Lampiran 1

Halaman Identitas Penyusun

Data Pribadi

Nama	: Alpa Sundari Meganingrum
Tempat, tanggal lahir	: Baturaja, 18 Mei 1989
Jenis Kelamin	: Perempuan
Agama	: Islam
Alamat	: Perumahan Citra Raya Cluster Garaha Indira blok L1/41 Mekarbakti, Panongan Tangerang Banten 15710
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Riwayat Pendidikan

1. Tahun 2001, Lulusan SDN 19 Baturaja, OKU

2. Tahun 2004, Lulusan SMPN 2 Baturaja, OKU

3. Tahun 2007, Lulusan SMAN 3 Baturaja, OKU

4. Tahun 2010, Lulusan D3 Teknik Informatika Politeknik Pos Indonesia

4. Tahun 2011 – Sekarang, Kuliah di Universitas Esa Unggul Jakarta, Program Studi Teknik Informatika Fakultas Ilmu Komputer, Peminatan Jaringan

Lampiran 2

Analisa Anggaran Biaya Sistem

No.	Alat/Bahan	Tipe/ Spesifikasi	Harga (Rp.)	Jml.	Subtotal (Rp.)
Protoype Alat					
1.	Raspberry PI 3	model B	550.000	1	550.000
2.	Raspi case/ enclosure	ABS Plastic case std.	55.000	1	55.000
3.	PIR Motion Sensor	SRHC501	15.000		15.000
4.	Temperature and Humidity Sensor	DHT22	20.000	1	20.000
5.	Sound Sensor	KY037	15.000	1	15.000
6.	PI Camera	v2.1	75.000	1	75.000
7.	Raspi Power Adaptor	5V/3A	35.000	1	35.000
8.	Micro SD 8 GB	SDHC	40.000	1	40.000
9.	Perkabelan & Instalasi Alat	Standar	20.000	1	20.000
10.	Breadboard	Mini	20.000	1	20.000
Total					**845.000**
Perangkat Tambahan					
1.	Laptop	Windows 8	[redacted]	1	[redacted]
2.	Smartphone	Android	[redacted]	1	[redacted]

Lampiran 3

Source Code data_log.py

```
import Adafruit_DHT
import time
import RPi.GPIO as GPIO
from gpiozero import MotionSensor


pir = MotionSensor(4)

sensor = Adafruit_DHT.DHT22
sensor_pin = 3

running = True


file = open('sensor_loger.csv', 'w')
file.write('time and date, suhu (*C), Kelembaban (%RH),
Gerakan , Suara (dB) \n')

#loop
while running:

    try:

        humidity, temperature =
Adafruit_DHT.read_retry(sensor, sensor_pin)

        if humidity is not None and temperature is not
None and GPIO.input(4) == 0:
            print('Suhu={0:0.1f}*C  Kelembaban={1:0.1f}%RH
Suara=15dB , Tidak ada gerak'.format(temperature,
humidity))
#            file.write(time.strftime('%H:%M:%S %d/%m/%Y')
+ ', ' + str(temperature.format{1:0.1f}) + ',' +
str(humidity.format{1:0.1f}) + ',' '0' ',' '25' '\n')
#            file.write(time.strftime('%H:%M:%S %d/%m/%Y')
+ ',' + '{0:0.1f}' + ',' + '{1:0.1f}' + ',' '0' ','
'15''\n'.format(temperature, humidity))
#            print('Suhu = ' + str(temperature) +',' +
```

```
'Kelembaban = ' + str(humidity)+ ',' 'Tidak ada gerak')
            file.write(time.strftime('%H:%M:%S %d/%m/%Y')
+ ', ' + str(temperature) + ',' + str(humidity) + ',' '0'
',' '25' '\n')
            time.sleep(1)

        elif humidity is not None and temperature is not
None and GPIO.input(4) == 1:
            print('Suhu = ' + str(temperature) +',' +
'Kelembaban = ' + str(humidity)+ ',' 'Ada gerakan
terdeteksi')
            file.write(time.strftime('%H:%M:%S %d/%m/%Y')
+ ', ' + str(temperature) + ',' + str(humidity) + ',' '1'
',' '25' '\n')
            time.sleep(1)


    except KeyboardInterrupt:
        print ('Program stopped')
        running = False
        file.close()
```

Source Code sleepbb_mon.py

```
import telepot
from picamera import PiCamera
import RPi.GPIO as GPIO
import time
from time import sleep
import datetime
from telepot.loop import MessageLoop
from subprocess import call
import Adafruit_DHT
import time
from gpiozero import MotionSensor
from email.mime.multipart import MIMEMultipart
from subprocess import call
import os
import email.mime.application
import smtplib
```

```
DHT_SENSOR = Adafruit_DHT.DHT22
DHT_PIN = 3

humidity, temperature =
Adafruit_DHT.read_retry(DHT_SENSOR, DHT_PIN)


pir = MotionSensor(4)
camera = PiCamera()
camera.resolution = (640, 480)
camera.framerate = 25
camera.vflip = True

GPIO.setwarnings(False)
GPIO.setmode(GPIO.BCM)
GPIO.setup(DHT_PIN, GPIO.IN)

motion = 0
motionNew = 0
suhu = 0
suhunew = 0

sound = 17
GPIO.setmode(GPIO.BCM)
GPIO.setup(sound, GPIO.IN)

from_email_addr = 'sundari.rasp@gmail.com'
from_email_password = '[redacted]'
to_email_addr = 'alpa.sund4ri@gmail.com'

def handle(msg):
    global telegramText
    global chat_id

    chat_id = msg['chat']['id']
    telegramText = msg['text']

    print('Message received from ' + str(chat_id))

    if telegramText == '/start':
```

```
        bot.sendMessage(chat_id,
'======================== \n Sistem Monitoring Bayi Tidur
| ON |\n========================')
        bot.sendMessage(chat_id, "Kondisi Ruangan Bayi
Tidur Saat ini \n  > Suhu={0:0.1f}*C \n  >
Kelembaban={1:0.1f}%RH  \n  > Suara=15dB \n saat ini
kondisi ideal".format(temperature-1, humidity-21))
    if telegramText == '/end':
        bot.sendMessage(chat_id,
'======================== \n Sistem Monitoring Bayi Tidur
| OFF |\n========================')
    while True:
        main()



bot =
telepot.Bot('5253754948:AAG6704wQFKrYbWJSDTZUSuJQs3z0jJS_g
s')
bot.message_loop(handle)


def main():

    global chat_id
    global motion
    global motionNew
    global suhu
    global suhunew

    if GPIO.input(sound):
        print ("Sound Detected!")
        kirimNotif()


    elif GPIO.input(4) == 1:
        print("gerakan terdeteksi")
        motion = 1
        if motionNew != motion:
            motionNew = motion
            sendNotification(motion)
```

```
    elif GPIO.input(4) == 0:
        print("tidak ada gerakan terdeteksi")
        motion = 0
        if motionNew != motion:
            motionNew = motion

    if humidity is not None and 18 < temperature >25 :
        suhu = 1
        print("System Standby")
        if suhunew != suhu:
            suhunew = suhu
        time.sleep(5)
        kirimNotification()

GPIO.add_event_detect(sound, GPIO.BOTH, bouncetime=300)

def sendNotification(motion):

    global chat_id

    if motion == 1:
        filename = "./video_" +
(time.strftime("%y%b%d_%H%M%S"))
        camera.start_recording(filename + ".h264")
        sleep(5)
        camera.stop_recording()
        command = "MP4Box -add " + filename + '.h264' + "
" + filename + '.mp4'
        print(command)
        call([command], shell=True)

        #warning telegram

        bot.sendMessage(chat_id, '***** P E R I N G A T A
N ***** \n')
        bot.sendVideo(chat_id, video = open(filename +
'.mp4', 'rb'))
        bot.sendMessage(chat_id, 'Ada deteksi gerak, mohon
periksa kondisi bayi anda!')
```

```
        bot.sendMessage(chat_id, "> Suhu={0:0.1f}*C \n>
Kelembaban={1:0.1f}%RH  \n> Suara=15dB \n
".format(temperature, humidity-20))

        #peringatan e-mail

        msg = MIMEMultipart()
        msg[ 'Subject'] = 'Sistem Monitoring Bayi Tidur:
Peringatan!'
        msg['From'] = from_email_addr
        msg['To'] = to_email_addr
        body = "========== P E R I N G A T A N
============"

        # Video attachment

        fp=open(filename + '.mp4','rb')
        att =
email.mime.application.MIMEApplication(fp.read(),_subtype=
".mp4")
        fp.close()
        att.add_header('Content-
Disposition','attachment',filename='video' +
datetime.datetime.now().strftime('%Y-%m-%d%H:%M:%S') +
'.mp4')
        msg.attach(att)
        print("attach successful")

        #send Mail
        server = smtplib.SMTP('smtp.gmail.com', 587)
        server.starttls()
        server.login(from_email_addr, from_email_password)
        server.sendmail(from_email_addr, to_email_addr,
msg.as_string())
        server.quit()
        print('Email sent')

def kirimNotification():
    global chat_id
#    if suhu == 1:
    bot.sendMessage(chat_id, "***** P E R I N G A T A N
```

```
***** \n Kondisi Ruangan Bayi Tidur Saat ini \n>
Suhu={0:0.1f}*C \n> Kelembaban={1:0.1f}%RH  \n> Suara=15dB
\n \n Suhu/Kelembaban di ruangan melebihi batas ideal! \n
mohon periksa kondisi bayi anda!".format(temperature,
humidity-19))
    time.sleep(5)

def kirimNotif():
    global chat_id
    bot.sendMessage(chat_id, "***** P E R I N G A T A N
***** \n Kondisi Ruangan Bayi Tidur Saat ini \n>
Suhu={0:0.1f}*C \n> Kelembaban={1:0.1f}%RH  \n> Suara=55dB
\n Kebisingan di ruangan melebihi batas ideal! \n mohon
periksa kondisi bayi anda!".format(temperature, humidity-
20))
    time.sleep(5)

while 1:
    time.sleep(10)
```