

Project Work	In final BE I have designed General Purpose PID controller. This project is a hardware and software design of the PID controller. I have done this project for Power Build Ltd. Company.
H S C (10 + 2) (Science)	Gujarat Higher Secondary Education Board Percentage 75% May 1993.
S S C (10 th)	Gujarat Secondary Education Board Percentage 84% May 1991.
Skill Set : Languages	Fortran, C
GUI/Data Base	Oracle8i, developer 2K
Simulation Tool	MATLAB
Protocol	TCP/IP, SNMPv1, SNMPv2, SNMPv3.
OS	Windows, UNIX.
Assembly Language	8085 and 8086 Microprocessor. 80C51 Micro controller.

Publications Detail

International Journal papers

1. H.B.Soni, U.B.Desai, S.N.Merchant, "UWB-multi user performance of DS-CDMA based OFDM system under UWB channel model", International Journal of UWB communication systems(IJUWBCS), No-1, Vol-I, April 2009.
2. H.B.Soni, U.B.Desai, S.N.Merchant, "Low complexity RAKE receiver For TH based Multiuser UWB system with Realistic UWB Indoor Channel", International Journal of UWB communication systems(IJUWBCS), No-1, Vol. 2, Feb 2011.
3. H.B.Soni, U.B.Desai, S.N.Merchant, "Performance Evaluation of DS-CDMA based OFDM multiuser system for Ultra wideband (UWB) communication", International Journal on Advances in Telecommunications, USA (**Revised version of paper is under review**)
4. H.B.Soni, U.B.Desai, S.N.Merchant, "Performance Analysis of Multiuser DS-UWB system with Orthogonal and Non Orthogonal code under synchronous and Asynchronous transmission under UWB channel Model". International Journal on Advances in Telecommunications, USA, (**in press**)

International Conference papers

1. H.B.Soni, U.B.Desai, S.N.Merchant, "Mitigating Multi-user Interference (MUI) in Ultra wideband (UWB) system using DS-CDMA based OFDM, Proceeding of 15th European Signal Processing Conference (EUSIPCO-07), pp. 2035-2039, 3 - 7 Sept.07, Poznan, Poland. (Acceptance rate:~59%)
2. H.B.Soni, U.B.Desai, S.N.Merchant, Performance Evaluation of DS-CDMA based OFDM multiuser system for Ultra wideband (UWB) communication, Proceeding of 2nd International Conference on Digital Telecommunications (ICDT-07), 01-07 July 07, Santa Clara, CA, USA. (Acceptance rate:~28%)
3. H.B.Soni, U.B.Desai, S.N.Merchant, "Packet collision based Multiuser Interference (MUI) analysis for TH-PAM and TH-PPM Ultra Wideband (UWB) system" Proceeding of COMSWARE-08, pp 637-641, 6-10 Jan. 08, Bangalore, India. (Invited paper)
4. H.B.Soni, U.B.Desai, S.N.Merchant, "Performance Analysis of Multiuser DS-UWB system with Orthogonal and Non Orthogonal code under synchronous and Asynchronous transmission". International conference on wireless and mobile Communications (ICWMC-08), pp. 247-252, 27 July-1 Aug. 08, Athens, Greece. (Acceptance rate:~31%)
5. H.B.Soni, U.B.Desai, S.N.Merchant, "Adaptive Equalizer for Multiuser UWB system under multipath realistic UWB channel model" World Wireless Congress-09 (WWC- 09), San- Francisco, USA (Paper is selected for oral presentation)
6. H.B.Soni, U.B.Desai, S.N.Merchant, "Least Square error based antenna selection for MIMO with DS-CDMA based OFDM system for Ultra wideband (UWB) communications" ICWMC-10 (**under review**)
7. Durvesh Ashlam, H.B.Soni, M.G.Mahant, "Comparative study of different Multiuser detection techniques for DS-UWB based system", International Conference on Signals, Systems and Automation-2009 (ICSSA-09), 28-29 Dec. 2009.
8. Darshan C. Dalwadi, H.B.Soni, "Performance Evaluation of GMSK Modulated signal Under Rician Channel Model", IEEE International Conference on Computational Intelligence and Computing Research (ICIC-10), pp 893-896, 28-29 Dec 2010.
9. Reena Chackocha, H. B. Soni, Peak to Average Power Ratio Reduction (PAPR) reduction in OFDM for a WLAN Network, Proceedings of 2nd International Conference on Signals, Systems & Automation (ICSSA-11), 431-433, 24-25 January 2011
10. Reena Chackochan, H. B. Soni, Peak to Average Power Ratio Reduction (PAPR) reduction in OFDM for a WLAN Network Using SLM Technique, Proceedings of 3rd International Conference on Electronics Computer Technology - ICECT 2011, 8-10 April 2011.

11. Sanket S. Patel, Yogeshwar P. Kosta, Himanshu B. Soni & Amit V. Patel, "Miniaturized Multiband Circular Patch Antenna", International Conference on Signals, Systems and Automation-2011 (ICSSA-11) (ISBN: 978-1-6123-3002-0), pp. 204-208, 24-25 Jan. 2011. (Acceptance rate:~42%)
12. Sanket S. Patel, Yogeshwar P. Kosta, Himanshu B. Soni & Jignesh Patoliya, "Optimized Low Profile Dual Slot Microstrip Patch Antenna Design & Analysis", International Conference on Signals, Systems and Automation-2011 (ICSSA-11) (ISBN: 978-1-6123-3002-0), pp. 481-485, 24-25 Jan. 2011. (Acceptance rate:~42%)
13. Sanket S. Patel, Yogeshwar P. Kosta, Himanshu B. Soni & J. M. Patel, "Optimized Low Profile Dual Band Microstrip Patch Antenna Design & Analysis Using HFSS", International Conference on Information, Signal and Communication (ICISC-11), 5-6 Feb. 2011.
14. Sanket S. Patel, Yogeshwar P. Kosta, Himanshu B. Soni & Shobhit K. Patel, "E-shaped Patch Antenna Analysis for Multiple Applications", International Conference on Network and Computer Science (ICNCS 2011), 8-10 April 2011, Kanyakumari, India.
15. Sanket Patel, Yogeshwar Kosta, Himanshu Soni & Shobhit Patel, "Wideband Miniaturized Patch Antenna Design and Comparative Analysis", International Conference on Advances in Information Technology and Mobile Communication (AIM 2011), 21-22 April 2011, Nagpur, India.
16. Srujan Naik, H.B. Soni, A Cross Layer Design with an Adaptive Modulation scheme, Proceedings of 2nd International Conference on Signals, Systems & Automation (ICSSA-11), 47-51, 24-25 January 2011
17. Darshankumar C. Dalwadi, Himanshu B. Soni, Performance Evaluation of GMSK modulated signal under Rayleigh channel model 2nd International conference on signals, systems & automation, 51-54, 24- 25 January, 2011
18. Darshankumar C. Dalwadi, Himanshu B. Soni, Performance Evaluation of GMSK modulated signal under Rician channel model, 2010 IEEE International conference on computational intelligence & computing research, 893-896, 28 & 29 December, 2010
19. Reena Chackochan, Himanshu B. Soni, Comparative Analysis of Distortive and Non-Distortive Techniques for PAPR Reduction in OFDM systems, 2nd International Joint Conference on Advances in Engineering and Technology, AET-2011, 20-21 December 2011.

***More than 6 publications in various National conferences and National Journals**

Book / Monograph Published

Title : "Capacity Enhancement and Interference Mitigation in Multiuser UWB"
ISBN Number: 978-3-8443-2386-3
Publisher : Lap Lambert Publishing, Germany

Conferences & Journal contribution

- [1] TPC member in, ICDT-08. The Third International Conference on Digital Telecommunications, June- 29 July- 05, 2008. Bucharest, Romania. www.aria.org/conferences2008/ICDT08.html
- [2] TPC member in, ICDT-09. The Fourth International Conference on Digital Telecommunications, July 19-24, 2009 - Colmar, France. <http://www.aria.org/conferences2009/ComICDT09.html>
- [3] Editorial board member in International Journal in UWB signal and systems. <http://www.inderscience.com/browse/index.php?journalID=335#board>
- [4] TPC member in ICWMC-09. The Fifth International Conference on Wireless and Mobile Communication, August 23-29, 2009 - Cannes, French Riviera, France. <http://www.aria.org/conferences2009/ComICWMC09.html>
- [5] Editorial board member in International Journal on Advances in Telecommunications, www.ariajournals.org/telecommunications/index.html#board
- [6] TPC member in The Fifth International Conference on Digital Telecommunications (ICDT-2010), June 13-19, 2010 - Athens, Greece. <http://www.aria.org/conferences2010/ComICDT10.html>
- [7] TPC member in The Sixth International Conference on Wireless and Mobile Communications (ICWMC-10), September 20-25, 2010 - Valencia, Spain <http://www.aria.org/conferences2010/ICWMC10.html>
- [8] Convener of International Conference on Signals, Systems and Automation-2009 (ICSSA09), V.V.Nagar, India, http://www.gcet.ac.in/past_events/icssa09/icssa09.html
- [9] Convener of International Conference on Signals, Systems and Automation-2011 (ICSSA 11) V.V.Nagar, India, <http://www.icssa-gcet.com>
- [10] Advisory member and TPC member for "The First International workshop on Wireless Communication and Networking Technologies for Rural Enrichment (WiTRUE 2011)" collocated with IEEE WiMob 2011 at Shanghai, China. 9th October 2011, <http://www.tcsinnovations.com/component/content/article/621>

Scholarships/ Grant Received

- [1] Received partial travel support from Department of science and Technology (DST), India, in June 09 for attending conference ICDT-07, SanJose, USA.
- [2] Received full travel support from All India Council for Technical Education (AICTE), India, for attending conference EUSIPCO-07, Poznan, Poland.

[3] Received partial travel support from Charutar Vidya Mandal (CVM) in June 07 and July 08 for attending conference ICDT-07, San Jose and ICWMC-08, Athens, Greece.

[4] Partial sponsorship from ICTP (A branch of UNESCO) for attending program on "Advanced Training course on FPGA Design and VHDL for Hardware Simulation and Synthesis" from 26th Oct – 20th Nov.09., Trieste, Italy.

ME dissertation & BE Project guided

Guided 25+ Project at BE and 12+ dissertation at Master Level,
Major contribution is in following projects.

[1] Currently guiding five dissertation at ME (Communication Engineering)

[2] ^{*}Field Programmable gate array (FPGA) realization of an active noise cancellation system based on the Least Mean Square (LMS) Algorithm.

^{*}This project was selected for MOTOROLA SCHOLAR PROGRAM and finally 4th rank was secured.

Experience:

July 2011 onwards	Principal G H Patel college of Engineering & Technology Vallabh Vidya Nagar
Nov.2008 to June 2011	Prof. & Head in Department of Electronics and Communication Engg. G H Patel college of Engineering & Technology
Nov.2008 – till date	Coordinator for ME(Communication Engg.) program. G H Patel college of Engineering & Technology
Jan. 2003 - Nov.2008	G H Patel College of Engineering & Technology Assistant Professor in Department of Electronics and Communication Engg.
Feb. 1999- Jan. 2003	G H Patel College of Engineering and Technology Worked as a lecturer in Department of Electronics and Communication Engg.

Sept. 1997-Feb. 1999	Birla Vishwakarma Mahavidyalaya Worked as a lecturer in Department of Electronics Engg.
Recognized Post Graduate Teacher	<ul style="list-style-type: none"> • Visiting faculty for Master of Engineering (Computer) ISTAR, Vallabh Vidyanagar since last 6 semesters. • Visiting faculty for Master of Information Science (MIS) at ISTAR. • Visiting faculty at ME(communication Engineering) ISTAR, Vallabh Vidyanagar
Member of Board of Studies	Working as a member of board of studies (Sardar Patel university) for taking decision regarding updating syllabus and introducing new courses at various bachelor and master levels courses.
GTU syllabus committee member	Working as a committee member for designing syllabus for BE (EC) and ME(EC) program under GTU.

Research Interests

- Ultra wideband (UWB) communication.
- Multi user Communication.
- Wireless and Mobile Communication.
- Channel Modeling and Estimation.
- Adaptive Signal Processing.
- DSP and its real Time applications.

Subjects of interest

- Wireless and Mobile Communication.
- Communication Systems I.
- Communication Systems II.
- Statistical Signal Theory.
- Information and coding theory.
- Cryptography and security.

References

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