



EMBEDDED MINI PROJECT

Communication

1. Remote operated PC using IR/RF (Mouse).
2. Traffic clearance for VIP's vehicles with RF.
3. Data exchanging between two PC's using IR (Wireless).
4. Accident alerting system using RF.
5. Implementation of Cryptography using PC with RF (Wireless).
6. Handheld vehicle lock control system using IR/RF (Wireless).
7. Priority management for traffic signal with handheld device using RF (wireless).
8. Development of wireless (IR/RF) appliance control system.
9. Global alert and control system for UPS battery management for corporate automation (GSM).
10. Bus Arrival and departure Announcement system for metro bus stations.
11. Advanced steward calling system
12. Smart epilepsy prediction system.
13. Notice board using RF.
14. Activity monitoring system for senior citizens.

Security and Access systems

1. Smart Petro-Card management system.
2. Tollgate passes using Smart Card Technology.
3. Fiscal access System using RFID.
4. Stack updating and alerting system Using RFID.
5. Anti theft alert and auto arresting system for museums and jewelry shops.
6. Novel EVM (Wire/Wireless).
7. Development of Anti-Rigging Voting system using Smart card Technology.
8. Implementing smart Digi lock system for device access.
9. Authentication and access control system for device using smart card.
10. Employee Login and logout Management System with RFID.

Pc based Application

1. Command based street light controlling through PC.
2. PC Based Data Acquisition system (wire/wireless).
3. PC based wireless (RF) android controlling.

Robotic Application

1. Target detecting Android.
2. Path following Android.
3. Remote controlled Android using IR/RF (Wireless).
4. Landmine Detecting android.
5. Smoke sensing and alerting system with Android.
6. Autonomous vehicle with Obstacle Detection.

Sensors based Application

1. Sensor based caution alert System (Fire/smoke)
2. Four-channel fault annunciation for Industries.
3. Lawn maintenance system.
4. Monitoring and Automation of cultivation.
5. Automation of home appliance based on Temperature (Ovens/Air conditioner).
6. High sensitiv sensors based automatic device control
7. Paitents Emergency Alert System

Industrial Applications

1. Pre-scheduling system for industrial appliances control using RTC.
2. Remote control system to add & delete identity codes for industries.
3. A wireless data accrument & transmission system design.
4. Home or office security system with voice announcement.
5. Programmable Digital Delay Lines for Electricity board.

General Application

1. Peal based device control (Telephone rings).
2. Invisible Broken Wire Detector.
3. Smart Librarian for noise reduction.
4. Logic Gates Analyzer using Micro-controller.
5. Power Management for shopping malls with visitors counting.
6. Cell phone call based audio muting system.

7. Time based power saving system in corporate road ways.
8. Mobile Bug.
9. Designing the Hap-tic Interface System for Disabled persons.
10. Fastest finger first indicator with priority management.
11. Speed checker for Hi-ways.
12. Power management system for High-ways.
13. Clap based device control.
14. Ultrasonic Proximity Detector.
15. Parking slot indicator.
16. Time based Traffic management system.
17. Intelligent traffic management system for Metro Cities (Density based).
18. Automated Street Light switching (based on season/Time).
19. Real-time Maximum & Minimum Temperature Recorder.
20. Anti theft alerting system for vehicles (Two-wheeler).
21. Caution system for vehicle pollution.
22. Intelligent Vehicle Supervisory cum Annunciation.
23. Patients appointment system
24. Modern public garden
25. Electronic PLACARD
26. GSM based advertising system using LCD.
27. HAND talks system.
28. MEMS based ANDROID.
29. RFID based authentication & access of vehicle.
30. Intuitive appliance control system with id acquisition.
31. Bus detection device for the blind people using RFID system.
32. GSM based DC motor speed control.
33. Root map indicator.
34. Help quit smoke watch.
35. Power saving IRON box.
36. Digital cook book.

DSP MINI PROJECTS

S.No.	NAME OF THE LIST
1.	Image classification by using algorithm k-means clustering
2.	Color histogram features based image classification in CBIR systems
3.	Image enhancement using quadratic programming
4.	Multi user detection using MMSE approach in CDMA
5.	Comparison and Improvement for wavelet based Image fusion using PCA and HIS
6.	Robust adaptive kalman filtering based speech enhancement algorithm
7.	Artifacts reduction in compressed images using fuzzy filtering
8.	Fingerprint enhancement using STFT
9.	Audio Watermarking using DWT For Authentication Process
10.	SVD based Blind Watermarking Algorithm for digital images
11.	Video Watermarking using discrete wavelet transform
12.	Wavelet based palmprint Authentication system
13.	Image retrieval using color and textual features using GLCM
14.	Image enhancement using WRDC algorithm
15.	Image enhancement using adaptive tonal correction algorithm
16.	Image enhancement for improving face detection under nonuniform lighting conditions
17.	Image denoising using discrete wavelet transformation
18.	Image compression using different types of wavelets
19.	EEG signal denoising for removing ocular artifacts using wavelets
20.	Artifacts reduction in compressed videos using fuzzy filtering
21.	Reverse watermarking using Tians and Difference expansion methods
22.	Magnetic Resonance image segmentation using adaptive fuzzy clustering
23.	Signal Adaptive Subband Decomposition for Adaptive Noise Cancellation
24.	Signal denoising using integer wavelet transformation
25.	A Wavelet approach for Edge Detection
26.	Image enhancement and noise removal using bilateral filter
27.	Image Encryption using Edgemap Crypt Algorithm
28.	Wrapped DCT based noise speech enhancement
29.	Face tracking in real time videos
30.	Speaker recognition using symlet wavelets
31.	Video enhancement using spatial filtering method
32.	Image compression based on Gaussian Pyramids.

S.No.	NAME OF THE LIST
33.	Image compression based on Gaussian Pyramids.
34.	Image compression Using Block Truncation Coding.
35.	Adaptive algorithm for Speech compression using Discrete wavelet method
36.	Analysis of pixel level multi sensor medical image fusion
37.	A visual information encryption scheme based on visual cryptography using DH key
38.	Analyzing equalizer effects for speech signals
39.	Automatic Image Segmentation using Wavelets
40.	Time varying convergence parameter for echo cancellation
41.	Data hiding on audio signals
42.	A new approach speech enhancement
43.	Content based speech watermarking
44.	Speech recognition using LPC
45.	Meridian filter for robust signal processing
46.	Adaptive fuzzy post filtering for highly compressed videos
47.	Lossless compression of color map images by context tree modeling
48.	Content based Speech watermarking using DWT
49.	Image Segmentation Using Iterative Watershedding Plus Ridge Detection
50.	Video watermarking using discrete wavelet transforms
51.	Face Segmentation in Colour Images and Video Sequences
52.	Content Based Image Retrieval Using wavelets Transform
53.	Multiscale Feature Analysis Using Directional Filter Bank
54.	Motion compensated noise reduction in colour motion pictures
55.	A Spatial Median filter for noise removal in digital images
56.	ICA analysis for facial recognition
57.	Removal image segmentation boundary errors using N array morphological operator
58.	Motion compensated noise reduction in colour motion pictures.
59.	Adaptive thresholding method for speech compression using DWT.
60.	Sub band coding of speech signal using Multirate Signal Processing

VLSI MINI PROJECT (VHDL/Verilog)

S.No.	NAME OF THE LIST	Languages
1.	Design and Implementation of convolution	Verilog/VHDL
2.	Design of 32-bit RISC Processor	VHDL
3.	Design and Implementation of Digital low power base band processor for RFID Tags	Verilog
4.	High Speed Parallel CRC Implementation Based On Unfolding, Pipelining and Retiming	Verilog
5.	High Performance Complex Number Multiplier Using Modified Booth Algorithm	VHDL
6.	Multiplication Acceleration Through Twin Precision	VHDL
7.	Design of an Open Core Protocol (OCP) IP Block	VHDL
8.	Design of 2D-Discrete Cosine Transformation Technique	Verilog
9.	Design of AES (Advanced Encryption Standard) Encryption Algorithm with 128-bits Key Length	VHDL
10.	Design of Dual Elevator Controller	Verilog
11.	Design of Lossless 2-D DWT (Discrete Wavelet Transform) using Lifting Scheme Architecture	Verilog
12.	Design of High Speed DDR SDRAM (Dual Data Rate Synchronously Dynamic RAM) Controller	VHDL
13.	Design of 16-bit QPSK (Quadrature Phase Shift Keying)	Verilog
14.	Design of Universal Asynchronous Receiver Transmitter (UART)	VHDL
15.	Design of an ATM (Automated Teller Machine) Controller	Verilog
16.	Design of an AMBA-Advanced High performance Bus (AHB) Protocol IP Block	VHDL
17.	Design of 16-QAM (Quadrature Amplitude Modulation) Modulator.	Verilog
18.	Design of Reversible Watermarking Algorithm using DWT Technique.	Verilog
19.	Design of Efficient Systolic Array Architecture for DWT (Discrete Wavelet Transform)	Verilog
20.	Design of Digital FM Receiver using PLL (Phase Locked Loop)	VHDL
21.	Design of Data Encryption Standard (DES)	Verilog
22.	Design of Distributed Arithmetic FIR Filter	Verilog

23.	Design of 1Kbyte Dual Port SRAM (Static Random Access Memory)	Verilog
24.	Design of Radix-2 Butterfly Processor to Prevent Overflow in the Arithmetic	VHDL
25.	Design of Triple Data Encryption Standard (TDES)	Verilog
26.	Design of 16 Point Radix-4 FFT (Fast Fourier Transform) Algorithm	Verilog
27.	Design of 8-Bit Pico Processor	VHDL
28.	Design of JPEG Image compression standard	Verilog
29.	Design of Floating-Point Multiplier using IEEE-754 Standard	Verilog
30.	Design of 8-bit Microcontroller	VHDL