Curriculum Vitae

Date: October 2026

Dr. K. Ashoka Reddy

Principal
Professor, Dept of ECE
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EDUCATION				
Degree	*Institute/University*	*Details (specialization)*	*Registered*	*Completed*
PhD	**IIT Madras**	Biomedical Signal Processing	August, 2004	April, 2008
	Thesis: ***Novel Methods for Performance Enhancement of Pulse Oximeters*** Supervisor**:** ***Prof. V. Jagadeesh Kumar***, *Dept. of Electrical Engineering*			
M.Tech	**JNTU Kakinada**	ECE	July, 1992	July, 1994 (76%)
	Project at NERTU**:** ***Automatic classification of MPSK & MFSK signals*** Supervisors: ***Dr. M.V.Krishna Rao, Scientist,*** *NERTU, OU, Hyderabad* ***Prof. P.G.Krishna Mohan,*** *Dept of ECE, JNTU Kakinada*			
B.Tech	**KITS, Warangal** *(KU, Warangal)*	E&I Engineering	July 1988	July, 1992 (73%)
	Project Work: *Linearization of Thermocouple Characteristics* Supervisor**:** ***Prof. P. Venugopal Rao***, *Dept of E&I Engg , KITSW*			

TEACHING EXPERIENCE: 32 Years

Designation	Date of Appointment	To	Length of service *(Years, Months)*	Organization
Professor *(Regular, Ratified by the KU)*	**21.04.2008**	**Till date**	**18 Y, 6M**	**KITS Warangal**
Associate Professor *(Regular, Ratified by the KU)*	**30.08.2000**	**20.04.2008**	**7 Y, 8M**	**KITS Warangal**
Assistant Professor *(Regular, Ratified by the KU)*	**19.08.1994**	**29.08.2000**	**6Y**	**KITS Warangal**

ACADEMIC ADMINISTRATIVE POSITIONS HELD				
Details	**Duration** (Years, Months)	**From**	**To**	**Organization**
Principal	8Y, 3M	**18.07.2018**	Till date	KITSW
Principal	4 Y, 6M	16.02.2011	22.07.2015	KITSW
Principal (Deputation to Kakatiya University)	1 Y, 5M	02.10.2009	15.02.2011	KU College of Engg & Technology **Kakatiya University**, Warangal
Incharge Head, Dept of Informatics, KU	1 Y	10.02.2010	15.02.2011	**Kakatiya University**, Warangal
Head, Dept. of E&I Engg	1 Y, 6M	21.04. 2008	01.10.2009	KITSW

RESEARCH PUBLICATIONS

Journal Publications

S.No	Details
45	K. S. Basavaraju, T. K. Kumar, and K. A. Reddy, "A Hybrid ECEEMDAN-LGBM Framework for Knee Joint Vibroarthrographic Signal Classification," Engineering, Technology & Applied Science Research, vol. 16, no. 2, pp. 33753–33759, Apr. 2026, doi: 10.48084/etasr.17260.
44	B.K.Sundeep, **K.A Reddy**, T.K Kumar, "Analysis of Vibroarthrographic Signals for Knee Abnormality Detection Using FBSE-EWT Hierarchical Frequency Zone Clustering Approach," IETE Journal of Research, February 2025 (SCI, Impact factor: 1.3) https://doi.org/10.1080/03772063.2025.2465897
43	B.K.Sundeep, **K.A Reddy,** T.K Kumar, "Vibroarthrographic signal classification for knee joint disorder detection using tunable Q-factor wavelet transform based on entropy measures," Engineering, Technology & Applied Science research, November 2024 (Scopus)
42	V. R. Bondala, **Ashoka Reddy Komalla**, "An efficient model for extracting respiratory and blood oxygen saturation data from photoplethysmogram signals by removing motion artifacts using heuristic-aided ensemble learning model," Computers in Biology and Medicine, Volume 180, **July 2024**, 108911, ISSN 0010-4825, https://doi.org/10.1016/j.compbiomed.2024.108911. **(SCI, Impact factor: 7.0)** (https://www.sciencedirect.com/science/article/pii/S001048252400996X)
41	K. V. Madhav, E. H. Krishna and **K. A. Reddy**, "Improved Bivariate-VAR Model for Extraction of Respiratory Information from Artifact Corrupted ECG and PPG Signals. New Gener. Comput., pp. 859-877, vol.42, **June 2024**. **(SCI, Impact factor: 2.6, Q2)** **(DOI:** 10.1007/s00354-024-00265-2; **Electronic ISSN**: 1882-7055; **Print-ISSN**: 0288-36350)
40	B.V. Rao, E. H. Krishna and **K. A. Reddy**, "Wavelet transform generated inherent noise reference for adaptive filtering to de-noise pulse oximeter signals," pp. 251-273, vol. 21, no. 2, **June 2024**. (**Scopus, Q4**)

	(**DOI**: https://doi.org/10.2298/SJEE2402251R; **eISSN**: 2217-7183; **pISSN**: 1451-4869)
39	R. Prashanth, **K. A. Reddy** and K. Nikitha, "Estimation of blast-induced peak particle velocity using ensemble machine learning algorithms: A case study," Noise & Vibration Worldwide, **2022**; 53(7-8): 404-413 (Scopus)
38	E. H. Krishna, K. Sivani and **K. A. Reddy**, "OFDM channel estimation along with de-noising approach under small SNR environment using SSA," Journal of Communications software and systems, vol.18, no.1, pp.28-35, March2022 (WoS, Q3 Journal)
37	M. R. Ram, K. Sivani and **K. A. Reddy**, "MS-EMD based Signal Processing Method for Reduction of Motion Artifacts from PPG Signals," International Journal of Applied Engineering Research, vol. 13, no.21, pp. 14969-14973, 2018, ISSN 0973-9769 (Scopus)
36	E. H. Krishna, K. Sivani and **K. A. Reddy**, "New channel estimation method using singular spectrum analysis for OFDM Systems," Springer Wireless Personal Commun., vol. 101, no. 4, pp. 2193-2207, August 2018, ISSN: 0929-6212; e-ISSN: 1572-834X) (SCI)
35	Ch. Navitha, K. Sivani and **K. A. Reddy**, "Performance evaluation of adaptive continuous wavelet transform based rake receiver for UWB systems," International Journal of Electrical and Computer Engineering (IJECE), vol. 8, no. 5, October 2018, pp. 3444 - 3452, ISSN: 2088-8708 (Scopus).
34	E. H. Krishna, K. Sivani and **K. A. Reddy**, "On the use of EMD based adaptive filtering for OFDM channel estimation", Elsevier Int. J. Electron. Commun. (AEÜ), vol.83, pp. 492-500, Jan. 2018 (SCI, Scopus)
33	**K. A. Reddy**, "A new method based on complex EMD for motion artifacts reduction in PPG Signals for pulse oximeter application", Journal of Engineering Technology, ISSN:0747-9964, vol. 6, Spl. Issue on Technology Application and Innovation, pp.187-200, October, 2017, (SCIE)
32	**K. A. Reddy**, "A New Method based on sliding EMD for motion artifacts reduction in PPG signals for pulse oximeter application," Journal of Advanced Research in Dynamical and Control Systems, ISSN: 1943-023X, vol. 9, issue 8, pp.172-172, 2017 (Scopus)
31	Ch. Navitha, K. Sivani and **K. A. Reddy**, "Adaptive wavelet transform based rake receiver for ultra-wideband systems," Advances in Modelling and Analysis B, vol.60, No.2, pp. 355 - 369, ISSN: 1240-4543 (Scopus)
30	E. H. Krishna, K. Sivani and **K. A. Reddy**, " EMD based adaptive filtering for OFDM channel estimation ", International Journal Engineering Transactions A: Basics, p-ISSN:1728-144X, e-ISSN:1735-9244, vol. 30, issue 10, pp.1517-1525, 2017 (Scopus)
29	**K. A. Reddy**, "A method for estimation of oxygen saturation for pulse oximeter", Journal of Engineering Technology, ISSN:0747-9964, vol. 6, issue 2, pp.618-627, July, 2017, (SCIE, Scopus)
28	**K. A. Reddy**," Estimation of oxygen saturation of arterial blood by pulse oximeters and challenges" , Journal of Advanced Research in Dynamical and Control Systems, ISSN: 1943-023X, vol. 9, issue 6, pp.175-183, 2017 (Scopus)
27	G. R. Naik and **K. A. Reddy**, "ECG classification using multimodal decision learning algorithm", International Journal of Engineering Science and Technology, ISSN: 0975-5462 vol.9, issue-4,pp.271-77 , April, 2017. (ICI, UGC)
26	T. K. Sai and **K. A. Reddy**, "Application of acoustic techniques in thermal power plants", Sensors & Transducers, ISSN: 2306-8515, e-ISSN 1726-5479, vol.210, issue 3, pp.42-49, March, 2017. (Scopus)
25	T. K Sai, P. S. Kumar and **K. A. Reddy** , "Expert alarm system for prediction of chemistry faults in a power Station", International Journal of Artificial Intelligence, ISSN 0974-0635, vol.15, no.1, pp.180-196, March, 2017. (Scopus)

24	**K. A. Reddy**, "Fuzzy Gain Scheduler based Coordinated Control of Boiler and Turbine in a Power Station," Journal of Advanced Research in Dynamical and Control Systems, ISSN: 1943-023X, vol. 9, issue 1, pp.117-127, 2017 (Scopus)
23	G. R. Naik and **K. A. Reddy**, "ECG classification and abnormality detection using multimodal decision learning algorithm", International Journal of Engineering Science and Technology, ISSN: 0975-5462 vol.9, issue-1,pp. 35-46, January, 2017. (ICI, UGC)
22	M. Raju, E. H. Krishna and **K. A. Reddy**, "On the use of multi-scale singular value decomposition for OFDM channel estimation", International Journal of Engineering Science and Technology, ISSN: 0975-5462, vol.9, issue-1, pp.47-53, January, 2017. (ICI, UGC)
21	M. Raju, E. H. Krishna and **K. A. Reddy**, "A method on step variable LMS algorithm for OFDM channel estimation under fast fading conditions", International Journal of Engineering Science and Technology, ISSN: 0975-5462, vol.9, issue-1,pp.28-34, January, 2017. (ICI, UGC)
20	**K. A .Reddy**, "Power Spectral Analysis on ECG Signals for Identification of Sudden Cardiac Death, " Journal of Advanced Research in Dynamical and Control Systems, ISSN: 1943-023X, vol. 8, issue 12, pp.18-27, 2016 (Scopus)
19	T.K Sai and **K. A. Reddy**, "Fuzzy Applications in a Power Station", International Journal of Soft Computing (IJSC), ISSN: 2229-7103, vol.6, issue-2, May 2015.
18	T.K Sai and **K. A. Reddy**, "Neural Network Applications in a Power Station", International Journal of Soft Computing and Engineering (IJSCE), ISSN: 2231-2307, vol.4, issue-6, January 2015.
17	T.K. Sai and **K. A. Reddy**, "New rules generation from measurement data in a power station", IEEE Trans. on Power Delivery, vol. 30, no.1, pp. 167-173, February 2015. (DOI: 10.1109/TPWRD.2014.2355595) (SCI)
16	V. Sharmila, **K. A. Reddy**, "Identification of Premature Ventricular Cycles of Electrocardiogram using Discrete Cosine Transform-Teager Energy Operator Model", Journal of Medical Engineering, Hindawi Publishing Corporation pp. 1-9, January 2015. Article ID 438569, 9 pages(http://dx.doi.org/10.1155/2015/438569)
15	V. Sharmila, **K. A. Reddy**, "Identification of PVCs based on Peak detection with Teager Energy Operator" International Journal of Computer Applications (IJCA),ISSN: 0975-8887, vol. 103, no.16, October 2014. (UGC)
14	M. Raju, O. Ravinder and **K. A. Reddy**, "A novel methods of ICI self cancellation scheme in OFDM systems," International Journal of Research and Applications, vol. 1, no. 3, pp. 96-100, September 2014.
13	E. H. Krishna, K. Sivani and **K. A. Reddy**, "OFDM transceiver using Hirschman optimal transform," in Elsevier Science & Technology, pp. 265-270, 2014. (ISBN: 9789351072287) (Scopus)
12	M. Raju, O. Ravinder and **K. A. Reddy**, "Flat Rayleigh Fading Channel Estimation for Adaptive OFDM Downlink By Using GCG Class of Adaption Laws," International Journal of Application or Innovation in Engineering & Management, vol. 3, no. 6, pp. 186-191, June 2014. (ICI, UGC)
11	M. Raju and **K. A. Reddy**, "M-PSK based OFDM simulation in wireless communication systems", in International Journal of Research Studies in Science, Engineering and Technology (IJRSSET), Volume–1, Issue-2, pp.60–66, May, 2014.
10	V. Sharmila, **K. A. Reddy**, "Modeling of ECG Signal with Nonlinear Teager Energy Operator", International Journal of computer Science and Network Security(IJCSNS), ISSN: 1738-7906, vol. 14, no.1,pp.34-41, January 2014. (UGC)
9	K. G. Kishan Rao, K. Narendar, A. S. M. Rao, N. G. Krishna, and **K. A. Reddy**, "Thermal properties of Sb, Bi and Sn in solid phase by gamma ray attenuation technique", Paripex - Indian Journal Of Research, vol. 2, no.2, February 2013

8	K. Sharmila, E. H. Krishna and **K. A. Reddy**, "Rule based identification of cardiac arrhythmias from enhanced ECG signals using multi-scale PCA," Signal Processing: An International Journal (SPIJ), ISSN: 1985-2339, vol. 7, no.2, pp. 117-130, Sept. 2013. (UGC)
7	K. G. Kishan Rao, K. Narendar, A. S. M. Rao, N. G. Krishna, and **K. A. Reddy**, "Study on temperature variation of densities of Antimony and Bismuth using gamma ray attenuation technique," Global Journal of Science Frontier Research Physics and Space Science, vol. 12, no.4, pp. 35-38, June 2012.
6	E. H. Krishna, M. R. Ram, K. V. Madhav and **K. A. Reddy**, "VHDL implementation of Hirschman Optimal Transform (HOT) based LMS adaptive filter for acoustic echo cancellation," Majlesi J. Elect. Eng., MJEE, Special issue in Cogn. Intell. Sig. Process. vol. 1, no.1, pp.54-60, March 2012. (Scopus)
5	M. R. Ram, K. V. Madhav, E. H. Krishna, K. N. Reddy, K. Sivani and **K. A. Reddy**, "ICA based Improved DTCWT technique for MA reduction in PPG signals with restored respiratory information," IEEE Trans. Instrum. Meas., vol. 62, no.10, pp. 2639-2651, October 2013. (DOI: 10.1109/TIM.2013.2259114) (SCI)
4	K. V. Madhav, M. R. Ram, E. H. Krishna, K. N. Reddy and **K. A. Reddy**, "Robust extraction of respiratory activity from PPG Signals using modified MSPCA," IEEE Trans. Instrum. Meas., vol. 62, no.5, pp. 1094-1106, May 2013. (DOI: 10.1109/TIM.2012.2232393) (SCI)
3	M. R. Ram, K. V. Madhav, E. H. Krishna, K. N. Reddy and **K. A. Reddy**, "A novel approach for motion artifacts reduction in PPG signals based on AS-LMS adaptive filter," IEEE Trans. Instrum. Meas., vol. 61, no.5, pp. 1445-1457, May 2012. (DOI: 10.1109/TIM.2011.2175832) (SCI)
2	**K. A. Reddy**, B. George, N.M. Mohan and V. J. Kumar, "A novel calibration–free method of measurement of oxygen saturation in arterial blood'', IEEE Trans. Instrum. Meas., vol. 58, no.5, pp.1699-1705, May 2009. (DOI: 10.1109/TIM.2008.2012934) (SCI)
1	**K. A. Reddy**, B. George and V. J. Kumar, "Use of Fourier series analysis for motion artifact reduction and data compression of photoplethysmographic signals", IEEE Trans. Instrum. Meas., vol. 58, no.5, pp.1706-1711, May 2009. (DOI: 10.1109/TIM.2008.2009136) (SCI)

RESEARCH PUBLICATIONS
PAPERS IN CONFERENCE PROCEEDINGS

S.No	Details
56	Sri Harsha D, Hassaan Ali A M, K. A. Reddy, "Photoplethysmogram (PPG)-Based Blood Pressure Estimation using Vision Transformer Networks: A Deep Learning Approach," *IEEE 2024 3rd International Conference on Artificial Intelligence for Internet of Things (AIIoT)*, Vellore India, **3-4 May 2024**, DOI: 10.1109/AIIoT58432.2024
55	Krishna Sundeep Basavaraju, T. Kishore Kumar, **K. Ashoka Reddy**, K. Ram Kumar Reddy, "Analysis of Vibroarthrographic signals for classification of knee disorders using Empirical Wavelet Transform based on Statistical measures," *IEEE International Instrumentation and Measurement Technology Conference (I2MTC, 2023)*, 22-25 **May, 2023** in Malaysia. (IEEE)
54	B. Venu Maheshwar Rao and **K. A. Reddy**, "On the use of Wavelet Transform based Adaptive Filtering for de-noising of Pulse Oximeter signals," *IEEE International Instrumentation and Measurement Technology Conf., I²MTC-2012*, Glasgow, May 17-20, 2021.
53	Rama Devi B., **K.A. Reddy**, Tabassum A., Muqueem M.A, "Innovative Light Management System for Outdoor Applications," *Springer 4th international conference on Data Engineering and Communication Technology*, India, **Sept 25-26, 2020**; In: Reddy K.A., Devi B.R., George B., Raju

	K.S. (eds), Lecture Notes on Data Engineering and Communications Technologies, vol 63, Springer, Singapore. https://doi.org/10.1007/978-981-16-0081-4_1
52	**K.A. Reddy,** Rama Devi B., Susmitha E., Santhosh Kumar D, "Authentic User-Based Luminary Intensity Control System," *Springer 4th international conference on Data Engineering and Communication Technology*, India, **Sept 25-26, 2020**; In: Reddy K.A., Devi B.R., George B., Raju K.S. (eds), Lecture Notes on Data Engineering and Communications Technologies, vol 63. Sept 25-26, 2020, Springer, Singapore. https://doi.org/10.1007/978-981-16-0081-4_2
51	B. Narasimha and K. A. Reddy, "Multi-scale singular spectrum analysis for channel estimation of OFDM transceiver system," *in Proc. of IEEE Recent Advances in Intelligent Computational Systems, RAICS 2018,* Trivandrum, India, 06-08 December, 2018. (10.1109/RAICS.2018.8634904)
50	I. Chandran, M. Raju and **K. A. Reddy, "**Comparative analysis of various channel estimators under different modulation schemes", *IEEE International Conference on trends in electronics and informatics (ICEI 2017),* Tirunelveli, TN, India, 11-12, **May 2017.**
49	E. H. Krishna**,** K. Sivani and **K. A. Reddy, "**Use of Adaptive Step Size LMS algorithm for OFDM Channel Estimation" *in Proc. Of IEEE International Conference on Computer, Communication and Signal Processing (ICCCSP)*, Chennai, India, **10-11, January, 2017**. (10.1109/ICCCSP.2017.7944100)
48	K. V. Madhav, E. H. Krishna, and **K. A. Reddy, "**Detection of Sleep Apnea from Multiparameter Monitor Signals using Empirical Mode Decomposition," *in Proc. Of IEEE International Conference on Computer, Communication and Signal Processing (ICCCSP)*, Chennai, India, **10-11, January, 2017**. (10.1109/ICCCSP.2017.7944095)
47	M. R. Ram, K. Sivani and **K. A. Reddy, "**Reduction of motion artifacts from pulse oximeter signals using tunable Q-factor wavelet transform technique" *in Proc. Of IEEE International Conference on Computer, Communication and Signal Processing (ICCCSP)*, Chennai, India, **10-11, January, 2017**. (10.1109/ICCCSP.2017.7944097)
46	G. Rajender Naik, **K. A. Reddy**, "Comparative Analysis of ECG Classification using Neuro-Fuzzy Algorithm and Multimodal Decision Learning Algorithm", *3rd IEEE International Conference on Soft Computing and Machine Intelligence (ISCMI2016),* held at Dubai during Nov 23 – 25, 2016. ISBN: 978-1-5090-3696-7. (10.1109/ISCMI.2016.35)
45	G. Rajender Naik, **K. A. Reddy**, "A New Model for ECG Signal Filtering and Feature Extraction", *2nd IEEE International Conference on Computer and Communications (ICCC 2016), Chengdu, China*, during Oct 14 – 17, 2016. ISBN: 978-1-5090-4497-9. (10.1109/CompComm.2016.7924806)
44	G. Rajender Naik, **K. A. Reddy**, "Classification of ECGs using Intensity Weighted Fire-Fly Optimization and Multimodal Decision Learning Algorithm", *2nd IEEE International Conference on Computer and Communications (ICCC 2016),* Chengdu, China, during Oct 14 – 17, 2016. ISBN: 978-1-5090-4497-9. (10.1109/CompComm.2016.7924812)
43	M. Raju and **K.A. Reddy**, "Mean Square Error Analysis in MIMO-OFDM System using Pilot based Channel Estimation," *in Proc. Of IEEE International Conference on Signal Processing, Communication, Power and Embedded Systems (SCOPES)*, Paralakhemundi, Odisha, India, 3-5, October, 2016 (10.1109/SCOPES.2016.7955717)
42	M. Raju and **K.A. Reddy**, "Evaluation of BER for AWGN, Rayleigh Fading Channels under M-QAM Modulation Scheme," *in Proc. Of IEEE International Conference on Electrical, Electronics and Optimization Techniques (ICEEOT)*, Chennai, India, 3-5, March, 2016 (10.1109/ICEEOT.2016.7755268)
41	E. H. Krishna, K. Sivani and **K. A. Reddy**, "Performance Analysis of Companding Techniques for Reduction of PAPR in OFDM System," in *Proc. Of International Conference on Electrical, Electronics & Optimization Techniques (ICEEOT 2016)*, DMI college of Engineering, Chennai, India, 3-5 March, 2016. (10.1109/ICEEOT.2016.7755002)

40	M. R. Ram, K. Sivani and K. A. Reddy, "Use of Complex EMD generated Noise Reference for Adaptive reduction of Motion Artifacts from PPG Signals," *in Proc. Of International Conference on Electrical, Electronics & Optimization Techniques (ICEEOT 2016),* DMI college of Engineering, Chennai, India, 3-5 March, 2016. (10.1109/ICEEOT.2016.7755001)
39	T. K. Sai and **K. A. Reddy**, Design of Fuzzy gain scheduler for Superheater Temperature Control in Power Plantm," in *Proc. Of 2nd International Conference on Control, Instrumentation, Energy & Communication System (CIEC 2016)*, University of Calcutta, Kolkata, India, 28-30 Jan., 2016. (10.1109/CIEC.2016.7513817)
38	T. K. Sai, P. S. Kumar and **K. A. Reddy**, "Towards intelligent decision making in power plant operation" in Proc. Of 2014 annual India Conference (INDICON-2014), Pune, India, 11-13, December 2014, pp. 1-6. DOI: (10.1109/INDICON.2014.7030607)
37	T.K. Sai and K. A. Reddy, "Measurement and Control of Nox emissions using Soft Computing techniques in a Thermal power Plant", *in Proc. Of Recent Advances in Engineering and Computational Sciences (RAECS-2014),* University Institute of Engineering & Technology, Punjab University, Chandigarh, India, 6-8 March, 2014. (DOI: 10.1109/RAECS.2014.6799527)
36	E. H. Krishna, K. Sivani and **K. A. Reddy**, "On the use of Singular Spectrum Analysis for OFDM Channel Estimation," *in Proc. Of International Conference on Electronics and Communication Systems*, Coimbatore, India, 13-14 Feb, 2014, pp. 1-4. (DOI: 10.1109/ECS.2014.6892792)
35	M. R. Ram, K. Sivani and **K. A. Reddy**, "E^2MD for Reduction of Motion Artifacts from Photoplethysmographic Signals", in *Proc. Of International Conference on Electronics and Communication System (ICECS 2014)*, Karpagam college of Engineering, Coimbatore, India, 13-14 Feb., 2014, pp. 1-4, (DOI: 10.1109/ECS.2014.6892793)
34	T.K. Sai and **K. A. Reddy**, "Design of Fuzzy gain scheduler for Super heater Temperature Control in Power Plant," in *Proc. Of 2014 International Conference on Control, Instrumentation, Energy and Communication (CIEC),* Kolkata, India, 31 Jan – 02 Feb 2014.
33	M. R. Ram, K. Sivani and **K. A. Reddy**, "Use of EMD Generated Synthetic Noise Reference for reduction of Motion Artifacts from Pulse Oximetry Signals", in *Proc. Of International Conference on Photonics, VLSI and Signal Processing (ICPVS-2014),* Kakatiya University, Warangal, India, March 28-29, 2014.
32	V. Sharmila, E. H. Krishna, **K. A. Reddy**," Cumulant based Teager Energy operator for ECG signal modeling", *2013 International conference on Advances in Computing, Communications and Informatics*, (ICACCI), 22-25 August-2013, Mysore, PP 1959-1963, D.O.I:10.1109/ICACCI.2013.6637482.
31	K. Sharmila, E. H. Krishna, K. N. Reddy and K. A. Reddy, "A New Method for Enhancement of ECG Signals Using Cumulant Based AR Modeling," in Proc. Of 2013 IEEE Conference on Information and Communication Technologies, ICT 2013, Kumaracoil, India, 11-12 March, 2013. (DOI: 10.1109/CICT.2013.6558171)
30	K. Sharmila, E. H. Krishna**,** K. N. Reddy and **K. A. Reddy**, "Application of Multiscale Principal Component Analysis (MSPCA) for enhancement of ECG signals," in *Proc. Of 28th IEEE International Instrumentation and Measurement Technology Conf., I^2MTC-2011,* Hangzhou, China, 10-12 May, 2011, pp. 1540-1544. (DOI: 10.1109/ IMTC.2011.5944301)
29	K. V. Madhav, M. R. Ram, E. H. Krishna, K. N. Reddy, and **K. A. Reddy**, "Extraction of Respiratory Activity from ECG and PPG signals using Vector Autoregressive Model," in *Proc. Of 7th IEEE International Symposium on Medical Measurements and Applications, MeMeA2012*, Budapest, Hungary, 18-19 May, 2012. (DOI: 10.1109/ MeMeA.2012.6226650)
28	K. V. Madhav, M. R. Ram, E. H. Krishna, K. N. Reddy, and **K. A. Reddy**, "Use of Multi Scale PCA for Extraction of Respiratory Activity from Photoplethysmographic Signals," in *Proc. Of 29th IEEE International Instrumentation and Measurement Technology Conf., I2MTC-2012*, Graz, Austria, 13-16 May, 2012, pp.1784-1787. (DOI: 10.1109/ IMTC.2012.6229406)

27	K. V. Madhav, M. R. Ram, E. H. Krishna, K. N. Reddy and **K. A. Reddy**, "A robust signal processing method for extraction of respiratory activity from artifact corrupted PPG signal," in *Proc. Of IEEE Recent Advances in Intelligent Computational Systems, RAICS 2011*, Trivandrum, India, 22-24 Sept, 2011, pp. 451-456. (DOI: 10.1109/ RAICS.2011.6069353).
26	K. V. Madhav, M. R. Ram, E. H. Krishna, K. N. Reddy, and **K. A. Reddy**, "Estimation of Respiration Rate from ECG, BP and PPG signals using Empirical Mode Decomposition," in *Proc. Of 28th IEEE International Instrumentation and Measurement Technology Conf., I²MTC-2011,* Hangzhou, China, 10-12 May, 2011, pp. 1661-1664. (DOI: 10.1109/ IMTC.2011.5944249)
25	K. V. Madhav, M. R. Ram, E. H. Krishna, K. N. Reddy and **K. A. Reddy**, "Extraction of Respiratory Activity from PPG and BP signals using Principal Component Analysis," in *Proc. Of IEEE International Conference on Communications & Signal Processing ICCSP 2011,* 10-12 Feb, 2011, Calicut, India, pp. 452-456. (DOI : 10.1109/ICCSP.2011.5739359)
24	K. V. Madhav, M. R. Ram, E. H. Krishna, K. N. Reddy and **K. A. Reddy**, "Estimation of respiratory rate from principal components of hotoplethysmographic signals, " in *Proc. Of IEEE EMBS International Conference on Biomedical Engineering & Sciences IECBES 2010,* Nov 30 to Dec 02, 2010, Kaulalumpur, Malaysia, pp. 311-314. (DOI : 10.1109/IECBES.2010.5742251)
23	K. V. Madhav, M. R. Ram, E. H. Krishna, K. N. Reddy and **K. A. Reddy**, "Extraction of Respiration Rate from ECG and BP signals using order reduced-modified covariance AR Technique" in *Proc. Of IEEE International Conference on Image and Signal Processing CISP 2010,* 16-18, Oct., 2010, Yantai, China, pp. 4059-4063. (DOI : 10.1109/CISP.2010.5647507)
22	K. V. Madhav, M. R. Ram, E. H. Krishna and **K. A. Reddy**, "Monitoring respiratory activity using PPG signals by order reduced-modified covariance AR technique," in *Proc. Of 4th IEEE International Conference on Bioinformatics and Biomedical Engineering iCBBE-2010*, 18-20, June 2010, Chengdu, China pp. 385-388. (DOI : 10.1109/ICBBE.2010.5516378)
21	E. H. Krishna, M. R. Ram, K. V. Madhav and **K. A. Reddy**, "Acoustic Echo Cancellation using a Computationally Efficient Transform Domain LMS Adaptive Filter," in *Proc. Of 10th IEEE International Conference on Information sciences, Signal Processing and their Applications, Systems and Applications ISSPA-2010*, 11-13, May 2010, Kaulalumpur, Malaysia, pp. 409-412. (DOI : 10.1109/ISSPA.2010.5605458)
20	K. V. Madhav, M. R. Ram, E. H. Krishna and **K. A. Reddy**, "A Model Based Method for Deriving Respiratory Activity from Photoplethysmographic signals," in *Proc. Of 10th IEEE International Conference on Information sciences, Signal Processing and their Applications, Systems and Applications ISSPA-2010*, 11-13, May 2010, Kaulalumpur, Malaysia, pp. 312-315. (DOI : 10.1109/ISSPA.2010.5605464)
19	E. H. Krishna, M. R. Ram, K. V. Madhav and **K. A. Reddy**, "Comparative Wavelet analysis for elimination of Power Line Interference from ECG signals," in *Proc. Of International Conference on Aerospace Electronics, Communications & Instrumentation, ASECI-2010,* 6-7, Jan 2010, Vijayawada, India, pp. 352-355.
18	K. V. Madhav, M. R. Ram, E. H. Krishna and **K. A. Reddy**, "On the Extraction of Respiratory Activity from Photoplethysmographic Signals," in *Proc. Of International Conference on Aerospace Electronics, Communications & Instrumentation, ASECI-2010,* 6-7, Jan 2010, Vijayawada, India, pp. 367-370.
17	E. H. Krishna, M. R. Ram, K. V. Madhav and **K. A. Reddy**, "On the Performance of Hirschman Optimal Transform based LMS algorithm for cancellation of ECG Power Line Interference," in *Proc. Of 1st IEEE International Conference on Electronic Design and Signal Processing, ICEDSP,* 10-12, Dec 2009, Manipal, India, pp. 816-819.
16	M. R. Ram, K. V. Madhav, E. H. Krishna, K. N. Reddy K. Sivani and **K. A. Reddy**, "Dual-Tree Complex Wavelet Transform for Motion Artifact Reduction of PPG Signals," *in Proc. Of 7th IEEE International Symposium on Medical Measurements and Applications, MeMeA2012*, Budapest, Hungary, 18-19 May, 2012. (DOI: 10.1109/ MeMeA.2012.6226643)

15	M. R. Ram, K. V. Madhav, E. H. Krishna, K. N. Reddy K. Sivani and **K. A. Reddy**, "HHT based signal decomposition for reduction of motion artifacts in Photoplethysmographic signals," *in Proc. Of 29th IEEE International Instrumentation and Measurement Technology Conf., I2MTC-2012*, Graz, Austria, 13-16 May, 2012, pp. 1730-1734. (DOI: 10.1109/ IMTC.2012.6229404)
14	M. R. Ram, K. V. Madhav, E. H. Krishna, K. N. Reddy and **K. A. Reddy**, "Computation of SpO_2 using non-parametric spectral estimation methods from wavelet based motion artifact reduced PPG signals," in *Proc. Of IEEE Recent Advances in Intelligent Computational Systems, RAICS 2011*, Trivandrum, India, 22-24 Sept, 2011, pp. 431-436. (DOI: 10.1109/ RAICS.2011.6069349)
13	M. R. Ram, K. V. Madhav, E. H. Krishna, K. N. Reddy and **K. A. Reddy**, "Use of Multi-scale Principal Component Analysis for Motion Artifact Reduction of PPG Signals," in *Proc. Of IEEE Recent Advances in Intelligent Computational Systems, RAICS 2011*, Trivandrum, India, 22-24 Sept, 2011, pp. 425-430. (DOI: 10.1109/ RAICS.2011.6069348)
12	M. R. Ram, K. V. Madhav, E. H. Krishna, K. N. Reddy and **K. A. Reddy**, "Computation of SpO2 using non-parametric spectral estimation methods from wavelet based motion artifact reduced PPG signals," in *Proc. Of IEEE International Conference on Signal processing, Communication Computing and network technologies, ICSCCN-2011*, Kumar coil, India, 21-22 July, 2011, pp. 776-780. (DOI: 10.1109/ ICSCCN.2011.6024656)
11	M. R. Ram, K. V. Madhav, E. H. Krishna, K. N. Reddy and **K. A. Reddy**, "On the performance of AS-LMS based Adaptive Filter for Reduction of Motion Artifacts from PPG Signals," in *Proc. Of 28th IEEE International Instrumentation and Measurement Technology Conf., I²MTC-2011*, Hangzhou, China, 10-12 May, 2011, pp. 1536-1539. (DOI: 10.1109/ IMTC.2011.5944259)
10	M. R. Ram, K. V. Madhav, E. H. Krishna, K. N. Reddy and **K. A. Reddy**, "On the Performance of Time Varying Step-size Least Mean Squares (TVS-LMS) Adaptive Filter for MA Reduction from PPG Signals," in *Proc. Of IEEE International Conference on Communications & Signal Processing ICCSP 2011*, 10-12 Feb, 2011, Calicut, India, pp.431-435. (DOI : 10.1109/ICCSP.2011.5739353)
9	M. R. Ram, K. V. Madhav, E. H. Krishna, K. N. Reddy and **K. A. Reddy**, "Adaptive reduction of motion artifacts from PPG signals using a synthetic noise reference signal," in *Proc. Of IEEE EMBS International Conference on Biomedical Engineering & Sciences IECBES 2010*, Nov 30 to Dec 02 2010, Kaulalumpur, Malaysia, pp. 315-319. (DOI : 10.1109/IECBES.2010.5742252)
8	M. R. Ram, K. V. Madhav, E. H. Krishna and **K. A. Reddy**, "On the performance of wavelets in reducing motion artifact from hotoplethysmographic signals," in *Proc. Of 4th IEEE International Conference on Bioinformatics and Biomedical Engineering iCBBE-2010*, 18-20, June 2010, Chengdu, China, pp. 475-480. (DOI : 10.1109/ICBBE.2010.55516291)
7	M. R. Ram, K. V. Madhav, E. H. Krishna and **K. A. Reddy**, "Evaluation of Wavelets for Reduction of Motion Artifacts in Photoplethysmographic signals," in *Proc. Of 10th IEEE International Conference on Information sciences, Signal Processing and their Applications, Systems and Applications ISSPA-2010*, 11-13, May 2010, Kaulalumpur, Malaysia, pp. 460-463. (DOI : 10.1109/ISSPA.2010.5605443)
6	M. R. Ram, K. V. Madhav, E. H. Krishna and **K. A. Reddy**, "Motion Artifact Reduction in Photoplethysmographic Signals Using Improved ICA," in *Proc. Of International Conference on Aerospace Electronics, Communications & Instrumentation, ASECI-2010*, 6-7, Jan 2010, Vijayawada, India, pp. 194-197.
5	**K. A. Reddy**, and V. J. Kumar, "A Novel model based method of measurement of oxygen saturation in arterial blood," in *Proc. Of 28th IEEE International Instrumentation and Measurement Technology Conf., I²MTC-2011*, Hangzhou, China, 10-12 May, 2011 (DOI: 10.1109/ IMTC.2011.594406)
4	**K. A. Reddy**, B. George , N.M. Mohan and V.J.Kumar, "A Novel method of measurement of oxygen saturation in arterial blood", in *Proc. 25rd IEEE International Instrumentation and*

	Measurement Technology Conf., I²MTC-2008, Victoria, Canada,12-15 May, 2008, pp. 1627-1630. (DOI:10.1109/IMTC.2008.4547304)
3	**K. A. Reddy**, B. George and V.J. Kumar, "Motion artifact reduction and data compression of hotoplethysmographic signals utilizing cycle-by-cycle fourier series analysis", in *Proc. 25th IEEE International Instrumentation and Measurement Technology Conf., I²MTC-2008,* Victoria, Canada,12-15 May, 2008, pp. 176-179. (DOI: 10.1109/IMTC.2008.4547026)
2	**K. A. Reddy** and V. J. Kumar, "Motion artifact reduction in photoplethysmographic signals using singular value decomposition," in *Proc. 24th IEEE International Instrumentation and Measurement Technology Conf., IMTC-2007*, Warsaw, Poland, 1–3 May, 2007, pp. 1-5. (DOI: 10.1109/IMTC.2007.379467)
1	**K. A. Reddy**, J. R. Bai, B. George, N. M. Mohan and V. J. Kumar, "Virtual instrument for the measurement of haemo-dynamic parameters using photoplethysmograph," in *Proc. 23rd IEEE International Instrumentation and Measurement Technology Conf., IMTC-2006*, Sorrento, Italy,24-27 April, 2006, pp. 1167-1171. (DOI: 10.1109/IMTC.2006.328443)

PATENTS

S.No	Patent Status	Patent Details
2	***GRANTED*** *National Patent*	**Patent No: 405460** (Application No: 201941014850) **Date of Grant: 01.09.2022** ZONE CONTROL SYSTEM FOR MOTION DETECTION BASED LIGHT INTENSITY CONTROL AND METHODS EMPLOYED THEREOF Patentee: B. Rama Devi, **Komalla Ashoka Reddy**
1	***GRANTED*** *National Patent*	**Patent No: 530206** (Appl. No 02041041609A) **Date of Grant: 26.03.2024** LEFT VENTRICULAR ASSISTED DEVICE WITH MAGNETIC LEVITATION , G. Ganesh Kumar, K. V. Madhav, K. Eswaraiah, K. Sridhar, **Komalla Ashoka Reddy**
	Published	**Title: Multimodal AI-Integrated Knee Health Monitoring system** Patent Application, Application Number- 202541069051 Journal Number- 202541069051 **Journal Date: 19/7/2025 -Indian Patent Office** Krishna Sundeep, T.Kishore Kumar**, Komalla Ashoka Reddy**

RESEARCH PROJECTS

S.No	Details	Value(Rs.)	Status
3	**SERB-Core Research Grant** *w.e.f* **2021-22 for 3 years** Role: **Co-Investigator**	Grant-in-Aid**: 38.61 lakh** *(File No: CRG/2021/004501-G Sanction letter dated 07.02.2022)*	***Ongoing***

	Title: ***Development of AI and IoT based portable knee joint health care monitoring system for rural India*** **Investigator:** **Prof.T. Kishore Kumar,** **Dept of ECE, NITW**		
2	***AICTE –RPS*** ***Research Promotion Scheme (RPS)*** **w.e.f 2013-16 for 3 years** Role: **Principal Investigator** Title: ***Development of Novel methods for Reduction of Motion Artifacts and extraction of Respiratory Activity from Artifact Corrupted PPG signals in Pulse Oximeters***	Grant-in-Aid**: 9.9 lakh** *(Lr. No: 20/AICTE/RIFD/RPS (POLICY-IV) 29/2012-13; dated 19.03.2013)*	***Completed***
1.	***AICTE - Modernization & Removal of Obsolescence Scheme (MODROBS) Project*** Role: **Co-ordinator** Title: ***Modernization of Instrumentation Laboratory***	Grant-in-Aid**: 8.0 lakh** *(Lr. No: 8024/RID/BOR/MOD/064/9/ 10; dated 21.12.2009)*	***Completed***

BOOK CHAPTERS

5	E. H. Krishna and K. A. Reddy, "*Use of transforms in biomedical signal processing and analysis*," in Dr. Juan Manuel Velazquez Arcos, Real perspective of Fourier Transforms, Intech open, May 2021; *ISBN: 978-1-83962-398-1, DOI:*
4	Jagadeesh Kumar V and K. A. Reddy, "*Pulse oximetry for the measurement of oxygen saturation in arterial blood*". In Blazek V., (eds) Studies in Skin Perfusion Dynamics. Biological Medical Physics, Biomedical Engineering. Springer, Singapore, January 2021 *DOI : https://doi.org/10.1007/978-981-15-5449-0_3* *Print ISBN: 978-981-15-5447-6; Online ISBN: 978-981-15-5447-0*
3	K. A. Reddy, "*Pulse Oximetry: An Introduction*", In edited Book on **Information Security in biomedical Signal Processing**, IGI Global Publisher, USA, April 2018 *(ISBN13: 9781522551522 | ISBN10: 1522551522 | EISBN13: 9781522551539* *DOI: 10.4018/978-1-5225-5152-2)*
2	Article presented at *International conference ICEDSP 2009* published in chapter 1 'On the Performance of Hirschman Optimal Transform based LMS algorithm for cancellation of ECG Power Line Interference' of book titled "Electronic Design and Signal Processing" Edited by Kumara Shama, K. P. Nayak & Somashekara Bhat, Published by *Narosa Publishing House Pvt. Ltd.*, 2012, India

	(ISBN: 978-81-8487-160-9)
1	E. H. Krishna, K. Sivani and K. A. Reddy, "OFDM Transceiver Using Hirschman Optimal Transform", Elsevier Science & Technology, 2010 (ISBN: 978-935-107-228-7)

PhDs GUIDED

Awarded: 10
Ongoing : 01
Submitted : 01

S. No	*Name of the scholar*	*Title of Thesis/ Area of Research*	*University*	*Status*	*Co-supervisor, if any*
13	K. Kranthi Kumar	*Machine Learning for performance enhancement of Pulse Oximeter*	KU, WGL	Pursuing	--
12	B. Krishna Sandeep, Dept of EIE, KITSW	*Vibroarthographic signal analysis for diagnosing knee joint disorders*	NITW	Thesis Submitted (Sept 2026)	Prof. T. Kishore Kumar, Dept of ECE, NITW
11	B. Venu Maheshwar, Dept of EIE, KITSW	*Detection of Sleep Apnea from ECG and PPG Signals*	KU, WGL	Awarded (April, 2026)	-
10	B. Narsimha Dept of ECE, KITSW	*Signal Processing Methods for early detection of Arthritis*	KU, WGL	---	-
9	Ch. Navitha Dept of ECE, CBIT, HYD	*Methods for performance enhancement of UWB RAKE receiver*	JNTUH, HYD	**Awarded** (January 2022)	Dr. K. Sivani Professor of E&I Engg., KITSW
8	E. Hari Krishna Dept of ECE, KUCE&T, KU, WGL	*Performance enhancement methods for OFDM systems*	JNTUH, HYD	**Awarded** (April 2021)	Dr. K. Sivani Professor of E&I Engg., KITSW
7	M.Raghu Ram Dept of E&I Engg., KITSW	*Distinct methods for reduction of motion artifacts in PPG signals*	JNTUH, HYD	**Awarded** (August 2020)	Dr. K. Sivani Professor of E&I Engg., KITSW
6	G. Rajender Naik		KU, WGL	**Awarded** (June 2017)	-

	Dept of EEE, KITSW	*Signal processing methods for ECG signal Analysis*			
5	M. Raju Dept of ECE, KITSW	*Channel Estimation for Multicarrier Communication systems*	KU, WGL	**Awarded** (May 2017)	-
4	T. Krishna Sai DGM (I&C), NTPC, Ramagundam	*Intelligent measurement and control using soft computing techniques in power plant*	KU, WGL	**Awarded** (April 2016)	-
3	V. Sharmila Dept of ECE, KITS(S), Huzurabad	*Model based interpretation for ECG signal analysis for arrhythmia detection*	JNTUH, HYD	**Awarded** (March 2016)	-
2	K. Venu Madhav Dept of E&I Engg., KITSW	*Extraction of respiratory activity from biomedical signals*	JNTUH, HYD	**Awarded** (August 2013)	-
1	K. Gopal Kishan Rao KU, WGL	*Design & Fabrication of Gamma Ray Densitometer and study of thermo physical properties of some metals and alloys*	KU, WGL	**Awarded** (January 2013)	Dr. N. Gopi Krishna, Professor of Physics, KU

AWARDS

S. No	Details
2	**INAE – *Innovative Student Project Award – 2009*** ▪ **The Indian National Academy of Engineering (INAE) Award -** under Innovative and creative projects Ph.D level ▪ Received this award for Ph.D work **"Novel Signal Processing Methods for Performance Enhancement of Pulse Oximeters ,** on December 17, 2009 at Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam, TAMILNADU
1	**IEAE – Research Excellence Award-2017:** ▪ This award is instituted by **The Institute for Exploring Advances in Engineering (IEAE)**

	▪ Received this award for his research work published as "Use of Fourier series analysis for motion artifact reduction and data compression of photoplethysmographic signals", ***IEEE Trans. Instrum. Meas***., vol. 58, no.5, pp.1706-1711, May 2009. (DOI: 10.1109/TIM.2008.2009136), most cited paper

NATIONAL SEMINARS ATTENDED-Expert Talks Delivered

S. No	Title of the presentation made at seminar/conference/orientation programme	Event & Place	Date
59	Curriculum Design in line with NEP 2020	**ALAT FDP** , Dept of ME at KITS Singapuram,	29th January, 2025
58	**NEP2020** – Sensitization and Orientation	**NIT Warangal** Malaviya Mission Teacher Training Program (MM-TTP)	20th February, 2024
57	**NEP-2020-Student Diversity and Inclusive Education**	**NIT Warangal** Malaviya Mission Teacher Training Program (MM-TTP)	18th January, 2024
56	Session chair – paper prentation	**NIT Warangal** IEEE 8th International Symposium on Smart Electronic Systems-iSES-2022	21st December 2022
55	"Efficient methods for channel estimation in Multicarrier Communication Systems," *2019 International Conference on Electrical, Communication, Electronics, Instrumentation and Computing*	Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya, Kancheepuram, Tamilnadu	30-31, January 2019,
54	"Small scale fading channel estimation by M-PSK signal transmission in OFDM systems," *2019 International Conference on Electrical, Communication, Electronics, Instrumentation and Computing*	Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya, Kancheepuram, Tamilnadu	30-31, January 2019,

53	"Effective ECG arrhythmia classification using MDL algorithm," *2019 International Conference on Electrical, Communication, Electronics, Instrumentation and Computing*	Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya, Kancheepuram, Tamilnadu	30-31, January 2019,
52	"An efficient filtering method and integrated peak analyzer for ECG analysis," *2019 International Conference on Electrical, Communication, Electronics, Instrumentation and Computing*	Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya, Kancheepuram, Tamilnadu	30-31, January 2019,
51	Use of Dual Tree Complex Wavelet Transform for UWB system RAKE receiver," *IEEE International Conference on Control, Instrumentation, Communication & Computational Technologies, ICCICCT-2016*	Noorul Islam Center for Higher Education Kanyakumari, India,	16-17, December, 2016
50	"Extraction of Respiratory Activity from PPG Signals using an Adaptive Fourier Coefficient Estimator," *IEEE International Conference on Control, Instrumentation, Communication & Computational Technologies, ICCICCT-2016*	Noorul Islam Center for Higher Education Kanyakumari, India,	16-17, December, 2016
49	"Reduction of Motion Artifacts from Pulse Oximeter's PPG Signals using MSICA," *IEEE International Conference on Control, Instrumentation, Communication & Computational Technologies, ICCICCT-2016*	Noorul Islam Center for Higher Education Kanyakumari, India,	16-17, December, 2016
48	"OFDM Channel Estimation using Tunable Q-factor Wavelet Transform," *IEEE International Conference on Control, Instrumentation, Communication & Computational Technologies, ICCICCT-2016*	Noorul Islam Center for Higher Education Kanyakumari, India,	16-17, December, 2016
47	"Extraction of Respiratory Activity from Pulse Oximeter's PPG signals using MSICA," *IEEE International Conference on Wireless Communications Signal Processing and Networking (WiSPNET)*	SSN College of Engineering, Chennai	23-25, March, 2016.
46	"Utilization of Adaptive-coefficient Estimation Method for Motion Artifacts Reduction from Photoplethysmographic Signals," *IEEE International Conference on Wireless Communications Signal Processing and Networking (WiSPNET)*	SSN College of Engineering, Chennai	23-25, March, 2016.
45	"Improved multi-scale principal component analysis based OFDM channel estimation," *IEEE International Conference on Wireless Communications*	SSN College of Engineering, Chennai	23-25, March, 2016.

	Signal Processing and Networking (WiSPNET)		
44	"Extraction of Surrogate Respiratory Activity from Pulse Oximeter Signals using SSA," *IEEE International Conference on Electrical, Electronics and Optimization Techniques (ICEEOT)*	DMI Engineering College, Chennai	3-5, March, 2016
43	"A Signal Processing Method based on Multi-Scale Principal Component Analysis for OFDM Channel Estimation," *International Conference on Electronics and Communication System (ICECS 2016)*	Karpagam college of Engineering, Coimbatore	25-26 Feb., 2016
42	"SSA based adaptive filter for detection and reduction of motion artifacts from pulse oximeter data," *International Conference on Electronics and Communication System (ICECS 2016)*	Karpagam college of Engineering, Coimbatore	25-26 Feb., 2016
41	"Extraction of Respiratory Activity from Pulse Oximeter Signals using Tunable Q-factor Wavelet Transform," *International Conference on Electronics and Communication System (ICECS 2016)*	Karpagam college of Engineering, Coimbatore	25-26 Feb., 2016
40	"BER Performance of OFDM for M-PSK signal transmission through AWGN and small scale fading environment," *International Conference on Electronics and Communication System (ICECS 2016)*	Karpagam college of Engineering, Coimbatore	25-26 Feb., 2016
39	"OFDM Channel Estimation and Equalization Using Multi Scale Independent Component Analysis," *IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (IEEE SPICES)*	NIT, Kozhikode	19-21, February, 2015
38	"Hardware Implementation of OFDM Transceiver using FPGA," *IEEE International Conference on Computer and computational Sciences (ICCCS)*	Greater Noida, Ghaziabad	27-29, January, 2015
37	"A Novel methods of ICI self-cancellation scheme in OFDM system," *International Conference on Emerging Trends in Engineering & Technology – (ICETET-2014), Warangal,*	Warangal	September 29 -30, 2014
	"EMD based OFDM Channel estimation," *29th IEEE International Instrumentation and Measurement Technology Conf., I2MTC-2012*	Graz, Austria	13-16 May, 2012,

36	"Use of higher order spectral analysis for the identification of sudden cardiac death," *7th IEEE International Symposium on Medical Measurements and Applications, MeMeA2012*	Budapest, Hungary	18-19 May, 2012
35	AICTE Training and Learning (ATAL) Academy Programme – Online FDP Modeling Pulse Oximeter PPG Signals	"MATHEMATICAL MODELLING AND CONTROLLER DESIGN FOR NON-LINEAR PROCESS" on 11th to 15th October, 2021 *Sree Vidyanikethan Engineering College, TIRUPATI*	**13/10/2021**
34	AICTE sponsored 2-week FDP NEP 2020 – Roadmap for implementation	"FINITE ELEMENT METHOD AND ITS APPLICATIONS IN ENGINEERING" 23-08-2021 to 04-09-2021. *Balaji Institute of Technology and Science, NARSAMPET, Warangal*	**26/08/2021**
33	National Education Policy 2020: Top Takeaways AICTE-ISTE sponsored Refresher course	RECENT TRENDS IN MECHATRONICS, Phase-3, May 6-12, 2021 *(Virtual)* *KITS, Singapur, Karimnagar*	**10/05/2021**
32	National Education Policy 2020: What is there for Learners AICTE-ISTE sponsored Refresher course	RECENT TRENDS IN MRECHATRONICS, Phase -2, April 22-28, 2021 *(Virtual)* *KITS, Singapur, Karimnagar*	**27/04/2021**
31	Signal processing for machine learning applications AICTE sponsored FDP	Machine Learning and Applications, February 2021 *(Virtual)* *PSCMR College of Engineering & Technology, Vijayawada, AP*	**20/02/2021**
30	Machine learning applications for PPG signal processing	FDP on Artificial Intelligence for Building Signal Processing	**10/12/2020**

		Applications, December 7-11, 2020 *(Virtual)* *NIT Warangal*	
29	Signal Processing: Some applications	IETE Lecture KU College of Engg and Tech, *Kakatiya University, Warangal*	**27/01/2018**
28	Characteristics of an Effective teacher	Teaching-Learning Centre, One week FDP on Instructional Design and Delivery methods in Engineering Education *NIT Warangal*	05/05/2017
27	Keynote Speaker Trends in PPG signal Processing	3rd International Conference on Recent Developments on Engineering, Science, Management and Humanities (ICRDESMH), *New Delhi (Virtual)*	11/12/2016
26	Variants of LMS Adaptive Filtering for Signal Enhancement	FDP on Advanced DSP and Applications Dept of ECE *NIT Warangal*	07/01/2016
25	Modelling of Bio-signals	FDP on Signal processing for Communications Dept of ECE *NIT Warangal*	31/07/2015
24	Session chair - Paper presentation	2nd International Conference on Computers & Communication Technologies, *CMR Technical Campus, Hyderabad*	25/07/2015
23	Engineering programmes- employment potential	Kakatiya University, Warangal Speaker on EAMCET Career Counselling programme organised	09/06/2015

		by *The Hindu Education Plus*	
22	Keynote Speaker PCA to MSPCA	National Conference on Recent Advances in Communications & Electronics (RACE-15) *Kamala Institute of Technology & Science, Singapur, Karimnagar*	27/02/2015
21	Session Chair – Paper Presentation	National Conference on Recent Advances in Communications & Electronics (RACE-15) *Kamala Institute of Technology & Science, Singapur, Karimnagar*	28/02/2015
20	Resource person Workshop on MATLAB	International Conference on Vibration problems, *Kakatiya University, Warangal*	19/02/2015
19	Keynote Speaker SVD to SSA	International Conference on Recent Advances in Communications, VLSI & Embedded Systems. *SR Engineering College, Warangal*	19/12/2014
18	Keynote talk Trends in Biomedical Signal Processing	International conference on Photonics, VLSI and Signal Processing. *Kakatiya University, Warangal*	28/03/2014
17	MATLAB Programming: Basics to Applications	National level technical Symposium *KITS, Warangal*	16/02/2014
16	Technical Session Chair	One day "Workshop on Defense Electronics: *Kakatiya University , Warangal*	05/02/2014
15	Electrical Applications of MATLAB	AICTE Sponsored FDP on Micro Grid and Distributed generation *KITS, Warangal*	31/10/2013
14	Pulse Oximetry: Basics and Applications	AICTE sponsored FDP on Recent Trends in Embedded Systems & Signal processing for Communications	22/09/2013

		SVS Institute of Technology, Warangal	
13	Signal Processing for Pulse Oximetry-Adaptive techniques for Bio-signals	AICTE sponsored FDP on Recent Trends in Embedded Systems & Signal processing for Communications. *SVS Institute of Technology, Warangal*	27/09/2013
12	Biomedical signal Modelling & Processing	TEQUIP-II sponsored FDP on Biomedical Signal processing. *Sree Vidyanikethan Engineering College, Tirupati*	22/06/2013
11	Adaptive Filters for Bio-signal Processing	TEQUIP-II sponsored FDP on Biomedical Signal processing. *Sree Vidyanikethan Engineering College, Tirupati*	22/06/2013
10	Using MATLAB for Communication signal processing	ECE Association Activity Lecture *Kamala Institute of Technology &Science, Singapur, Karimnagar*	24/08/2012
9	Speaker on Engineering programmes- Expectations	Kakatiya University, Warangal EAMCET Career Counselling programme organized by *The Hindu Education Plus*	08/07/2012
8	Embedded Microcontrollers and Applications	AICTE sponsored FDP on Embedded and Real Time Operating Systems. *Jayamukhi Institute of Technological Sciences, Narsampet, Warangal*	06/07/2011
7	Medical Signal processing-insights	IETE Annual convention lecture *IETE Centre, Warangal*	19/06/2011
6	Keynote speaker Signal processing for Pulse oximeters for Reduction of Motion Artifacts	National Conference on Recent Advances in Communications & Electronics (RACE-11).	11/03/2011

		Kamala Institute of Technology & Science, Singapur, Karimanagar	
5	Keynote Speaker Signal processing Methods for ECG signal Analysis	National Conference on Recent Advances in Communications & Electronics (RACE-11). *Kamala Institute of Technology & Science, Singapur, Karimnagar*	12/03/2011
4	Pulse Code Modulation	APSCHE sponsored Training Programme on Microprocessors and Microcontrollers *Dept of Physics, Kakatiya University, Warangal*	18/07/2010
3	Digital Signal processing and applications	APSCHE sponsored 5-day Training Programme on Microprocessors and Microcontrollers for PG Teachers. *Dept of Physics, Kakatiya University, Warangal*	25/02/2010
2	Pulse Oximetry and Applications	IETE Foundation Day celebrations Lecture *IETE Centre, Warangal*	11/02/2010
1	DSP and Applications	AICTE sponsored FDP on Hands On DSP Tools, Algorithms and Architectures. *Jayamukhi Institute of Technological Sciences, Narsampet, Warangal*	18/12/2009

MEMBERSHIP IN ACADEMIC BODIES

NATIONAL

PROFESSIONAL AFFILIATION - National
1. *Member – Indian Society for Technical Education (ISTE- **LM 21927**)*
2. *Member – IETE-**M 149721L***
3. *Member- Institute for Exploring Advances in Engineering (IEAE)*

INTERNATIONAL

PROFESSIONAL AFFILIATION - International
1. *Member – Institute of Electrical and Electronics Engineers (IEEE – **M 92126392**)*

Conferences / FDPs / Workshops ORGANIZED	
10	Springer International Conference on Computer & Communication Technologies (IC3T-20223 ▪ *Role: Conference Chair* ▪ *Duration: 2 days (6-7 October 2023)* ▪ *Venue: KITSW*
9	Springer International Conference on Computer & Communication Technologies (IC3T-2022) ▪ *Role: Conference Chair* ▪ *Duration: 2 days (29-30 July 2022)* ▪ *Venue: KITSW*
8	AICTE Sponsored International Conference on Energy Sustainability (AICTE-ES-2022) ▪ *Role: Conference Chair* ▪ *Duration: 2 days (20-21 May, 2022)* ▪ *Venue: KITSW*
7	Springer International Conference on Data Engineering & Communication Technology (ICDECT-2020) ▪ *Role: Conference Chair* ▪ *Duration: 2 days (25-26 Feb 2020)* ▪ *Venue: KITSW*
6	**SERB Sponsored National level workshop** ▪ *Title: Artificial Intelligence / Machine Learning in Healthcare* ▪ *Role: Co-principal Investigator* ▪ *Duration: 2 days* ***(February 16-17, 2023)*** ▪ *Venue: KITSW*
5	**E&ICT Academy NIT Warangal Sponsored FDP** ▪ *Title: AI & Machine Learning for Biomedical Signal & Image Processing* ▪ *Role: Coordinator* ▪ *Duration: One Week* ***(27th June – 6th July 2022)*** ▪ *Venue: KITSW*
4	**AICTE Sanctioned FDP** ▪ *Title: Hands on Project Based Approach of Biomedical Signal Analysis using MATLAB (Virtual)* ▪ *Role: Coordinator* ▪ *Duration: 2 weeks (**Online – 2 Phases**)* ***(Dec 28, 2020- Jan 1, 2021; and Feb 01-13, 2021)*** ▪ *Venue: KITSW* ▪ *AICTE Ref. No: 34-67/22/FDC/FDP/P-1/2019-20; Dated July 30, 2020*

	▪ *Amount Sanctioned: Rs. 5,54,000/-*
3	**AICTE Sanctioned STTP** ▪ *Title: Hands on Project Based Approach of 5G system designing in MATLAB* ▪ *Role: Coordinator* ▪ ***Duration: 1 week (Online – 3 Phases)** , Venue: KITSW* ***(Nov 02-07, 2020; Dec 14-19, 2020; and Jan 18-23, 2021)*** ▪ *AICTE Ref. No: 34 -66/42O/FDC/STTP/Policy-1/2019-20; Dated August 10,2020* ▪ *Amount Sanctioned: Rs. 3,41,333/-*
2	**AICTE Sanctioned FDP** ▪ *Title: Hands on Approach of OFDM system designing in MATLAB* ▪ *Role: Coordinator* ▪ ***Duration: 2 weeks** (from 27th November, 2017 to 8th December 2017)* ▪ *Venue: KITSW* ▪ *AICTE, Lr. No: 20/AICTE/RIFD/RPS; Dated June 06, 2017* ▪ *Amount Sanctioned: Rs. 6,00,000/-*
1	**TSCHE, ISTE and IETE Sponsored FDP** ▪ *Title: Quality Assurance in Higher education Institutions and Industries* ▪ *Role: Convener* ▪ ***Duration: One week** (19th-23rd July, 2017)* ▪ *Venue: KITSW* ▪ *Amount Sanctioned: Rs. 1,00,000/-*

SWAYAM NPTEL ONLINE COURSES – COMPLETED

S. No	Course Title	Details		
		Duration	Semester	Result
4	Accreditation and outcome-based learning (AOBL)	8 weeks	Jul-Sept, 2021	Elite (72%)
3	Design, Technology and Innovation	8 weeks	Feb-Apr, 2020	Elite (72%)
2	NBA Accreditation and Teaching-Learning in Engineering (NATE)	12 weeks	Feb-Apr, 2020	Elite + Silver (83%)
1	Teaching and Learning in Engineering (TALE)	4weeks	Feb-Mar, 2019	Elite + Silver (79%)

FDPs ATTENDED

S. No	Details	Place	Dates	
			From	To
9	Deep learning using medical data with Python	Virtual FDP, Finland Labs India	07/06/2021	11/06/2021

8	Machine Learning and Deep Learning using MATLAB	Virtual FDP, MATLAB India Pvt Ltd	17/05/2021	20/05/2021
7	Biomedical Signal Processing (MeitY, Govt of India)	NIT Warangal	11/12/2019	16/12/2019
6	Quality Assurance in Higher Educational Institutions and Industries (TSCHE)	KITS Warangal	19/07/2017	23/07/2017
5	Hands on LabVIEW and Its Applications in Engineering	KITS Warangal	04/05/2017	09/05/2017
4	Signal processing for Communications	NIT Warangal	04/01/2016	08/01/2016
3	GiAN Program on Biomedical Signal Analysis (Course Code: 161036D03)	NIT Warangal	10/10/2015	15/10/2015
2	Advanced DSP and Applications	NIT Warangal	27/07/2015	31/07/2015
1	Digital Image Processing and Its Applications	NIT Warangal	20/06/2015	24/05/2015

Short Term Training Programs / Workshops ATTENDED				
S. No	**Details**	**Place**	**Dates**	
			From	**To**
8	Govt. of Telangana, Collegiate Education & Technical Education sponsored National Level Workshop on Curriculum Framework 2022 for Universities, Engineering colleges and Degree Colleges	**Hyderabad**	21/03/2022	22/03/2022
7	AICTE-ISTE Sponsored Intellectual Property Intelligence & Patent Drafting	Nalla Narsimha Reddy College of Engineering	17/12/2018	22/12/2018
6	NBA sponsored **Quality Assurance through Outcome Based Education**	New Delhi The Leela Ambience Hotel, New Delhi	18/03/2017	20/03/2016
5	Effective Functioning of an Autonomous Institute	KITS Warangal	17/01/2015	18/01/2015
4	CII - National Higher Education Conclave	CII, Coimbatore	29/11/2013	30/11/2013
3	Selected Topics in Medical Imaging	NERTU, Osmania	18/12/2012	18/12/2012

		University, Hyderabad		
2	Advanced Signal processing	NERTU, OU, Hyderabad	17/12/2003	19/12/2003
1	Speech technology	IIT Madras	04/04/1997	06/04/1997

(Prof. K. Ashoka Reddy)