

# Kammavari Sangham (R) 1952, K. S. Group of Institutions K. S. SCHOOL OF ENGINEERING & MANAGEMENT

No.15, Mallasandra, Off. Kanakapura Road, Bengaluru-560109 Affiliated to VTU, Belagavi & Approved by AICTE, New Delhi, Accredited by NAAC

| Faculty Name        | Dr. Girish. V. Attimarad  |
|---------------------|---------------------------|
| Designation         | Professor                 |
| Educational         | B.E, M.E, PH.D            |
| Qualification       |                           |
| Experience in Years | Teaching: 30 years        |
|                     | Industry: -               |
| Areas of Interest   | Microwave Engineering,    |
|                     | Open waveguides, Antennas |
| Subjects Taught     | Field Theory,             |
|                     | Electromagnetic Theory,   |
|                     | Information Theory &      |
|                     | Coding, Optical Fiber     |
|                     | Networks.                 |
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| EDUCATIONAL DETAILS:- |                    |                 |
|-----------------------|--------------------|-----------------|
| Examination / Degree  | College/University | Year of Passing |
| BE                    | GNDEC / Gulbarga   | 1993            |
|                       | University         |                 |
| M.E                   | S D M College of   | 1995            |
|                       | Engineering &      |                 |
|                       | Technology /       |                 |
|                       | Karnataka          |                 |
|                       | University         |                 |
| PH.D                  | Delhi University   | 2006            |

#### **PUBLICATIONS:-**

### **Journal Publications:**

- ➤ Asok De & Girish V Attimarad, "Numerical Analysis of Two Dimensional Tapered Dielectric Waveguide- Abstract" Journal of Electromagnetic Waves and Applications, Vol.18, No.2,375-376, 2004.
- Asok De & Girish V Attimarad, "Numerical Analysis of Two Dimensional Tapered Dielectric Waveguide", Progress in Electromagnetic Research, PIER 44, 131-142, 2004.
- Asok De, Girish V Attimarad & J Sharma, "Numerical Analysis of single step discontinuity in two dimensional Dielectric Waveguide", Journal of Electromagnetic Waves and Applications, Vol.17, No.6, 885-900, 2003.
- ➤ S V Virakhathmath & Girish V Attimarad, et al, "Performance Analysis of MAP, Log MAP and Max LOG MAP Turbo Decoders in AWGN Channel", Elixir International Journal, Network Engineering 59(2013) 15533-15537. ISSN:2229-712X.

- ➤ S V Virakhathmath & Girish V Attimarad, et al, "BER Performance Analysis of a Viterbi Decoder in AWGN Channel", NC at PESITM Shimoga, 1st & 2nd March 2013.
- S V Virakhathmath & Girish V Attimarad, et al, "Compressed Domain Image Enhancement" Vol 4, No 9, CIIT International Journal of DSP, May 2012, DOI:DIP052012012, Print:ISSN 0974-9667 & Online: ISSN 0974-9543 (IF-0.763).
- ➤ S V Virakhathmath & Girish V Attimarad, et al, "Performance Comparison of BPSK, QPSK, QAM and PAM Modulation Techniques for Convolutional Coding", Vol 4, No 4, IJCIS, 2012, ISSN:2229-5208.
- S V Virakhathmath & Girish V Attimarad, et al, "Implementation of Viterbi Algorithm on DSP" Vol4, Issue 4, IJEST, 2012 ISSN:0975-5462.
- ➤ S V Virakhathmath & Girish V Attimarad, et al, "A Real Time Speed Measurement and Closed Loop Control Using PC Based Multi-Channel Data Acquisition" Vol 4, No 2, Pg No 95-98, CiiT International Journal of Artificial Intelligent and Machine Learning, February 2012. DOI: AIML022012007.
- S V Virakhathmath & Girish V Attimarad, et al, "Design and Implementation of Flexible Adaptive Viterbi Decoder on FPGA" Vol 3, No 10, CiiT International Journal of Networking and Communication Engineering, Aug 2011(IF 0.569) Print: ISSN 0974-9713 & Online: ISSN 0974-9616. DOI:NCE082011004.
- S V Virakhathmath & Girish V Attimarad, et al, "Impact of Generator Polynomial on Performance of MAP Turbo decoder in AWGN Channel" Vol 3, No 11, Aug 2011, (IF 0.572), Print: ISSN 0974-9756 & Online: ISSN 0974-9640. DOI: WC082011005.
- S V Virakhathmath & Girish V Attimarad, et al, "Error Control Mechanism Using CODEC", ICCSN 2009, Feb 28-29, 2009, Macau, China Page No 549, Paper indexed by EI(Compendex), ISTP, IEEE Xplore, IEEE Computer Society (CSDL), IEE INSPEC and other indexing Services. 978-0-7695-3522-7/09 \$25.00 @ 2009 IEEE, DOI 10.1109/ICCSN.2009.142 05076912
- S V Virakathmath & Girish V Attimarad et al, "Impact of Constraint Length on Performance of Convolutional CODEC in AWGN Channel for Image Application", Vol 2 (9), IJEST, 2010, 4697-4701, ISSN: 0975-5462.
- ➤ S V Virakathmath & Girish V Attimarad et al, "Performance Analysis of SOVA for Random Bit Stream", IEEE International conference on Computational Intelligence and Computing research (ICCIC) Tamilnadu College Of Engineering, Coimbatore, India, Dec 28-29, 2010. IEEE Xplore DOI: 978-1-4244-5967-4/10/\$26.00 2010IEE.
- S V Virakathmath & Girish V Attimarad et al, "Performance Analysis Of Convolutional CODEC for Distributed and Burst Errors" CiiT (Coimbatore Institute

- Of Information Technology ) International journal of DSP, Issue: March 2011, DOI: DSP032011008. Print: ISSN 0974-9691 & Online: ISSN 0974-9586. IEEE Catalog No:CFPI020J-PRT, ISBN:978-1-4244-5966-7.
- ➤ S V Virakathmath & Girish V Attimarad et al, "Convolutional CODEC using SOVA for Image Applications", Vol 2 No.1, International Journal of Machine Intelligence and Applications, International Science Press, Jan-June 2011. ISSN: 0976-6227.
- ➤ S V Virakathmath & Girish V Attimarad et al, "Impact of Quantization Matrix On performance of JPEG", International Journal of Future Generation Communication and Networking(IJFGCN), ISSN:1738-995X. Publisher: Science & Engineering Research Support Socity.
- ➤ S V Virakathmath & Girish V Attimarad et al, "", International Journal of Future Generation Communication and Networking (IJFGCN), ISSN: 1738-995X. Publisher: Science & Engineering Research Support Society.
- ➤ S V Virakathmath & Girish V Attimarad et al, "Impact of Generator Polynomial on Performance of MAP Turbo Decoder in AWGN Channel" CiiT (Coimbatore Institute Of Information Technology) International journal of Wireless Communication. Print: ISSN 0974-9756 & Online 0974-9640.
- S V Virakathmath & Girish V Attimarad et al, "Design and Implementation of Flexible Adaptive Viterbi Decoder on FPGA" CiiT (Coimbatore Institute of Information Technology) International journal Networking & Communication Engineering, Print: ISSN 0974-9713 & on line: ISSN 0974-9616.
- ➤ Girish V Attimarad & Chandrashekhar k "Mode Patterns of Parallel plates and rectangular waveguides" IJSER Vol 3, issue 8, August 2012.
- ➤ Girish V Attimarad & Chandrashekhar k, "Analysis of step discontinuities in waveguide using two dimensional FEM Method" website: www.ijser.org.
- Surekha Gondakar & Girish V Attimarad, "The Discrete Cosine Transform and Image Compression", pg No 169, ICCSEM, 26th & 27 th September 2013.
- ➤ Girish V attimarad et al. "Performance Estimation of a LEON 3FT Processor Based Design for Spacecraft Applications", Vol 9, Issue 3, IOSR-JECE, May-June 2014
- Mallshetty C Tavade & Girish V Attimarad, "Reliable Minimum Energy Cost Routing Algorithm to Find the Energy Efficient and reliable Routs Considering Residual Energy in Wireless Ad-Hoc Networks" Vol 04, Special Issue 05, NCATECS -2015, IJRET, eISSN2319-1163/pISSN:2321-7308.
- Rammna S havinal, Girish V Attimarad & M N Giriprasad "A review of Mobility Models for Energy Conservation in Mobile Ad-Hoc Network", Vol 2, Issue 2, IJIERE,2015.

- ➤ Rammna S havinal, Girish V Attimarad & M N Giriprasad "A Review of Energy Consumption Issues in Various Layers of Protocol Stack in MANETs" Vol 2, Issue 2, IJIERE,2015.
- ➤ Girish V Attimarad, et al, "An efficient Dynamically Reconfigurable FIR Filter Using Multiprecision Razor Based Multiplier with frequency Scaling", Vol 5, Issue 3(May-June), IOSR Journal of VLSI & Signal Processing, 2015.
- Ramanna Havinal, Girish V Attimarad & M N Giriprasad, "A survey on challenges & issues in multipath Routing for Mobile Ad-Hoc Networks", Pg No 120, 10th & 11th September, ISBN:978-93-5254-017-4, NCRIESMS, 2015.
- ➤ K N Hosur, Girish V Attimarad, et al, "Design of 4 bit Flash ADC Using TMCC & MUX Encoder in 90nm CMOS Technology", Pg No. 190, 10th & 11th September, ISBN: 978-93-5254-017-4, NCRIESMS, 2015.
- ➤ Surekha Gondakar & Girish V Attimarad, "Comparison of 2D DCT & 3D DCT in Image Compression", Pg No. 249, 10th & 11th September, ISBN: 978-93-5254-017-4, NCRIESMS, 2015.
- ➤ Surekha Gondakar & Girish V Attimarad, "Effect of Block Size on the Performance of a new Algorithm to Compress an Image using 3D DCT, International Journal of Pure and Applied Mathematics, Vol 119, No.14, 2018, 29-34. ISSN: 1314-3395(online version)
- ➤ Hanumathappa S N & Girish V Attimarad "A Conceptual View of the Multipath Cooperative Routing Protocols in WSNs Using CBR, MPCR,DSCR with Reduced Energy Savings" Journal of Analog & Digital Devices, Vol 5, Issue-2,27-32, May-Aug 2020.
- ➤ Nagarguna Malladhi and Girish V Attimarad "Design of an Efficient Energy Based Dual Level Co-operative Route Protocols in Multiple Hop WSNS" International Journal of Engineering Technology and Management Sciences, Vol -8, Issue-1, Jan Feb 2024.
- ➤ Hanumathappa S N & Girish V Attimarad "Design of an Efficient Energy Based Dual Level Co-operative route protocols in multiple hop WSNs", IJETMS, Issue:1, Vol-8, Jan-Feb 2024.
- ➤ Hanumathappa S N & Girish V Attimarad "Design of Enhance Co-operative Balanced Route Protocol(CBRP) in WSNs" IJETMS, Issue:1, Vol-8, Jan-Feb 2024.
- ➤ Nagarguna Malladi and Girish V Attimarad "Design and Development of Novel AXI Interconnect Based NOC Architecture for SOC with Reduced Latency and Improved Throughput", International Journal of Computing and Digital Systems, Vol-17, N0-1,

1-14, 2025.

➤ Nagarguna Malladi and Girish V Attimarad "Design and development of low power NOC architecture using clock gating technique for SoC Applications" Engineering Research Express 7, 025316, April 2025.

#### **Conference Papers:**

- Ramanna S Havinal and Girish V Attimarad, "Adaptive Beamforming on Reconfigurable Architectures" The 2008 International Conference on Wireless Networks (ICWN'08) USA (Paper ID Number: ICW4551).
- ➤ Girish V Attimarad & Rammana S Havinal, "FPGA Techniques for Calibration and Beam Forming In Antenna Applications", Vol. 2, 166-171, Proceedings of SPIT-IEEE Colloquium and International Conference, Mumbai, India, 2008.
- ➤ Girish V Attimarad & Rammana S Havinal, "Systolic Array based Adaptive beamforming in software Defined radio" Accepted at the International Conference on "Emerging Techniques in Computing, Electronics, Embedded Systems &VLSI Design to be conducted at P.D.V.V.P College of Engineering Ahmednagar- 414111 Maharashtra 20-21 March 2008.
- ➤ Girish V Attimarad & Rammana S Havinal, "Smart Antenna for Future Mobile/Wireless Communication", National Conference on Converging Technology, 02-03 Feb., JCET, Turkapally, R. R District, Andhra Pradesh, 2007.
- ➤ Girish V Attimarad & Rammana S Havinal, "Interference Reduction in Smart Antennas by Beam Forming Technique", National Conference on Information and Communication Technology, 01-02 March, Narsee Monjee Institute of Management and Higher Studies & DJ Sangvi College of Engineering, Mumbai, 2007.
- ➤ Girish V Attimarad & Rammana S Havinal, "Enhancing the Throughput in Wireless Adhoc Network using Smart Antenna" National Conference on Advanced Computing and Computer Network, 378-382, 9th -10th March, Dr Vithalrao Vikhe Patil College of Engineering, Ahmednagar, Maharashtra, 2007.
- ➤ Girish V Attimarad & Rammana S Havinal, "Performance improvement of Mobile Ad-hoc Networks using Smart Antenna", National Conference on Emerging Trends in Signal Processing and Communication, pg no. 13-17, 27th − 29th December, Maharashtra Academy of Engineering, Alandi (D), Pune, 2007.
- ➤ Girish V Attimarad & Rammana S Havinal, "Modelling of Communication Channels in View of Smart Antenna", National Conference on Emerging Trends in Signal Processing and Communication, pg no. 18-23, 27th − 29th December, Maharashtra Academy of Engineering, Alandi (D), Pune, 2007.

- ➤ Girish V Attimarad, "Institute-Industry Interaction", Teaching & Techniques in Technical Education, 206-208, Anmol Publications Pvt., Ltd., New Delhi. 2006
- ➤ Asok De & Girish V Attimarad, "Numerical Analysis of Two Dimensional Exponential Taper and Taper with Triangular Distribution in Open Waveguide", Proceedings of Emerging and Futuristic Communication Systems (EFCO1-05), 30th April-1st May, IISc., Bangalore, 2005.
- Asok De & Girish V Attimarad, "Design of Beam Expander: A matching Section between Two Open Waveguides", Proceedings of International Conference on Communications, Devices and Intelligent Systems (CODIS), 224-227, 8-10 Jan, Jadhavpur University, Kolkata, 2004.
- Asok De & Girish V Attimarad, "Scattering parameters of Dielectric Waveguide", NCC 2003: 9th National Conference on Communications, IIT Chennai, Jan 31- Feb 2, 2003.
- Asok De & Girish V Attimarad, "Numerical Analysis of Tapered Dielectric Waveguide", Asia Pacific Microwave Conference, Seoul, KOREA, Nov. 4-7, 2003.
- Asok De & Girish V Attimarad, "Reflection Coefficient of Tapered Open Waveguide with Exponential and Triangular Distribution" Abstracts, National Conference on Radio Science in India, NPL, New Delhi, Pg. No. 15, Nov. 27-29, 2003.
- ➤ S V Virakathmath & Girish V Attimarad et al, "Convolutional CODEC Using SOVA for Image Applications", International Conference on Emerging Trends in Computer Science Communication and Information Technology, at KUSUM, Yeshwant Mahavidyalaya Campus, Nanded Jan 09/11/2010. Pg No 319-323. CSCIT-2010,
- ➤ S V Virakathmath & Girish V Attimarad et al, "Error Recovery Capability of Convolutional CODEC", ICICT-2010, Thiagarajar School Of Management Dec 16-17, 2010.
- ➤ S V Virakathmath & Girish V Attimarad et al, "Impact Of Selection Of Source Coding Technique on the Efficiency", International Conference On Signal Processing, Communication, Computing and Network Technologies, July 21-22/2011. Dept of ECE, Noorul Islam Center fot Higher Education Kumaracoil, Tamilnadu. IEEE Xplore ISBN Number: 978-1-61284-652-1, Catalog No CFP1160N-C-CDR.
- S V Virakathmath & Girish V Attimarad et al, "Performance Analysis of JPEG Algorithm", International Conference On Signal Processing, Communication, Computing and Network Technologies, July 21-22/2011. Dept of ECE, Noorul

- Islam Center fot Higher Education Kumaracoil, Tamilnadu. IEEE Xplore ISBN Number: 978-1-61284-652-1, Catalog No CFP1160N-C-CDR.
- ➤ S V Virakathmath & Girish V Attimarad et al, "Power Saving Mechanism for Street lights using Wireless Communication", International Conference On Signal Processing, Communication, Computing and Network Technologies, July 21-22/2011. Dept of ECE, Noorul Islam Center fot Higher Education Kumaracoil, Tamilnadu. IEEE Xplore ISBN Number: 978-1-61284-652-1, Catalog No CFP1160N-C-CDR.
- ➤ Mallshetty C Tavade & Girish V Attimarad "Algorithm to find the Energy Efficient and Reliable routes considering residual energy in Wireless Ad-Hoc Networks", NCVCS-2015, DSCE, Bangalore.
- ➤ Mallshetty C Tavade & Girish V Attimarad, "RMER Algorithm to find the Energy Efficient and Reliable routes in Wireless Ad-Hoc Networks", NCGCT, DSATM, Bangalore. 2015
- ➤ Girish V attimarad & Chandrashekhar K " Scattering Matrix Calculation of WaveGuide corner distorted by Discontinuities Using FEM Solution of 2D Helmholtz Equations", NCESCO -15, GSSS Institute of Engineering & tech for Woman, Mysore, July 2015.
- ➤ Mr. Hanumanthappa & Girish V Attimarad "Performance of Wireless sensor and Actuator Networks for Real-Time, Fault Tolerant and Energy Efficient Transmission using Kautz Graph" ICEECCOT-2017 in association with IEEE Bangalore Section. GSSSIET. Mysore.15th & 16th Dec 2017
- ➤ Surekha Gondakar & Girish V Attimarad, "Effect of Block Size on the Performance of a new Algorithm to Compress an Image using 3D DCT, International Conference on Applied Engineering Science and Management, 2018
- ➤ Girish V Attimarad & etc all "Home Security System Using GSM" National Conference on Recent Innivations in Engineering -2022
- ➤ Girish V Attimarad etc., "Bank Locker Security System with Two Way Authentication and Safety measures" IETE Sponsored 6th National Conference on Emerging Trends in Engineering, Science and Technology (NCTEST-6) ISBN:978-81-962601-3-2 Pg No-135-137, 2023.

## **Funded Projects**

| Sl No | Project Title | Funding  | Principal    | Remarks     | Year |
|-------|---------------|----------|--------------|-------------|------|
|       |               | Agency   | Investigator |             |      |
| 1     | Walk Smart    | DST-IEDC | Dr. Girish V | Completed/F | 2014 |
|       |               |          | Attimarad    | unded Rs 1  |      |
|       |               |          |              | Lakh        |      |

| 2 | Fabrication & characterization of dye  | ISRO   | Dr. Girish V<br>Attimarad  | Communicat ed   | 2015          |
|---|--|--|--|---|---------------|
| 2 | sensitized Solar cell  | DDDO   | D D  | G 1. 1  | D 1           |
| 3 | Physics based Modelling, Simulation and electrical Characterizatio n of quantum Effects in Multigate MOSFETs for Si and GaAs Channel Materials | DRDO   | Dr. P<br>Vimala,<br>Co-<br>investigator-<br>Dr Girish V<br>Attimarad | Completed<br>Research<br>Center:<br>DSCE,<br>Bangalore                            | December 2014 |
| 4 | Image Processing in Side SCAN SONAR Images for Object Detection and Classification   | VTU  | Student<br>Project<br>Guide: Dr.<br>Girish<br>Attimarad              | Completed<br>Fund<br>received Rs.<br>5000   | 2019-20       |
| 5 | Learning Oriented Smartphone- centric multi- Spectral imaging as Derm- diagnostic Device   | VGST<br>CISEE: K-<br>FIST L1   | Dr. Girish V<br>Attimarad  | Amount-<br>1.50 lakhs<br>Application<br>no.vrn/0032<br>96/23-24<br>Submitted      | 2023-24       |
| 6 | Learning based non-invasive Smartphone centric Multispectral imaging point-of-care device for Dermatological diagnosis.                        | BIOTECHN OLOGY INDUSTRY RESEARCH ASSISTAN CE COUNCIL (BIRAC) UNDER THE SCHEME BIOTECHN OLOGY IGNITION GRANT (BIG), | Dr. Girish V<br>Attimarad  | Proposal reference no.: bt/temp2165 6/big-24/24 Amount: INR 48.65 LAKHS Submitted | 2024          |

Article Published in Book

1. Girish V Attimarad, "Institute-Industry Interaction", Published in the book "Teaching

& Techniques in Technical Education", 206-208, Anmol Publications Pvt., Ltd., New

Delhi. 2006..

2. Girish V Attimarad "Mobile Adhoc Network- An art of Networking" Published in the

book "Recent Advances in Communication and Computer Sciences", DSI, Bangalore.

2016.

3. Girish V Attimarad "Error Control Techniques in Wireless Communication" Published

in the book "Recent Advances in Communication and Computer sciences. DSI Bangalore.

2016.

3. Girish V Attimarad "Implementation of Wireless Sensor & Actuator Networks for Real

time, Fault Tolerant and Energy Efficient Transmission" published in book "Emerging

Trends in Engineering and Technology", Mangalam Publications, New Delhi, ISBN 978-

81-945125\_7\_8. 2020.

#### RESEARCH

Title of the PhD Thesis : "Study of Discontinuities in Open Waveguides"

No. of M.Tech. Thesis supervised : 15

No of students registered for Ph.D.: 9. (Ph.D awarded: 7, ongoing: 2)

## **Professional Membership**

➤ MISTE - Member of Indian Society for Technical Education, LM24491

MIETE - Member of Institute of Electronics & Telecommunication Engineers, -M169969

MYHAI - Member of Youth Hostel Association Of India, - LM27-KAR-14-32267

➤ MIE - Member of Institution of Engineers - MIE1391733

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