Name of Faculty Dr. S. Siva Priyanka Designation Assistant Professor Nature of Job/Appointment Regular 15-12-2022 Date of Joining E-mail sivapriyankas ece@cbit.ac.in **Education Qualifications** Name of the Degree Class Doctor of Philosophy (ECE) 2022 Awarded Ph.D. National Institute of Technology, Warangal, (Full Time) Telangana, India M.Tech (Embedded Systems) 2012 Distinction PG Vignan's University, Guntur, A.P, India B.Tech (ECE) 2010 UG Distinction SJCET, JNTUA, A.P, India Work Experience Total 6 Years Assistant Professor - CBIT Hyderabad (Regular) 15-12-2022 to till date Teaching Assistant Professor - KITS Warangal (Regular) 16-08-2021 to 10-12-2022 Assistant Professor - CMR Hyderabad 02-07-2012 to 02-11-2016 5 Years (JRF and Full-time Research Scholar, NIT Warangal) Research JRF SERB Project - 07-11-2016 to 30-03-2019 Full Time Research Scholar - 04-07-2017 to 25-04-2022 Industry Others Signal Processing, Speech Signal Processing using AIML, IoT and Data Science for Area of Specialization Agriculture and Health Care applications Scopus Id: 57190528056 Academic Identity Vidwan-ID: 253271 Researcher Id: AAC-7410-2022 Orcid Id: 0000-0002-3740-0791 Professional Memberships IEEE, ISTE Alumni co-ordinator for UGC and NBA inspections at Dept. of ECE, Responsibilities held at Institution Discipline Committee member Samshodini, KITSW 3. Publicity member Samskruthi, KITSW R&D Coordinator, at Dept. of ECE, KITSW Lab in Charge: MPMC 3. Course web in charge, at Dept. of ECE, KITSW Library in charge at Dept. of ECE, KITSW Framed M. Tech ESD syllabus under the guidance of (i). Prof. T. Kishore Kumar, Professor, Dept. of ECE, NITW (ii). Tarani Chaitanya Chinta, L&T Technology Services, Project Manager Responsibilities held at Department Level 8. Course Coordinator: RTES (7ECE) and AIML (6ECI) A.Y 2021-22 Mini project Coordinator 6ECE3 10. Successfully faced NBA Expert Committee in 2016 at CMRIT and in 2021 at KITSW. 11. Involved in major works of NBA in the ECE Dept. Course Works prepared: MPMC, DSE, AIML, ESD 13. Mentored students and published paper Research Guidance 1. Best Young Research Award, National Faculty Award 2021-22, Novel Research Academy. Awards Received Reviewer IEEE Access, Elsevier, Springer and Wiley ETRI Journals. Selected as Editor for IIETA.

Courses Handled at Under Graduate / Post Graduate Level.

Class Courses Handled

- Data Science Engineering at KITSW-UG 1.
- Artificial Intelligence and Machine learning at KITSW-UG
- Real time embedded systems at KITSW-UG 3.
- Adaptive Signal Processing at KITSW-PG
- 4. 5. Advanced IoT Applications at KITSW-PG
- Electronic Devices & circuits at NITW-UG 6.
- 7. Microprocessors and controllers at NITW-UG Real Time Operating Systems at CMRIT-PG

- 9. Digital Signal processing at CMRIT-UG
- 10. Embedded System at CMRIT-UG
- 11. Advance digital signal processing at CMRIT-PG
- 12. System on Chip at CMRIT-PG

Labs Handled:

- 1. VLSI Lab at KITSW
- 2. IC Applications at KITSW
- 3. MPMC Lab at KITSW
- 4. Electronic Devices & Circuits (EDC) Lab at CMRIT
- 5. IC Applications and HDL Simulation Lab at CMRIT
- 6. Micro Controllers Lab at NITW
- 7. EDC Lab at NITW
- 8. Integrated circuit applications Lab at NITW

No. of Papers Published

Projects Carried out

Patents

Details

Programs/Faculty

of

Technology Transfer Invited Speaker

No. of Books/Chapter Published with details

National Journals - --

International Journals – 4 (SCI)

National Conference - --

International Conference –08(IEEE)

02 Indian Patents Published

 S. Siva Priyanka, Surekha Reddy, A Speech Signal Processing System For Automated Virtual Assistant in Electronic Gaming and Method Thereof, Indian Patent, Application no. 202241001109, Published on 4th Feb 2022.

 Michael Preetam Raj Purra, Soma Pratap, Ch Sree Devi, S. Siva Priyanka, Memristor Based Average Value Calculation For Rain Water Harvesting And Excess Rainfall Alert Applications, Indian Patent, Application no. 202241006647, Published on 5th April 2022.

Working on IoT for cold storage monitoring system, Strasosfy, Tornota, Canada.

- A One Week FDP on "Advanced Digital Processing & Applications" by NIT Warangal in Vardhaman Engineering College Hyderabad, September 2016
- 2. "Speech Signal Processing", in NITWarangal, on 21th to 26th November 2016.
- "Computational Research Techniques using MATLAB (CRT2016)", in NIT Warangal 26 -31, December 2016.
- 4. "Winter School on Speech & Audio Processing", in IISC Bengaluru, on January 26 th -29 th.2017.
- "School on Automatic Speech Recognition", in IIT Guwahati, on May16th-28th, 2017
- 6. "Speech processing, in NIT Warangal", on June 1st-10 th,2017.
- 7. "DSP & Sensors", in NIT Warangal, on December 10 th -14th, 2018.
- "The 5th International Workshop on Speech Processing in Everyday Environments (CHiME 2018)", Microsoft Hyderabad campus, September 07, 2018
- "Machine Learning Applications in Signal Processing", in NIT Warangal, on 4th - 9 th June 2019.
- 0. "Machine Learning for Audio, Image and Biomedical Signal Processing", in NIT Warangal, on 8th 15th April2022
- 11. "Artificial Intelligence and Machine Learning for Biomedical Imaging and Signal", in NIT Warangal, on 27thJune- 6th July 2022
- 12. "Artificial Intelligence for Biometric Applications", in NIT Warangal, 0n August 16th 2022 to August 22nd 2022.
- 13. "Advanced IoT Application", ToT TASK CDAC, 20th June to 11th July 2022.
- Two day workshop on Data Science Industrial Applications, Mahindra University, Hyderabad, 1st September to 2nd September 2022.
- 15. Five day Gian Program on "Advancement in Speech Modeling and Applications", 5th September to 9th September 2022, NIT Warangal.
- Two day workshop AI based curricula stem at SR University on 16th and 17th Sep 2022.

(Attended and/or Organized).

Programs/Seminars/Workshops. Other Trainings

Short-Term

Training

Development

Details of Journal Publications/ Conferences

Journal: 4 (SCI) and Conferences: 8 (IEEE Xplorer)

- Priyanka, S. Siva, and T. Kishore Kumar. "Generalized Sidelobe Canceller Beamforming with Combined Postfilter and Sparse NMF for Speech Enhancement." Fluctuation and Noise Letters, Vol. 20, no. 02 (2021): 2150014. DOI: 10.1142/s0219477521500140. (SCI Journal)
- 2. S. Siva Priyanka and T. Kishore Kumar, "Signed Convex Combination of Fast Convergence Algorithm to Generalized Sidelobe Canceller Beamformer for Multi-Channel Speech Enhancement," Traitement du Signal, vol. 38, no. 3, pp. 785-795, June 2021, DOI:https://doi.org/10.18280/ts.380325. (SCI Journal)

- 3. S. Siva Priyanka and Prof. T. Kishore Kumar, "Multi-channel speech enhancement using early and late fusion convolutional neural networks", SIVP Springer journal, https://link.springer.com/article/10.1007/s11760-022-02301-4, August 2022 (SCI Journal).
- Surekha Reddy Bandela, S. Siva Priyanka, K. Sunil Kumar, Y. Vijay Bhaskar Reddy, "Stressed Speech Emotion Recognition using Teager Energy and Spectral Features Optimization", Computational Intelligence and Neuroscience, Jan 2023. (SCI Journal). (Accepted)

International Conference Publications

- 1. S. Siva Priyanka, "A Review on Adaptive Beamforming Techniques for Speech Enhancement", International Conference on Innovations in Power and Advanced Computing Technologies (IPACT -2017), at VIT Vellore, April 21-22, 2017, INDIA, (IEEE Xplore). DoI: 10.1109/IPACT.2017.8245048
- S. Siva Priyanka, Pogula Rakesh, Dr. T. Kishore Kumar, "Performance Evaluation of Beamforming Techniques for Speech Enhancement", 4th International Conference on Signal Processing, Communications and Networking (ICSCN), at ANNA University, 16-18 March 2017. (IEEE Xplore). DoI: 10.1109/ICSCN.2017.8085647
- S. Siva Priyanka and Prof. T. Kishore Kumar, "Adaptive Beamforming using Zelinski-TSNR Multichannel Postfilter for Speech Enhancement", 9th International Conference on Computing, Communication and Networking Technologies [ICCCNT 2018], at IISC Bangalore, 10-12 July 2018. (IEEE Xplore). DoI: 10.1109/ICCCNT.2018.8494078
- S. Siva Priyanka and Prof. T. Kishore Kumar, "GSC Beamforming using Different Adaptive Algorithms for Speech Enhancement", 10th International Conference on Computing, Communication and Networking Technologies [ICCCNT 2019], at IIT Kanpur, July 6-8 2019, India (IEEEXplore). DoI: 10.1109/ICCCNT45670.2019.8944415
- S. Siva Priyanka and Prof. T. Kishore Kumar, "GSC Adaptive Beamforming Using Fast NLMS Algorithm for Speech Enhancement", 3rd International Conference on Imaging, Signal Processing and Communication (ICISPC 2019), at NTU Singapore, July 27-29, 2019 (IEEEXplore). Dol: 10.1109/ICISPC.2019.8935858
- S. Siva Priyanka, N. Neelima, Aruru Sai Kumar, K. Raghava Rao and B. Seetharamulu, "An Efficient Door Access System Controlled by Temperature using LabVIEW", 13th International Conference On Computing, Communication And Networking Technologies, 03rd - 05th October, 2022. (IEEEXplore). 10.1109/ICCCNT54827.2022.9984580
- V. Priyanka Brahmaiah, Aruru Sai Kumar, N. Neelima, S. Siva Priyanka and Talluri Vineel Jessy, "An Efficient Pulse Detector with Arduino and IR Sensor", 13th International Conference On Computing, Communication And Networking Technologies, 03rd - 05th October, 2022. (IEEEXplore). 10.1109/ICCCNT54827.2022.9984465
- 8. N. Neelima, Aruru Sai Kumar, B. Seetharamulu, Namgiri Suresh and S. Siva Priyanka, "A Novel RRAM-based FPGA architecture with Improved Performance and Optimization Parameters", IEEE 19th India Council International Conference, 24th- 26th November, 2022. (Accepted and Presented) (IEEEXplore).

