Trimity Technologies
Electronics Engineering Projects

Sr.No	Project Title	Objectives
1	Solar Based E-Uniform for Soldiers (Domains / Embedded applications)	The main objective of this project is to maintain constant health parameter by representing through Cooling fan and Peltier module
2	Internet of Things-based Photovoltaics Parameter Monitoring System Using NodeMCU (Domains / Embedded applications)	The main objective of this project is to get the values of parameters and uploading through the web server
3	A Prototype of an Arduino-based Protection System to Overcome Voltage Fluctuations (Domains / Embedded applications)	The main objective of this project is to protect the Electrical system from Over voltages as well as Under voltages by Turning OFF the Load connected to the system
4	Automatic Pet Feeding System Using Google Assistant and Node MCU (Domains / Embedded applications)	The main objective of this project is to create a system for feeding pet with Google Assistant with Node MCU controller
5	Vision Based Parking Occupation Detecting with Embedded AI Processor (Domains / Arduino+Python)	The main objective of this project is to detect the parking slot availability using Camera and Processor through Python
6	Monitoring Social Distancing and Crowd Through Camera for Preventing Reducing COVID Spread (Domains / Arduino+Python)	The main objective of this project is to detect whether crowd is maintaining social distance or not through Camera
7	High Protection Voice Identification Based Bank Locker Security System (Domains / Arduino+Python)	The main objective of this project is to provide high protection to bank locker through Voice identification and face recognition
8	Smart Device for Blind People (Domains / Arduino+Python)	The main objective of this project is to know the object Infront of blind person by object detection and to send location of person when feels panic
9	IOT and Deep Learning Based Approach for Rapid Screening & Face Mask Detection for Infection Spread Control (Domains / Arduino+Python)	The main objective of this project is to detect face mask and measure temperature for controlling spread of virus
10	Real Time Application for Vehicle Anti-Theft Detection and Protection with Shock Using Facial Recognition and Mail Notification (Domains / Arduino+Python)	The main objective of this project is to protect the vehicles from thieves by using face recognition and sends the alerts through mail along with Shock Mechanism if someone trying to steal the vehicle.
11	Object Detection Using IOT and ML to Avoid Accident & Improve Road Safety (Domains / Arduino+Python)	The main objective of this project is to detect objects by using YOLO algorithm through Python to provide Road safety
12	Memory Management and Security Surveillance in CCTV Footage (Domains / Arduino+Python)	The main objective of this project is to provide Surveillance security without human efforts and storing the video in mail
13	Fire Detection and Control System Using Arduino and Webcam (Domains / Arduino+Python)	The main objective of this project is to detect the fire using Web camera and control it through Pump motor

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14	IOT Based Baby Monitoring System for Smart Cradle (Domains / Arduino+Python)	The main objective of this project is to monitor baby when dear ones are far away from baby and to swing cradle if baby is crying using DC motor
15	Smart Security System for Suspicious Activity Detection in Volatile Areas (Domains / Arduino+Python)	The main objective of this project is to provide security by sending captured video to mail when any suspicious activity happened in volatile areas
16	Machine Learning Based Smart Home for Differently Abled People (Domains / Arduino+Python)	The main objective of this project is to control home appliances without any physical challenge which will be helpful for differently abled people
17	Seat Belt Alarm and Controlling of Vehicle (Domains / Arduino+Python)	The main objective of this project is to alert driver about Seat belt and controlling vehicle accordingly
18	Automatic Intruder Detection and Alerting System Via Mail (Domains / Arduino+Python)	The main objective of this project is to detect the intruder and alert the owner by sending mail
19	A Smart Access Control for Restricted Buildings Using Vehicle Number Plates Recognition System (Domains / Arduino+Python)	The main objective of this project is to allow the vehicles whose vehicle numbers are authorized only
20	Driver Drowsiness Detection (Domains / Arduino+Python)	The main objective of this project is to detect whether driver is drowsy or not by interfacing camera with Python installed in PC
21	Smart Door Unlocking System with Face Recognition (Domains / Arduino+Python)	The main objective of this project is to unlock the door if face is recognized, otherwise door will not be opened
22	Monitoring the Movements of Wild Animals and Alert System Using Deep Learning Algorithm (Domains / Arduino+Python)	The main objective of this project is to monitor movements of objects using YOLO algorithm and gives alert when wild animal is detected
23	Facial Recognition Smart Glasses for Visually Impaired People (Domains / Arduino+Python)	The main objective of this project is to give support for visually impaired people by adding face recognition in the system
24	Covid Disinfectant Tunnel Using Face mask Detection & Temperature Monitoring (Domains / Arduino+Python)	The main objective of this project is to detect face mask and monitor temperature for preventing from COVID infection
25	Prevention of Mobile Usage while Boarding and De-boarding through Bus Alert System (Domains / Controllers +Arduino)	The main objective of this project is to prevent a mobile usage of a driver while he is in driving by detecting a person and mobile through Camera
26	An Emergency Message and Call System for People with Epilepsy (Domains / Embedded applications)	The main objective of this project is to send an immediate call and message which is useful for Epilepsy people
27	Real-time Alert System for Auxiliary Transformer Failures (Domains / Electrical)	The main objective of this project is to give alert for failure of Transformer by overloading issues
28	Microcontroller Application in Feeding Fish Using an Android Mobile (Domains / WSN)	The main objective of this project is to feed fish by using commands form Mobile

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29	Internet of Things based Smart Flood forecasting and Early Warning System (Domains / Embedded applications)	The main objective of this project is to alert when rain detects, flood detects and warn if they cross threshold values
30	Farm Animal Location Tracking System Using Arduino and GPS Module (Domains / Embedded applications)	The main objective of this project is to locate farm animals and track them using GPS module
31	Design and Development of Robotic Vehicle for Isolation Ward (Domains / Robotics)	The main objective of this project is to develop a Robotic vehicle which can measure health parameters so that it will be useful for Isolation ward
32	Sign Recognition and Voice Conversion Device for Dumb (Domains / Controllers / Raspberry pi)	The main objective of this project is to recognize signs of dumb people and convert into voice commands
33	Sign Recognition and Voice Conversion Device for Dumb (Domains / Controllers / Arduino)	The main objective of this project is to recognize signs of dumb people and convert into voice commands
34	Face Recognition Based Door Lock System using Arduino and Webcam (Domains / OpenCV)	The main objective of this project is to develop a cost-effective system for higher security purpose that will only allow the authorized person by their facial features
35	Voice Recognizing Elevator System (Domains / Robotics)	The main objective of this project is to avoid the spreading of virus through lift buttons. Here we are giving voice commands to control the lift
36	Improving the Performance Efficiency of Village Pond Cleaner Using Arduino in the Basis of Bluetooth Controlled Process (Domains / Robotics)	The main objective of this project is to clean waste on surfaces of water bodies like ponds, rivers etc.
37	Contactless Doorbell System (Domains / Robotics)	The main objective of this project is to avoid contact while pressing door bell. The presence of a person within one meter will be identified and an alarm will be generated to alert people in the house.
38	River Cleaning Robot (Domains / Robotics)	The main objective of this project is to clean waste on surfaces of water bodies
39	Rotary to Linear Conversion (Domains / Robotics)	The main objective of this project is to show the mechanism of converting Rotary to linear motion.
40	A Portable Device for Measuring Social Distance and Alerting (Domains / Robotics)	The main objective of this project is to strictly implement social distancing between people so that the chances of preventing covid19 will increases. The system will alert the person if any person identified within distance of 3 fts.
41	RC Surveillance Car Using Raspberry pi along with Smartphone Controller by Wi-Fi and Bluetooth Technologies (Domains / Robotics)	The main objective of this project is to make use of both Wi-Fi and Bluetooth technologies for live video streaming and controlling of robot respectively.
42	Crowd Avoidance Door for Covid Safety (Domains / Robotics)	The main objective of this project is to allow the Employs or Staff through the RFID cards and public will wait at lobby, if necessary, employs use Bluetooth or button to open the door and enter the public inside the room or hall
43	Automatic Rain Protection for Field Crops (Domains / Robotics)	The main objective of this project is to Protect the crops from Rain automatically by arranging cover to crops within small area
44	Arduino based Automated Safety Ensuring System for Passenger Boats (Domains / Embedded applications)	The main objective of this project is to save the lives of individual persons and avoid accidents of boats.

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45	Smart Currency Counting Machine Using Arduino	The main objective of this project is to find the value of the particular note and the value will be added to the main balance.
46	Human Emotion Detection Using Open CV (Domains / OpenCV)	The objective of this project is to recognize the human emotions based on their facial expressions
47	Head-Motion Controlled Wheelchair (Domains / Robotics)	The objective of this project is used to control the wheel chair based on head movements
48	Image Text to Speech Conversion in the Desired Language by Translating with Raspberry Pi (Domains / OpenCV)	The main objective of this project is to convert the language from English to other defined languages and providing output through speakers. So that people who can't understand English can make more use of it.
49	Vehicle Speed Detection using Machine Learning Approach (Domains / OpenCV)	The main objective of this project is to identify the speed of vehicle through predefined machine learning files. If there is an overspeed, an SMS alert will be sent to authorities.
50	Arduino based Medicine Reminder and Vending Machine (Controllers / Arduino)	The main objective of this project to remind the elder people to take medicine in time along with it, it also dispenses the right medicine for that time.
51	Face Mask Detection Using Arduino & ESP32 CAM Module (Domains / Embedded applications)	The main objective of this project is to detect the face mask while entering into any public place like shopping malls, offices, schools, etc. The Highlight in this project is using ESP32 Cam, we are detecting face masks.
52	Attendance System Using Face Recognition Using Raspberry Pi (Domains / OpenCV)	The main objective of this project is to recognize face for Attendance monitoring using Raspberry Pi
53	Detect People in a Frame Using Raspberry Pi with Open CV (Domains / OpenCV)	The main objective of this project is to detect people in a frame using OpenCV
54	Unlocking Home Automation System by Face Detection Using ESP32 camera (Domains / Embedded applications)	The main objective of this project is to control home appliances by face detection through ESP32 camera
55	Smart Building Energy Management System Using Machine Learning And IOT (Domains / Machine Learning)	Temperature, gas values, pressure values and motion detection
56	WSN Based Mountain Climber Health & GPS Tracker (Domains / WSN)	The main objective of this project is to track the location and health condition of Mountain climber
57	Advanced vehicle Monitoring System and Automatic Vehicle Dim and Brightness Controlled using NRF24L01 Module (Domains / WSN)	The main objective of this project is to monitor vehicle light brightness using Wireless Communication
58	Biometric Based Exam Gate Authentication System with SMS Alert (Domains / Embedded applications)	The main objective of this project is to open and close gate using Biometric Authentication
59	Ultrawide Band Radar System for Through Wall Human Vital Signs Detection (Domains / Embedded applications)	The main objective of this project is to detect human signs using Radar sensor
60	Real Time Smart Attendance Monitoring System with Image	The main objective of this project is to Monitor attendance with Image processing by face recognition and also Temperature scan

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	Processing and Thermal Scanning (Domains / OpenCV)	
61	Notice Board and LCD Display Using IOT (Domains / IOT)	The main objective of this project is to Display the Text on notice Board using IoT
62	Automatic Page Flipper with Voice Recognition (Domains / Embedded applications)	The main objective of this project is to Flip the paper to left and right sides by give voice commands through Bluetooth
63	A Robust Security Framework for Cloud-Based Logistics Services (Domains / IOT)	The main objective of this project is to provide security in Logistic Department in intruder prospective
64	Design and Implementation of IoT System for Aeroponic Chamber Temperature Monitoring (Domains / Embedded applications)	The main objective of this project is to monitor and control Temperature in the root chamber which is suitable for Plant Growth
65	Portable Roadside Sensors for Vehicle Counting Classification & Speed Measurement (Domains / OpenCV)	The main objective of this project is to measure speed of vehicle by using Two Ultrasonic sensors and sending the over speed vehicle image to cloud
66	IOT Flood Monitoring & Alerting System (Domains / IOT)	The main objective of this project is to monitor Floods by getting sensors data on IoT platform
67	Intrusion Detection System Using Regulated Patrolling Robots for Apartments (Domains / Robotics)	The main objective of this project is to develop a robot which can patrol during Night times for Intruder Detection in Apartments
68	Smart Parking Solutions for On-Street and Off-Street Parking (Domains / OpenCV)	The main objective of this project is to give better solution for problems facing while parking
69	Smart Footwear and Shocking Band for Women Security (Domains / Embedded applications)	The main objective of this project is to provide women safety by sending their location with GSM message
70	Fully Automated Smart Crop Field Protection System Against Numerous Behaviors of Wild Animals (Domains / Embedded applications)	The main objective of this project is to protect the Crop field from different sources of distraction due to Wild Animals
71	Deep Learning Based Parametric Model for V2V Communication System (Domains / WSN)	The main objective of this project is to communicate between two vehicles for better Transportation model
72	Cloud Assisted School Children Tracking System (Domains / WSN)	The main objective of this project is to build tracking system for School Children and monitoring their location in Server
73	Scalable Edge Device Model for Early Wild Life Fire Detection System (Domains / Machine Learning)	The main objective of this project is to develop a model for fire Detection in forest for Wild life protection
74	Vehicle Theft Intimation over SMS and Remote Control of its Engine (Domains / Embedded applications)	The main objective of this project is to notify owner about vehicle theft and also controlling of Engine from Remote place
75	IoT based Energy Efficient Smart Street Lighting Technique with Air Quality Monitoring (Domains / IOT)	The main objective of this project is to Integrate both Air Quality and Street Lighting Systems for Energy conservation

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76	Smart Home for Helpless Old Aged People (Domains / WSN)	The main objective of this project is to Control home appliances easily so that it robot will be helpful for Old Age people
77	Designing IoT-Based Independent Pulse Oximetry Kit as an Early Detection Tool for Covid-19 Symptoms (Domains / Biomedical)	The main objective of this project is to know COVID symptoms earlier for avoiding its spread
78	Automated Fluid Level Sensing and Controlling System Using IoT (Domains / IOT)	The main objective of this project is to measure the Fluid level in Borewells, tanks etc. to assist and alert everyone
79	IoT Based Air Quality Monitoring System with Server Notification (Domains / IOT)	The main objective of this project is to monitor parameters of air for measuring Quality and uploading data to server
80	Home Security System for the Hearing-Impaired Using ML (Domains / Machine Learning)	The main objective of this project is to assist Hearing Impaired people by using Machine Learning for making Home secure with Face recognition
81	Smart Home with Wireless Smart Doorbell with Smart Response (Domains / OpenCV)	The main objective of this project is to make every action in Home as Smart by building Smart Doorbell with Smart Response
82	Automated Street Light Control and Manhole Monitoring with Fault Detection & Reporting System for Municipal Department (Domains / Embedded applications)	The main objective of this project is to integrate Street Light controlling and Manhole monitoring for better Transportation
83	LED Advertising Board Based on IOT E-Circular Notification for Students Through WIFI (Domains / Embedded applications)	The main objective of this project is to develop an Advertising board for displaying notifications in different places
84	Secure Home Entry Using Raspberry Pi with Notification via Telegram (Domains / IOT)	The main objective of this project is to allow Authorized persons into home and capture Image of Unauthorized person, sending through Telegram
85	Security Experiences in IoT based Applications for Building and Factory Automation (Domains / IOT)	The main objective of this project is to build Security system by controlling appliances in Buildings and Factories using Server
86	Smart Borewell Child Rescue System Through Wireless Monitoring Using Artificial Intelligence (Domains / Artificial Intelligence)	The main objective of this project is to Rescue Child from Borewell by measuring distance of child from ground level
87	Intelligent Access Control System for Granary Based on Face Recognition and Oxygen Concentration (Domains / Machine Learning)	The main objective of this project is to give access to Authorized persons to enter into Granary and also to monitor inside parameters
88	Fully Automated Progressive Productive Monitoring and Hazardous Detection System for Smart Poultry Farming (Domains / Embedded applications)	The main objective of this project is to monitor Temperature, Light Intensity, Gas levels in Poultry for fully Automated system
89	Virtual Fencing using Yolo Framework in Agriculture Field (Domains / Machine Learning)	The main objective of this project is to Monitor Agriculture field through Technological Advancement like YOLO framework

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90	A Smart Access Control for Restricted Buildings Using Vehicle Number Plates Recognition System (Domains / Machine Learning)	The main objective of this project is to allow only Authorized Vehicles into the Buildings or Apartments by keeping Database of Vehicle plate numbers
91	E-Agriculture: Irrigation System based on Weather Forecasting (Domains / IOT)	The main objective of this project is to build an Irrigation system which can be able to monitor Weather conditions and Turning ON/OFF motor Automatically
92	Timeline Driven Dynamic Vehicle Speed Control System for Next Generation ITS System (Domains / Embedded applications)	The main objective of this project is to Control the Vehicle speed in prescribed Time period by using Zigbee Technology
93	Stored Grain Pests Monitoring System Based on Raspberry Pi (Domains / Embedded applications)	The main objective of this project is to Monitor Pests in Stored Grain by capturing image of Pests and also for monitoring Temperature, Light Intensity and Gas values in Stored grain
94	Smart Buggy: An IoT Based Smart Surveillance Robotic Car Using Raspberry Pi (Domains / Robotics)	The main objective of this project is to develop a Robot with Camera attached to it for Surveillance
95	Block-Matching Methods to Help Navigating Visually Impaired People using Raspberry PI Platform (Domains / Embedded applications)	The main objective of this project is to Help Visually Impaired People by navigating their Location using Raspberry Pi processor through GPS
96	Design of a Vaccine Storage and Transportation System in Remote Areas Based on Raspberry Pi (Domains / Biomedical)	The main objective of this project is to monitor Temperature, Gas levels in Vaccine Storage System for transporting them to Remote places.

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