

LAMPIRAN

HALAMAN PERSETUJUAN

RANCANG BANGUN *PROTOTYPE IRCS (INTEGRATED RAMP CHECK SYSTEM)* PADA KENDARAAN BUS DI TERMINAL PURABAYA SURABAYA

*DESIGN OF PROTOTYPE IRCS (INTEGRATED RAMP CHECK SYSTEM)
ON BUS VEHICLES IN SURABAYA PURABAYA TERMINAL*

Disusun oleh

Irfan Utomo Aji

Notar : 17.I.0432

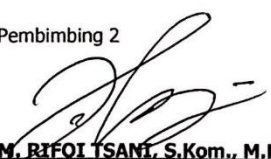
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tanggal 27 - 10 - 2020

ii

Asistensi ke #.	Hari / Tanggal	Uraian	Paraf

Ketua Program Studi D.IV MKTJ

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 PENYUSUNAN SKRIPSI



NAMA TARUNA : *IRFAN UTOMO AJI*
 NO. TARUNA : *17-1-0132*
 JUDUL SKRIPSI :

DOSEN PEMBIMBING 1. *ETHYS PRANDYO, M.T*
 2. *MOKHAMMAD RIFGI TSANI, M.Eng*

KEMENTERIAN PERHUBUNGAN
 BADAN PENGEMBANGAN SDM PERHUBUNGAN
 POLITEKNIK KESELAMATAN TRANSPORTASI JALAN
 PROGRAM STUDI D.IV MANAJEMEN KESELAMATAN
 TRANSPORTASI JALAN
 2020

Asistensi ke #.	Hari / Tanggal	Uraian	Paraf
1	Kamis / 8-okto-2020	Konsep Penelitian	
2	Rabu / 21-okto-2020	Kendala Penulisan	
3	Jumat 23-okto-2020	Konsultasi komponen penelitian & flowchart.	
4	Selasa 27-okto-2020	Revisi flowchart dan penulisan.	

Asistensi ke #.	Hari / Tanggal	Uraian	Paraf
1	3 / 10 / 20	Pengenalan konsep	(Rik Elysi)
2	16 / 10 / 20	Paparan Bab 1 - III	(Rik Elysi)
3	25 / 10 / 20	Paparan revisi bab 1 - III (Via Google Meet)	(Rik Elysi)

Scanned with CamScanner

Lampiran Bahasa Pemrograman PHP

1. Rampcheck.php

```
<!DOCTYPE html>
<html>
<head>
  <?php include "header.php"; ?>
  <title>Rekapitulasi Bus Masuk</title>
</head>
<body>

  <?php include "menu.php"; ?>

  <!-- isi -->
  <div class="container-fluid">
    <h3>Rekap Bus</h3>
    <table class="table table-bordered">
      <thead>
        <tr style="background-color: grey; color:white">
          <th style="width: 10px; text-align: center">No.</th>
          <th style="text-align: center">Nama</th>
          <th style="text-align: center">Tanggal</th>
          <th style="text-align: center">Jam
            Kedatangan</th>
          <th style="text-align: center">Jam
            Berangkat</th>
        </tr>
      </thead>
      <tbody>
        <?php
```

```

include "koneksi.php";

//baca tabel absensi dan relasikan dengan tabel
karyawan berdasarkan nomor kartu RFID untuk tanggal hari ini

//baca tanggal saat ini
date_default_timezone_set('Asia/Jakarta');
$tanggal = date('Y-m-d');

//filter absensi berdasarkan tanggal saat ini
$sql = mysqli_query($konek, "select b.nama,
a.tanggal, a.jam_masuk, a.jam_pulang from absensi a, namabus b where
a.nokartu=b.nokartu and a.tanggal='$tanggal'");

$no = 0;
while($data = mysqli_fetch_array($sql))
{
    $no++;
?>
<tr>
<td> <?php echo $no; ?> </td>
<td> <?php echo $data['nama']; ?> </td>
<td> <?php echo $data['tanggal']; ?> </td>
<td> <?php echo $data['jam_masuk']; ?> </td>
<td> <?php echo $data['jam_pulang']; ?> </td>
</tr>
<?php } ?>
</tbody>
</table>
</div>

```

```
<?php include "footer.php"; ?>
```

```
</body>
```

```
</html>
```

2. Bacakartu.php

```
<?php
```

```
    include "koneksi.php";
```

```
    //baca tabel status untuk mode absensi
```

```
    $sql = mysqli_query($konek, "select * from status");
```

```
    $data = mysqli_fetch_array($sql);
```

```
    $mode_absen = $data['mode'];
```

```
    //uji mode absen
```

```
    $mode = "";
```

```
    if($mode_absen==1)
```

```
        $mode = "Datang";
```

```
    else if($mode_absen==2)
```

```
        $mode = "Berangkat";
```

```
    //baca tabel tmprfid
```

```
    $baca_kartu = mysqli_query($konek, "select * from tmprfid");
```

```
    $data_kartu = mysqli_fetch_array($baca_kartu);
```

```
    $nokartu    = $data_kartu['nokartu'];
```

```
?>
```

```
<div class="container-fluid" style="text-align: center;">
```

```
    <?php if($nokartu=="") { ?>
```

```

<h3>Sesi : <?php echo $mode; ?> </h3>
<h3>Silahkan Tempelkan Kartu RFID Anda</h3>
 <br>


<?php } else {
    //cek nomor kartu RFID tersebut apakah terdaftar di tabel namabus
    $cari_namabus = mysqli_query($koneksi, "select * from namabus where
nokartu='$nokartu'");
    $jumlah_data = mysqli_num_rows($cari_namabus);

    if($jumlah_data==0)
        echo "<h1>Maaf! Kartu Tidak Dikenali</h1>";
    else
    {
        //ambil nama namabus
        $data_namabus = mysqli_fetch_array($cari_namabus);
        $nama = $data_namabus['nama'];

        //tanggal dan jam hari ini
        date_default_timezone_set('Asia/Jakarta') ;
        $tanggal = date('Y-m-d');
        $jam = date('H:i:s');

        //cek di tabel absensi, apakah nomor kartu tersebut sudah ada
sesuai tanggal saat ini. Apabila belum ada, maka dianggap absen masuk,
tapi kalau sudah ada, maka update data sesuai mode absensi

        $cari_absen = mysqli_query($koneksi, "select * from absensi where
nokartu='$nokartu' and tanggal='$tanggal'");

        //hitung jumlah datanya
        $jumlah_absen = mysqli_num_rows($cari_absen);

```

```

        if($jumlah_absen == 0)
        {
            echo "<h1>Selamat Datang <br> $nama</h1>";
            mysqli_query($konek, "insert into absensi(nokartu,
            tanggal, jam_masuk)values('$nokartu', '$tanggal', '$jam')");
        }
        else
        {
            //update sesuai pilihan mode absen
            if($mode_absen == 2)
            {
                echo "<h1>Hati Hati <br> $nama</h1>";
                mysqli_query($konek, "update absensi set
                jam_pulang='$jam' where nokartu='$nokartu' and tanggal='$tanggal'");
            }
        }
    }

    //kosongkan tabel tmpfid
    mysqli_query($konek, "delete from tmpfid");
} ?>

```

```
</div>
```

3. databus.php

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<?php include "header.php"; ?>
```

```
<title>Data BUS</title>
```

```
</head>
```

```
<body>
```



```

<?php include "menu.php"; ?>

<!--isi -->
<div class="container-fluid">
    <h3>Data BUS</h3>
    <table class="table table-bordered">
        <thead>
            <tr style="background-color: grey; color: white;">
                <th style="width: 10px; text-align: center">No.</th>
                <th style="width: 200px; text-align: center">No.Kartu</th>
                <th style="width: 400px; text-align: center">Nama</th>
                <th style="text-align: center">No. Kendaraan</th>
                <th style="width: 100px; text-align: center">Aksi</th>
            </tr>
        </thead>
        <tbody>

            <?php
                //koneksi ke database
                include "koneksi.php";

                //baca data namabus
                $sql = mysqli_query($konek, "select * from
namabus");

                $no = 0;
                while($data = mysqli_fetch_array($sql))

```

```

        {
            $no++;
        }
    ?>

<tr>
    <td> <?php echo $no; ?> </td>
    <td> <?php echo $data['nokartu']; ?> </td>
    <td> <?php echo $data['nama']; ?> </td>
    <td> <?php echo $data['no_kend']; ?> </td>
    <td>
        <a href="edit.php?id=<?php echo
$data['id']; ?>"> Edit</a> | <a href="hapus.php?id=<?php echo
$data['id']; ?>"> Hapus</a>
    </td>
</tr>
<?php } ?>
</tbody>
</table>

<!-- tombol tambah data namabus -->
<a href="tambah.php"> <button class="btn btn-primary">Tambah Data
BUS</button> </a>
</div>

<?php include "footer.php"; ?>

```

```
</body>
```

```
</html>
```

4. edit.php

```
<!-- proses penyimpanan -->
```

```
<?php
```

```

include "koneksi.php";

//baca ID data yang akan di edit
$id = $_GET['id'];

//baca data namabus berdasarkan id
$cari = mysqli_query($konek, "select * from namabus where id='$id'");
$hasil = mysqli_fetch_array($cari);

//jika tombol simpan diklik
if(isset($_POST['btnSimpan']))
{
    //baca isi inputan form
    $nokartu = $_POST['nokartu'];
    $nama = $_POST['nama'];
    $no_kend = $_POST['no_kend'];

    //simpan ke tabel namabus
    $simpan = mysqli_query($konek, "update namabus set
nokartu='$nokartu', nama='$nama', no_kend='$no_kend' where id='$id'");

    //jika berhasil tersimpan, tampilkan pesan Tersimpan,
    //kembali ke data namabus
    if($simpan)
    {
        echo "
            <script>
                alert('Tersimpan');
                location.replace('databus.php');
            </script>
        ";
    }
}

```

```

else
{
    echo "
        <script>
            alert('Gagal Tersimpan');
            location.replace('databus.php');
        </script>
    ";
}
}
?>

```

```

<!DOCTYPE html>
<html>
<head>
    <?php include "header.php"; ?>
    <title>Tambah Data Bus</title>
</head>
<body>

    <?php include "menu.php"; ?>

    <!-- isi -->
    <div class="container-fluid">
        <h3>Tambah Data Bus</h3>

        <!-- form input -->
        <form method="POST">
            <div class="form-group">

```

```

        <label>No.Kartu</label>
        <input type="text" name="nokartu" id="nokartu"
placeholder="nomor kartu RFID" class="form-control" style="width: 200px"
value="<?php echo $hasil['nokartu']; ?>">
    </div>
    <div class="form-group">
        <label>Nama PO. Bus</label>
        <input type="text" name="nama" id="nama"
placeholder="nama namabus" class="form-control" style="width: 400px"
value="<?php echo $hasil['nama']; ?>">
    </div>
    <div class="form-group">
        <label>No. Kendaraan</label>
        <textarea class="form-control" name="no_kend"
id="no_kend" placeholder="No. Kendaraan" style="width: 400px"><?php
echo $hasil['no_kend']; ?></textarea>
    </div>

    <button class="btn btn-primary" name="btnSimpan"
id="btnSimpan">Simpan</button>
</form>
</div>

<?php include "footer.php"; ?>

```

```
</body>
```

```
</html>
```

5. footer.php

```
<div class="footer" style="text-align: center">
```

```
    INTEGRATED RAMP CHECK SYSTEM <br>
```

```
    <strong>DIV MANAJEMEN KESELAMATAN TRANSPORTASI JALAN</strong>
```

```
</div>
```

6. hapus.php

```

<?php
    include "koneksi.php";

    //baca id data yang akan dihapus
    $id = $_GET['id'];

    //hapus data
    $hapus = mysqli_query($konek, "delete from namabus where id='$id'");

    //jika berhasil terhapus tampilkan pesan Terhapus
    //kemudian kembali ke data namabus
    if($hapus)
    {
        echo "
            <script>
                alert('Terhapus');
                location.replace('databus.php');
            </script>
        ";
    }
    else
    {
        echo "
            <script>
                alert('Gagal Terhapus');
                location.replace('databus.php');
            </script>
        ";
    }
}

```

?>

7. header.php

```
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1, shrink-
to-fit=no">
<link rel="stylesheet" type="text/css" href="css/bootstrap.min.css">
<script type="text/javascript" src="jquery/jquery.min.js"></script>
<script type="text/javascript" src="js/bootstrap.min.js"></script>
```

8. index.php

```
<!DOCTYPE html>
<html>
<head>
    <?php include "header.php"; ?>
    <title>Menu Utama</title>
</head>
<body>
    <?php include "menu.php"; ?>

    <!-- isi -->
    <div class="container-fluid" style="padding-top: 10%; text-align: center">
        <h1>
            Selamat Datang <br>
            INTEGRATED RAMPCHECK SYSTEM <br>
            BERBASIS KARTU RFID
        </h1>
    </div>

    <?php include "footer.php"; ?>
```

```
</body>
</html>
```

9. kirimkartu.php

```
<?php
    include "koneksi.php";

    //baca nomor kartu dari NodeMCU
    $nokartu = $_GET['nokartu'];
    //kosongkan tabel tmprfid
    mysqli_query($konek, "delete from tmprfid");

    //simpan nomor kartu yang baru ke tabel tmprfid
    $simpan = mysqli_query($konek, "insert into
    tmprfid(nokartu)values('$nokartu')");
    if($simpan)
        echo "Berhasil";
    else
        echo "Gagal";
?>
```

10. koneksi.php

```
<?php
    //urutan = server, userdb, passdb, namadb
    $konek = mysqli_connect("localhost", "root", "", "absensi");
?>
```

11. menu.php

```
<nav class="navbar navbar-inverse">
    <div class="container-fluid">
        <div class="navbar-header">
            <a href="#" class="navbar-brand">I R C S</a>
```



```

</div>
<ul class="nav navbar-nav">
    <li> <a href="index.php"> HOME </a> </li>
    <li> <a href="databus.php"> Data Bus </a> </li>
    <li> <a href="absensi.php"> Rekapitulasi Bus Masuk </a> </li>
    <li> <a href="scan.php"> Scan Kartu </a> </li>
</ul>
</div>
</nav>

```

12. nokartu.php

```

<?php
    include "koneksi.php";
    //baca isi tabel tmprfid
    $sql = mysqli_query($konek, "select * from tmprfid");
    $data = mysqli_fetch_array($sql);
    //baca nokartu
    $nokartu = $data['nokartu'];
?>

<div class="form-group">
    <label>No.Kartu</label>

    <input type="text" name="nokartu" id="nokartu" placeholder="tempelkan
kartu rfid Anda" class="form-control" style="width: 200px" value="<?php
echo $nokartu; ?>">

```

```

</div>

```

13. scan.php

```

<!DOCTYPE html>
<html>
<head>
    <?php include "header.php"; ?>
    <title>Scan Kartu</title>

```

```

<!-- scanning membaca kartu RFID -->
<script type="text/javascript">
    $(document).ready(function() {
        setInterval(function(){
            $("#cekkartu").load('bacakartu.php')
        }, 2000);
    });
</script>

</head>
<body>

    <?php include "menu.php"; ?>

    <!-- isi -->
    <div class="container-fluid" style="padding-top: 10%">
        <div id="cekkartu"></div>
    </div>
    <br>

    <?php include "footer.php"; ?>

</body>
</html>

```

14. tambah.php

```

<!-- proses penyimpanan -->

<?php
    include "koneksi.php";

```

```

//jika tombol simpan diklik
if(isset($_POST['btnSimpan']))
{
    //baca isi inputan form
    $nokartu = $_POST['nokartu'];
    $nama    = $_POST['nama'];
    $nokendaraan = $_POST['nokendaraan'];

    //simpan ke tabel namabus
    $simpan = mysqli_query($konek, "insert into namabus(nokartu, nama,
nokendaraan)values('$nokartu', '$nama', '$nokendaraan')");

    //jika berhasil tersimpan, tampilkan pesan Tersimpan,
    //kembali ke data namabus
    if($simpan)
    {
        echo "
            <script>
                alert('Tersimpan');
                location.replace('databus.php');
            </script>
        ";
    }
    else
    {
        echo "
            <script>
                alert('Gagal Tersimpan');
                location.replace('databus.php');
            </script>
        ";
    }
}

```

```

        </script>
        ";
    }

}

//kosongkan tabel tmp RFID
mysqli_query($koneksi, "delete from tmp RFID");
?>

<!DOCTYPE html>
<html>
<head>
    <?php include "header.php"; ?>
    <title>Tambah Data BUS</title>

    <!-- pembacaan no kartu otomatis -->
    <script type="text/javascript">
        $(document).ready(function(){
            setInterval(function(){
                $("#norfid").load('nokartu.php')
            }, 0); //pembacaan file nokartu.php, tiap 1 detik = 1000
        });
    </script>

</head>
<body>

    <?php include "menu.php"; ?>

```

```

<!-- isi -->
<div class="container-fluid">
    <h3>Tambah Data BUS</h3>

    <!-- form input -->
    <form method="POST">
        <div id="norfid"></div>

        <div class="form-group">
            <label>Nama PO. BUS</label>
            <input type="text" name="nama" id="nama"
placeholder="nama namabus" class="form-control" style="width: 400px">
        </div>
        <div class="form-group">
            <label>NO. KENDARAAN</label>
            <textarea class="form-control" name="alamat"
id="nokendaraan" placeholder="no. kendaraan" style="width:
400px"></textarea>
        </div>

        <button class="btn btn-primary" name="btnSimpan"
id="btnSimpan">Simpan</button>
    </form>
</div>

<?php include "footer.php"; ?>

</body>
</html>

15. ubahmode.php
<?php
    include "koneksi.php";

```

```

//baca mode absensi terakhir
$mode = mysqli_query($konek, "select * from status");
$data_mode = mysqli_fetch_array($mode);
$mode_absen = $data_mode['mode'];

//status terakhir kemudian ditambah 1
$mode_absen = $mode_absen + 1;
if($mode_absen > 2)
    $mode_absen = 1 ;

//simpan mode absen di tabel status dengan cara update
$simpan = mysqli_query($konek, "update status set
mode='$mode_absen'");
if($simpan)
    echo "Berhasil";
else
    echo "Gagal";
?>

```

16. Coding Arduino

```

#include <SPI.h>
#include <MFRC522.h>

#include <ESP8266HTTPClient.h>
#include <ESP8266WiFi.h>

//Network SSID
const char* ssid = "cozy Room";
const char* password = "biasaaja";

```

```

//pengenal host (server) = IP Address komputer server
const char* host = "192.168.0.141";

#define LED_PIN 15 //D8
#define BTN_PIN 5 //D1

//sediakan variabel untuk RFID
#define SDA_PIN 2 //D4
#define RST_PIN 0 //D3

MFRC522 mfrc522(SDA_PIN, RST_PIN);

void setup() {
  Serial.begin(9600);

  //setting koneksi wifi
  WiFi.hostname("NodeMCU");
  WiFi.begin(ssid, password);

  //cek koneksi wifi
  while(WiFi.status() != WL_CONNECTED)
  {
    //progress sedang mencari WiFi
    delay(500);
    Serial.print(".");
  }

  Serial.println("Wifi Connected");
  Serial.println("IP Address : ");
  Serial.println(WiFi.localIP());

```

```

pinMode(LED_PIN, OUTPUT);
pinMode(BTN_PIN, OUTPUT);

SPI.begin();
mfr522.PCD_Init();
Serial.println("Dekatkan Kartu RFID Anda ke Reader");
Serial.println();
}

void loop() {
  //baca status pin button kemudian uji
  if(digitalRead(BTN_PIN)==1) //ditekan
  {
    Serial.println("OK");
    //nyalakan lampu LED
    digitalWrite(LED_PIN, HIGH);
    while(digitalRead(BTN_PIN)==1) ; //menahan proses sampai tombol dilepas
    //ubah mode absensi di aplikasi web
    String getData, Link ;
    HTTPClient http ;
    //Get Data
    Link = "http://192.168.0.141/absensi/ubahmode.php";
    http.begin(Link);

    int httpCode = http.GET();
    String payload = http.getString();

    Serial.println(payload);
    http.end();
  }
}

```



```

}

//matikan lampu LED
digitalWrite(LED_PIN, LOW);

if(! mfrc522.PICC_IsNewCardPresent())
    return ;

if(! mfrc522.PICC_ReadCardSerial())
    return ;

String IDTAG = "";
for(byte i=0; i<mfrc522.uid.size; i++)
{
    IDTAG += mfrc522.uid.uidByte[i];
}

//nyalakan lampu LED
digitalWrite(LED_PIN, HIGH);

//kirim nomor kartu RFID untuk disimpan ke tabel tmprfid
WiFiClient client;
const int httpPort = 80;
if(!client.connect(host, httpPort))
{
    Serial.println("Connection Failed");
    return;
}

String Link;

```

```
HTTPClient http;
Link = "http://192.168.0.141/absensi/kirimkartu.php?nokartu=" + IDTAG;
http.begin(Link);

int httpCode = http.GET();
String payload = http.getString();
Serial.println(payload);
http.end();

delay(2000);
}
```

RIWAYAT HIDUP



Nama : IRFAN UTOMO AJI
Notar : 17.1.0432
Tempat/Tanggal Lahir : Surabaya, 25 Mei 1999
Jenis Kelamin : Laki-Laki
Status : Taruna
Alamat Asal : Dsn Besongol Rt 01 Rw 04 Sumberejo Pandaan
Pasuruan Jawa Timur
Telp : 085325804227
Email : iutomoaji@gmail.com
Motto : Tanam Baik Tuai Baik
Riwayat Pendidikan
1. SMAN 1 PANDAAN, 2017
2. SMPN 2 PANDAAN, 2014
3. SDN TAWANGREJO 2, 2011
4. TK PKK 1 SUMBEREJO, 2003

Tegal, 13 Agustus 2021

Irfan Utomo Aji