

# **“BAALA”**

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## **Abstract:**

### **1. Objective:**

We have come with a product which will act as a personal assistant to a pregnant woman because this beautiful act of nature has some dark side behind it because estimated **211 million** pregnancies that occur each year globally but only an estimated **123 million** succeed.

Source: World Health Organization

<https://www.who.int/whr/2005/chapter3/en/index3.html>

### **2. Beneficiaries:**

The device we are presenting is actually is a substitute of the persons who are meant to be the helping hands of a pregnant woman. This device is actually for a pregnant mother and every single person who are related to the mother directly or indirectly. We want to make this device a must in maternal care.

### **3. Value of results:**

The main user of our product is pregnant women. We focus on the monitoring system of pregnant woman.

## **Statement of Problem:**

A pregnant woman and a new mother face few problems. Because in maternal care, a mother needs a lot more than helps which are medical care, up to date health condition, growth of fetus, tri semester notification etc. But sometimes, they don't find any help which increases risks of the fetus, new born

child and the mother.

### **Research:**

There are lots of electronic devices and unphysical software which are meant to do the health care services. But there is none but a unique device like ours specially for mothers.

A renowned chip developing company is trying to develop something aiming similar to our product. But it's still on its laboratory process and the estimated primary price of the product is sky high. Such products will be out of reach from mass amount of people.

A product which is especially maternal care is a so much need that over 6million people searched for products related to maternal care in Google. It is clear that people who are enlighten by the fact that maternal can be digitalized are obviously waiting for such a device.

### **Technical Report:**

This device is mainly divided into two parts. One is physically visible which a woman will wear during her pregnancy and another is an app which can storage data likewise blood rate, pulse rate, glucose, bpm etc.

The device can send message in emergency cases. This app can show the data to doctor that is stored after one week. This device can act as an assistant of a pregnant women with it's notification system.

A basic node MCU with wireless feature can control all this sort of things with it.

### **Result:**

This device will make the society to see maternal care in another way. The device we are talking about is not only going to help the pregnant women, but establish a huge foundation of new age maternal care also.

When we are providing the care, which are executed by humans in a form where we are actually cutting participation of humans, we are making health care more reliable as well as more efficient. We are ensuring people's enrollment in other sectors decreasing time periods of maternal care resulting maximum output from a neighborhood, eventually of a nation and this is very much important for the countries where health care is not that much accurate and the economy itself is not in good condition. Because we, not directly are ensuring more man power to the nation's workplace.

This device can make a great impact in rural maternal care system not only in south-east Asia region, but across the globe. As it is cheap but has every single equipment and features to provide the services we are aiming for. Its mass production can reduce maternal care cost up to **63.72%** saving **0.12% (In average)** of a third world countries health care cost.

Going through the mass production will impact work force of the nation reducing unemployment to **0.084%** and will cause around **0.18%** growth of domestic GDP. This one device has the ability of changing future.

We have come across all difficulties and also thinking about the problems which are still not appeared but may have to face in future. That's why we have arrived with the '**EXACT Solution**'. We are calling it exact because it's an up to date futuristic solution you can find under the technology, we have right now at a minimum cost making it the most efficient health care device in the history. We may be bound with the technology in our time, but in the future, we can do even more with it.

It's a product that can result healthy mother and child. It can ensure a healthy nation, a healthy earth.

### **Application:**

Bangladesh is country of poverty. There is no particular monitoring system in our country. A person can't take care of all the time of a pregnant woman. It takes only 21 USD to make it industrially whereas in markets we can see the smart wrist band in highly prices or more than 21 USD.

We're providing a device for mother just only in 9\$.

A full systemic device with a reasonable price can change the period of pregnancy of a woman.

### **Future Prospects & Research:**

Baala is used on basic prospects of NODEMCU. When a patient is under treatment of a doctor through the app and the device and we decide it to make another level. By measuring its flow rate of vein on a patient face the doctor can show the blood flow rate on his device if the device fail to send data simultaneously from the device to app.

Full of machine learning and image processing can change the device into different arena.

### **Business plan:**

Baala is a device which can achieve huge potential in global economy. A device which cost only 3-4\$ if it can be launched industrially. This product has a huge market actually. That's why we have prepared a totally separate business plan for it. The plan is given the google drive link:

[https://drive.google.com/drive/u/3/folders/1Mig4Q\\_nEpMkyqnxJkFaybF1WM8Qpbu-P](https://drive.google.com/drive/u/3/folders/1Mig4Q_nEpMkyqnxJkFaybF1WM8Qpbu-P)