# **RESUME**



Dr. K. Anitha Sheela

B.Tech(RECW), M.E., Ph.D SMIEEE, FIETE, FIE, LMIRIS, MISTE Professor & Head of ECE Department of Electronics and Communication Engineering JNTUH College of Engineering Kukatpally, Hyderabad – 500 085. Email: kanithasheela@jntuh.ac.in, kanithasheela@gmail.com, anithasheelakancharla@ieee.org

Name :	Dr. K. Anitha Sheela			
	B.Tech(RECW), M.E., Ph.D SMIEEE, FIETE, FIE, LMIRIS, MISTE			
Designation :	Professor and Head of ECE			
Address :	ECE Department, JNTUHCE, JNTUH, Hyderabad-85			
Residential Address:	Plot No-430/A, Vivekananda Nagar Colony, Kukatpally,			
	Hyderabad.			
Phone:	Cell: 9441189219, Off: 23050527			
E-mail:	kanithasheela@jntuh.ac.in, kanithasheela@gmail.com,			
	anithasheelakancharla@ieee.org			
Date Of Birth :	15 <sup>th</sup> August 1972			

## **EDUCATIONAL QUALIFICATIONS:**

S:No	Qualification	Year	Class	Institution
1	Ph.D	2003-2008		J.N.T. University
2	M.Tech	1995-1997	First Class with Distinction	Osmania University
3	B.Tech	1989-1993	First Class	R.E.C. Warangal
4	Inter	1987-1989	First Class with Distinction	Sri Chaitanya Junior College, Vijayawada
5	S.S.C	1987	First Class with Distinction	St. Ann's Eng. Medium High School, Kavali

## ACADEMIC EXPERIENCE:

S	Institution	Duration	Designation
1	ONYX Industries Ltd	June 93-June 95	Testing Engineer
2	DVR College of Engg	Nov 98- Oct 99	Asst. Professor
	&Tech		
3	GNITS, Hyd	Nov 99- Oct 2000	Asst. Professor
4	JNTUH	Oct 2000-Nov 2004	Asst. Professor
	College of		
	Engineering,		
	Hyderabad		
5	JNTUH	Nov 2004 to Nov	Sr. Asst
	College of	2008	.Professor
	Engineering,		
	Hyderabad		
6	JNTUH	Dec 2008 to Dec	Associate
•	College of	2014	Professor
	Engineering,		
	Hyderabad		
7	JNTUH	Jan 2015 to Till date	Professor
	College of		
	Engineering,		
	Hyderabad		
8	JNTUH	Dec 2018 to Till	Professor &
	College of	date	Head
	Engineering,		
	Hyderabad		

## ADMINISTRATIVE EXPERIENCE:

S. No.	Institution	Duration	Designation
1	JNTU, Hyderabad	Dec'2008-Aug,2009	Coordinator, Exams
2	JNTU, Hyderabad	Sept2009- Aug 2010	Additional Controller Exams
3	JNTU, Hyderabad	Sep 2010- Sep 2013	Officer I/C exams
4	JNTUH College of Engineering, Hyderabad	Jan 2014- Till date	Coordinator, Industry Institute Interaction Cell
5	JNTUH College of Engineering, Hyderabad	March 2015-Jan 2016	Co Cordinator TEQIP ( A world Bank funding project)
6	JNTUH College of Engineering ,Hyderabad	Feb 2016 to July2019	Coordinator AAC
7	JNTUH College of Engineering, Hyderabad	Dec 2018-Till date	Head of ECE Department

## PH.D. THESIS TITLE:

Design & Implementation of Robust Speaker Recognition System using Neural Networks in highly Non Stationary Environment

#### AREAS OF SPECIALIZATION:

Area: Speech, Audio, Image & Video Signal Processing, Neural Networks, Signal Processing, Analog & Digital Communications.

## **SUBJECTS TAUGHT AT UG LEVEL:**

Probability Theory & Stochastic Processes, Analog Communication, Digital Communication, Signals & Systems, Digital Signal Processing, EDC, EC, Neural networks,

#### **SUBJECTS TAUGHT AT PG LEVEL:**

Speech Processing, Neural Networks, ADSP, Bio Medical Signal Processing, Random Process & Time Series Analysis, DSP Processors & Architecture, Advanced DSP, Transform Techniques

#### SYLLABUS FRAMED IN BOARD OF STUDIES (BOS) (B.TECH / M.TECH) :

PTSP,NNS, Speech Processing, ADSP, DSP Processors & Architecture, Scripting Language, IOT.

#### **PATENTS APPLIED:**

1. Application Number: 201841005238

Priority Date: 12.02.2018

## Title

Battery Management System And Method Employed Thereof For Monitoring, Managing, Controlling And Restoring Batteries Of Battery Packs Remotely In Real-Time

## PROJECTS GUIDED & R&D ACTIVITY

•	M.Tech projects guided/guiding	150.
•	B.Tech projects guided/guiding	100
•	Ph.D. guided :	08
•	Ph.D. guiding:	08
•	Publications	around 100

- Coordinator for Texas Instruments Embedded Processing Centre, JNTUHCEH
- Coordinator for Systems & Signal Processing Program

#### **RESEARCH PROJECTS APPLIED/ SANCTIONED**

S. No	Title of project	Funding Agency	Amount/ Duration	High Lights
1.	Texas Instruments Embedded Processing Centre (Completed)	Texas Instruments, Bangalore	\$15,000/- ( <b>Completed</b> )	More than 30 Publications have used the Lab for carrying out their Implementations Trained more than 200 faculty on DSP, ARM Processors, Beegle Board, Mixed Signal Processors & Controllers Done B. Tech & M. Tech Projects were carried out using this Hardware. Has been introduced in the curriculum for B.Tech(ECE) final Year & M.Tech(SSP), M.Tech(ES) courses
2	Design, Construction and	UGC - MRP	11,37,000/- 3 yrs	To create an Emotion database useful for

	Analysis of Comprehensive Dataset for Emotion Detection using Multiple Biometrics. (on going)		(2015-2018) (Completed)	researchers and scholars
3	Speech Enabled IVR Based on Online Market for Farmers	TEQIP-III, University	3,00,000/- (2019-2021) ( <b>Ongoing</b> )	To develop an app for farmers for selling their products by maintaining COVID guidelines
4	Design of an ADC with a Sampling Frequency of Hundreds of Mega Samples per second for 5G Technology	NPIU, TEQIP-III (Collaborative research project)	5,52,000/- (18 <sup>th</sup> June 2019- 30 <sup>th</sup> Sept 2020) ( <b>Ongoing</b> )	Design a high frequency Analog to Digital Converter for applications in 5G communications.
5	Speech Technologies for Humanoid	RESPOND Program, ISRO	36,23,000/- (Jan 2020 to Jan 2021) ( <b>Ongoing</b> )	To design Speech communication modules for Humanoid robots to communicate with each other
6.	Analysis, Design & Implementation of Smart Sign Language Interpreter & Translator for Auditory & Vocally Challenged people to Communicate	Technology Interventions for disabled(TIDE), MHRD Initiative	76,24,000/- (Applied for in Nov 2019)	Helping aid for deaf & Dumb to communicate
7	Design and implementation of Sign Language Translator (SignXter) using Hierarchical LSTMs	RPS, AICTE	24,19,600/- (Applied for in Dec 2019)	Helping aid for deaf & Dumb to communicate
8	Modernization of GNU Lab	MODROBS, AICTE	(Applied for in Dec 2019)	To provide state of art facility for students in Computer lab

9	Design and implementation of Sign Language Translator (SignXlate) using Hierarchical LSTMs	TSCOST, Telangana	5,00,000/- Applied in Feb 2020	Helping aid for deaf & Dumb to communicate
10	Quality Assessment and Safety of Food using Hyper Spectral Image Compression and Analysis	Rashtriya Uchchatar Shiksha Abhiyan (RUSA) Ministry of Human Resource Development Department Of Higher Education Government of India	62,29,600/- (Applied for on 20/11/15)	Non Invasive technique for Food quality assessment.

## ACADEMIC COMMITTES MEMBER

- 1. BOS Chairperson for ECE Department, JNTUH College of Engineering
- 2. Member BOS for Sri Nidhi Institute of Science & Technology, Anurag College of Engineering, TKR College of Engineering, Gurunanak Institute of Technology, Hyderabad
- 3. Ph.D. Adjudicator to Sri Satya Sai Institute of Higher Learning, University of Kerala, Tiruvananthapuram.

## **BOOKS AUTHORED**

Sl.	Name of Text	Name of the		Name of Publisher
No.	Book	Authors	Month & Year	
1.	Probability	Dr. Hari Bhatt	August 2010	Pearson Publishers
	Theory &	&		
	Stochastic	Dr. K. Anitha		
	Processes	Sheela		
2.	Probability,	Peyton Z.	4 <sup>th</sup> Edition, 2002	Tata Mc-Graw-Hill
	Random	Peebles		
	Variables &	Adaptater		
	Random Signal			
	Principles			

## LECTURE NOTES / PROCEEDINGS IN E-BOOKS

Sl.	Name e-book	Title of the paper	Title of the paperMonth & Year of	
No.			Publication	ernational
1.   2.	Advances in Computing and Communication Part-I Springer Advances in	Reduction of Inter Carrier Interference by Pilot Aided Self Cancellation Compared to Self Cancellation Method PHY Abstraction for	ISBN :978-3-642- 22708-0 Pg: 34-43, vol:1 2011 ISBN: 978-3-642-	International
	Computing and Communication Part-II Springer	MIMO Based OFDM Systems	22708-0 Pg:590-601, Vol3 2011	
3.	Lecture Notes of cse, social Informatics & telecomm Springer	Weighted angle based Approach for face Recognition(e-book: lecture Notes of Cse,Social Informatics & telecomm Engg)	ISBN: 978-3-642- 27299-8 2012	International
4.	Lecture Notes of cse, social Informatics & telecomm Springer	A novel approach for MIMO Ofdm system to estimate I/Q Imbalance, CFO,channel Response using training Sequence.(e-book:	ISBN: 978-3-642- 27299-8 2012	International
5.	Proc. SPIE 9879, Lidar Remote Sensing for Environmental Monitoring XV, 98790I (May 5, 2016); doi:10.1117/12.2 223043	Multi-wavelength dual polarisation lidar for monitoring precipitation process in the cloud seeding technique	98790I (May 5, 2016); doi:10.1117/12.222304 3	International
6	Proc. SPIE 9879, Lidar Remote Sensing for Environmental Monitoring XV, 98790T (May 5,	Lidar studies on atmospheric aerosols at a semi-urban station cheeryal (17.51° n, 78.62° e) near Hyderabad, india	98790T (May 5, 2016); doi:10.1117/12.222339 1	International

	2016); doi:10.1117/12.2 223391			
7	Proc. SPIE 9879, Lidar Remote Sensing for Environmental Monitoring XV, 987919 (May 5, 2016); doi:10.1117/12.2 223418	Experimental investigations on range- resolved refractive index structure parameter cn2, by optical measurements over a 2.0 km free space laser path	987919 (May 5, 2016); doi:10.1117/12.222341 8	International
8	Proceeding of International Conference on Intelligent Communication, Control and Devices , ISSN 978-981-10- 1707-0, 393445_1_En, (7).	Adaptive Routing mechanism for Real- time Wireless Sensor Networks based on Two-hop information", Advances in Intelligent Systems and Computing (AISC)	Volume 479, Rajesh Singh and Sushabhan Choudhury (Eds): ISSN 978-981-10- 1707-0, 393445_1_En, (7).	International

#### **CONFERENCES CONDUCTED/COORDINATED**

- ✓ The Sweden India Nobel Memorial Quiz on 22<sup>nd</sup> Sept 2012
- ✓ Conducted National Conference on Communications Systems & Signal Processing from 23<sup>rd</sup> to 25<sup>th</sup> August 2014 in Technical Collaboration with IEEE Hyderabad Section & sponsored TEQIP-II
- ✓ Contributed for conduct of 38<sup>th</sup> National Systems Conference from 5<sup>th</sup>-7<sup>th</sup> November 2014 at JNTUHCEH, Hyderabad as Organizing Committee Member
- ✓ Conducted National Conference on JNTUH-Model United Nations from 22<sup>nd</sup> to 24<sup>th</sup> Jan 2016
- ✓ Technical Committee member and chaired a session in a National Seminar on Cyber Security & Image Processing, organized by Institution of Engineers from 10th – 11th Aug 2019

## WORKSHOPS ORGANIZED

S1.	Name of the	Sponsored	Place	Title	Month &	National/
No.	Workshop	by			Year	International
1.	Role of Test &	Textronix	JNTUCEH,	1-day	24 <sup>th</sup>	National
	Measurement	India Ltd.	Hyderabad	Workshop	March	
	Instruments in		5	1	2009	
	Academia					
2.	Recent Advances	UGC-	UGC-ASC,	Three-	$3^{rd}-22^{nd}$ ,	National
	in Digital Image	Academic	JNTUH,	Week	2008	
	Processing	Staff college,	Hyderabad	Refresher		
	_	JNTU		Course		
3.	Microcontrollers	TEQIP	JNTUCEH,	5-day	$12^{\text{th}}-16^{\text{th}},$	National
	& Applications		Hyderabad	Workshop	2008	
4.	CMOS VLSI &	TEQIP	JNTUCEH,	2-day	$10^{\text{th}} - 11^{\text{th}}$	National
	ASIC Designs		Hyderabad	Workshop	August	
					2007	
5.	Hands on	Agilent	JNTUCEH,	1-day	6 <sup>th</sup>	National
	experience on	Technologies	Hyderabad	Workshop	December	
	Latest Electronic	(HP) &			2005	
	Equipments	TEQIP				
6.	Speech & Image	UGC-	UGC-ASC,	Three-	8 <sup>th</sup> -29 <sup>th</sup>	National
	Processing	Academic	JNTUH,	Week	Nov,2010	
		Staff college,	Hyderabad	Refresher		
		JNTU		Course		
7.	Short term course	UGC-	UGC-ASC,	One week	$7^{\text{th}}$ to $12^{\text{th}}$	National
	on Signal &	Academic	JNTUH,	Training	Feb 2011	
	Image Processing	Staff college,	Hyderabad	program		
	using OCTAVE	JNTU			, th	
8.	One day	Texas	ECE	1-day	16 <sup>th</sup>	National
	workshop on	Instruments	Department,	workshop	Dec'2010	
	Architectures of	&	JNTUHCEH,			
	TI DSP	Cranes	JNTUH,			
	processors	Software	Hyderabad			
		International,				
		Bangalore				

Contd.,

9.	3 week Finishing School for M.Tech students	TI & Pushpak Technologies &TEQIP	ECE Department, JNTUHCEH, JNTUH, Hyderabad	3-week	Feb 26- 28,2013	National
10	Workshop on "Real Time Digital Signal Processing & Applications With O Map- L138"	Texas Insrtuments, IEEE & TEQIP	ECE Department, JNTUHCEH, JNTUH, Hyderabad	Two days	24 <sup>th</sup> & 25 <sup>th</sup> June, 2013	National
11	CEO/CXO speaks session	Cyient Technologies, Hyderabad	24x7 Lab, JNTUHCEH	1 day	November 2014	National
12	FDP on System Design Aspects in IOT	E&ICT, NIT Warangal	CRC Complex JNTUHCEH	10DAYS	JUNE 2018	National
13	FDP on Signals and Stochastic Process	JNTUH	SIT Seminar Hall JNTUH	1 week	Feb 2017	National
14	FDP on Digital Signal Processing	JNTUH	SIT Seminar Hall JNTUH	1 week	Dec 2017	National
15	Refresher Course on Systems and Signal Processing	UGC-HRDC, JNTUH	UGC- HRDC, JNTUH	3 weeks	March 2019	National
16	Internship programs on AI, ML & IOT	JNTUHCEH & IBM	ECE Dept., JNTUH	3 times of 3weeks duration each	April- May 2019	National

## CONTESTS CONDUCTED

Sl. No.	Name of the Contest	Sponsored by	Place	Month & Year
1.	Analog Design	Texas	ECE	October 2012
	Contest by Texas	Instruments,	Department,	
	Instruments	Bangalore	JNTUH	
2.	Spoorthi 2010	JNTUH &	ECE	Feb 2010
	-	TEQIP	Department, JNTUH	
3.	Analog Design	Texas	ECE	December 2014
	Contest by Texas	Instruments,	Department,	
	Instruments	Bangalore	JNTUH	
4.	Indo-Swedan	Sweden	ECE	Sept 2012
	Nobel Laurate	Enabassy	Department,	-
	Memorial quiz		JNTUH	
5.	Robotic Contest	IIT Bombay	ECE	Sept 2012
		-	Department,	_
			JNTUH	
7	Spoorthi 2019	JNTUH &	ECE	Feb 2019
	A Technical	TEQIP	Department,	
	Symposium		JNTUH	
8	TEKHACK	JNTUCEH &	ECE	Aug 2019
		IBM	Department,	
			JNTUH	

## **OTHER NATIONAL ASSIGNMENTS:**

- Conducted a two-day student symposium Spoorthi'09 where in more than 1000 students have participated and presented papers on latest technological development in various fields of Electronics & Communication. Apart from this Technical & Non Technical quizzes, Hardware & Software project competitions were also conducted as part of the event.
- Coordinated National level Casseopiean Wars Competition a Robotic TechFest event in Association with IIT Bombay on 22<sup>nd</sup> Oct 2013 for various college students

#### **INTERNATIONAL TRAVEL:**

Visited Bangkok, Thailand to present a paper in International Conference IWAIT2007 in January 2007

#### JOURNALS PUBLICATION DETAILS

#### <u>2006-2007:</u>

[1] K. Anitha Sheela et al., Musical Noise Removal of Enhanced Speech using gray level values of Spectrogram Plots, ECTI Transactions on Electrical, Electronics & Communications, ISSN 1685-9545, Vol:5,No:2, August 2007.

[2] K. Anitha Sheela et al., Linear Discriminate Analysis F-Ratio for Optimization of TESPAR & MFCC Features for Speaker Recognition, Journal of Multimedia, ISSN: 1796-248, Vol:2, No.6, November 2007.

#### <u>2010-2012:</u>

[3] Syeda Gauhar Fatima, Dr. Syed Abdul Sattar, "Intrusion Detection for Wireless Sensor Networks in Three Dimensional Space", International Journal Of Emerging Technologies And Applications In Engineering, Technology And Sciences", ISSN:0974-3588, April -2010.

[4] K. Anitha Sheela et al., Performance Analysis of HSDPA systems using Low density parity-check (LDPC) coding as compared to Turbo coding, WASET Journal Special Issue PISSN:2010-376X, eISSN:2010-3778, Vol:72, No:173, December 2010.

[5] K. Anitha Sheela et al., Estimation & Compensation of Intercarrier Interference in Wimax Physical layer under various Channel modes, International Journal of Next Generation Networks (IJNGN), ISSN:0975-7023, Vol.4, No.3,September 2012.

[6] K. Anitha Sheela, Gauhar Fatima et al., Energy Efficient Intrusion Detection System for WSN, International Journal of Electronics & Communication Engineering & Technology (IJECET), ISSN 0976-6464(Print), ISSN 0976-6472(Online), Vol3, Issue3, December 2012, pp.246-250.

[7] K. Anitha Sheela, Koteshwar Rao et al., Face Recognition using different local features with different distance techniques, International Journal of Computer Science Engineering & Information Technology(IJCSEIT), ISSN 0975-9646, Vol2,No.1, Feb 2012.

[8] K. Anitha Sheela et al., Wavelet based Effective color Image Compression using NNs & Modified RLC, CIIT Journal of Digital Image Processing, ISSN: 0974-9691, Vol;4, No:12, 2012.

[9] K. Anitha Sheela et al., Synthesis and Image Matching On Structural Patterns Using Affine Transformation, International Journal of Computer Science & Communication Networks, ISSN:2249-5789, Vol 2(3), 407-415, June-July 2012.

#### <u>2013-2015:</u>

[10] K. Anitha Sheela et al., A Novel Wavelet based Approach for Near Lossless Image Compression Using Modified Duplicate Free Run Length Coding, International Journal of Advanced Computing, A Recent Science Publication, ISSN: 2051-0845, Vol.46, Issue.3, Pgs: 1241-1246, Impact Factor: 2.31, July 2013.

[11] K. Anitha Sheela et al., A Survey of Real-Time Routing Protocols For Wireless Sensor Networks, International Journal of Computer Science & Engineering Survey (IJCSES), Vol.4, No.3, June 2013, Pgs:35-44.

[12]G.V.R. Sagar and Dr. K. Anitha Sheela "Architecture Design and Time Complexity of Artificial Neural Network using Evolutionary Algorithm", Elixier International Journal, ISSN 2229-712, Volume no.65, page no.19736 – 19744, December 2013.

[13] G.V.R. Sagar and Dr. K. Anitha Sheela "Optimization of Architecture Design in Artificial Neural Network", International Journal of Advanced Trends in Computer Science and Engineering, www.warse.org, ISSN 2278 - 3091, Volume 2, Issue no. 5, pp.1 - 7, October 2013.

[14] K. Anitha Sheela et al., Adaptive Equalizer for Compensation of Tx & Rx IQ imbalance in presence of CFO, International Journal of Advanced Computing, Recent Science Publishers, Issue:1, Vol:47, pp.No.1453-59, March 2014.

[15] K. Anitha Sheela et al., Energy efficient Intrusion detection system for wireless sensor networks using Neural Networks, Journal of Theoretical & Applied Information Technology, Vol: Issue No:2, PP No:352-360, January 20th 2014.

[16] K. Anitha Sheela et al., Dynamic Selection of Suitable Wavelet for Effective Color Image Compression using Neural Networks and Modified RLC, Global Journal of Computer Science and Technology: F Graphics& Vision Type: Double Blind Peer Reviewed International Research Journal Publisher: Global Journals Inc. (USA), Online ISSN: 0975-4172& Print ISSN: 0975-4350, Volume :14 Issue 2 Version 1.0 Year: 2014.

[17]Mohan Dholvan, Dr. Anitha Sheela Kancharla "Review on Speech Sounds and Their Classification", International Journal of Computer Engineering and Applications (IJCEA) on ISSN: 2321 - 3469, Vol: VI, Issue: III, P: 11 - 20, June, 2014.

[18] G.V.R. Sagar and Dr. K. Anitha Sheela " Evolutionary ANN Design Using Improved Selection Method", International Journal of Computer Science and Artificial Intelligence (IJCAI), Volume no.4, Issue 1, page no.16-23, May 2014.

[19] K. Anitha Sheela, Srinivasulu.P Lossless Image Compression using Fast Arithmetic Operation, International Journal of Computer Science & Network Security, Vol: 15 No:8 Aug 2015.

[20]Mohan Dholvan, Dr. Anitha Sheela Kancharla "Developing a Speech synthesis System using festival and Speech tools for English speech database with Indian dialect", International Journal on Computing, Communications and Systems , ISSN: 2277 – 6699, Vol: 4, Issue: 2, P: 58 – 63, December, 2015.

[21] Mohan Dholvan, Dr. Anitha Sheela Kancharla "Speech Enabled Interactive Voice Response Systems Review", International Journal of Computer Engineering and Applications (IJCEA) ,ISSN: 2321 – 3469, Vol: IX, Issue: X, P: 73 – 81, October, 2015

[22]Sandhya Rachamalla and Anitha Sheela Kancharla, "Adaptive Routing Protocol with Power- Control mechanism for Wireless Sensor Networks", IJCSNS (International Journal of Computer Science and Network Security), Vol 15, Issue 2, Feb 2015, pp 38-45.

[23]Syeda Gauhar Fatima, Dr.Syed Abdul Sattar and Dr.K.Anitha sheela,"Multi-criteria Decision Making Using Fuzzy Logic System for Optimized IDS",International Journal of Applied Engineering Research, ISSN 0973-4562 Volume 10, Number 2 (2015) pp. 4645-4662.

## <u>2016-2017:</u>

[24]Mohan Dholvan, Dr. Anitha Sheela Kancharla "Impact of Enhanced Full Rate Speech Codec on the Performance of ASR over GSM Networks", Journal of Innovation in Electronics and Communication Engineering ISSN 2249-9946 and eISSN 2455 -3514, Vol. 6(2), December, 2016.

[25] Dholvan, Dr. Anitha Sheela Kancharla "Performance Analysis of Speech Enabled IVR Using Narrowband Codec", Elixir International Journal of Electrical Engineering ISSN: 2229 - 712X, P: 43403 - 43409, November, 2016.

[26] P. Sudhakar, K. AnithaSheela, M Satyanarayana, "Imaging Lidar System for Night Vision and Surveillance Applications" Electronic Letter on Computer Vision and Image Analysis: submitted

[27] P. Sudhakar; K. AnithaSheela; M Satyanarayana ; D. Ramakrishna Rao; "Lidar studies on atmospheric aerosols at a semi-urban station Cheeryal (17.51° N, 78.62° E) near Hyderabad, India" Proc. SPIE. 9879, Lidar Remote Sensing for Environmental Monitoring XV, 98790T. (May 05, 2016) doi: 10.1117/12.2223391

[28] P. Sudhakar; K. AnithaSheela; M Satyanarayana ; D. Ramakrishna Rao; "Multiwavelength dual polarisationlidar for monitoring precipitation process in the cloud seeding technique" Proc. SPIE. 9879, Lidar Remote Sensing for Environmental Monitoring XV, 98790I. (May 05, 2016) doi: 10.1117/12.2223043

[29] P. Sudhakar; K. AnithaSheela; M Satyanarayana ; D. Ramakrishna Rao; "Experimental investigations on range-resolved refractive index structure parameter Cn2, by optical measurements over a 2.0 km free space laser path" Proc. SPIE. 9879, Lidar Remote Sensing for Environmental Monitoring XV, 987919. (May 05, 2016) doi: 10.1117/12.2223418

[30] K.Tulasiram, Y.RajasreeRao, K.Anithasheela, "SOC modeling of dynamic filter design for DWT in image coding", International Journal of Advanced computing ISSN: 2051-0845, Vol.47, Issue.2. (UGC Approved)

[31] K.Tulasiram, Y.Rajasreerao, K.Anithasheela "Area Efficient Implementation of One-Dimensional Median Filter using BEC CSLA" International journal of control theory and applications,vol.10, no.22,pp 177-187, 2017. (UGC Approved & SCOPUS Indexed).

[32] K.Tulasiram, Y.Rajasreerao, K.Anithasheela" MAX Tree Extraction Enabled Area and Energy Efficient Median Filter Design: A VLSI Design Approach" International Journal of Applied Engineering Research ISSN 0973-4562 Volume 12, Number 11 (2017) pp. 2929-2941. (SCOPUS Indexed).

#### <u>2018-2019:</u>

[33]HVS Based Face Recognition Using Slant Transform, M. Koteswara Rao, K. Veeraswamy, K. Anitha Sheela, 2018, Vol.7, No3.34, pp-313-316, IJET(Scopous)

[34]Dr.K.Anitha Sheela, MK Mishra, Framework For Parameter Extraction Of Nonlinear Model For Mesfets And Implementation In Cad Tools, ICTACT Journal of Micro Electronics, Vol:5, Issue:3, January 2019

[35] Dr. K. Anitha Sheela, Koteshwar Rao et al, Face recognition based on unsupervised clustering feature extraction using Gaussian Mixture Model, IJSSST, February 2019.

## <u>2020-2021:</u>

[36]Dr.K.Anitha Sheela et al, Covid-19 social distancing with speech enabled online market place for farmers, applied for publication in IETE Journal in June 2020

[37] Dr. K. Anitha Sheela, Koteshwar Rao et al, A Novel Sub Pattern Deep Convolution Neural Network Using Kernel SVM Classifier For Face Recognition, Elsevier Journal, Accepted For Publication.

[38] A novel hybrid approach advanced multiresolution decomposition transforms for face retrieval using supervised learning classifier methods. M. Koteswara Rao K. Veeraswamy, K. Anitha Sheela, this paper is under the review of JESIT (Elsevier)

## PUBLICATIONS IN CONFERENCES PROCEEDINGS:

## <u>2004-2006:</u>

[1] Speaker Dependent Isolated Word Recognized Using NNS, International Conference on Bio-Medical Electronics & Telecommunications (BET 04), VIZAG, 9<sup>th</sup> -10<sup>th</sup> 2004.

[2] Yard Maintenance & Auto Train Charting Aided by NMDL, National Conference on "Recent Trends in Control Systems"(RTCS'04), Punjab, 21-22<sup>nd</sup> May 2004.

[3] Robust Face Recognized in Varying Illumination, Conference on Advances in Image Processing & Robotics (AIPR'05), 25-26<sup>th</sup> Feb 2005, MIT CHENNAI.

[4] Blind Signal Separation For FMRI's, National Conference on Image Processing (NCIP'05), 23<sup>rd</sup> -25<sup>th</sup> March 2005, Ms Ramaiah School of Advanced Studies, *IEEE (Signal Processing Society)* BANGLORE.

[5] Text Dependent Isolated Word Speaker Recognized Using NNS", National Conference on Bio-Medical & Process Institution (BINCON'05), 19-20<sup>th</sup> Mar 2005, Hydrabad

[6] A Noise Reduction Preprocessor for Mobile Voice Communication using Perceptually weighted Spectral Subtraction Method, OBCOM 2006, ISBN-10:0230-63010-3, ISBN-13: 978-0230-63010-9, December 16<sup>th</sup> -19<sup>th</sup> 2006, VIT, Vellore.

## <u>2007-2009:</u>

[7] Optimization of TESPAR Features using Robust F-Ratio for Speaker Recognition, IEEE ICSCN 2007, IEEE Catalog No: 07Ex1690C, ISBN:1-4244-0997-7, 22<sup>nd</sup> – 24<sup>th</sup> Feb'2007, MIT, Chennai.

[8]Post processing of Enhanced speech using spectrogram plots, IWAIT 2007 ISBN: 978-974-88167-8-4, January 8<sup>th</sup> -9<sup>th</sup>, 2007, Bankok, Thailand.

[9] Simulating Noisy environment outperforms speech enhancement in noisy environment, International Conference on Recent Advances in Communication Engineering(RACE\_08), 20<sup>th</sup> -23<sup>rd</sup> December 2008, Conducted by ECE Department, Osmania University.

## <u>2010-2014:</u>

[10] Neural Networks and Lifting Scheme based Image Compression, International Conference on Signal & Image Processing (ICSIP 2010) ISSN: 2070-3740 & ISSN:2070-3724, 25<sup>th</sup> -27<sup>th</sup> August 2010, Conducted by WASET at Singapore.

[11] Performance Analysis of HSDPA systems using Low density parity-check (LDPC) coding as compared to Turbo coding, International Conference on Communication Systems and Computer Networks (ICCSCN 2010) ISSN: 2070-3740 & ISSN:2070-3724, 25<sup>th</sup> -27<sup>th</sup> August 2010, Conducted by WASET at Singapore.

[12] Noise Estimation for Speech Enhancement in Non-stationary Environments-A New Method, International Conference on Signal & Image Processing (ICSIP 2010), ISSN: 2070-3740 & ISSN:2070-3724, 25<sup>th</sup> -27<sup>th</sup> August 2010, Conducted by WASET at Singapore.

[13] PHY Abstraction for MIMO Based OFDM Systems, International Conference on Advances in Computing and Communications, 22<sup>nd</sup> -24<sup>th</sup> July 2011, Kochi, India.

[14] Reduction of Inter Carrier Interference by Pilot Aided Self Cancellation Compared to Self Cancellation Method, International Conference on Advances in Computing and Communications, 22<sup>nd</sup> -24<sup>th</sup> July 2011, Kochi, India.

[15] A novel two stage single channel speech enhancement technique, Dec 2011, BITS, Hyderabad.

[16] A novel approach for joint estimation of CFO, I/Q imbalance and channel estimation for MIMO-OFDM systems using training sequences, International conference Net Com-3.0, January 2012, AIRCC Bangalore.

[17] Anitha Sheela, Gauhar Fathima et al Extending the life time of Wireless sensor networks based on Neural Network & Fuzzy Logic, International Conference on Mathematical Modelling & Applied Soft Computing, Coimbatore India, July 11-13, 2012.

[18]Face recognition using DWT and eigenvectors, M. Koteswara Rao, K. Veera swamy, K. Anitha Sheela, International Conference on Emerging Technology Trends in Electronics, Communication and Networking, NIT Gujarat, 2012,pp 1-4.

[19]Syeda Gauhar Fatima, Dr. Syed Abdul Sattar and Dr.K.Anitha sheela, "A Comparitive Study Of Energy Efficient Algorithms For Wireless Sensor Networks ", RITS International Conference On Advancements in Engineering & Management (ICAEM-2012), 28 & 29 Feb 2012.

[20]G.V.R. Sagar and Dr. K. Anitha Sheela "Optimization of Architecture Design in Artificial Neural Network", International Conference on Emerging Trends in Computer Science and Engineering (ICETCSE 2013), www.warse.org, ISBN 978-93-5137-160-1, pp. 1 - 7, Mysore, India, December 2013.

[21]Sandhya Rachamalla and Anitha Sheela ," Routing Protocols for Wireless Sensor Networks- A survey", Proceedings of 7th International Conference on Communications and Information Technology (CIT'13), Cambridge, MA, USA, Jan 30 – Feb 1, 2013, pp 96 – 101.

[22]Mohan Dholvan, Dr. Anitha Sheela Kancharla "IETE ZONAL SEMINAR-CUM-NATIONAL SYMPOSIUM" on "Speech & Image Processing and its Application" 29th – 30th March -2014. [23]Sandhya Rachamalla and Anitha Sheela Kancharla, "Power-control Delay-aware Routing and MAC protocol for Wireless Sensor Networks", Proceedings of 2015, IEEE 12th International Conference on Networking, Sensing and Control, Taipei, Taiwan, April 9-11, 2015, pp 527-532.

#### <u>2016-2017:</u>

[24] P. Sudhakar, K. Anitha Sheela, M Satyanarayana "Optimization of Dual Wavelength Optical Radar for Measurement of Aerosols" First International Conference on Recent Innovations in Engineering and Technology (ICRIEAT-2016), ISBN:978-1-5396-2645-9

[25] P Sudhakar, K. Anitha Sheela and M Satyanarayana "Estimation of overlap function of Elastic Backscatter laser radar system", *The National Space Science Symposium* (*NSSS*) -2016, Vikram Sarabhai Space Centre, Dept. of Space, Govt. of India, ISRO, Thiruvananthapuram (Published in book of abstracts)

[26] Sandhya Rachamalla and Anitha Sheela Kancharla, "Adaptive Routing mechanism for Real-time Wireless Sensor Networks based on Two-hop information", Proceedings of ICICCD-2016(International Conference on Intelligent Communications, Control and Devices-2016), UPES, India, April 2- 3, 2016, pp 4

[27] Sandhya Rachamalla and AnithaSheela Kancharla, "A two-hop based adaptive routing protocol for real-time wireless sensor networks", Journal: SpringerPlus, DOI:10.1186/s40064-016-2791-3,Vol 5(1), pp 1-12. (IF : 0.982), July 2016

[28]Mohan Dholvan, Dr. Anitha Sheela Kancharla "Performance Evaluation of ASR using Sphnix-3 / Pocket Sphnix", 3rd IEEE International Conference on Electronics and Communication System (ICECS - 2016) ISBN: 978-1-4673-7831-4, 25th - 26th February, 2016

[29]Mohan Dholvan, Dr. Anitha Sheela Kancharla "Automatic Speech Recognition System using CMU's Sphinx on Linux: Overview", National Conference on Emerging Trends in Electronics and Computer Applications (NCETECA)" 20th - 21st October, 2016

[30]Mohan Dholvan, Dr. Anitha Sheela Kancharla "Effect of Narrowband Wideband Codecs on Voice over Internet Protocol", National Conference on Emerging Trends in Electronics and Computer Applications (NCETECA)" 20th - 21st October, 2016.

[31]Rudresh M D, H.S. Jayanna, K. Anitha sheela .: "Person Specific Characteristic Analysis Time domain Techniques for ECG Signals". IEEE International Conference on Recent trends Electronics, information & Communication Technology May 20-21, 2016, Bengaluru, Karnataka, India

[32] P. Sudhakar, K. AnithaSheela, M Satyanarayana "Lidar Studies on Atmospheric Aerosols at a Semi-Urban Station Cheeryal (17.51° N, 78.62° E) near Hyderabad, India with Range DependantLidar Ratio" *38th Asian Conference on Remote Sensing (ACRS 2017), to be held during October 23-27, 2017, New Delhi, India.* 

[33] P. Sudhakar, K. AnithaSheela, M Satyanarayana "Studies on noise and signal to noise ratio improvements for an in house developed Mie Lidar" *38th Asian Conference on Remote Sensing (ACRS 2017), to be held during October 23-27, 2017, New Delhi, India.* 

[34] P. Sudhakar, K. Anitha Sheela, M Satyanarayana, "Laser Radar Signal Processing for Measurement of Chemical and Biological Agents" 2017 IEEE International Conference on Advanced Computing and Communication Systems (ICACCS -2017), Jan. 06 – 07, 2017, Coimbatore, IEEE ISBN No. 978-1-5090-4558-7

[35] P. Sudhakar, K. Anitha Sheela, M Satyanarayana, "Imaging Lidar System for Night Vision and Surveillance Applications" 2017 IEEE International Conference on Advanced Computing and Communication Systems (ICACCS -2017), Jan. 06 – 07, 2017, Coimbatore, INDIA, IEEE ISBN No. 978-1-5090-4558-7

[36]Rudresh M D, H.S. Jayanna, K. Anitha sheela .: "ECG Significances in Person Authentication using Vector Quantization". IEEE International Conference on Electrical, Electronics, Communication, Computer and Optimization Techniques(ICEECCOT) Dec-15-16, 2017,Mysuru, Karnataka, India pp. 978-1-5386-2361-9/17.

[37]Rudresh M D, H.S. Jayanna, K. Anitha sheela .: "Low Cost Data Acquisition System for ECG" National Conference on Electronics, Signals & Communication (NCESC-17), May-29, 2017, GSSSIETW, Mysuru., pp. 132.

#### <u>2018-2019:</u>

[38] Dr. K. Anitha Sheela, Koteshwar rao et al Advanced Machine Learning Disciminant Analysis, 2<sup>nd</sup> International Conference on I-SMAC-2018, pp-609-613, 16<sup>th</sup>-17<sup>th</sup> May 2018.

[39]Dr. K. Anitha Sheela, Modified Local Binary Pattern and Scale Invariant Feature Transform For Face Recognition, International Conference on Inventive Computation Technologies(ICICT-2018, pp-392-396, 2018

[40] Dr. K. Anitha Sheela, Implementation Of Cloud Server For Real Time Information Using Raspberry Pi- Node MCU, International Conference on Communication and Advanced Computing (ICOCAC-2018), 20<sup>th</sup>- 21<sup>st</sup> December 2018.

[41]Rudresh M D, H.S. Jayanna, K. Anitha sheela .: "Variant of Cepstral features for Processing ECG signal in person identification task ". IEEE International Conference on Electrical, Electronics, Communication, Computer and Optimization Techniques(ICEECCOT) Dec-14-15, 2018,Mysuru, Karnataka.

[42] Dr. K. Anitha Sheela, Mishra et al Improved Compact Nonlinear Modeling of DC I-V Characteristics of MESFETS, IEEE International Conference on Vision towards Emerging Trends in Communication And Networking(ViTECoN-19), 30th-31st March, 2019.

[43]Dr. K.Anitha Sheela, Emotion Recognition from Facial Biometric System Using Deep Convolution Neural Network(D-CNN), , NSC-2019, 43rd National Systems Conference on Innovative and Emerging Trends in Engineering Systems, December 6th -8th, 2019 in association with Systems Society of India at IIT, Roorke

[44] Dr. K.Anitha Sheela, P Sudhakar, Optimization of Cloud seeding Criterion using a suite of Ground based Instruments, International Conference on Communications, Signal Processing and VLSI (IC2SV)-2019 at NIT Warangal, On 16th August 2019

[45] Dr. K.Anitha Sheela, Anil Kumar Ch., Emotion Recognition from Speech Biometric system using Machine Learning Algorithms International Conference on Communications, Signal Processing and VLSI (IC2SV)-2019 at NIT Warangal, On 16th August 2019

[46] Rudresh M D, H.S. Jayanna, K. Anitha sheela .: "Development of ECG Data Acquisition System and Analysis based on for Hilbert-Huang Transform" 3rd National Conference on Robotics, Automation, control and Embedded Systems (NCRACES-19), May-10, 2019, GSSSIETW, Mysuru., pp. 86.

20