

Louise: A smart data acquisition system

Today, we live in an information era where, each and every thing on this planet generate and consume large amount of data with present technology we can extract data from single electron to explosion of a star. It is also said that data is money in today's world. So it is necessary to have an innovative approach for data acquisition. This project is to present an innovative approach for data acquisition using, the existing messaging platforms like Telegram.

Imagine a simple use-case/example in automobile. It has several sensors like air pressure, battery, accelerometers, fuel level sensors etc. If you are some where away from the car and want to know how much fuel/battery is remain in car.. you can just ask the car by simple question as if you are talking to a friend by using telegram application.

You: hey car how are you?

Car: Sir, I weak now.. my battery is 25% only I need some energy.

Where can it be used?

Car Infotainment system, home automation, Personal assistant

Implementation :

Implementation is realised with Raspberry pi and set of APIs like weather, translator

Raspberry pi is my system which runs the Louise. Telegram application for adding Louise to your contacts and getting data.

System consists of temperature sensor and camera for data acquisition and also some additional implementation like weather, music, jokes, conversation have been add to show the efficiency of system.

What system can do?

you can ask system these questions in natural language like humans ask:

Give me readings for temperature sensor ? - It can give you information of temperature sensor

Take a picture- it will take picture and post it to twitter

Play music - it shuffles and play music

Tell me a joke- it will tell a joke

Give me weather update berlin, germany - provides you weather information

It can translate from, english to german

Advantages:

Normal apps are static by interaction.conversation with hardware is can make devices be our friends by creating an humanoid experience.

Devices can be expressive.

Using this approach we can implement and extend any functionality to our imagination.

We are eliminating the use of any extra app by using messaging platforms as base for having a conversational task implementation.

APPs are functionally restricted eg: a weather app can give only weather it cannot translate any language **using telegram messenger you are adding louise just as a contact in you phone.**