Final Report of Seminar VI, Wakkanai Hokusei Gakuen University, 2021

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| Whether or not to enter the President's Award | | YES | |
| Thesis title | | VEHICLE MONITORING AND ACCIDENT ALERT SYSTEM USING IoT | |
| Abstract  The Internet of Things (IoT) plays a prominent role in today’s world. Everything is being smart and intelligent. IoT has created an ecosystem that links many systems to give smart performances in every task. This project is about the design and implementation of Vehicle monitoring and Accident alert system using modern IoT devices. It comprises the integration between a GPS receiver, gyro sensor, LCD display, a microcontroller and Blynk application. This project can be divided into two main parts i.e. the hardware development part which includes the wiring connection of GPS receiver, LCD display, Gyro sensor with a microcontroller and the software development part which includes developing source code for microcontroller.  The advancement in the field of transportation has not only increased the use of vehicles, but also increased the risk of road accident. In Nepal, due to the bad road network in the hilly regions, there is always a risk of tilting and overturning of vehicle causing accident. We often hear the news of vehicle being out of contact for many days. Every year, many people lose their life for not being rescued in time. Although many scientifically advanced tracking system are introduced in technically developed countries, these systems are not in reach for the underdeveloped countries as they are expensive to purchase and difficult to implement. Therefore there is a need of a cheap and affordable system that helps to monitor the position of vehicle in real time and also alert when something uncertain happens.  The main objective of this research is to develop an inexpensive system that can monitor different vehicle behavior like position, speed, location, inclination, etc. in real time, suggest the driver for safe driving, and alert the concerned authorities in case of uncertainties and accident. If we are able to monitor the vehicle behavior, we can conduct the immediate rescue operations in case of accident, which will minimize the possible damages of accident. | | | |