Saikumar Tara** has participated in Five Day TEQIP-III Sponsored online Workshop on "**Machine Learning and Android**" Organized by Rajasthan Technical University, Kota, Sri Balaji College of Engineering and Technology from 21-25 Dec 2020.
- 35. Saikumar Tara has participated in AICTE Sponsored one week Online STTP on "Optimization Techniques through Machine Learning for Wireless and IOT – Phase-II" Organized by Dept of ECE, Malla Reddy Engineering College for Women Engineering from 27<sup>th</sup> July to 1<sup>st</sup> August 2020.
- 36. Saikumar Tara has participated in AICTE Sponsored 6 Days Online STTP on "Data Analytics and Machine Learning Tools- Phase-I" Organized by Dept of CSE, Amal Jyothi College of Engineering from 3<sup>rd</sup> -8<sup>th</sup> August 2020.
- **37. Saikumar Tara** has participated in AICTE Sponsored 6 Days Online STTP on **"Data Analytics and Machine Learning Tools- Phase-II**" Organized by Dept of CSE, Amal Jyothi College of Engineering from 17 -22 August 2020.
- **38. T.Saikumar,** Attended One week Faculty Development Program on **"Signal Analysis and Transform Techniques**" from 10 June -15 June,2017 at Vignan's Lara institute of Technology and Science, Vadlamudi in association with E & ICT Academy and Dept of ECE, NITW.
- **39. T.Saikumar,** Attended One week Faculty Development Program on "Computer Vision & Image Processing (CVIP)" from 4<sup>th</sup> Dec -9<sup>th</sup> Dec 2017 at CMR Technical Campus, Hyderabad in association with E & ICT Academy and Dept of ECE, NITW.
- 40. T.Saikumar, has participated in the AICTE Sponsored Two week National Level FDP on " Speech ,Image & Video Processing Techniques, Analysis and Applications" organized by department of ECE, Malla Reddy Engineering College for Women from 6<sup>th</sup> to 18<sup>th</sup> November,2017.
- 41. T.Saikumar,has participated in one week FDP on "Hands on Labview and its applications in Engineering", jointly organized by departments of ECE and EIE, Kakatiya Institute of Technology and Science, Warangal in association with IEEE KITS SB (Branch Code:09309,School code:6006218) during 4<sup>th</sup> to 9<sup>th</sup> May,2017.
- 42. T.Saikumar, has participated in the Two Day Workshop on "Implementation of Image Processing using Open Source Software " organized by department of ECE, Vidya Jyothi Institute of Technology (A) from 18<sup>th</sup> and 19<sup>th</sup> August,2017.
- 43. T.Saikumar, has participated in the NPTEL workshop conducted on 9<sup>th</sup> July,2016 at Vardhaman College of Engineering, Hyderabad organized by NPTEL IIT Madras.
- 44. T.Saikumar, has participated in Certified Advanced Workshop on Patent Drafting & Patent Protection Strategies held in Vijayawada on 13-14 July ,2016.
- 45. T.Saikumar Attended a TEQIP-II supported one week short term course on "Knowledge based System in Engineering" organized by department of Mechanical Engineering ,University College of Engineering (Autonomous), Osmania University , Hyderabad during 10<sup>th</sup> -14<sup>th</sup> June, 2013.

- 46. **T.Saikumar** attended the complimentary seminar "MATLAB & Simulink for Engineering Education in association with MathWorks India on 26<sup>th</sup> July 2013.
- 47. **T.Saikumar** has participated in the workshop on "**Signal, Image and Video Processing**" organized by ECE Dept of MRCET during July 08<sup>th</sup> -10<sup>th</sup> 2010.
- 48. T.Saikumar Attended a MHRD &AICTE Sponsored Faculty Development Programme On "Advances in Wireless Communication & Networking Technologies" (AWCNT 2011) on June 13-24 2011, Department of Electronics & Communication Engineering, National Institute of Technology Calicut - 673601, Kerala, India.
- 49. T.Saikumar, has participated in the FDP on "Research Methodologies and Preparation of Research Proposals" conducted on 24<sup>th</sup> Jan 2015 by dept of CSE, CMR Technical Campus, Hyderabad.
- 50. **T.Saikumar, Participated** in One Week Faculty Development Programme on "**Image Processing and its Applications**" Conducted by the Department of Computer Science& Engineering, MGIT from 15<sup>th</sup> -19<sup>th</sup> Dec 2014.
- 51. **Tara Saikumar** attended a Faculty Development Program on Digital Video & Image Processing, in association with CSI India, in MVSR Engineering College Hyderabad during 4<sup>th</sup> -8<sup>th</sup> Jan 2016.
- 52. **T.Saikumar**, Research Scholar of 2014-15 batch of E&CE discipline has attended the **one week Orientation Program on "Research Methodology"** at JNTUA, Ananthapuramu.
- 53. T.Saikumar, of E&CE Department has participated in a One day FDP on "Research Methodologies, Guidelines for Submission of Research Proposals & Writing an effective Research Paper" organized by Department of E&CE on 06<sup>th</sup> December 2016 at CMR Technical Campus, Hyderabad.
- 54. T.Saikumar, Research Scholar of JNTUA College of Engineering, Anantapur has participated in TEQIP-II Sponsored Two Day National Level Faculty Development Program on " Digital Image Processing, Pattern Recognition and its Applications ", organized by Department of Electronics & Communication Engineering, JNTUA College of Engineering (Autonomous ),Pulivendula during 19<sup>th</sup> -20<sup>th</sup> September 2016.
- 55. T.Saikumar, has participated in "Refresher Course on Electronic Communications" from 3<sup>rd</sup> to 8<sup>th</sup> 2017 at CMR Engineering College, Hyderabad.

### Workshops Attended

- T.Saikumar Attended and Participated in National Level Two day Workshop on Recent Trends & Research Opportunities in Image Processing, Under TEQIP-II,24-25 August 2012 Organized by Vasavi College of Engineering, Hyderabad.
- 2. **T.Saikumar** Participated in "**Training Program on LaTeX & Simulations**", Organized by Department of Mathematics, Kakatiya University, Warangal during March 26-27 2013.

- 3. **T.Saikumar** Attended and Participated in a Two day (Workshop) Research Orientation Program for Engineers (ROPE) on "**Mat lab Based Non-Conventional Optimization Algorithms**", held on 28-29 November 2013 under the aegis of CMR Engineering College.
- 4. T.Saikumar has organized a **"Two day PCB Designing Workshop** during 10<sup>th</sup> -11<sup>th</sup> October 2014 at CMR Technical campus in association with Soft merge Solutions Pvt. Ltd.
- T.Saikumar has organized a "Three day Workshop on student Development Program" during 28<sup>th</sup> -30<sup>th</sup> January 2015 at CMR Technical campus in association with Soft merge Solutions Pvt. Ltd.
- T.Saikumar Attended one day workshop titled "Digital Design Through Arduino "organized by IIT Hyderabad Teaching Learning Centre on 3<sup>rd</sup> May 2017 at CMR Technical Campus, Kandlakoya, Medchal, Hyderabad.
- 7. T.Saikumar, participated in a Two Day National Workshop on "Free and Open Source Software in Teaching and Learning (Scilab, Openmodelica, R,and laTex)" organized by the Teaching Learning Centre in association with Technical Education Quality Improvement Programme (TEQIP) National Institute of Technology, Warangal during 4<sup>th</sup> and 5<sup>th</sup> March ,2017.
- 8. T.Saikumar, Attended meeting on "Asset Mapping of Telangana State Using Bhuvan Panchayat App" on 1<sup>st</sup> January,2017 at IETE Hyderabad Centre.
- T.Saikumar, Attended "Two days Certified Advanced Workshop on Intellectual Property Rights (IPRs) with special focus on Patent Drafting and Patent Protection strategies on 13-14 July 2016 at VR Siddhartha Engineering College; Vijayawada.
- T.Saikumar, attended the Five-Day National Workshop on "English for Writing Ph.D Thesis and Journal Papers", organized by Freshman Engineering, Shri Vishnu Engineering College for Women's (Autonomous), Vishnupur, Bhimavaram, Andhra Pradesh during 19<sup>th</sup> -23<sup>th</sup> October 2016.

## Certifications:

- 1. Image Processing with Python
- 2. Logistic Regression with Python and Numpy
- 3. Simulating Viral Pandemics in Python
- 4. Data Visualization with python
- 5. Deep Learning NLP: Training GPT-2 from scratch
- 6. Generate Synthetic Images with DCGANs in Keras
- 7. Linear Regression with Python
- 8. Create a Financial Statement Using Google Sheets
- 9. Computer Vision Basics

- 10. Build a deep Learning Based Image Classifier with R
- 11. Image Data Augmentation with Keras
- 12. Facial Expression Recognition with Keras
- 13. Introduction to NLP In Python
- 14. Building Candlestick Charts with Tableau
- 15. Introduction to Python
- 16. Neural Network Visualizer web APP with Python
- 17. Reverse and Complement Nucleic acid sequences (DNA, RNA) using R
- 18. Traffic Sign Classification Using Deep Learning in Python/Keras
- 19. Build a Simple App in Android Studio with Java
- 20. Basic Image Classification with Tensor Flow
- 21. Programming for Everybody (Getting Started with Python)

22. Data Science Orientation Badge from IBM Cognitive Class by Coursera dated on 02nd May 2020.

23. What is Data Science? IBM and offered through Coursera.

#### **Organized:**

#### **Conferences /Workshop:**

- 1. **T.Saikumar,** was Trip Coordinator for ISRO SHAR Space Centre, sriharikota, Nellore district, Andhra Pradesh India during 14-3-2017 to 15-03-2017 with 100 students and three faculty members.
- T.Saikumar Centre Head, CSIP, Faculty Coordinator & Organizing Committee Member for one week Faculty Development Programme on "Cross-Validation, PCA, SVD, SVM, ROC, Matching Pursuit and Wavelets- Research Focus" organized by Department of E&CE under IETE Student Forum (ISF) during 07<sup>th</sup> -13<sup>th</sup> May 2017 at CMR Technical Campus, Hyderabad.
- T.Saikumar, was a Resource Person, for one week Faculty Development Programme on "Cross-Validation, PCA, SVD, SVM, ROC, Matching Pursuit and Wavelets- Research Focus" organized by Department of E&CE under IETE Student Forum (ISF) during 07<sup>th</sup> -13<sup>th</sup> May 2017 at CMR Technical Campus, Hyderabad.

- T.Saikumar, Convenor for one week Short Term Training Programme (STTP) on "Communication Signal &Image Processing (CSIP)" organized by Department of E&CE under IETE Student Forum (ISF) during 03<sup>rd</sup> -07<sup>th</sup> May 2017 at CMR Technical Campus, Hyderabad.
- Tara Saikumar, delivered a Keynote address in the National Level Student Symposium CLIQUE 2016 organized by department of ECE, JB Institute of Engineering & Technology (JBIET), Hyderabad on 22<sup>nd</sup> Jan 2016.
- Tara Saikumar, delivered a Keynote address on "Introduction to Image and Video Processing (Research issues) in 2<sup>nd</sup> International Conference on Advances in Computer Science and Engineering (ICACSE-2016), on 20th August 2016.
- Co-Convenor for "Two day workshop on " Design ,Simulation & Characterization of High Frequency Antenna Using HFSS Tools" Conducted by Dept of ECE in association with Entuple Technologies, Bengaluru at CMR Technical Campus, Hyderabad, during March 19<sup>th</sup> -20<sup>th</sup>,2k15.
- T.Saikumar has delivered a two day lecture on "Electro-magnetic & Transmission Lines (EMTL)" in Two day Intensive Course on Electro-magnetic & Transmission Lines (IC-EMTL 2017) under IEEE CMRTC Student Branch at CMR Technical Campus,Hyderabad from 23 th & 24<sup>th</sup> January 2017.
- T.Saikumar has delivered a talk on "Hands on experiences of Mathematical Modeling and SIVA (Signal Image & Video Analysis)", in one week STTP on Communication Signal & Image Processing (CSIP-2017) under IETE Student Forum at CMR Technical Campus, Hyderabad from 3<sup>rd</sup> -7<sup>th</sup> January 2017.
- T.Saikumar has delivered a talk on "Usage of MATLAB Tool in Various Aspects-For a beginners", in one week STTP on Communication Signal & Image Processing (CSIP-2017) under IETE Student Forum at CMR Technical Campus, Hyderabad from 3<sup>rd</sup> -7<sup>th</sup> January 2017.
- 11. T.Saikumar has delivered an Invited talk on "Fundamentals of Video Processing", in one week FDP on Computer Vision & Image Processing (CVIP-2017) with Hands on Practice Session held on 24<sup>th</sup> -30<sup>th</sup> June 2017 in association with IEEE CMRTC Student Branch at CMR Technical Campus, Hyderabad.
- 12. T.Saikumar has delivered an Invited talk on "Applications of Video Processing", in one week FDP on Computer Vision & Image Processing (CVIP-2017) with Hands on Practice Session held on 24<sup>th</sup> -30<sup>th</sup> June 2017 in association with IEEE CMRTC Student Branch at CMR Technical Campus, Hyderabad.
- 13. T.Saikumar has delivered an Invited talk on "Image Processing in Big Data", in one week FDP on Computer Vision & Image Processing (CVIP-2017) with Hands on Practice Session held on 24<sup>th</sup> -30<sup>th</sup> June 2017 in association with IEEE CMRTC Student Branch at CMR Technical Campus, Hyderabad.

### **Professional Memberships:**

- 1. Senior Member in IEEE.
- 2. Member of ACM,
- 3. Life Time Member in Computer Society of India (CSI). I1504185
- 4. Member of Institution of Engineers MIE(I).
- 5. Life Time Member in International Society for Research and Development (ISRD).
- 6. Member of Internet Society (ISOC).
- 7. Member in the Indian Society for Technical Education (ISTE).
- 8. Member in International Association of Engineers (IAENG).
- 9. Member in International Association of Computer Science and Information Technology (IACSIT), Singapore (IACSIT).
- 10. Member of **theIRED** (Institute of Research Engineers and Doctors) as an Associate Members (UACEE) with membership no: AM10100058248.

### Any Other Achievements

- 1. Received Gold Medal in Undergraduate from Ex-Vice Chancellor of JNTUH in the year 2009.
- 2. Received Outstanding Student in Graduate for topping in University Exams from Kakatiya University, Warangal.
- 3. Reviewer for IEEE Transaction for Fuzzy System (TFS).
- 4. Reviewer for IEEE Transactions on Emerging Topics in Computational Intelligence (TETCI).
- 5. Reviewer for **IEEE International Conference on Electronics, Communication and Aerospace Technology** being organized on 29,30,31 March 2018 by RVS Technical Campus.
- 6. Secretary, IEEE Education Society, IEEE Hyderabad Section.
- 7. Technical Program Committee, IEEE ICAICR 2018.
- 8. Technical Program Committee, IEEE ICAICR 2019.
- 9. Certified 27 Coursera Course.
- 10. Convener, for First International Conference on ASCCI 2021, AIP as Publication Partner on July 2021
- 11. Saikumar Tara has qualified as one of a "Top 10 Performer" in the AICTE Sponsored Six Days STTP on "Cognitive Inspired Computing for Machine Intelligence" during 24th to 29th August 2020.
- 12. Tara Saikumar, delivered a talk on "Technical Paper Writing Skills" at NSPAC 2021 organized by IEEE VCE Student Branch, Vaagdevi College of Engineering, Warangal on 22nd Dec 2021.
- 13. Delivered a guest talk at various colleges under IEEE Talks at NBKRIST, MEC, JBIET, JBREC and many more.

### **Other Information:**

1. Advisory Committee Members for International Conference of Advanced Computing (ICAC-2016), Maulana Abdul Kalam Azad University of Technology, West Bengal ,TEQIP-II, WBUT Kolkata, West Bengal 700064, India. (http://icacwbut.github.io/committee.html).

- 2. Editorial Board Members for International Journal of Research Review in Engineering Science and Technology, <u>IJRREST</u>.
- 3. Editorial Board Members for International Journal of Advanced Computer Research (IJACR), (Publisher of Peer Reviewed Open Access Journals) ACCENTS Journals A Unit of ACCENTS.
- 4. Advisory Committee Members for International Workshop on Advancement in Signal and Image Processing, IWASIP-2014, Kalasalingam University, Tamil Nadu, India.
- 5. **Program Committee Members for** The Thrid International Conference of Networks and Communications (NECO 2014). (<u>http://airccj.org/2014/neco/committee.html</u>).
- 6. **Program Committee Members for** The Fourth International Conference on Digital Image Processing and Pattern Recognition (DPPR-2014). (http://aicty.org/2014/dppr/committee.html).
- 7. **Tara Saikumar,** is an Advisory Board Members of The World Academy of Research in Sciences and Engineering (WARSE). http://www.warse.org/boardmember
- 8. **Tara Saikumar** becomes the IEEE Student Branch Counselor of CMR Technical Campus, Hyderabad.
- 9. Advisory Board Member for International Journal of Control Theory Applications (IJCTA) (Online) (Scopus Indexed).
- 10. Reviewer and Advisory board Member for Reputed Journals.