

Projects for Students

PROJECTHESIS

List of Silver Class Projects

ELECTRONIC ALARM DELAY FOR ALARM CLOCK
TUNING INDICATOR FOR RADIO RECEIVER
SOLIDSTATE EMERGENCY LIGHT
AUTOMATIC POLARITY CHANGEOVER FOR MULTIMETERS
CRYSTAL-CONTROLLED DIGITAL CLOCK
FUNCTION GENERATOR
PROPORTIONAL POWER CONTROL USING SCR
INTRUDER ALARM
HEARING AID
MANUAL AC MAINS REGULATOR
PROTO-EXPERIMENTER FOR BREADBOARDING IC CIRCUITS
SOLIDSTATE STARTING TIME DELAYER
RECHARGEABLE NI-CD TORCH
LOW COST POWER SUPPLY FOR DIGITAL ICS
ALARM PROTECTION BY AUTOMATIC SILENCING AFTER A
PRESET DELAY
STEREO TAPE CASSETTE PLAYER
CONTROL WATER LEVEL IN OVERHEAD TANK
AUTOMATICALLY
LIGHT BEAM CONTROLLED TOGGLING SWITCH FOR REMOTE
CONTROL
VERSATILE INTERCOM
ELECTRONIC TIMER WITH AUDIO ALARM
MANUAL VOLTAGE STABILIZER TO AN AUTOMATIC
STABILIZER
HIGH / LOW VOLTAGE CUTOUT TO SUIT ANY DELAY AND
RELAY
MUSICAL MELODY SYNTHESIZER
AUTOMATIC VOLTAGE REGULATOR
BATTERY STATE INDICATOR
3-BAND RADIO RECEIVER USING BEL 7000 IC
HIGHLY VERSATILE DC POWER SUPPLY
BOATMAN'S PUZZLE
CURRENT LIMITING FACILITY TO YOUR DC POWER SUPPLY

VERSATILE TOUCH PLATE
MUSICAL KALEIDOSCOPE
PULSE GENERATOR USING ICS
TIMER INTERVAL SETTER
AC MAINS VOLTAGE REGULATOR USING AN IC
STEREO CASSETTE PREAMPLIFIER
SECONDS BLINKER TO DIGITAL CLOCK
A LADDER CRYSTAL FILTER RECEIVER
REVERB AMPLIFIER
DESIGN OF POWER SUPPLY TRANSFORMER
TWO-WAY INTERCOM
SIMPLE LED CONTINUITY CHECKER
WAIT PLEASE INDICATOR
TRANSMITTER
EXCLUSIVE OR AND OR GATES WORK WITHOUT POWER
SUPPLY
SEMICONDUCTORS TESTER
SPLIT PHASE POWER SUPPLY
A PHOTOFLASH SLAVE FOR ELECTRONIC FLASH
PORTABLE 50 Hz SOURCE
AUTOMATIC RISE AND FALL SIREN
ELECTRONIC ORGAN
SELF-REGULATING BATTERY CHARGER WITH SHORT-CKT
PROTECTION
MINIATURE HEARING AID
CHANGEOVER SWITCH WITH BUILT-IN PRIORITY
BINARY STATE INDICATOR
A UNIVERSAL SCHMITT TRIGGER
MAINS LAMB FLASHER WITH ADDED ATTRACTIONS
PHYCHEDELIC LIGHTS
FOLDOVER CIRCUIT
SIMPLE SECURITY SYSTEM
MULTI-CHANNEL INTERCOM
ELECTRONIC ORGAN
RAIN ALARM
AM TRANSMITTER
METRONOME
LOAD CURRENT CAPACITY
ELECTRONIC PARROT
BATTERY LEVEL INDICATOR

IC 555 AS ANALOG SWITCH FOR POSITIVE SIGNALS
TELEPHONE AMPLIFIER
SIMPLE ELECTRONIC MULTIMETER
DELAY SWITCH
AUTO TEST CIRCUIT FOR DISPLAYS & ICS
WATER LEVEL INDICATOR
ELECTRIC GUITAR
LIGHT ACTIVATED SWITCH
LOUDSPEAKER AS A MICROPHONE
ELECTRONIC METHOD TO MEASURE VELOCITY OF SOUND
SIMPLE ELECTRIC LOCK
TWEETER BELL
DIODE TESTER
SIMPLE CLOCK GENERATOR FOR TTL WORK
ONE TRANSISTOR GRAMOPHONE TRANSMITTER
WATER LEVEL CONTROLLER
SIMPLE POWER ON RESET CIRCUIT
DUAL FUNCTION METER
LIGHT TO FREQUENCY CONVERTER
VOLTAGE TO FREQUENCY CONVERTER
BICYCLE TURNING INDICATOR
EMERGENCY LAMP
POLARITY OR NULL INDICATOR
HI-FI AMPLIFIER FOR CERAMIC PICK-UPS
REGULATED DC POWER SUPPLY
LED TRANSISTOR TESTER
LIGHT ACTIVATED ALARM
COUNTER USING CALCULATOR
EMERGENCY LIGHT
VARIABLE FREQUENCY ASTABLE MULTIVIBRATOR - USING
NAND GATES
NEON LAMP LEAKAGE TESTER
AUDIO TESTER
TOY TELEPHONE
STEREO BALANCE INDICATOR
OVERHEAT INDICATOR
DC VOLTAGE LEVEL MONITOR INDICATOR
MW TRANSMITTER
LED BARGRAPH VOLTMETER
LOW COST SYNCHRONOUS SWITCHING HEAT - STAGING

CONTROLLER
SINGLE PHASE PREVENTER
DRY CELL RECHARGER FOR THREE CELLS
ELECTRONIC FLASHER
TESTING OF SCRS AND TRIACS ON MULTIMETER
BISTABLE TOUCH SWITCH
BATTERY ELIMINATOR WITH EMERGENCY LIGHT
DIGITAL ELECTRONIC COUNTER
LED FLASHER
VARIABLE REGULATED VOLTAGE BATTERY ELIMINATOR
CUM REDUCING CIRCUITS
A SIMPLE SOFT START CIRCUIT
CHIRPING BIRDS CIRCUIT

C METER
ULTIMATE DECIDER
PCB MAKING
IC POWER SUPPLY
THREE OUTSTATION INTERCOM FOR HOME
FUNCTIONING OF WATER LEVEL ALARM CIRCUITS
741 CKTS
MEDIUM WAVE POCKET RECEIVER USING A SINGLE PENLIGHT
CELL
INVERTER FOR PORTABLE ILLUMINATOR
MULTIVIBRATOR CURCUITS
AC MAINS VOLTAGE LIMITS INDICATOR
5- DIGIT INTERRUPTION COUNTER
TEMPERATURE CONTROL OF PRESSURISED CHAMBER
ENHANCED POWER SUPPLY CIRCUIT
3-IN-1 TEST EQUIPMENT
SAFETY GROUND
DIGITAL VOLT-OHMMETER CUM THERMOMETER
BIAS OSCILLATOR FOR TAPE RECORDER
LED DANCING LIGHT ARRAY FOR STEREO SYSTEMS
SINGLE-IC STEREO AMPLIFIER
A TINY CRANE CURCUIT FOR LIFTING DELICATE ITEMS
A SOLIDSTATE VOLTAGE INDICATOR WITH ALARM
TRANSISTORISED DIP METER
CA810 POWER IC CKT

FLASHERS
CAPACITANCE METER
STEREO AMPLIFIER
DISCO LIGHTS
PRINTED CIRCUIT BOARD WITH A PROFESSIONAL TOUCH
RANDOM RUNNING LAMPS
SINGLE TRANSISTOR AM & IF OSCILLATOR
DC MILLIVOLTMETER WITH POLARITY INDICATOR
ELECTROCARDIOGRAPH USING AN OSCILLOSCOPE AND A
CAMERA
LONG DURATION TIMER
MINIATURE TRANSMITTER
MUSICAL/PSSYCHEDELIC LIGHTS
VARIABLE DUAL POLARITY POWER SUPPLY
MATCHING 8-OHM SPEAKER OUTPUT TO A HIGH IMPEDANCE
AMPLIFIER
STEREO AMPLIFIER POWER SUPPLY
INFRA-RED BURGLAR ALARM
TWILIGHT SWITCH
STEADY HAND TESTING CIRCUITS
6-VOLT SUPPLY FROM CAR BATTERY
SINGLE CHIP 0- TO 360 DEGREE - PHASE SHIFTER
MULTI PURPOSE CIRCUIT
AUTOMATIC SWITCH-OFF FOR RADIO
DAY INDICATOR FOR DIGITAL CLOCKS
BATTERY ELIMINATOR WITH LED INDICATORS
DIGITAL ELECTRONIC DIE
ACCURATE TIMER USING CD 4045
PEAK LEVEL INDICATOR
VERSATILE REGULATED POWER SUPPLY
TOUCH SWITCH USING 555
STANDBY ARRANGEMENT FOR DIGITAL CLOCK
SCR TESTER
SUPPLY FAILURE INDICATOR
AUTO CIRCUIT CHECKER
PANORAMA CONTROL FOR STEREOS
ELECTRONIC GONG
MINIATURE LAMP FLASHER
CONTINUITY CHECKER
A NOVEL DARK ROOM TIMER

LOW-COST CRYSTAL TESTER
SIMPLE REGULATED POWER SUPPLY
A SINGLE IC VERSATILE PULSE GENERATOR
1MHZ CRYSTAL OSCILLATOR
TIME DELAY CIRCUIT FOR PROTECTING A REFRIGERATOR
ALL-PURPOSE LATCH-UP SWITCH
3.5W AUDIO AMPLIFIER
SOUND OPERATED SWITCH
MAINS HUM FILTER FOR AUDIO CIRCUITS
A SINGLE TOUCH MULTI CONTROL SWITCH
BATTERY ELIMINATOR WITHOUT TAPPING TRANSFORMER
THREE WAY CROSSOVER NETWORK
SLOW RISING SIRENS
TESTING A TRANSISTOR WITHOUT A TRANSISTOR TESTER
A SIMPLE 'JAM' CIRCUIT
OP-AMP TONE CONTROL
PULSE NARROWING AND PULSE STRETCHING CIRCUITS
SINGING BIRD BELL
VOLTAGE CONTROL AMPLIFIER
CONTINUITY TESTER
A SIMPLE FUNCTION GENERATOR USING 555 TIMER
ALTERNATE LED BLINKER USING 555
A LIMITED PULSER
A SIMPLE LOGIC PROBE
AUTOMATIC BATTERY CHARGER

PULSE GENERATOR CUM TIMER
ADJUSTABLE RIPPLE REGULATED POWER SUPPLY
DIGITAL LED VOLTMETER
BEEPER CUM FLASHER
POWER AMPLIFIERS
WATER LEVEL CONTROLLER
TEMPERATURE DEVIATION INDICATOR
AUTOMATIC EMERGENCY TUBELIGHT
DIGITAL BIRTH DATE TELLER AS A PARTY GAME
A DIGITAL CLOCK USING ORDINARY COMPONENTS
EXTEND CAPABILITIES OF THIS DIGITAL CLOCK
CASSETTE TAPE RECODER USING BEL 700 IC
WATER TANK GAUGE

SIGNAL INJECTOR
5-STATE LOGIC PROBE
ELECTRONICS FUSE SAVE PRECIOUS MAINS OPERATED
GADGETS
SINGLE PHASING PREVENTER
LONG DURATION TIMER
DIGITAL STD CALL METER
NON-DESTRUCTIVE POWER SUPPLY
TUNING INDICATORS FOR RADIO RECEIVERS
METAL DETECTOR
AUTOMATIC TRAFFIC LIGHTS MODEL
PREAMPLIFIER CIRCUITS
OFFICE CALL BELL SYSTEM
ELECTRONIC PACHISI GAME
TELEVISAGE TO LOCATE YOUR PHONE IN THE DARK
ELECTRONIC HORNS FOR CARS
A SNOOZE SWITCH FOR MECHANICAL ALARM CLOCKS
LED ANALOGUE CLOCK
AN AUTOMATIC EMERGENCY LIGHT WITH DUAL LIGHT
PROVISION
A CAR BATTERY SYSTEM ANALYSER
SIREN
AUDIO LEVEL INDICATOR
LIGHTS DIMMER
REGULATED POWER SUPPLY WITH DUAL PURPOSE LED
STROBE LIGHT
BATTERY CHANVEOVER RELAY
SPIKES-FREE POWER CONTROL
A VARIABLE AUDIO FREQUENCY OSCILLATOR
BURGLAR ALARM
FIRE ALARM
DECADE SEQUENCER WITH DISPLAY
AD-ON CIRCUIT FOR CURRENT MEASUREMENT
SOUND OPERATED RELAY
SEQUENTIAL TIMER
BEEPER USING IC 555
LED TUNING INDICATOR
TWILIGHT SWITCH
PHOTOELECTRIC SWITCH
TELEPHONE AMPLIFIER USING IC 7000

LOW COST LONG DISTANCE INTERCOM
REGULATED SUPPLY FOR OPAMPS
GUITAR BROADCASTER
DEBOUNCING CIRCUIT
FALSE TRIGGERING ELIMINATION IN 555 ICS
WHO'S THE FIRST CKT
AM TRANSMITTER
DUAL LINE REGULATED POWER SUPPLY
BATTERY STATE INDICATOR
AUDIO DISTORTION TESTER
AUDIO TIMER
VERSATILE SHORT PROOF POWER SUPPLY FOR EXPERIMENTS
LOGIC / LOGIC PULSER
UNDER / OVER VOLTAGE PROTECTION TO FRIDGE
LOW VOLTAGE INDICATOR
AUTOMATIC WATER LEVEL MONITOR
POLICE SIREN
NOVEL BURGLAR ALARM
A 4 BIT DIGITAL TO ANALOGUE CONVERTER
DUAL DC POWER SUPPLY
BASS AND TREBLE CONTROLS FOR STEREO SYSTEMS
REPLACING EF86 WITH SOLIDSTATE CIRCUITRY
BATTERY CHARGER CUM ELIMINATOR
AUTOMATIC PARKING LIGHTS
SQUARE WAVE GENERATOR USING IC 555
SOUND EFFECTS GENERATOR
4 CHANNEL AUDIO MIXER
VARIABLE DUTY CYCLE OSCILLATOR
SINGLE TRANSISTOR AUDIO TUNER
NEXTER
8 BIT DATA FROM KEYBOARD
COIN TOSSER
CHOOSING THE FASTER GATE
TRANSISTORISED TOUCH SWITCH
VARIABLE HYSTERESIS COMPARATOR
THREE VOLTAGES FROM BRIDGE RECTIFIERS
A DELAY RELAY
AUTOMATIC DEFROSTER
ELECTRONIC COLORSCOPE

CALLING BELL WITH MEMORY
CAR LIGHTS ON INDICATOR
TRAFFIC LIGHTS MODEL
MINI EMERGENCY LIGHT
HEAVY DUTY REGULATED POWER SUPPLY
16 BIT TO ANY SET OF 8 BIT GANG SELECTOR
SPARK SUPPRESSOR
SINGLE TRANSISTOR LDR ALARM
0-24 V REGULATED DC POWER SUPPLY

100 WATT FREQUENCY CONTROLLED INVERTER
SANGUINOSCOPE
DIGITAL COMBINATION LOCK FOR CARS
ELECTRONIC LUCK TESTER
SINGLE CHIP LATCH UP ALARM
ELECTRONIC SIREN FOR CIVIL DEFENCE AND TIME
INDICATION
REMOTE INDICATING ELECTRONIC WEIGHING MACHINE
THE FIRST & SECOND GENERATION OFFICE CALL BELL
SYSTEM
AUTO WAH FOR YOUR GUITAR
DIGITAL CALENDER SHOWING DAY DATE AND MONTH
DIGITAL CONTROL OF MACHINE
THE OPTO FINISH REPORTAGE
POWER SUPPLY WITH PLUS FEATURES
CAR VOLTMETER WITH LED DISPLAY
HANDHELD MW RECIEVER
AUTO SHUT OFF DOOR LOCK ALARM
PRESSURE MONITOR
LINEAR SCALE ELECTRONIC OHMMETER
TV PATTERN GENERATOR
SHOCK HAZARD WARNING GENERATORS
MUSICAL DOOR BELL
DIGITAL SCORE DISPLAY BOARD
Q MASTER FOR JAM SESSION
ELECTRONIC STEAM ENGINE SOUND SIMULATOR
VERSATILE DIGITAL TIMER
A DAY INDICATOR WITH ALPHABETICAL DISPLAY
25 + 25 WATT STEREO SYSTEM
SELECTIVE TV SIGNAL BOOSTER

LED CONTROL CKT FAULT INDICATOR
GRAPHIC EQUILISER
TOUCH SWITCH
LED SEMICONDUCTOR TESTER
METRONOME
RUNNING WHEEL
TWO WAY REMOTE ALARM
AUTO POWER OFF CONTROLOR FOR TAPE RECORDERS
MOSQUITO REPELLER
A SIMPLE SINGING BIRD CIRCUIT
ASYMMETRICAL ASTABLE USING SINGLE IC 741
MAKE YOUR OWN 7 SEGMENT LED DISPLAYS
SELF RESETTING INTRUDER ALARM
0-25 V, 1 A REGULATED POWER SUPPLY
SQUARE WAVE OSCILLATOR
ELECTRONIC THERMOSTAT
SQUENTIAL RUNNING LIGHTS
KEY BOUNCE ELIMINATOR FOR SINGLE CONTACT KEY
BAR GRAPH MAINS VOLTAGE INDICATOR
CMOS / TTL VERSATILE TEST / PROBE
HIGH QUALITY NOISE FILTER
AUTO SHUT OFF FOR RADIO
CROSSOVER NETWORK
RUNNING LEDS
A TRANSFORMERLESS EMERGENCY LAMP WITH OPTIONAL
UNDERVOLTAGE INDICATION
CONTINUITY CHECKER DOUBLES AS SIGNAL SOURCE
A SIMPLE INTERCOM
SQUENTIAL LIGHT DISPLAY USING RELAYS
NEGATIVE VOLTAGE SUPPLY FROM SINGLE POSITIVE
VOLTAGE
MOTOR OVERHEATING PREVENTER
SOLIDSTATE EMERGENCY LIGHT
RHYTHMIC TIMER
TWO TERMINAL TIMER FOR PRESET CONTROL OF ELECTRIC
LAMPS
SOUND EFFECT EQUALISER
ELECTRONIC LTOSS
BURGLAR ALARM
CYCLIC LIGHTS

RAIN DETECTOR
AMBIENCE CIRCUIT FOR STEREO
SIMPLE TOUCH SWITCH
FAN REGULATOR CUM LIGHT DIMMER
A THREE OCTAVE ORGAN
MUSICAL SOUND GENERATOR
WHO'S FIRST SINGLE CHIP GAME
CAR BATTERY VOLTAGE BOOSTER
2000 VA INTERTER
CARRIER FAILURE INDICATOR
AF SIGNAL GENERATOR
TV BAR GENERATOR
CHECK THE SWITCH ON SURGES
FEEDER PROTECTOR
AUTOMATIC BATTERY SWITCHING FOR DIGITAL CLOCKS
A LOW COST TRANSFORMERLESS TV POWER SUPPLY
ANTI THEFT ALARM
SOLIDSTATE EMERGENCY LAMP USING AN OPTO COUPLER
TRANSISTORISED TOUCH SWITCH
IN / OUT INDICATOR
DIGITAL STOPWATCH
A VERSATILE WAVEFORM GENERATOR
DIGITAL IC TESTER

2-BAND HI-FI RECEIVER
NOVEL METERLESS MULTIMETER WITH LED INDICATION
THE ELECTRONIC THUMBWHEEL SWITCH
PROGRAMMABLE MUSICAL TUNE GENERATOR
REFLEX TESTER
WATER LEVEL INDICATOR CUM CONTROLLER
PORTABLE DIGITAL MULTIMETER WITH LIQUID CRYSTAL
DISPLAY
REGULATED BIPOLAR-OUTPUT DC-DC CONVERTER
MULTIPURPOSE TONE AND SOUND SYNTHESISER
DUAL POWER SUPPLY FOR OP-AMPS
TRANSISTOR LEAD IDENTIFIER CUM TESTER
UTILITY DOOR-BELL
LED DIAL CLOCK
THE MIND READER

ELECTRONIC CAPACITANCE METER
FUNCTION GENERATOR
ANALOGUE FREQUENCY METER
20W+20W STEREO AMPLIFIER
DIGITAL CHANNEL INDICATORS
THE DELAY SWITCH
BURGLAR ALARM TO PROTECT YOUR HOME
FOUR-IN-ONE TELEPHONE
ADJUSTABLE REGULATED POWER SUPPLY UNIT
MACHINE GUN SOUND SIMULATOR
2KW ILLUMINATION CONTROLLER
25-WATT POWER AMPLIFIER
THREE-IN-ONE TESTER
HOUR STRIKING CIRCUIT
DXING RECEIVER
MULTIMETER TO READ FREQUENCY
UNDER AND OVER VOLTAGE PROTECTOR
SIMPLE BATTERY STATE INDICATOR
KEEPING THE IRON WARM
ON-DELAY TIMER CIRCUIT
MAINS INDICATOR WITH AUDIO ALARM
STEADY HAND TESTING GAME
MESSAGE INDICATOR
CAR BATTERY CHARGER CUM BATTERY ELIMINATOR
IC TRANSMITTER
FUSE FAILURE INDICATORS
AN ELECTRONIC HARMONIUM
ELECTRONIC DICE
LOW-COST PSYCHEDELIC LIGHTS
CLAP SWITCH
A SIMPLE CLOCK RADIO
ELECTRONIC DICE86
PRECISION OVER-CURRENT PROTECTION
AUTOMATIC REFRIGERATOR DEFROSTER
PILOT LAMP DOES DOUBLE DUTY
DAY INDICATOR
SOLIDSTATE RELAY
REGULATED POWER SUPPLY
MULTIPURPOSE AUTO SHUT-OFF SWITCH

AUTOMATIC POWER FAILURE INDICATOR FOR DIGITAL
CLOCKS

SHORT CIRCUIT PROTECTION DEVICE

MUSICAL BELL REPEATER

SOLIDSTATE GUITAR PRACTICE AMPLIFIER

LIGHTNING CHESS TIMER

LOW SPEED COUNTER USING CALCULATOR

MULTIPLE AMPLIFIER SYSTEM

SINGLE PHASE PREVENTER USING OPTOCOUPERS

DIODE TESTER CUM CONTINUITY CHECKER

EMERGENCY LIGHT CUM POWER FAILURE INDICATOR WITH
ALARM

VARIABLE POWER SUPPLY

KILOVOLT GENERATOR

OP-AMP IC TESTER

TTL PROBE

REMOTE OPERATION OF DIESEL GENERATOR SET

A SIMPLE MUSICAL TOY

LOGIC STATE INDICATOR CUM MANUAL CLOCK

ELECTRONIC DICE

AF/IF SIGNAL GENERATOR

A BEDROOM NIGHT LAMP

THE COWS AND BULL GAME

STEREO CASSETTE DECK FOR SUPERB SOUND REPRODUCTIN

AN ELECTRONIC DICE

CHECK YOUR GRIP WITH THIS GRIPOSCOPE

TELELISTEN UNIT FOR LISTENING TV PROGRAMMES

TV RECEIVER CUM VIDEO MONITOR

A FULL FEATURED ELECTRONIC TOUCH ORGAN

HEAVY DUTY BATTERY CHARGER WITH OVERCURRENT
CUTOUT

TELEPHONE INDICATORS USING LEDS

ADJUSTABLE VOLTAGE POWER SUPPLY USING LM 317

CONTINUITY TESTER WITH AUDIO INDICATION

EPROM COPIER USING MICRPROCESSOR KIT

FIRE ALARM SYSTEM

ELECTRONIC VOTING MACHINE

TEMPERATURE CONTROLLER

GIANT SCREEN TV WALL PROJECTOR

A TOUCH SWITCH ASCII KEYBOARD
AF RF SIGNAL GENERATOR
BFO - CUM - FREQUENCY MARKER PLUS IF AND MW
ALIGNMENT TOOL
SMPS POWER SUPPLY FOR SOLIDSTATE B&W TV RECEIVER
ELECTRONIC ROULETTE WHEEL
SEMI AUTOMATIC REMOVE CONTROL FOR A DIESEL
GENERATOR
PIPS AND ALARM FOR LED DIAL CLOCK
5 TO 200 V STABILISER POWER SUPPLY
ELECTRONIC ANALOGUE MULTIMETER
ADD HOURLY CHIME TO YOUR DIGITAL CLOCK
BLOWN FUSE INDICATOR
IMPROVE YOUR DIGITAL CLOCK
FM SIGNAL GENERATOR
TAPE CASSETTE COPIER
14 IN-1 MULTIPURPOSE CIRCUIT
150 WATT INVERTER
MULTIRANGE AF SIGNAL INJECTOR
CALL BELL SYSTEM
AUTOMATIC SIGNALLING SYSTEM FOR TRAIN MODEL
ELECTRONIC ROULETTE GAME
DUAL PULSING RELAY TIMER USING IC 555
AUTOMOBILE FLASHER
LOW POWER PILOT LAMP (LPPL)
ELECTRONIC THERMOMETER FOR ROOM TEMPERATURE
ELECTRONIC FISH CALLER
HOURLY TIME SIGNAL ADD ON CIRCUIT
OFFICE BELL WITH IN / OUT INDICATOR
REMOTE OPTICAL SWITCH
AUTOMATIC MAST LIGHT SWITCH
IMPEDANCE BOOSTER FOR MULTIMETERS
DE THUMP CIRCUIT FOR AF AMPLIFIERS
LISTENING BUG
MIND READER USING DIGITAL DISPLAY
IC FUZZ FOR GUITAR
POWER FAILURE INDICATOR
SLAVE FLASH UNIT
DIGITAL CHANNEL INDICATOR
ELECTRONIC LATCH CIRCUIT

SIMPLE AUTO WAA WAA
LEAKY CAPACITOR TESTER
SIMPLE LOGIC PROBL
RECORDING / PLAY INDICATORS FOR CASSETTE TAPE
RECORDERS
SLAVE FLASH UNIT
TIMER SWITCH FOR WATER HEATERS
LIGHT MUSIC CIRCUIT
INVERTER CIRCUIT FOR 20 W FLUORESCENT TUBE
PROGRAMMABLE VOLUME CONTROL
CMOS DIGITAL PULSE / EVENT COUNTER
OPTO TREMELO UNIT FOR GUITAR TELEPHONE EXTENSION
RINGER
TELEPHONE EXTENSION RINGER
FRIDGE THERMOSTAT
ELECTRONIC IN / OUT INDICATOR
CALL BELL WITH MEMORY
DELAY TIMER FOR DOOR BELLS
DANCING LIGHTS / SOUND LEVEL INDICATOR
EMERGENCY LAMP
UNDER / OVER VOLTAGE INDICATOR FOR TTL POWER SUPPLY
DIGITAL CLOCK USING DC PLASMA DISPLAYS
A VERSATILE CONTROLLER
AMBULANCE SIREN
INEXPENSIVE MULTITESTER
REMOTE LOAD ON MONITOR TO REMIND LIGHTES-ON
CALLING BELL WITH AUTO SHUT OFF
SOUND OPERATED SWITCH
HEXADECIMAL DISPLAY CIRCUIT
LOW COST MINI AMPLIFIER'S APPLICATIONS
VOLTAGE SURGE PROTECTOR CUM EMERGENCY LIGHT
MINI ELECTRONIC VOTING MACHINE
ELECTRONIC AUTO DIPPER

QUICK 741 AND 555 TESTER
OBJECT COUNTER USING CMOS ICS
A GAME OF STEADY HANDS
ENVELOPE FOLLOWING FOR GUITARS AND ORGANS
AUTOMATIC TANK FILLING CUM PUMP HOUSE SYSTEM
REMOVE CONTROL FOR TV AND HI-FI

VHF TV BOOSER
RADIO CASSETTE RECORDER (TWO-IN-ONE)
12-TUNE MUSICAL DOORBELL
CAR CLOCK MODULE
VIDEO CAR RACING GAME
SOUND ACTIVATED FLASH FOR STOP ACTION PHOTOGRAPHY
120 w + 120 w STEREO AMPLIFIER
STEREO CONTROL CUM PREAMPLIFIER FOR 120 w + 120 w
AMPLIFIER
MULTIPLE PROGRAM TIMER USING SINCLAIR SPECTRUM
MICRO
10 BAND GRAPHIC EQUILISER
INEXPENSIVE TV ANTENNA
VERSATILE TESTER WITH AUDIO INDICATION
STD / LOCAL BAR TO PREVENT OVERCHARGING
AN LED SPEEDOMETER FOR TWO WHEELER
TRAFFIC LIGHT CONTROL SYSTEM
DIGITAL TACHOMETER
TWO-WAY DOORBELL WITH MEMORY
LOW RESISTANCE MEASURING METER
MINIATURE RUNNING LIGHTS
ZENER DIODE TESTER CUM CALIBRATOR
MULTIWAY SWITCHES
LED DIRECTION INDICATOR
SW AM BOOSTER FOR VALVE RADIO
SIMPLE TEMPERATURE CONTROLLER
SIMPLE SAWTOOTH GENERATOR
ELECTRONIC PHONE LOCK
CONDENSER MIKE AMPLIFIER
FIELD FAILURE PROTECTION FOR DC MOTORS
SIMPLE AM RADIO TRANSMITTER
INEXPENSIVE ELECTRONIC SWITCH FOR AUDIO SIGNAL
BOATMAN'S PUZZLE GAME USING SINGLE IC
4 BIT BINARY TO BCD CONVERTER
SIMPLE FLASHER USING UJT
BULLS AND COWS GAME
VHF TV MODULATOR
SIMPLE NI-CD BATTERY CHARGER
TROUBLESOME TUBELIGHT
OVERVOLTAGE CUTOFF USING IC 723

RUNNING LIGHT EFFECT
CAR BURGLAR DETERRENT
ELECTRONIC CONGO
IC SPEED CONTROL FOR SMALL DC MOTORS
LOW COST TRANSISTORISED INTERCOM
HEADS FOR TAILS SIMULATOR
A SIMPLE AF FILTER
AUTOMATIC BATHROOM / TOILET LIGHT
ONE SECOND MASTER OSCILLATOR
VISUAL INDICATOR FOR ELECTRONIC DOORBELL
LIGHT PULSE ACTIVATED ON / OFF DELAY
ELECTRIC FENCE / WINDOW CHARGER
AUTOMOBILE FLASHER
TIMER WITH ON / OFF DELAY
BLOWN FUSE INDICATOR
NEON INDICATORS FOR AF AMPLIFIER
SIMPLE LOGIC PROBE
SELF RESETTING LDR ALARM
BACK UP SUPPLY FOR CALCULATORS
A NOVEL TANK LEVEL CONTROLLER
BURGLAR ALARM
POWER ON CUM BLOWN FUSE INDICATOR USING SINGLE LED
ELECTRONICS TOSS
AUTOMATIC BRIGHTNESS CONTROL FOR SEVEN SEGMENT
DIGITAL DISPLAY
HIGH POWER FLASHER
PROGRAMMABLE MONOSHOT
BLOWN FUSE INDICATOR
BURGLAR ALARM
HEADPHONE AMPLIFIER
LATCH CIRCUIT SIMPLIFIED
TWO WAY REMOTE CALL BELL
BIRD SOUND GENERATOR WITH TIMER
COST EFFECTIVE 4 LINE TO 16 LINE DECODER
DIGITAL COMBINATION LOCK
QUAD IC TAPE PREAMP
5 V TO 25 V DC CONVERTER
BLOWN FUSE INDICATOR CUM CAPACITOR TESTER
CMOS TOUCH SWITCH

AUTO SHUT OFF FOR TAPE DECKS
CLAP SWITCH CUM TOUCH SWITCH WITH TIMER

PRESETTABLE 19-MINUTE DIGITAL TIMER
MAKE YOURSELF THIS QUIZ DISPLAY
DIGITAL AC/DC VOLTAGE CUM CONTINUIT TESTER
DIGITAL BANK TOKEN NUMBER DISPLAY

RAM TESTER

YOKA FUN BOX

LEARN ROBOTICS

UNIVERSAL LOGIC PROBE

MICROPROCESSOR BASED ELECTRONIC LOCK

WIND DIRECTION INDICATOR

THE VU2ATN QRP TRANSCEIVER

GRAPHIC DISPLAY BOARD

LEAD ACID BATTERY CHARGER

HIGH GAIN 4 STAGE TV BOOSTER

DISPLAY PROFILE

TRANSISTOR AND DIODE TESTER CUM SIGNAL INJECTOR

LED SCOPE FOR AUDIO SERVICING

8 DIGIT MICROPROCESSOR DISPLAY

SIGNAL GENERATOR

BATTERY LEVEL INDICATOR

4 LINE TO 12 LINE DECODER

TOUCH OPERATED BANDSWITCH

SIMPLEST LAMP FLASHER USING FLICKERING LED

AUTO ALARM OFF FOR DIGITAL CLOCK

ELECTRONIC GUARD

SIMPLE TRANSISTOR TESTER

TWO WAY TWO STATION CALLING SYSTEM

MULTI MODE INTERCOM

EXTRA DOOR BELL FOR MAINS FAILURE

TIMER WITH AUDIO ALARM

SINGLE PHASE PREVENTURE WITH UNDER / OVER VOLTAGE
CUTOUT

STEREO TAPE PREAMP

ROM READER

DIGITAL ADJUSTABLE TIMER

THREE PHASE AUTOMATIC CHANGEOVER

ELECTRONIC X AND O GAME
ELECTRONIC PENDULUM
MICROPHONE AMPLIFIER
AUTOMOBILE INDICATOR WITH AUTO SHUT OFF
COMBINED INVERTER, CHARGER AND ELIMINATOR
AUTOMATIC CYCLE LIGHT
CAPACITANCE METER
DIGITAL TAPE COUNTER
IMPROVED AUTO CUT CIRCUIT FOR MANUAL VOLTAGE
REGULATORS
LOW COST NIGHT LAMP
AUTOMATIC OVERHEAD TANK CONTROLLER
ATOMATIC RAIN DETECTOR
CLASS ROOM ADDRESSING SYSTEM
3 HOUR DELAY TIMER
LOW COST TOUCH SIWTCH
ZENER TESTER
IN CIRCUIT TRANSISTOR TESTER
ELECTRONIC LOCK FOR CARS
EFFICIENT USE OF MEMORY
HEAT EFFECTED BUZZER
PREPROGRAMMED PRIORITY DISPLAY
TOUCH SENSITIVE ALARM
BURGLAR ALARM WITH AUTOMATIC CAMERA CONTROL
10 WATT POWER AMPLIFIER
REVERSE POLARITY PROTECTOR
AUDIBLE CAPACITANCE METER
TWO IN ONE ELECTRONIC GAMES
WATER LEVEL CONTROLLER
ACCIDENT FREE ELECTROLOCOMOTIVE
FRIDGE PROTECTOR
AUDIO ANNUNCIATOR FOR AUTOMOBILE FLASHER
HEAD PHONE AMPLIFIER
AUTOMATIC CONTROL OF RADIO
IMPROVED DELAY SWITCH FOR DOORBELL
SIMPLE LOW COST TIMER
HALF HOUR BEEPER FOR DIGITAL CLOCKS
ELECTRONIC THERMOMETER CUM INTENSITY METER
DOUBLING AUDIO CASSETTES RECORDING TIME

SELF RESETTING FUSE ALARM
CHIRPING CIRCUIT
MUSICAL BURGLAR ALARM
DETHUMP CIRCUIT
TEMPERATURE CONTROLLER FOR OVENS
ELECTRONIC RUNNING LIGHTS
TOUCH CONTROL MUSICAL BELL
SELECTED TUNE MUSICAL DOOR BELL
TOUCH CONTROLLED AMPLIFIER

SWITCHED MODE POWER SUPPLY
ELECTRONIC ADVERTISEMENT DISPLAY
MINI T.T. GAME
ELECTRONIC DOOR LOCK
AUTOMATIC TRAFFIC LIGHTS MODEL
DIGITAL SCOREBOARD
MINI GENERAL PURPOSE HEX KEYBOARD
MAKE YOURSELF THIS COLOUR TV-I
MAKE YOURSELF THIS COLOUR TV-II
FULLY PROTECTED POWER SUPPLY FOR DIGITAL
ELECTRONICS
VOISENTRY
5 SIREN PROJECTS USING IC 555
MAKE YOURSELF THIS NEGATIVE ION GENERATOR
FOUR IC 74C926 BASED PROJECTS
MELODIOUS DIGITAL TIMEPIECE
10W+10W CAR STEREO
MAKE YOURSELF THIS 5 BAND HI-FI RECEIVER
TV CUM VIDEO GAMES
DIGI-TEACHER
AUDIO SPECTRUM ANALYSER
SERVO VOLTAGE STABILISER
DELAY SWITCH WITH A DIFFERENCE
ELECTRONIC FUEL LEVEL INDICATOR
TELEPHONE BUG
VOLTAGE SURGE PROTECTOR
PORTABLE STEREO CASSETTE TAPE AMPLIFIER
DIGITAL MEMORY FOR DOORBELL
ELECTRONIC CHASER

AUDIBLE GRIPSCOPE
REMOTE OPTICAL SWITCH
EMERGENCY LAMP CUM CHARGER
INTRUDER ALARM
CONVERT YOUR TAPE RECORDER INTO 2-IN-1
SIMPLE EMERGENCY LIGHT
SPARK PLUG TESTER
CAR OVERHEATING ALARM
SOUND OPERATED LIGHT SWITCH
SPEAKER PROTECTION CIRCUIT
INFRARED REMOTE CONTROL
SINGLE WIRE 2-WAY INTERCOM
MUSICAL DOORBELL CUM SIGNAL INJECTOR
SIMPLE ELECTROLYTIC CAPACITANCE METER
ELECTRONIC SIREN
ELECTRONIC VARIABLE RESISTOR
IDEAL HI-LO CUT OFF
ELECTRONIC PIANO
ELECTRONIC COMBINATION LOCK
SPLIT TREMOLO UNIT
TRUTH TABLE EVALUER
FREQUENCY DOUBLER USING 555 TIMER
SUPER TONE CONTROL ADD-ON
TOUCH SENSITIVE BARKING DOG
MAINS ELECTROSTATIC FIELD DETECTOR
POWER SUPPLY PROTECTION
MULTIPURPOSE MULTISTABLE
MULTIBEOPER
BATTERY STATE INDICATOR
TIMERS WITHOUT 555
SINGLE PHASE PREVENTER WITH ALARM
VARIABLE CURRENT SOURCE
IMPROVED RAIN DETECTOR
SERIAL LAMP FLASHER
REFLEX ACTION GAME
MOTOR BOAT SOUND SIMULATOR
IMPROVED 555 TIMER
MUTING CUM MUSIC CIRCUIT FOR B&W TV
DIGITAL LOGIC PULSER

UNATTACHED PORCH LIGHT/NIGHT LAMP
EXTENDING THE RANGE OF THUMB WHEEL SWITCH
AUTOMATIC SNOOZING FACILITY FOR DIGITAL CLOCK
IC 555 DRIVES STEPPER MOTOR
SECONDS DISPLAY FOR DIGITAL CLOCK
CAPACITANCE METER WITH DIGITAL DISPLAY
MULTIWAY SWITCH
VOLTAGE STEPPER
SIMPLE INEXPENSIVE 'DE-THUMP' CIRCUIT
LINE TESTER
MOTOR BIKE BRAKE HORN
COOLER PUMP PROTECTOR CUM TIMER
SIMPLE WAA -WAA UNIT
ELECTRONIC CIRCUIT BREAKER
UNIQUE CUT-OUT FOR MOTORCYCLE
SINGLE GATE AFO
BICOLOUR LED SEQUENTIAL RUNNING LIGHT
VISUAL INDICATOR FOR TELEPHONES
MUSICAL ALARM FOR DIGITAL CLOCK
AUTOMATIC WATER LEVEL INDICATOR/CONTROLLER
AUDIO LEVEL INDICATOR
BICOLOUR LED FLASHER
TELETALK REPEATER
ELECTRONIC FUSE
POWER SUPPLY RESUMPTION ALARM
ELECTRONIC LUCKY NUMBER
SINGLE CHIP DICE
ELECTRONIC TOGGLE SWITCH
ELECTRONIC BALANCE AND LOUDNESS CONTROL
FREAK MOTOR
ELECTRONIC MAGIC BOX
AM RADIO TRANSMITTER
IMPROVED WATER LEVEL CONTROLLER
ELECTRONIC TEMPERATURE CONTROLLED SOLDERING IRON
CIRCUITS USING PRESSURE SENSITIVE RESISTORS
DO IT YOURSELF NUMBER FINDING GAME
ROMAN ALPHABET DISPLAY
OVERSPEEDING PREVENTER FOR TWO-WHEELERS
DYNAMIC DISPLAY

CONVERSION OF TV INTO CRO
TELL-TALE CLOCK FOR INDUSTRIES
SOLID STATE POWER CONTROLLER
VERSATILE DIGITAL TIMER
STEP BY STEP DESIGN OF ELECTRONIC VOLTMETER
DEW GUARD
ELECTRONIC TUG-OF-WAR
BOOLEAN JUNCTION EMULATOR
AN ELECTRONIC ORGAN
AN ELECTRONIC ROULETTE
POWER MAZE
UNIVERSAL DIGITAL JUNCTION GENERATOR
BOOSTING DIGITAL SUPPLY FOR ANALOGUE APPLICATIONS
VERSATILE 10-DIGIT CODE CLOCK
LIGHT METER
AUTOMATIC EMERGENCY LIGHT
POWER FLASHER USING LM 317T
MUSICAL UJT ORGAN
FM TRANSMITTER
DIGITAL PROBE WITH DUTY CYCLE INDICATION
MORSE RECORDER
ELECTRONIC MIMICER
QUAKE ALARM
REGULATED HIGH VOLTAGE POWER SUPPLY
MULTIPURPOSE BURGLAR ALARM
AUTOMATIC PORCH LIGHT
ELECTRONIC MULTI-WAY SWITCH
LOGIC TESTER
CORDLESS FM MIC
WIRELESS AUTOMATIC TORCH
TONE CONTROL FOR GUITAR AMPLIFIER
4-CHANNEL SEQUENTIAL LIGHTS
DATE INDICATOR FOR DIGITAL CLOCKS
DIGITAL MELODY
FLASHER WITH 741
GUN SOUNDS EFFECT GENERATOR
MATCH BOX SIZE VOICE TRANSMITTER
UNDER/OVER VOLTAGE PROTECTION CIRCUIT WITH DELAY
SUPER SIMPLE GRAPHIC EQUALISER

ULTRA SIMPLE DIGITAL PROBE
ELECTRONIC LETTER BOX
REGULATED POWER SUPPLY WITH BATTERY BACK-UP
SOUND OPERATOR TIMER
ELECTRONIC SHOOTING GAME
SIMPLE ELECTRODICE
MAGICAL ALPHABETS
TOUCH SWITCH STEP CONTROL
AUTOMATIC AC POLARITY CORRECT WITH A TRI-STATE NEON
MONITOR
SIX-IN-ONE AUDIO CIRCUIT
CONTROL 2 LOADS WITH A SINGLE WIRE
TRANSFORMERS POWER SUPPLY
AUTO HEAT LIMITER FOR SOLDERING IRON
ELECTRONIC MOSQUITO DESTROYER
STAIR CASE SIGHTS
HYPNOTIC SPIRAL
VOLTAGE DROP DETECTOR
HI-FI INTERCOM
ECONOMICAL CRYSTAL TIME BASE
BUOY BEACON
SUBSTITUTE FOR BAR GRAPH IC
CONTINUITY TESTER
SUSTAIN CONTROL FOR GUITAR
STAIRCASE VOLTAGE GENERATOR
8-OCTAVE ELECTRONIC ORGAN
MUSICAL 2-TONE CHIME
MUSICAL HORN FOR CARS
3-PHASE VOLTAGE TRIPPER
NON-TRADE SEQUENTIAL DISPLAY
MORE IDEAS USING CHIP 303
DAY DATE COMPUTER
NI-CD BATTERY CHARGER WITH BATTERY SHUT -OFF
CMOS PULSE MONITOR
SMOKE DETECTOR ALARM
CAPACITOR COMPARATOR USING INTEGRATED DUAL TIMER
FREQUENCY COUNTER USING MULTIMETER
BIRD SOUND EMULATOR
REMOTE TV HORIZONTAL BAR GENERATOR

LOGIC NUMBER GAME
MAN MACHINE SOUND GENERATOR
LOGIC TESTER WITH DIGITAL READOUT
LIGHT OPERATED TOY ORGAN
ELECTRONIC LOCK
OBJECT COUNTER
SOIL MOISTURE INDICATOR
PROFESSIONAL METRONOME
TELEPHONE ANSWERING MACHINE
MUSICAL IN/OUT INDICATOR
50HZ OSCILLATOR SOURCE
SHORT CIRCUIT INDICATOR CUM PROTECTOR
TELEPHONE TAP INDICATOR
WATER LEVEL CUM PUMP FAILURE INDICATOR
KNIGHT RIDER LIGHT
MAINS LEAKAGE DETECTOR

MICROFILE
THYRISTORISED POWER CONTROLLER
A VOLUNTEER IN KITCHEN
A LARGER DISPLAY
LOAD PROTECTION CKT FOR SOLID STATE POWER
AMPLIFIERS
GAME CUM FUN PROJECT TOUCH ME NOT
MULTILINGUAL NUMERICAL DISPLAY
BANK TOKEN DISPLAY
80 W STEREO CAR DECK
OFFICE CALL BELL SYSTEM
A STAND ALONE EPROM DUPLICATOR
VERSATILE INTERCOM SYSTEM
ULTRASONIC PEST REPELLER
CMOS LED DIAL CLOCK
REMOTE SWITCHING
PORTABEL 10 W + 10 w STEREO CASSETTE PLAYER
SINGLE BOARD BASIC COMPUTER
MICROPOWER AND HIGH EFFICIENCY ALARM CKT FOR
CLOCKS
SIMPLE ELECTRONIC SIREN
ELECTRONIC THERMOMETER
MUTE SWITCH FOR RADIOS

SIDE TONE GENERATOR
MARUTI CAR FLASHER
MULTI MODE RUNNING LIGHTS
ROTATION SENSOR
THE K SPECIALIST
SOLID STATE BURGLER ALARM
AUDIO AMPLIFIER USING BEL 1895 FOR PORTABLE RADIO
RECEIVER
UNI VARIABLE POWER SUPPLY
SINGLE CHIP ELECTRONIC PULSER CUM PROBE
PLANT TENDER
AC WAVE SLICER FOR USING 115V UNITS ON 230 VOLTS
DIGITAL NOCTURNAL NUISANCE
SIMPLE HEAD OR TAIL
LOUD SPEAKER POLARITY TESTER
MAINS LEAKAGE DISCONNECTOR
PROGRAMMABLE TIMER
BASS BOSTER
LOW COST 10 CHANNEL MULTIPLEXER
AC VOLTAGE STABILISER USING TIMER IC
BATTERY VOLTAGE MONITOR
DING DANG DONG BELL FOR DIGITAL CLOCK
THE YAMAHA SOUND
REMOTE CONTROL SWITCH
STEREO SIMULATOR
4 TUNE SIREN GENERATOR
FLASH XENON TUBE TESTER
STABILISING THE STABILISER
SOLIDATE EMERGENCY LIGHT
RIPPLE-FREE, SHORT CIRCUIT PROTECTED, VARIABLE OUTPUT
VOLTAGE AND CURRENT POWER SUPPLY
TWO IN ONE RADIO CUM TRANSCEIVER
2 TONE DOOR BELL
VERSATILE POCKETIMER
A SIMPLE CAPACITANCE MEASUREMENT BRIDGE
MIND READER
ZENER DIODE TESTER
MUTING FOR STEREO CASSETTE PLAYER
TEST CIRCUIT FOR INWARD INSPECTION OF RELAYS
PORTABLE ORGAN

SOLIDASTATE VOLTAGE INDICATOR WITH HIGH VOLTAGE
CUTOUT

AUTOMATIC OFF FOR UM66 DOORBELL

10 SEGMENT RECORD LEVEL INDICATOR

ELECTRONIC CARBON GUAGE

IC DISCO LIGHT

A TRANSISTORISED SOFT SWITCH

PIEZO BUZZER

BEEPER CIRCUIT

LOW COST TOUCH SENSITIVE SWITCH

HIGH PRECISION FREQUENCY AND VOICE DETECTOR

IN CIRCUIT TRANSISTOR DIODE CHECKER

VU METER WITH LED

JEET STEREO PREAMP

VERSATILE DIGITAL TESTER

QUIZ DISPLAY

ELECTRONIC SWITCH FOR DOOR BELL USING TIMER

DUTY CYCLE SELECTOR

AUTOMATIC DIPPER

LM 1895 IN CASSETTE TAPE RECORDER

MULTI SWITCH CONTROLLED RELAY

THREE-IN-ONE TEST GEAR

TOUCH SWITCH CUM HEAT OPERATED SWITCH

A GENERAL PURPOSE TEMPERATURE SENSING CIRCUIT

AUTOMATIC CIRCUIT BREAKER

SHOCK PREVENTER

RETURN TO ZERO FSK DECODER WITHOUT USING PHASE
LOCK LOOP

ELECTRONIC MOTOR CONTROLLER

DYNAMIC DISPLAY

AN INTERCOM WITH HANDSET

BUILD YOUR OWN 30W+30W STEREO HI-FI DOUBLE CASSETTE
RECORDER

MULTIRANGE ADJUSTABLE TIMER

AUTOMATIC BRIGHTNESS CONTROLLER FOR TVS

A HIGH IMPEDANCE ADAPTER FOR A MULTIMETER

NEO DIGITAL CLOCK

BOOLEAN FUNCTION EMULATOR

BUILT YOUR OWN TWO STAGE UHF TV BOOSTER

REGRIGERATION TEMPERATURE CONTROLLER
HEAVY DUTY VOLTAGE STABILISER
SWITCH MODE POWER SUPPLY FOR PERSONAL COMPUTER
COMPOSITE ELECTRONIC ORGAN
DIGITAL CLOCK WITH ON-OFF TIMER
DAY DATE COMPUTER
ELECTRONIC IGNITION SYSTEM FOR AUTOMOBILES
6-BAND LOW COST GRAPHIC EQUALISER
MAKE YOUR OWN VHF ANTENNA BOOSTER
RESETTING PRJOTECTOR FOR COMPUTERS
ADD-ON TELEPHONE DEVICES
MASTER-SLAVE CLOCK
ADD-ON DEVICES FOR DOUBLE CASSETTE RECORDER
DYNAMIC PSYCHEDELIC LIGHTS
DIGITAL CHANNEL SELECTOR
ELECTRONIC SWITCH FOR 3-BAND TRANSISTOR
ELECTRONIC NUMBER LOCK
THREE-IN-ONE CIRCUIT
MATCH BOX SIZE RADIO
STATIC AUDIO WATTMETER
VARIABLE SWITCHING POWER SUPPLY
TUBELIGHT WITHOUT CHOKE AND STARTER
AUTOMATIC STAR-TO-DELTA CONVERTER
CASSETTE COPIER
A PRECISE TIMER
MAINS SUPPLY INTERRUPTION INDICATOR
SINGLE CHIP CROSSOVER DETECTOR FOR LINE OVER
VOLTAGE
ELECTRONIC CAR HORN
INDICATOR BELL
MULTI-TONE GENERATOR
AM TRANSMITTER
WHITE/LF NOISE GENERATOR
INDOOR ADVERTISING BOARD
SIMPLE TOUCH DIMMER USING TRIACS
CHARGING REMINDER FOR EMERGENCY LIGHTS
1 TO 10 PULSES FROM 4017 COUNTER
5V TO 20V REGULATED POWER SUPPLY
SMOKE ALARM

PULSE GENERATOR
AUTOMATIC VOLTAGE STABILISER
AUTOMATIC 2-MODE RUNNING LIGHT
MW VOICE TRANSMITTER (PEN CELL SIZED)
LOW POWER ALARM WITH AUTOMATIC SWITCH-OFF
SIMPLE ELECTRONIC SAND GLASS
FM COMMUNICATION SYSTEM
MAINS WIRING FAULT DETECTOR
PROGRAMMABLE ORGAN
8 TONE MULTIPURPOSE SOUND GENERATOR
HIGH / LOW VOLTAGE CUT OUT
DIGITAL STOP WATCH
FREQUENCY MEASUREMENT ON MULTIMETER
A SIMPLE INTERCOM
MINI CHASER
MAINS VOLTAGE INDICATOR
ASCII KEYBOARD TESTER
POCKET RADIO CIRCUIT USING NZ 414
COMPACT AUDIO CASSETTE DUPLICATOR
SUPER SIMPLE INTERRUPTION COUNTER
HARMONIC DISTORTION METER
CONDENSER LAMP DIMMER
SIMPLE COUNTER USING CALCULATOR
MULTIOUTPUT REGULATED POWER SUPPLY
IMPROVED MELODY DOORBELL
VOLTAGE WINDOW COMPARATOR FOLLOWS REFERENCE
VOLTAGE
LOW COST DIGITAL CODE COMBINATION LOCK
SECONDS DISPLAY FOR DIGITAL CLOCK
10 CHANNEL TOUCH SWITCH
AUTO CUT FOR MANUAL STABILISERS
DELAY STARTER
DOOR ALARM
SIMPLE JAM
THE LED SCANNER
MELODY FROM IC TIMER
DISCO LIGHT PROJECT
IC VOLTAGE REGULATOR
AUDIO FREQUENCY OSCILLATOR

LINEAR HIGH CURRENT REGULATOR
IGNITION INDICATOR
SIGNAL INJECTOR CUM TRACER
MUSICAL AF/IF CHECKER
INVERTER BASED 3 IN 1 TIMER
ALL IN ONE CIRCUIT FOR FRIDGE
NI-CD CELL CHARGER
DIGITAL VOLUME CONTROLLER
PHASE SEQUENCE CHANGE INDICATOR
LML VESPA FLASHER
DUAL TRACE GENERATOR
COMPLEMENTARY LIGHTING CONTROL
SHORT PROOF POWER SUPPLY
UNIVERSAL CELL EVALUATOR
OVERDRAIN PROTECTOR FOR LEAD - ACID ACCUMULATORS
CLAP SWITCH

AUDIO CASSETTE COPIER
TWO WAY INTERCOM
FULL FEATURED TOUCH CONTROL PROGRAMMABLE POWER
SUPPLY
HIT THE TARGET AN ELECTRONIC GAME
STEREO SPECTROGRAPH
DIGITAL TIME SWITCH
DIGITAL FREQUENCY COUNTER
FIRE SENSING SYSTEMS
SPECTECULAR SPECTRA
CLAP OPERATED REMOTE CONTROL FOR FANS
8W + 8 W STEREO AMPLIFIER MODULE
MAKE YOURSELF AUTOMATIC MUSIC SEARCH SYSTEMS
DIGITAL VOLUME CONTROL
COOK TIMER
VARIABLE SPEED MULTI OUTPUT RUNNING MODE LED
DISPLAY
CMOS POCKETABLE TIME KEEPER
ELECTRONIC NUMBER SHOOTING GAME
CMOS DIGITAL CLOCK WITH ON OFF TIMER
70/40 WATTS HIFI AMPLIFIER
THE UNIVERSAL TIMER
AUTOMATIC VOLTAGE STABLISER

DIGITAL CAR LOCK WITH ALARM
AM FM RADIO RECIEVER USING BELL 7220
ELECTRONIC SWITCH STARTER
STEREO BALANCE INDICATOR
VERSATILE AUTO CUT OFF UNIT
STAIRCASE LIGHT SWITCH
WIRELESS RECORDING
A VERSATILE DECIBEL METER
SOUND OPERATED MUSICAL BELL
FUZZ EFFECT BOX FOR GUITARISTS
VIDEO DISTRIBUTION AMPLIFIER
LOW COST MUSICAL HORN
TEN CHANNEL SEQUENTIAL LIGHTING FOR CARS
CONVERSION OF DMM INTO FREQUENCY COUNTER
AUTO POWER OFF FOR MOTOR PUMPS
BEEPER CUM VISUAL INDICATOR
ELECTRONIC WASHING MACHINE CONTROL
TRIANGULAR WAVEFORM GENERATOR
AUTO CHANGEOVER FROM GENSET TO MAINS SUPPLY
TRANSFORMER TEST CIRCUIT TO OVERCOME LINE VOLTAGE
VARIATION
AUTOMATIC GATE LIGHT
POCKET RADIO USING LA 4510
TELEPHONE MELODY RINGER
DYNAMIC DISPLAY
STEAM WHISTLE
PROGRAMMABLE TIMER
LED STOP WATCH
LIE DETECTOR
TEMPERATURE CONTROLLED SOLDERING IRON STATION
MINI EMERGENCY LIGHT
AUTOMATIC TIME INDICATOR FOR TELEPHONE
WIND SOUND GENERATOR
AUTOMATIC CUT-OFF POWER SUPPLY
BATTERY CHARGER WITH OVERCHARGE AND DEEP
DISCHARGE PROTECTION
ELECTRONIC BALLAST FOR TUBELIGHT
COMPRESSOR / EXPANDER UNIT (COMPANDER)
ADJUSTABLE BIPOLAR VOLTAGE REGULATOR
HEX TO BINARY ENCODER

ELECTRONIC SIREN
SELF SWITCHING OFF POWER SUPPLY
SOUND OPERATED TIMER
TELEPHONE AMPLIFIER CUM BROADCASTER
QUIZ DISPLAY WITH SEVEN SEGMENT INDICATOR
ELECTRONIC STAIRCASE SWITCH
FULLY AUTOMATIC INDUCTION MOTOR STARTER
TEMPERATURE CONTROLLED OSCILLATOR
POWER BACK UP FOR DIGITAL CLOCKS
ANALOGUE FREQUENCY METER WITH OVER RANGE
INDICATOR
VERSATILE STROBOSCOPE
IN-CIRCUIT OHMMETER (OHMMETER FOR ELECTRONIC
CIRCUIT)
PRIORITY LAMP SYSTEM
MINIATURE IC ORGAN
QUARTZ WATCH TESTER
AUTOMATIC CONTROL FOR SITOUT LIGHTS
SIMPLE POWER SUPPLY RESUMPTION ALARM
1/86400 Hz GENERATOR
PROGRAMMABLE FREQUENCY MULTIPLIER USING PLL565
AUTO OFF FOR CASSETTE PLAYERS
ELECTRONIC CHARGER
TRANSISTORISED WARNING ALARM
ELECTRONIC NUMBER SCORING GAME
RAIN SOUND GENERATOR
DOUBLE TUNE CAR REVERSE HORN
TRAFFIC LIGHT CONTROLLER
SOPHISTICATED NI-CD CHARGER
THREE BIT FLASH ANALOGUE TO DIGITAL CONVERTER
PROGRAMMABLE DIGITAL TIMER
MULTI PATTERN RUNNING LIGHT
EIGHT SOUND GENERATOR
A NOVEL DISPLAY
AUDIO RUNNING LIGHTS
HEARING AID
FUEL LEVEL DROP INDICATOR
AUTOMATIC SUCTION TANK MOTOR CONTROLLER
12 HINDI SONG TUNES PRODUCER
SIMPLE FREQUENCY METER

100 RUNG EXCLUSIVE COUNTER
INEXPENSIVE GUITAR AMPLIFIER
VIDEO TRANSMITTER
WIRELESS CODE PRACTICE OSCILLATOR
LIGHT AND TOUCH OPERATED MUSIC BELL
ELECTRONIC FUSE
MULTISOUND BUZZER
CRYSTAL CONTROLLED INVERTER

Projects for
Students

PROJEC**T**HESIS

List of Gold Class
Projects

MICROCONTROLLER BASED SECURITY SYSTEM USING CELLULAR TECHNOLOGY

The recent spat of daylight robberies at the jewelers has prompted us to undertake this project. This is a Research & Development project having commercial value. A typical situation in case of a daylight armed robbery is that miscreants enter the shop posing as customers, suddenly they brandish their guns and ask the shopkeepers to hand over cash and valuables. The phone lines are instantly cut and no one is allowed to leave the shop. There is absolutely no way to raise an alarm or contact the police. It is not even possible to take out a cellphone with the danger that the slightest move might invite a bullet.

In such a helpless situation, imagine that in one of the drawers there is concealed switch which when opened gives a signal to the microcontroller which in turn has a serial interface with a cellular phone which immediately dials a predecided phone number which may be a cellular phone or a ordinary landline, and the person on that phone is alerted of the robbery and not only this the voices inside the shop

are also made audible. .
With an addition of
infrared proximity sensors
even the need to open the
drawer to trigger the alarm
is not required and by just
moving the hand near the
sensor will start the
security system.

The party to be alerted
could be the police or some
close friend or relative who
can take action
immediately depending on
the situation. Since all the
conversation inside the
shop is audible so it is
possible that even the
escape route or the best
way to counter them could
be planned from the
information got from the
conversation.

This security system could
be used not only in shops
and commercial
establishments but also in
homes, cars etc. Imagine
this system in your car.
The moment it is stolen
you are able to hear all the
conversation inside the car.
You might be able to hear
the robbers saying which
route to follow or in which
garage they plan to hide
the car.

With cellular phone costs
becoming affordable and
the usage tariff plans
becoming economical this
project has a financial
viability. The best part is
that since it uses cellular
technology the reliability is
very high. There is a

chance of ordinary landline phones being out of order but cellular phones are very reliable.

SMS BASED MACHINE MONITORING SYSTEM

SMS messages on the GSM network are generally used by people to exchange information, but these can be used by machines to communicate with each other similar to blue tooth technology. Suppose if a machine overheats or there is a short ckt in the machine or the machine catches fire it can automatically send a SMS to the desired person or machine top initiate real time action.

SMS BASED MACHINE CONTROL SYSTEM

SMS messages on the GSM network are generally used by people to exchange information, but these can be used by machines to communicate with each other similar to blue tooth technology. The machine can be made to operate remotely by sending SMS messages to the machine.

MICROCONTROLLER BASED PROTECTION OF HIGH RISE BUILDINGS

Recently the WTC attack has left a indelible scar on

the psychology of the people. This project attempts to make a prototype of a system which can be used to protect high rise buildings against arial attack. The stepper motor moves a Tx which shoots pulses in all directions and the reflected signal is picked up and analysed to detect the direction and size of object approaching the building and a weapon is fired in that direction.

DIGITAL CVT

Voltage fluctuations are quite common and can result in damage to costly equipment. This project provides regulation and is better than conventional voltage regulation devices since it has no moving parts, has small size, quit operation, Less lossy and has fast response. The output is controlled through Triac Switching controlled by Digital circuitry.

MICROPROCESSOR BASED DIGITAL CVT

Voltage fluctuations are quite common and can result in damage to costly equipment. This project provides regulation and is better than conventional voltage regulation devices since it has no moving parts, has small size, quit

operation, Less lossy and has fast response. The output is controlled through Triac Switching controlled by Microprocessor which can be 8085 or any other.

MICROCONTROLLER BASED DIGITAL CVT

Voltage fluctuations are quite common and can result in damage to costly equipment. This project provides regulation and is better than conventional voltage regulation devices since it has no moving parts, has small size, quiet operation, Less lossy and has fast response. The output is controlled through Triac Switching controlled by Microprocessor which can be 8085 or any other.

COMPUTER BASED DIGITAL CVT

Voltage fluctuations are quite common and can result in damage to costly equipment. This project provides regulation and is better than conventional voltage regulation devices since it has no moving parts, has small size, quiet operation, Less lossy and has fast response. The output is controlled through Triac Switching controlled by Microprocessor which can be 8085 or any other.

MICROPROCESSOR BASED X-Y PLOTTER

A picture is worth a thousand words. Sometimes better visualization is given by a plot of the parameter to be measured. This project draws on a sheet of paper a plot of any selected parameter like temperature pressure etc wrt time.

MICROCONTROLLER BASED X-Y PLOTTER

A picture is worth a thousand words. Sometimes better visualization is given by a plot of the parameter to be measured. This project draws on a sheet of paper a plot of any selected parameter like temperature pressure etc wrt time.

IBM PC BASED X-Y PLOTTER

A picture is worth a thousand words. Sometimes better visualization is given by a plot of the parameter to be measured. This project draws on a sheet of paper a plot of any selected parameter like temperature pressure etc wrt time.

MICROPROCESSOR BASED QUALITY CONTROL EQUIPMENT

This project first builds a look up table by giving various inputs and outputs to the Godd test sample Device which has to be tested in the QC and then checks the specimens by comparing it with this reference table.

IBM PC BASED QUALITY CONTROL EQUIPMENT

This IBM PC first builds a look up table by giving various inputs and outputs to the Godd test sample Device which has to be tested in the QC and then checks the specimens by comparing it with this reference table.

MICROCONTROLLER BASED QUALITY CONTROL EQUIPMENT

This microcontroller first builds a look up table by giving various inputs and outputs to the Godd test sample Device which has to be tested in the QC and then checks the specimens by comparing it with this reference table.

MICROPROCESSOR BASED TEMPERATURE CONTROL

In this project the microprocessor compares the temperature at any instant with the preset value and if it exceeds the

set point it switches off the heating element using a Electromagnetic Relay

IBM PC BASED TEMPERATURE CONTROL

In this project the IBM PC compares the temperature at any instant with the preset value and if it exceeds the set point it switches off the heating element using a Electromagnetic Relay. It also draws a graph of the temperature on the screen

MICROCONTROLLER BASED TEMPERATURE CONTROL

In this project the microcontroller compares the temperature at any instant with the preset value and if it exceeds the set point it switches off the heating element using a Electromagnetic Relay.

MICROPROCESSOR BASED PRESSURE CONTROL

In this project the Microprocessor compares the pressure at any instant with the preset value and if it exceeds the set point it switches off the pump using a Electromagnetic Relay.

IBM PC BASED

PRESSURE CONTROL

In this project the IBM PC compares the pressure at any instant with the preset value and if it exceeds the set point it switches off the pump using a Electromagnetic Relay. It also draws a graph of the pressure on the screen

MICROCONTROLLER BASED PRESSURE CONTROL

In this project the Microprocessor compares the pressure at any instant with the preset value and if it exceeds the set point it switches off the pump using a Electromagnetic Relay.

IBM PC BASED CHARACTERSTIC PLOTTER

This project can draw the characteristics of any device ie Diode, Transistor, FET, UJT, any other black box on the screen of the computer. The characteristics of devices vary within the lot of the same manufacturer and also drift with time or physical conditions. So with the help of characteristic plotter accurate characteristics can be obtained by spending minimum time. The characteristics of devices are very important as these decide where to bias a

particular device so that the output does not go into saturation or cut-off

MICROPROCESSOR BASED CHARACTERSTIC PLOTTER

This project can draw the characteristics of any device ie Diode, Transistor, FET, UJT, any other black box on paper. The characteristics of devices vary within the lot of the same manufacturer and also drift with time or physical conditions. So with the help of characteristic plotter accurate characteristics can be obtained by spending minimum time. The characteristics of devices are very important as these decide where to bias a particular device so that the output does not go into saturation or cut-off

MICROCONTROLLER BASED CHARACTERSTIC PLOTTER

This project can draw the characteristics of any device ie Diode, Transistor, FET, UJT, any other black box on paper. The characteristics of devices vary within the lot of the same manufacturer and also drift with time or physical conditions. So with the help of

characteristic plotter
accurate characteristics can
be obtained by spending
minimum time. The
characteristics of devices
are very important as these
decide where to bias a
particular device so that the
output does not go into
saturation or cut-off

MICROPROCESSOR BASED SURVEILLANCE SYSTEM

This project can have a
combination of proximity
sensors and other line of
sight sensors to prevent
intrusion in a home or
office building.

IBM PC BASED SURVEILLANCE SYSTEM

This project can have a
combination of proximity
sensors and other line of
sight sensors to prevent
intrusion in a home or
office building.

MICROCONTROLLER BASED SURVEILLANCE SYSTEM

This project can have a
combination of proximity
sensors and other line of
sight sensors to prevent
intrusion in a home or
office building.

MICROPROCESSOR BASED HIV TESTER

Doctors and nursing staff have a risk of contacting AIDS while conducting the tests of the patients. This project is an automatic system for HIV testing. It is also useful since it can enable the patient to undergo testing in privacy.

IBM PC BASED HIV TESTER

Doctors and nursing staff have a risk of contacting AIDS while conducting the tests of the patients. This project is an automatic system for HIV testing. It is also useful since it can enable the patient to undergo testing in privacy.

MICROCONTROLLER BASED HIV TESTER

Doctors and nursing staff have a risk of contacting AIDS while conducting the tests of the patients. This project is an automatic system for HIV testing. It is also useful since it can enable the patient to undergo testing in privacy.

MICROPROCESSOR BASED MICROWAVE DATA COMMUNICATION

Microwaves have been used extensively to establish line of light links

from one exchange to another since these can carry wide bandwidths and can accommodate a number of channels. This project establishes a line of sight microwave link.

IBM PC BASED MICROWAVE DATA COMMUNICATION

Microwaves have been used extensively to establish line of light links from one exchange to another since these can carry wide bandwidths and can accommodate a number of channels. This project establishes a line of sight microwave link.

MICROCONTROLLER BASED MICROWAVE DATA COMMUNICATION

Microwaves have been used extensively to establish line of light links from one exchange to another since these can carry wide bandwidths and can accommodate a number of channels. This project establishes a line of sight microwave link.

MICROPROCESSOR BASED SOUND SCRAMBLER

In any communication system security is the main concern. Police or Armed forces want that no one

should be able to listen to what is being transmitted on the communication channel to avoid spying. This system scrambles digitally the audio sent over the channel and only if the password is known the other end can descramble it.

IBM PC BASED SOUND SCRAMBLER

In any communication system security is the main concern. Police or Armed forces want that no one should be able to listen to what is being transmitted on the communication channel to avoid spying. This system scrambles digitally the audio sent over the channel and only if the password is known the other end can descramble it.

MICROPROCESSOR BASED STORAGE AND REPRODUCTION OF SOUND

Automatic Voice Response Systems are in lot of use these days. For example when you call spice a voice prompt greets you and gives directions to finding the required information. Similarly answering machines also have the capability of storing and playing back sound. This project does this digitally without any magnetic tape

etc. The advantage is that there is no wear and tear and less chances of system breakdown.

DIGITAL EVENT SEQUENCER

If one machine after the other is to be switched on automatically this project helps in event sequencing.

MICROPROCESSOR BASED CONTROL OF SOLAR PANELS

Renewable sources of energy are gaining importance these days and Solar energy is the most abundant form of energy available which can be tapped. But the problem with solar energy is that the sun keeps changing direction and the solar panels are fixed. So they operate at only 25% efficiency. This project automatically tracks the direction of sun and aligns the panels in that direction.

MICROCONTROLLER BASED CONTROL OF SOLAR PANELS

Renewable sources of energy are gaining importance these days and Solar energy is the most abundant form of energy available which can be tapped. But the problem with solar energy is that the sun keeps changing

direction and the solar panels are fixed. So they operate at only 25% efficiency. This project automatically tracks the direction of sun and aligns the panels in that direction.

DIGITAL CONTROL OF FURNACE

In this project the digital ckt compares the temperature at any instant with the preset value and if it exceeds the set point it switches off the heating element using a Electromagnetic Relay.

DIGITAL INFRA RED OBJECT COUNTER

Machine for counting of currency is very prevalent in the banks these days. It really saves a lot of time and effort. Such counters can also be used in industry for counting small objects like screws, washers, nuts, bolts etc.

IBM BASED DATA ACQUISITION AND CONTROL

With the opening of economy and globalisation and liberalization only those companies will survive which have automation to compete with the multinationals. This project helps to use the computer for inputting data corresponding to any

parameter and its control. The computer normally is being used merely as a typewriter with no interface with the external world. This project helps industry for optimal use of computer hardware.

I.C. TESTER

All ICs look alike when seen. By just visual inspection it is not possible to make out if the IC is good or bad. So this project gives the set of desired inputs and gets the outputs and compares these to the correct ones stored in the look up table to ascertain if the IC is good or bad.

VIRUS AND VACCINE

Terminate and Stay resident programs capture computer interrupts on the sly and have malicious code which can result in data loss or computer mal operation. This project involved design of one such code and also a computer program which detects the presence of virus and removes it.

PILOT APTITUDE TESTER

A lot of fuel is wasted in practice when training pilots to fly the aeroplanes. With PAT a joystick is interfaced with the

computer to simulate the real life controls of the plane with the pilot. By operating the controls the pilot is able to control the plane and the view is simulated on the screen.

AUTOMATED GUIDED VEHICLE

Automation is the key to higher productivity and profits. Material handling is often the weakest chain in the link and manual labour is generally used employed to carry goods which results in accidents and wastage. This can be prevented using AGV for material handling. The vehicle carrying goods moves on a line drawn on the production floor from one point to the other automatically.

MICROPROCESSOR BASED ROBOTIC ARM

Depending on degrees of freedom and sensor and grip geometry a number of robotic arms can be designed for different uses controlled by a microprocessor.

DIGITAL ROBOTIC ARM

Depending on degrees of freedom and sensor and grip geometry a number of robotic arms can be designed for different uses

controlled by a digital circuit.

IBM PC BASED ROBOTIC ARM

Depending on degrees of freedom and sensor and grip geometry a number of robotic arms can be designed for different uses controlled by a computer.

TV DIAGNOSTIC SYSTEM

This is an Expert System which can help in fault diagnosis but it can be easily modified to diagnose faults in any other system.

MICROPROCESSOR BASED PAGING SYSTEM

In this the microprocessor frames the message by adding a capcode dependent on the pager which is decoded by the Rx to display the message if it is intended for it.

IBM PC BASED INDUSTRIAL AUTOMATION SYSTEM

With the opening of economy and globalisation and liberalization only those companies will survive which have automation to compete with the multinationals. This project helps to use the computer for inputting

data corresponding to any parameter and its control. The computer normally is being used merely as a typewriter with no interface with the external world. This project helps industry for optimal use of computer hardware.

IBM PC BASED DIGITAL SIGNAL PROCESSING SYSTEM

This project converts analog to digital and then processes it and again converts the Digital data back into analog.

MICROPROCESSOR BASED TV PATTERN GENERATOR

To trouble shoot a TV a TV pattern generator comes in handy as it provides a stable signal source for diagnosing faults.

IBM PC BASED DC MOTOR CONTROL

This project not only controls on/off and speed of the Dc motor but also reverses the direction of rotation of the DC motor.

MICROPROCESSOR BASED HEAT TRACKING SYSTEM

Similar to heat tracking system of missiles, this system tracks heat for other

purposes like automatic guarding of Bank safe vaults etc.

MICROPROCESSOR BASED ECG SYSTEM

This project captures the low frequency pulses that cause muscle contractions of the heart and draws an ECG waveform for diagnosis by the doctors.

MICROPROCESSOR BASED SOUND RECOGNITION SYSTEM

It can distinguish different notes on the frequencies and can even print the sargam being played on the synthesizer.

MICROPROCESSOR BASED LIGHT RECOGNITION SYSTEM

This project is the first step towards image recognition system where a grid of photoelectric cells acts like a compound eye for distinguishing various patterns.

DESIGN AND REAL TIME ANALYSIS OF DIGITAL CKTS

This project enables the testing of the Digital Ckt. Without actually assembling it. The ckt can be drawn on the screen and it automatically generates the truth table

and output waveforms.

MICROPROCESSOR BASED SEISMIC SURVEILLANCE SYSTEM

This project is able to record the low frequency signals caused by the tectonic movements and can help in prediction of earthquakes.

IBM PC BASED SEISMIC SURVEILLANCE SYSTEM

This project is able to record the low frequency signals caused by the tectonic movements and can help in prediction of earthquakes.

MICROPROCESSOR BASED SOUND POLLUTION MONITOR

It measures the sound pollution in dB and can help the law enforcement agencies to curb the menace of sound pollution.

MICROPROCESSOR BASED TEMPERATURE PRINTING SYSTEM

This datalogger eliminates the need for having a computer for printing the values of temperature being measured and straight away drives the printer without the need for

computer. Imagine the savings in terms of space, money, manpower, airconditioning, table, chair, operators etc.

MICROCONTROLLER BASED WEIGH SCALE FOR RURAL AREAS

This datalogger eliminates the need for having a computer for printing the values of weight being measured and straight away drives the printer without the need for computer. Imagine the savings in terms of space, money, manpower, airconditioning, table, chair, operators etc.

DIGITAL DRILL CONTROL

Suppose if it is required to drill a hole of 3mm and 5 mm deep. The normal way to do it is to take a vernier and use hit and trial to drill and measure till the required depth is reached. Chances of overshoot are there and also it is time consuming. With digital drill control a Thumb wheel switch can be used to set the depth of the hole to be drilled and the drill automatically stops after reaching the required depth.

MICROPROCESSOR BASED DRILL

CONTROL

Suppose if it is required to drill a hole of 3mm and 5 mm deep. The normal way to do it is to take a vernier and use hit and trial to drill and measure till the required depth is reached. Chances of overshoot are there and also it is time consuming. With microprocessor based drill control it can be programmed to set the depth of the hole to be drilled and the drill automatically stops after reaching the required depth.

CNC CONTROL OF MACHINE

This machine converts ordinary machine into a CNC machine. For example in ordinary lathe the X-Y movement of the tool bit is controlled manually through handles and lead screws. This leads to errors and lot of manpower requirement to do a repetitive task. With CNC interface the computer drives the lathe and it saves time and improves accuracy.

MICROPROCESSOR BASED CAR ENGINE MANAGEMENT SYSTEM

This system monitors the engine temperature, speed, pressure etc and controls

the spark plug firing and fuel supply accordingly.

MICROPROCESSOR BASED PATTERN GENERATOR FOR CRO

Modern CRO comes with the facility to display the reading in digital format and other info in Alphanumeric format on the screen of the CRO. This project converts ordinary CRO into the one having alphanumeric display capability.

MICROPROCESSOR BASED DSP SYSTEM

This project converts analog to digital and then processes it and again converts the Digital data back into analog.

OPTICAL FIBER DATA COMMUNICATION

These days the voice and video signals are digitized and sent over the optical fiber. This project implements data link between two computers.

ERROR CORRECTION AND DETECTION ON OPTICAL FIBER

Due to impurities in the fiber or otherwise physical strain on the fiber at times errors are introduced. These can be corrected

using this project.

OPTICAL FIBER BASED TDMA SYSTEM

Optical Fiber has immense bandwidth and suppose if x number of users want to talk simultaneously from one place to another through optical fiber, then it is not economical to lay x optical fibers so multiplexing can be used to share the bandwidth with many users. One such technique is TDMA in which different Tx transmit at different time slots. This is implemented in this project.

OPTICAL FIBER BASED FDMA SYSTEM

Optical Fiber has immense bandwidth and suppose if x number of users want to talk simultaneously from one place to another through optical fiber, then it is not economical to lay x optical fibers so multiplexing can be used to share the bandwidth with many users. One such technique is FDMA in which different Tx transmit at different frequencies. This is implemented in this project.

OPTICAL FIBER BASED CDMA SYSTEM

Optical Fiber has immense bandwidth and suppose if x

number of users want to talk simultaneously from one place to another through optical fiber, then it is not economical to lay x optical fibers so multiplexing can be used to share the bandwidth with many users. One such technique is CDMA in which different Tx transmit data and append a code before it which helps the Rx to distinguish which data packet is for which user. This is implemented in this project.

OPTICAL FIBER SOUND COMMUNICATION

After exhausting the wireless spectrum more and more dependence is on Optical fiber as the medium of communication. This project has an audio optical fiber transmitter and receiver along with a facility of sending a bell or ringer tone to alert the Rx that there is a call.

OPTICAL FIBER VIDEO COMMUNICATION

This project has a video transmitter and receiver for implementing video link. This link is useful in radiation prone areas since optical fiber is immune to it.

SPLICER

Optical Fiber cannot be joined like ordinary conducting cable and needs a Splicer to connect it in case it is broken. This project makes a Splicing machine for Optical Fibers.

OPTICAL FIBER HEAT SENSOR

Besides being used for communication purposes optical fiber can also be used as a sensor. This project uses optical fiber for heat sensing.

OPTICAL FIBER PRESSURE SENSOR

Besides being used for communication purposes optical fiber can also be used as a sensor. This project uses optical fiber for pressure sensing.

OPTICAL FIBER LIGHT SENSOR

Besides being used for communication purposes optical fiber can also be used as a sensor. This project uses optical fiber for light sensing to detect fires.

PROXIMITY SENSOR

You must have seen automatic doors being operated in movies when a person stands in front of it. This project detects the presence of any person or

object in the designated vicinity. It can also be used for warning while reversing the car.

COMPLEX WAVEFORM GENERATOR FOR COMMUNICATION TESTING

The normal signal generators in the labs can generate square, sine or triangular waveforms, but in order to test the modern communication and test equipment complex waveforms are required for input. These can be managed using a complex waveform generator where the user can input the waveform required.

MICROPROCESSOR BASED DISH WASHER

The drudgery of washing the utensils can be avoided using the microprocessor based dishwasher. It automatically controls soap dispenser and incoming and outlet of water etc.

TELEPHONE CALL RECORDER

This device can be used as a powerful bug to listen to anyone's conversation over the phone. The ckt need not be in close proximity to the phone and can be installed anywhere in the path of the incoming telephone line. The

conversation is recorded on a tape which can be played back at convenience.

IBM PC BASED RADAR

The stepper motor moves a Tx which shoots pulses in all directions and the reflected signal is picked up and analysed to plot direction and size of objects around the area.

VHDL BASED PROJECTS

7-Segment display decoder.

Converts Hex to 7 segment logic

Error detecting in data transmission.

Logic to detect the error in the serial data transmission at the receiver end. By using the different tech.

Such as huffman coding, parity check, etc.

Error detecting and correcting in the serial data transmission.

Logic to detect the error in the data transmission and logic to correct the data without retransmitting the data by huffman coding.

Code Generator

A logic to generate the some finite number of codes serially.

Code detector

A logic for getting the data

serially and detecting it. If extended sequence arises then set the flag bit.

7400 series tester

A logic for testing the 7400 TTL chips for functionality.

VHDL Codes for D Flip Flop modeling.

D flip flop modeling with the setup time, hold time, reset recovery time violations.

Controller for Sample bus arbiter

Controller for Vending Machine

Floating Point Division Unit

Floating Point Multiplication Unit

Floating Point ALU

Square root of the Floating Point number

Complex Integer ALU

Stack Processor

Cache memory controller

Traffic Light controller

Controller for JTAG BIST

Ethernet Controller

PCI/USB