CURRICULUM VITAE

PROF (DR.) RAJ KUMAR GOSWAMI

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EDUCATIONAL QUALIFICATIONS (TECHNICAL):

<u>S.</u> <u>No</u>	COURSE	BRANCH/SPECIALISATION	INSTITUTE/UNIVERSITY	MONTH &
No				YEAR
1	Ph.D	ECE	Andhra University,	2011
			Visakhapatnam	
2	M.Tech	Radar & Communication	IIT Delhi	1998
3	B.E	Electrical	Naval College of Engeneering,	1992
			INS Shivaji, Lonavla	

EDUCATIONAL QUALIFICATIONS (MANAGEMENT):

S.No	COURSE	INSTITUTE/UNIVERSITY	MONTH &
			YEAR
1	Advanced Course in Management	AIMA, New Delhi	2013
2	Masters in Management Studies	Osmania University, Hyderabad	2013
3	Masters Diploma in Business Administration	IIMM, Pune	2004
4	Masters Diploma in Personnel Management & HRD	SIMS, Pune	1998

EDUCATIONAL QUALIFICATIONS (OTHERS):

<u>S. No</u>	COURSE	INSTITUTE/UNIVERSITY	Month & Year
1	Six Sigma Black Belt Professional	Vskills India	2020
2	Certfied ERP Manager	Vskills India	2020
3	MD(Alternatice Medicines)	IBAM Kolkata	2014
4	IPMA Level 'D' Certification	IPMC, India	2013
5	Higher Defence Management Course	College of Defence	2013
		Management, Secunderabad	
6	Certified Ethical Hacker	EC Council USA	2008
7	Technical Management Course	Naval War College, Mumbai	2005
8	Diloma in Computer Applications	Datamatics Corporation, Mumbai	1997

TITLE OF PH.D THESIS: Development of Suitable Forward Error Correction Schemes in Respect of Underwater Channel for Reliable Transfer of Extracted Features of Detected Objects from the Images Received from the Forward Looking Sonar Mounted on AUV

MEMBERSHIP OF INTERNATIONAL/NATIONAL SCIENTIFIC INSTITUTIONS:

- 1. Fellow of **IE**(**India**) (F-116803-3)
- 2. Fellow of **IETE**, **New Delhi** (F-149773)
- 3. Fellow of IMEI, Mumbai (F-29847)
- 4. Senior Member of IEEE, USA (SM-92082347)
- 5. Senior Member of Computer Society of India (1125613)
- 6. Senior Member of UACEE (SNM1005343)
- 7. Member of AIMA New Delhi (M-200711069)
- 8. Member of Aeronautical Society of India (M-20234)
- 9. Member of **IIIE** (LM 9060)
- 10. Member of **IAENG** (129995)

Research project completed:

1. Design and Development of Algorithm for HF Modem at IIT Delhi

INVITED TALKS DELIVERED :

- 1. Vignan Institute of Information Technology, Visakhapatnam
- 2. Aditya Institute of Technology and Management, Tekkadi, Srikakulam
- 3. Anil Neerukonda Institute of Technology and Sciences, Visakhapatnam
- 4. Andhra University College of Engineering (Autonomous), Visakhapatnam
- 5. Indian Maritime University, Visakhapatnam

HOBBIES & GAMES:

- 1. Reading Technical Books
- 2. Making Electronic Projects
- 3. Develop software
- 4. Plays, Volleyball, Badminton and Carrom

RESEARCH PUBLICATIONS

(INTERNATIONAL / NATIONAL JOURNALS / CONFERENCES)

- RK Goswami, A Kumar and Rajender Bahl, Performance of a Bispectrum Based Detector of Quadratically Phase Coupled Signals, Proc. Intl. Conf. on Sonar-sensors and systems (ICONS – 2002) Vol –I pp 343-350, 2002
- 2. G. Sasibhushana Rao and R Goswami, "Ionospheric delay estimation for improving the Global Positioning System Position Accuracy", IETE Journal of Research, Vol 54 No. 1, January-February 2008.
- 3. V B S Srilatha Indira Dutt, G. Sasi Bhushana Rao, S. Swapna Rani and Rajkumar Goswami, "Investigation of GDOP for Precise user Position Computation with all Satellites in view and Optimum four Satellite Configurations", Journal of Indian Geophysics Union, Govt. of India, Vol. 13, No. 3, pp. 107-116, July 2009.

- 4. Bharathi Bidikar, G. Sasibhushana Rao, Rajkumar Goswami, L. Ganesh, M. Santosh, "A Novel SET Estimation Algorithm for Precise Geosynchronous Orbital Solutions", IEEE INDICON, Pune, India, 11th -13th Dec 2014. (IEEE Digital Xplore, DOI: 10.1109/INDICO N.2014.7030413).
- 5. G Sasi Bhushana Rao, Rajkumar Goswami and M N V S S Kumar, "A Fast Computing Vertical Handoff Algorithm Based on Dynamic New Call Blocking Probability", ARCNET-2013, NSTL(DRDO), Visakhapatnam, September, 2013.
- G Sasi Bhushana Rao, Rajkumar Goswami, A Sarvani, "A New GPS Signal Detection Algorithm for Urban Canyons and Low Satellite Visibility Environments", Advances in Communication, Navigation and Computer Networks (ACNCN-2012), March 17th – 12th, 2012
- 7. G Sasibhushana Rao, RajKumar Goswami, M N V S S Kumar, Deva Prasad S and S. Swapna Rani "Proposed 16 Bit CRC Algorithm for Error Detection and Correction Scheme for Reliable Transmission of Underwater SONAR data", International Conference on Machine Intelligence Application to Power, Signal Processing, Communication and Control, MIPSCCON-2011, on 7th 9th April, 2011.
- G Sasibhushana Rao, RajKumar Goswami, M N V S S Kumar, Deva Prasad S and S. Swapna Rani "Calculation of Aspects of Underwater Objects in 3Dimensions from 2D Sonar Images", International Conference on Machine Intelligence Application to Power, Signal Processing, Communication and Control, MIPSCCON-2011, 7th -9th April, 2011.
- 9. G Sasi Bhushana Rao, G. Sateesh Kumar and Rajkumar Goswami, "GPS Navigation Data error correction: A Comparison of existing (15,11) Hamming with a new design using 1/3 8 state Convolutional Code", IJERA, 2011.
- 10. G Sasi Bhushana Rao, G. Sateesh Kumar, Rajkumar Goswami and M N V S S Kumar, "GPS Satellite Transmitted Signal SNR modeling over Low Latitude Region for Aircraft Navigation", International Journal of Advanced Engineering Sciences and Technologies, 2011.
- 11. G Sasi Bhushana Rao, G. Sateesh Kumar, Rajkumar Goswami and M N V S S Kumar, "GPS Satellite transmitted Spread Spectrum codes SNR modeling over the Indian Subcontinent for Precise Positioning Applications", IEEE TENCON 2011.
- 12. G Sasi Bhushana Rao, M N V S S Kumar, S Deva Prasad, Rajkumar Goswami, S P Setty, Niranjan Prasad, S Swapna Rani, Manu Korulla and G Hemanth Kumar "Extraction of 3D Information from 2D Underwater SONAR Images", IISA Conference, Visakhapatnam, Andhra University, India January 4th -8th 2010.
- 13. G Sasi Bhushana Rao, Rajkumar Goswami, S Swapna Rani, Mrudula, S Deva Prasad, M N V S S Kumar, V B S Srilatha Indira Dutt and G Hemanth Kumar "Feature Extraction from the Ocean Acoustic Noise Using Higher Order Spectrum Analysis" IISA Conference, Visakhapatnam, Andhra University, India January 4th -8th 2010.
- 14. Rajkumar Goswami, S Swapna Rani, G Sasi Bhushana Rao, U Anusha, M Nagamani, K. Satya Prasad, M N V S S Kumar, S Deva Prasad, T Madhavi, M Rajan Babu and S P Setty "A New Image Processing Segmentation Algorithm for Navigation and Guidance of an Underwater Robot" IISA Conference, Visakhapatnam, Andhra University, India January 4th -8th 2010.
- 15. Rajkumar Goswami, G Sasi Bhushana Rao, and Vinod Naik Bhukya "Analysis of Impact of Change of States on Implementation of Rate 1/3, 8 PSK TCM Scheme in Digital Communication over AWGN Channel" IISA Conference, Visakhapatnam, Andhra University, India, January 4th -8th 2010.
- 16. S Swapna Rani, U Anusha, G Sasi Bhushana Rao, Rajkumar Goswami, M Nagamani, M N V S S Kumar, S Deva Prasad, S Neeraja, Ch Rajasekhar and V Siva Bhaskara Rao "Performance Analysis of Linear and Nonlinear Spatial Filters for Noise Reduction in Image Processing" IISA Conference, Visakhapatnam, Andhra University, India January 4th -8th 2010.

- 17. G. Sasibhushana Rao, AVNS Mrudula, Rajkumar Goswami, G Hemanth Kumar, S Deva Prasad and M N V S S Kumar "Statistical Analysis of Underwater Acoustic Signal in the presence of Gaussian and Colored Noise" 2nd International conference on RF and Signal Processing Systems 2010, RSPS-2010, K L University, Vijayawada, India, 7th- 9th January 2010.
- 18. G. Sasibhushana Rao, , Rajkumar Goswami, , S Deva Prasad, M N V S S Kumar Ch Uma, U Anusha and M Nagamani "Extraction of 3-Dimensional parameters by analyzing Underwater Images obtained from SONAR fitted on Autonomous Underwater Vehicle (AUV) "2nd International conference on RF and Signal Processing Systems 2010, RSPS-2010, K L University, Vijayawada, India, January 7th 9th 2010.
- 19. G. Sasibhushana Rao, Rajkumar Goswami, S Deva Prasad, M N V S S Kumar V B S Srilatha Indira Dutta and S. Swpana Rani "Centroid Based Tracking of multiple objects using the images received from imaging Sonar", 2nd International conference on RF and Signal Processing Systems 2010, RSPS-2010, K L University, Vijayawada, India, January 7th- 9th 2010.
- 20. Rajkumar Goswami, G Sasi Bhushana Rao and Vinod Naik Bhukya, Swapna Rani "Design of Turbo Coding Scheme based on Serially Concatenated Rate 1/3, 16 States Convolutional Codes" 2nd International conference on RF and Signal Processing Systems 2010, RSPS-2010, K L University, Vijayawada, India, January 7th – 9th 2010.
- 21. G Sasi Bhushana Rao, M N V S S Kumar, S Deva Prasad, Rajkumar Goswami, S Swapna Rani, M. Nagamani and S. Neeraja "Analysis of SONAR Images to Extract 3Dimensional Parameters" International Conference on Aerospace Electronics, Communications and Instrumentation ASECI-2010, V.R. siddhartha engineering college, Vijayawada, India, 6th 7th, 2010.
- 22. G Sasi Bhushana Rao Rajkumar Goswami, S Swapna Rani, U Anusha, S P Setty and D J R K Kumar "Development of algorithm for tracking multiple targets in the images received from Sonar for obstacle avoidance in respect of safe navigation of AUV" International Conference on Aerospace Electronics, Communications and Instrumentation ASECI-2010, V.R. siddhartha engineering college Vijayawada, India, 6th 7th, 2010.
- 23. G. Sasi Bhushana Rao, Rajkumar Goswami, S. Deva Prasad, M N V S S Kumar and S. Swapna Rani, "Extraction of 3-Dimensional Features by Analyzing Underwater Images obtained from SONAR fitted on Autonomous Underwater Vehicle (AUV)", CIIT International Journal of Digital Image processing (ISSN 0974-9691), Vol.2, No.2, February 2010. pp 25-30
- 24. G. Sasi Bhushana Rao, Rajkumar Goswami, S Deva Prasad, S Swapna Rani and M N V S S Kumar "Extraction of 3-Dimensional Features by Analyzing Underwater Images obtained from SONAR fitted on Autonomous Underwater Vehicle (AUV)", CIIT International Journal of Digital Image Processing, Volume 2, No.2, February 2010.
- 25. G. Sasi Bhushana Rao, Rajkumar Goswami, S Deva Prasad, S Swapna Rani and M N V S S Kumar "Segmentation of Sonar Images based on Adaptive Thresholding with Image Histogram", published in CIIT International Journal of Digital Image Processing, Volume 2, No.3, March 2010.
- 26. G. Sasi Bhushana Rao and Rajkumar Goswami, "Design of Turbo Coding Scheme based on Serially Concatenated Convolutional Codes for Fading Channel", International Journal of Multidisplinary Research and Advances in Engineering (IJMRRAE)ISSN 0975-7074, Vo.2, No. I, pp 383-393, April 2010.
- Prof. G. Sasi Bhushana Rao, D Eswara Chaitanya, Ch Vasavi Sridevi and Rajkumar Goswami "BER Efficient OFDM for Underwater channel communication", International conference on Mobile Internet Devices, ICMID – 2010, Hyderabad, December 17th -18th 2010.

- 28. Rajkumar Goswami, G Sasi Bhushana Rao "Turbo Coding Scheme based on Serially Concatenated Rate 3/4, 16 States Convolutional Codes for fading channel" International Journal of Wireless Communication, Vol.1, No.6, September 2009.
- 29. Rajkumar Goswami, G Sasi Bhushana Rao, et.al., "Implementation of Rate of 1/3, 8-state, 8-PSK TCM Scheme to improve the BER of GPS Signal", International Symposium on Opportunities and Challenges facing aviation industry in Indian Subcontinent Organized by Vaughn College of aeronautics & Tech., USA, April 18th, 2009.
- 30. S Swapna Rani, Rajkumar Goswami, V B S Srilatha Indira Dutt, Manu Korulla, P K Panigrahi, Ch Sankar Rao, Manesh A and G. Sasi Bhushana Rao, "Kalman Filter based Surveillance using Imaging Sonar Data for Underwater Robot Application", IETE Journal of Research (Accepted)
- 31. Rajkumar Goswami, G Sasi Bhushana Rao, Vinod Naik Bhukya and Kancharana Harini, "Design and Implementation of Trellis Coded Modulation Scheme to improve the BER of GPS Signal", ION GPS 2009 International Syposium, North Korea, 2009.
- 32. G Sasi Bhushana Rao, M N V S S Kumar, S Deva Prasad, Rajkumar Goswami, Y Ravi Kumar, P Mallikarjuna Rao, KVVS Reddy, S Swapna Rani, Manu Korulla and G Hemanth "2D to 3D Conversion of Underwater Images obtained from SONAR fitted on Autonomous Underwater Vehicle (AUV)", National Symposium on acoustics NSA 2009, RCI, Hyderabad November 26th -28th, 2009
- 33. G Sasi Bhushana Rao, M. Nagamani, S Swapna Rani, M N V S S Kumar, S Deva Prasad, Rajkumar Goswami, K. Satya Prasad, Ch Venkata Rao "A New Image Segmentation Thresholding Technique for Precise processing of Sector Scan SONAR images" National Symposium on acoustics – NSA 2009, RCI, Hyderabad, November 26th -28th, 2009.
- 34. Rajkumar Goswami, G Sasi Bhushana Rao, Y Ravi Kumar, VBS Srilatha Indira Dutt, P Mallikarjuna Rao and G Hemanth Kumar "Higher order spectrum analysis of acoustic emissions radiated from ship" National Symposium on acoustics NSA 2009, RCI, Hyderabad, November 26th -28th 2009.
- 35. G Sasi Bhushana Rao, Rajkumar Goswami, M N V S S Kumar, S Deva Prasad, Ch. Rajasekhar, Ch. Venkata Rao and S Swapna Rani "Conversion of underwater 2d sonar images to 3d" National Conference on Advances in Signal processing 2009, NCASP-2009, Andhra University, India, 20th - 21st November 2009.
- 36. Rajkumar Goswami, G Sasi Bhushana Rao, Vinod Naik Bhukya and Swapna Rani, "Design of 16 State Rate 3/4 TCM Code for fading Channel', National Conference on Advances in Signal processing 2009, NCASP-2009, Andhra University, India, 20th - 21st November 2009.
- 37. G Sasi Bhushana Rao, S Swapna Rani, U Anusha, Rajkumar Goswami, Ch. Rajsekhar and V B S Srilatha Indira Dutt "Investigation of a Suitable Under Water Signal Processing Algorithm for Optimal Noise Reduction" National Conference on Advances in Signal processing 2009, NCASP-2009, Andhra University, India, 20th - 21st November 2009.
- 38. G Sasi Bhushana Rao, Rajkumar Goswami, M N V S S Kumar, S Deva Prasad, M Nagamani and S Swapna Rani, "Calculation of Aspects of Underwater Objects in 3Dimension from 2D Sonar Images" IEEE INDICON 2009, IEEE Gujarat Section, Ahmedabad, India 18th -20th December 2009.
- 39. G Sasi Bhushana Rao, M. Nagamani, S Swapna Rani, M N V S S Kumar, S Deva Prasad, Rajkumar Goswami, K. Satya Prasad, Ch Venkata Rao "Segmentation of sonar images using adaptive thresholding mehod" IEEE INDICON 2009, IEEE Gujarat Section, Ahmedabad, India 18th -20th December 2009.
- 40. G Sasi Bhushana Rao, Rajkumar Goswami, S Swapna Rani, M N V S S Kumar, and S Deva Prasad, 2D to 3D Conversion of Underwater Images obtained from SONAR fitted on Autonomous Underwater Vehicle (AUV)" IEEE TENCON 2009, IEEE Singapore, 23rd 26th November, 2009.

- 41. S Swpna rani, G Sasi Bhushana Rao and Rajkumar Goswami, "Tracking the objects in the images received from imaging Sonar of Autonomous Underwater Vehicle", ICFAI University Journal of Telecommunications, November 2009.
- 42. G. Sasi Bhushana Rao, Rajkumar Goswami "Turbo Coding Scheme based on Serially Concatenated Rate ³/₄ State Convolutional Codes for Fading Channel", published in CIIT International Journal of Wireless Communication, Volume 1, No.6, September 2009.
- 43. G. Sasi Bhushana Rao, Rajkumar Goswami, S Swapna Rani "Tracking of Objects in the Images Received from Imaging Sonar of Autonomous Underwater Vehicles (AUVs)", published in The Icfai University Journal of Telecommunications, Vol.1, No.2, November 2009.
- 44. Rajkumar Goswami, S P Setty, KVNM Prasad, V Venkata Rao, S Swapna Rani, A L Siridhara and G Sasibhushana Rao, "A New Method of Synchronisation Scheme Based on Bi-Spectrum Analysis", Proceedings of IEEE International Conference on RF and Signal Processing Systems, Vijawada, A.P, India., February 1st -2nd 2008.
- 45. S. Swapna Rani, M. Nagamani, P. Swathi, G Sasibhushana Rao, Rajkumar Goswami, Ch Rajasekhar, TVB Phanikumar and A L Siridhara, "Object Tracking Using Kalman Filter", National Conference on Signal Processing & Communication Systems (NCSPCS 2008), R.V.R. & J.C. College of Engineering, February 20th -21st, 2008.
- 46. S Swapna Rani, M. Nagamani, G Sasibhushana Rao, Rajkumar Goswami, TVB Phanikumar, A L Siridhara Ramalakshmi, Ch Rajasekhar and A. Nagaraju, "Ambiguity Resolution Technique using smoothed code GPS Measurements", National Conference on Signal Processing & Communication Systems (NCSPCS 2008), R.V.R. & J.C. College of Engineering, February 20th -21st, 2008.
- 47. G Sasibhushana Rao, Rajkumar Goswami, M. Nagamani¹, SV Karthik¹, B. Deepak¹, Swarna Ravindra Babu², and Rajasekhar, "Estimation of Motion Parameters", National Conference on Signal Processing & Communication Systems (NCSPCS 2008), R.V.R. & J.C. College of Engineering, February 20th -21st, 2008.
- 48. A L Siridhara, Rajkumar Goswami, S Swapna Rani, A Nagaraju and G Sasibhushana Rao, "Synchronization in Communication Systems Using Third Order Spectrum Analysis", National Conference on Signal Processing & Communication Systems (NCSPCS 2008), R.V.R. & J.C. College of Engineering, February 20th -21st, 2008.
- 49. Rajkumar Goswami, G Sasi Bhushana Rao, Rajan Babu and Ravindra Babu, 8 State Rate 2/3 TCM Code Design for Fading Channel", Proceedings of IEEE Conference & Exhibition on Control, Communication and Automation, IIT Kanpur, India, 11th -13th December, 2008.
- 50. Rajkumar Goswami, Prof. G. Sasi Bhushana Rao and M. Rajan Babu, "A Comparison of 8 state rate 2/3 TCM Scheme With 8 State Rate 4/6 MTCM (multiplexity-2) mtcm for fading channel", National Symposium on Instrumentation (NSI-33), Andhra University, Visakhapatnam, 8th -10th December 2008.
- 51. Swapna Rani, G Sasi Bhushana Rao and Rajkumar Goswami, "Tracking the objects based on Centroid, "National Symposium on Instrumention (NSI-33)", Andhra University, Visakhapatnam, 8th -10th December 2008.
- Rajkumar Goswami, G. Sasi Bhushana Rao, S. Swapna Rani and M Nagamani, Segmentation Methods of the Sonar Images – A comparison, "National Symposium on Instrumentation (NSI-33)", Andhra University, Visakhapatnam, 8th -10th December 2008.
- 53. S Swapna Rani, Rajkumar Goswami, V B S Srilatha Indira Dutt, Manu Korulla, P K Panigrahi, Ch Sankar Rao, Manesh A and G. Sasi Bhushana Rao, "Kalman Filter based Surveillance using Imaging Sonar Data for Underwater Robot Application", IETE Journal of Research.
- 54. G. Sasibhushana Rao, P.V.S. Rama Rao and Rajkumar Goswami, "Signal to Noise Ratio Power Analysis of GPS Aided GEO Augmented Navigation (GAGAN)", International beacon Satellite Symposium 2007, IBSS 2007, BOSTON, USA, 11th -15th June 2007.

- 55. G. Sasibhushana Rao, Rajkumar Goswami D.S Vijayakumar, A Laxmana Sridhara and Ch. Rajasekhar "Design Issues of GPS and INS integration", IETE Zonal seminar, AU, Visakhapatnam, February 10th –11th 2007.
- 56. G. Sasibhushana Rao, Rajkumar Goswami and S Ravi Babu "Wavelet Multiresolution Analysis for GPS and INS integration", IETE Zonal seminar, Andhra University, Visakhapatnam, February 10th –11th 2007.
- 57. Rajkumar Goswami, M. Nagamani¹, V. Visalakshmi and P Swati, Swarna Ravindra Babu, KVVS Reddy and G Sasi Bhushana Rao, "Feature Extraction of Objects from Sound Navigation and Ranging (SONAR) Images for Obstacle Avoidance", GNSS Conference 2007, Osmania University, Hyderabad. 25th -26th October 2007.
- 58. Rajkumar Goswami, M. Nagamani¹, V. Visalakshmi and P Swati, Swarna Ravindra Babu, G Sasi Bhushana Rao and KVVS Reddy "A New Method of Tracking the Objects Using the Color Images Received from Imaging SONAR", GNSS Conference 2007, Osmania University, Hyderabad 25th -26th October 2007.
- 59. Rajkumar Goswami, Swarna Ravindra Babu and G Sasi Bhushana Rao and KVVS Reddy Trellis Coded Modulation (TCM) Design for fading channel in Digital Communication", GNSS Conference 2007, Osmania University, Hyderabad. 25th -26th October 2007.
- 60. G Sasi Bhushana Rao, KVVS Reddy, P Rajesh Kumar, Rajkumar Goswami, Swarna Ravindra Babu and Ch Rajasekhar, "Precise Positioning using GPS for Marine Environment by countering Multipath effect with Wavelet Analysis", GNSS Conference 2007, Osmania University, Hyderabad, 25th -26th October 2007.
- 61. G. Sasibhushana Rao, Rajkumar Goswami, S.V.V. Prasad, M.V.K. Sai ^{and} L.S.R. Mohan Rao Ionospheric, "Error Correction Models for GAGAN", National Conference on Advanced Communication Technologies (ACT-06), Andhra university, Visakhapatnam, 8th -9th December. 2006.
- 62. G. Sasibhushana Rao, L.S.R. Mohan Rao, S.V.V. Prasad and Rajkumar Goswami, "Error Sources of Indian Satellite Based Navigation System", National Conference on Advanced Communication Technologies (ACT-06), Andhra university, Visakhapatnam, 8th -9th December,2006.
- 63. Rajkumar Goswami "Use of Internet for increasing Industrial Productivity", National Conference on Leveraging IT for Industrial Productivity, Sep 11- Sep 13th 2007, NSTL Visakhapatnam
- 64. Nagamani Modalavalasa, K Satya Prasad, S Swapna Rani, G Sasibhushana Rao, Rajkumar Goswami, "A quantitative evaluation of various spatial filters for underwater sonar images denoising application", Annals of Faculty Engineering Hunedoara International Journal of Engineering, Tome X (Year 2012) Fascicule (ISSN 1584-2665) pp 47 51
- 65. M.N.V.S. S Kumar, G. Sasibhushana Rao, Rajkumar Goswami, "Analysis of CHIRP Technology SONAR Mounted on AUV", International conference on Advances in Signal Processing and Communications-2K14 (NECICASPC-2K14), July 2014.
- 66. D.Eswara Chaitanya, M.N.V.S.S Kumar, G. Sasibhushana Rao, Rajkumar Goswami, "Convergence Issues of Taylor Series Method in Determining Unknown Target Location Using Hyperbolic Multilateration", ICSEMR, November 27-29, 2014. (IEEE Digital Xplore, DOI:10.1109/ICSEMR.2014.7043670).
- 67. Bharati Bidikar, Sasibhushana Rao G, Rajkumar Goswami, Jhansi Rani K, "Signal Emission Time Effect on Orbital and Navigation Solutions for Precise Applications", IEEE International conference, ICSEMR 2014, Chennai, Tamilnadu, India, Nov 27-29, 2014.
- 68. Ganesh Laveti, G. Sasibhushana rao, M.N.V.S.S. Kumar, Rajkumar Goswami, D. Eswara Chaitanya, "A Novel TOA Measurement Based Global Evolutionary Search Estimator for

Defence Applications", IEEE International Conference EESCO-2015, Visakhapatnam, Andhra Pradesh, 24th – 25th Jan 2015, PP:1835-1838.

- 69. Ganesh Laveti, M.N.V.S. S Kumar, D. Eswara Chaitanya, Rajkumar Goswami, G. Sasibhushana Rao, "Performance Analysis of Least Squares SVD and QRD Algorithms for GPS Position Estimate", TJPRC: Journal of Power Systems and Microelectronics, Vol.1, Issue 1, pp.13-19, Dec-2015
- 70. Ganesh Laveti, M.N.V.S.S Kumar, D.Eswara Chaitanya, Rajkumar Goswami, G.Sasibhushana Rao, "Investigation of Suitable Position determination Algorithm for GPS Application", Second National Conference on Power Systems (NCPS-2015), Andhra University, Visakhapatnam, India.
- 71. Shaik Fayaz Ahamad, L. Ganesh, Rajkumar Goswami, G. Sasibhushana Rao, "Fast Acquisation of GPS Signal using Radix-2 and Radix-4 FFT", IEEE International Advance Computing Conference, SRKR Bhemavaram, pp: 674-678, ISBN 978-1-4673-8286-1, Feb-2016. (IEEE Digital Xplore).
- 72. M N V S S Kumar, G. Sasibhushana Rao, L. Ganesh, Rajkumar Goswami, "Expectation-Maximization based image fusion algorithm for detection of Underwater targets from SONAR images", Elsevier International Conference on Computational Modeling and Security, Bangalore, pp: 762-769, Feb-2016.
- 73. Shaik Fayaz ahamed, Ganesh Laveti, Rajkumar Goswami, G Sasibhushana Rao, "Fast Acquisition of GPS Signal using Radix-2 and Radix-4 FFT Algorithms", IEEE International Advance Computing Conference (IACC-2016). February 27-28, 2016. Organized by IEEE Computer Society India Council & S R K R Engineering College, Bhimavaram, India
- 74. S Sudharani, D Eswara Chaitanya, G Sasibhshana Rao, Rajkumar Goswami, "A survey on Applications of Multitrilatration in Civil Aviation", National Conference on Electric Power and Power Electronic Control Systems-2016, Visakhapatnam, India, May 6-7, 2016.
- 75. Ganesh Laveti, S Sudharani, G Sasibhushana Rao, Rajkumar Goswami, "Investigation of Various Position Measurement Techniques for Source Localization and Global Positioning", National Conference on Electric Power and Power Electronic Control Systems-2016, Visakhapatnam, India, May 6-7, 2016.
- 76. M N V S S Kumar, G. Sasibhushana Rao, L. Ganesh, Rajkumar Goswami, "Expectation-Maximization based image fusion algorithm for detection of Underwater targets from SONAR images", Elsevier Procedia Computer Science, Volume 85, 2016, Pages 782–789
- 77. Ganesh Laveti, G. Sasibhushana Rao, S. Sudha Rani, Rajkumar Goswami, "A Survey of measurement techniques for Localization and Positioning", International Journal of Power Systems and Microelectronics (TJPRC: IJPSM), Vol.2, Issue 2, pp:51-60, 2016
- 78. Rajkumar Goswami G. Rajeswara Rao G. Sasi Bhushana Rao Design of Rate 3/4, 16-States, 16-PSK, Trellis-Coded Modulation Code for AWGN Channel Intelligent Engineering Informatics pp 571-58011 April 2018
- 79. A V N S Mrudula, Rajkumar Goswami, G Hemanth Kumar, G. Sasibhushana Rao, S. Deva Prasad, M N V S S Kumar1 Statistical Analysis of Underwater Acoustic Signal in the presence of Gaussian and Colored Noise. International Journal of Systems and Technologies Vol.3, No.1, pp 147-157
- 80. T Sri Sudha, G Sasibhushana Rao, Raj Kumar Goswami Coverage and capacity determination of B3G Cellular System, International Conference of Recent Trends in Engineering and Sciences (IRTES) -2018, 20 -21 Feb 2018 by Confer Professional group of conferences Andhra Pradesh, India

LIST OF SEMINARS ETC., ATTENDED / CONDUCTED INTERNATIONAL /NATIONAL SYMPOSIUMS ORGANIZED

- 1. ACT- 06, Andhra University, 2006, Andhra University, Visakhapatnam
- 2. SECT-07 Andhra University, 2007, Andhra University, Visakhapatnam
- 3. National Symposium on Instrumentation (NSI-33), Andhra University, Visakhapatnam, 8-10th Dec 2008,
- 4. ACT-06 AU 2006, Andhra University, Visakhapatnam
- 5. NCASP 09, 2009, Andhra University, Visakhapatnam
- 6. Advances in Communication. Navigation and Computer Networks (ACNCN-2012), Andhra University, Visakhapatnam.
- Workshop on "MATLAB And It's Applications in Communications & Signal Processing", 12th & 13th November, 2011.
- 8. ASP.Net workshop by APTECH Computer Education
- 9. 95th Indian Science Congress Association, Andhra University, Visakhapatnam, ISCA-2008, January 3-7, 2008.
- IEEE International Conference on RF and Signal Processing Systems, Vijayawada, A.P, India., Feb 1-2nd 2008.
- 11. NSTL, DRDO, Visakhapatnam during 10-14th Dec 2007.
- 12. NCASP National Conference 09, Andhra University, Visakhapatnam, 20th 21st Nov 2009".
- 13. DRDO (NSTL), Visakhapatnam on 23-11-09.
- 14. NSTL, DRDO, Visakhapatnam during Jan 2008.
- 15. IEEE Conference, Bangalore
- 16. Advanced Communication Technologies (ACT), Andhra university, Visakhapatnam
- 17. IEEE conference & exhibition on Control, Communication and Automation, IIT Kanpur
- 18. IEEE International conference RACE 2008, Osmania University, Hyderabad
- 19. National Symposium on Instrumentation (NSI-33), Andhra University, Visakhapatnam
- 20. IISA Conference, Visakhapatnam, Andhra University
- 21. International conference on RF and Signal Processing Systems, RSPS, K L University, Vijayawada
- 22. National Conference on Advances in Signal processing, NCASP, Andhra University
- 23. Course on Spresd Spectrum, tech and Secure Communication by DRDO
- 24. Workshop on System Level Design and Modeling, IIT Delhi
- 25. National Workshop on National Security, Jamia Millia Islamia, New Delhi
- 26. Course on Contract Management in Govt and Semi Govt Organisation including Foreign Procurement
- 27. Awareness Program on Product Life Cycle management, IE Visakhapatnam Centre
- 28. Future Trends in Project Management, Tools and Techniques, A ProjectMI, Chennai
- 29. Congress on EPM Tools, JUMP Project Management Consultants, Chennai

I have approximately 30 years of experience in Navy at various appointments and have been instruemental in developing teams those are highly motivated and deliver high performance. I have been involved in streamlining the processes, setting up of new establishments, and shaping up the strategies. My focus has been on the long term development by keeping the big picture in mind. Post my M.Tech in Radar and Communication from IIT Delhi, I designed and developed algorithm for RF Modem to be used for Data Link in HF Band, which was based on the SHARC processor ADSP 21060 of Analog Devices. During Ph.D from Andhra University, Visakhapatnam, I was involved in various projects based on Image Processing and Tracking, which were going on in the department of ECE at that time. I have also conceptualized and implemented various software to improve the processes which has resulted in increasing the organizational efficiency. I am also well versed with the processes involved in procurement, inventory management, administration and human resource management and have also dealt in training, strategies, operations, planning, maintenance and building assets including heading technical/ support organizations.