Workshop Penulisan *Paper*

Fakultas Ilmu Terapan, 19 April 2017

Latar Belakang

- *Paper* merupakan salah satu syarat kelulusan (monev 4)
- Publikasi karya ilmiah (proyek akhir) mahasiswa
- Keberlanjutan tema proyek akhir → dapat diakses oleh mahasiswa tingkat selanjutnya
- pengakuan bagi penulis, prodi dan universitas

Publikasi

- Internal → eProceedings → TIDAK ~~DISARANKAN~~ DIPERBOLEHKAN
- Eksternal → jurnal atau proceedings

Jurnal vs Proceedings

Jurnal	Proceedings
Tidak perlu dipresentasikan	Harus dipresentasikan
1 edisi jurnal sekitar 8 paper	1 edisi proceedings bisa 10+ paper
Seleksi ketat	Seleksi tidak seketat jurnal
Biaya gratis – 30 juta per paper	Biaya 250 rb – 5 juta per paper
Harus memiliki ISSN/ISBN/IEEE reg.	Harus memiliki ISSN/ISBN/IEEE reg.

Tingkatan Jurnal vs Proceedings

Jurnal	Proceedings
Jurnal nasional	Proceeding nasional
Jurnal nasional bereputasi (terakreditasi)	Proceeding internasional
Jurnal internasional	Proceeding internasional bereputasi (terindeks)
Jurnal internasional bereputasi (tier 4-1)	

Author/Penulis

- Penulis diurutkan dari yang paling besar kontribusinya terhadap penelitian.
- Jika bersumber dari Proyek Akhir, susunan penulis sebagai berikut:
  - Penulis 1 → Mahasiswa
  - Penulis 2 → Pembimbing 1
  - Penulis 3 → Pembimbing 2

Struktur paper

Pada dasarnya paper terdiri atas beberapa bagian:

- Judul
- Abstrak (+kata kunci)
- Pendahuluan → Section I
- Isi → Section II - IV
- Daftar Pustaka/Referensi

Judul

Penulis

Abstrak

Isi

TICEAS-258

Design of Motor Vehicle Insurance Policy Management Application

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ABSTRACT

Extensive growth of vehicle ownership higher, not followed by growth of the road cause increasing rate in vehicle density. With the density of 188 vehicles per kilometer in 2012, risk of accident increases. In 2012, there were 117,949 accidents happened, causing loss over 298.6 billion rupiahs. One way to transfer the risk of loss is through motor vehicle insurance. Insurance premium was calculated using Financial Services Authority (*Otoritas Jasa Keuangan*) 2014 regulation. Business process was designed using Flowchart and Data Flow Diagram. Database was designed using Relationship Diagram. The research also create user interface design for the application. This research produce design of an application which can calculate motor vehicle insurance premium, manage policy submitted, handle claim submission, and journal the transactions.

Keyword: motor vehicle, insurance, policy, application, design

1. Introduction

The growth of vehicle ownership in Indonesia has increased very rapidly during the last few years. This is caused by better income, affordable (low-cost) vehicles and public transport condition that are still not comfortable for most of the people. According to Indonesian Automotive Industry Association, there were 1.2 million car sold in 2013 and it is targeted at 1.25 million units for 2014 [1]. This growth is not proportional to growth of the road. From the statistical data, in 1992 there were an average of 33 vehicles per one kilometer of road, increased to 188 vehicles per kilometer of road in 2012 [2] [3].

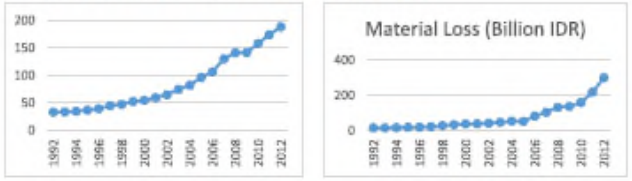

Figure 1 Number of Motor Vehicle per Kilometer in Indonesia (left), Material Loss Caused by Motor Vehicle Accident in Indonesia (right)

Sensor Comparation for Smart Parking System

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***Abstract*—Parking is defined as a condition when a vehicle is temporary stored. In big cities, where parking space become more limited. In most of conventional parking system, driver enter parking area, search available parking space and park. Finding one available parking space can be frustrating, particularly during rush hour or weekend, since the driver did not know the exact available space. Some parking service provider count their available space and display it at the entry gate, but this system cannot detect vehicle that already leave the parking space until they reach the exit gate. With the system proposed, driver can reserve a parking space. When the vehicle arrives, sensor detects the vehicle and set the status to be occupied. Sensor can also detect when the vehicle leave the space so the space can be reserved for another vehicle. For the system proposed, four sensors are tested with three different positions. Sensor placement. Sensor proposed must be cheap, reliable, and require minimal maintenance.**

***Keywords*—Parallax PING, HC-SR04, Sharp GP2Y0A02YK0F, CT-SL110, parking**

I. Introduction

The growing number of car industry and increasing standard of mobilization leads to more affordable car price. From 2009 to 2013, number of cars has been increased 45%, and number of motorcycle has been increased to 61% [1]. This rapid growing number of cars causes issues in most of cities. It causes traffic congestion, air and noise pollution, and driver's frustration that can lead to bad behavior and accident. Parking issue became more serious because the limitation of parking space [2]. Price for parking spaces are rising up from time to time.

In most of conventional parking system, driver get a ticket at the entry gate, find available parking space and park, go to exit gate, present or return the ticket, pay the parking fee and get the receipt. Finding one available parking space can be frustrating, particularly during rush hour or weekend [2]. The problem become more complicated because some parking service provider still enter the vehicle even though the parking lot was already full, with expectation during the searching process, there are other users who come out so the empty space can be used by the other vehicle. Some parking service provider count their available space and display it at the entry gate, but this system cannot detect vehicle that already leave the parking space until they reach the exit gate. Available space displayed at the entry gate did not represent real situation. In big or multi-level parking lot, this can cause opportunity loss for people who want to park, as well as profit loss to the provider. While some of parking service provider offer reservation, this system only suitable for scheduled trip. Many of this system also require customer to pay deposit or charge at higher rate.

Previous research describe smart parking system based on secured wireless network using sensor communication to acquire high parking utilization and finding free parking space [2]. Further research use sensor to detect free parking space [4], and driver can reserve free space by SMS [4] [5]. To identify vehicle plate number and other identification, cameras are installed nearby parking lot [6]. Ultrasonic sensor was used to detect vehicle for parking location [7].

The basic operation for the proposed parking system is described as: When a vehicle arrive at the entry gate, a monitor shows the parking lot map. The driver then choose available parking space. System then flag selected space to 'reserved'. When the car enter the designated space, it trigger the sensor and system flag selected space to 'occupied'. When the car exit, sensor release the flag in the system so it can be used for another car. Sensor proposed must be cheap, reliable, and require minimal maintenance.

II. Sensors

A. Parallax PING))) Ultrasonic Sensor

The parallax PING (PING) sensor is an ultrasonic sensor that provide non-contact measurement. The sensor works by transmitting ultrasonic burst signal at 40 kHz (chirp).

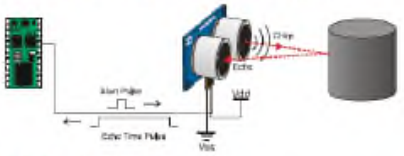

Fig. 1. Parallax Ping Sensor

This signal then travel through the air and if it hits an object, the signal would bounce back echo to the sensor [3]. The sensor uses +5 VDC power supply with 30-35 mA current.

Guideline Umum

- Gunakan bahasa yang baku, ikuti aturan tata Bahasa yang baku
- Gunakan gaya bahasa ‘bercerita’ → biasakan menulis dengan detail dan berurutan
- Hindari kata ganti orang pertama → gunakan kalimat pasif
- Tidak menggunakan kata ‘proyek akhir’ → ganti dengan ‘penelitian’
- Beri penjelasan untuk tiap perpindahan bab/subbab
- Judul paper harus beda dengan judul PA
- Gunakan fasilitas penomoran (judul/gambar, referensi dan sitasi) yang dimiliki oleh Ms. Word
- Gunakan kalimat sendiri

Judul

- Singkat, padat, jelas (tidak ambigu). Hindari penggunaan kata ganda.
- Judul paper harus beda dengan judul PA.

Contoh:

- Aplikasi Penentuan Harga Pokok Produksi Menggunkan Metode *Variabel Costing* di CV. Triwarna
- Aplikasi Manajemen Persediaan Menggunakan Metode *First-in-First-out* Berbasis Android di Universitas Telkom
- Implementasi *Infrared Sensor* untuk Pintu Otomatis
- Alat bantu pengajaran Akuntansi berbasis Android

Author/Penulis

- Jika PA adalah bagian dari proyek dosen/cakupan pekerjaan yang lebih besar, maka susunannya dapat sebagai berikut:
  - Judul paper yang membahas proyek besar → penulis 1/tunggal bisa dosen
  - Judul paper PA → penulis 1 tetap mahasiswa

Contoh:

- Judul paper dosen → Perbandingan metode FIFO dan LIFO pada …
- Judul paper mahasiswa 1 → Persediaan barang dengan metode FIFO pada …
- Judul paper mahasiswa 2 → Persediaan barang dengan metode LIFO pada …

Author/Penulis

- Hindari email pribadi/alamat email yang ‘tidak professional’ (cokerenz@yahoo.com, tetiimoet@gmail.com, …)

- Untuk afiliasi, gunakan format dari template (v.2):
  - Program Studi D3 Komputerisasi Akuntansi, Fakultas Ilmu Terapan Universitas Telkom → paper Bahasa Indonesia

  - Diploma of Accounting Computerization, School of Applied Science, Telkom University → paper Bahasa Inggris

Abstrak

Abstrak terdiri dari satu paragraf, harus menjelaskan:

- apa yang telah dibuat pada penelitian ini > 'Penelitian ini membuat…' (harus singkat) → cek tujuan PA
- mengapa penelitian ini dibuat → cek latar belakang
- metode yang digunakan
- hasil penelitian → hasil pengamatan/pengujian
- arti dari hasil penelitian → kesimpulan dan dampak penelitian

Keyword terdiri dari 3 sampai 5 kata

Tempat studi kasus tidak dimasukkan di abstrak, tapi di pendahuluan

Pendahuluan (Section 1)

- par.1 > Berisi latar belakang. Cantumkan data yang mendukung dan sumber data
- par.2 > Ceritakan produk yang dibuat sebagai solusi
- par.3 > Related works/literature review → kutip paper/referensi yang mendukung, seperti penelitian terdahulu, teori-teori yang digunakan (teori akuntansi dan IT).
- par.4 > Ceritakan hasil yang diperoleh, kesimpulan dan apa kontribusi/dampaknya terhadap tempat studi kasus
- par.5 > menjelaskan bab-bab yang ada di paper secara singkat

Pendahuluan (Section 1)

- Penelitian terdahulu (par.3): kutip paper atau PA senior yang berhubungan dengan topik/judul paper.
- HARUS ADA referensi dari D3 Komputerisasi Akuntansi minimal 3.
- Tingkatan pengutipan: D3 KA → FIT → Universitas Telkom → eksternal

Isi

- Section II Metode Penelitian → Menceritakan metode penelitian serta data yang digunakan
- Section III Hasil dan Pengujian → menceritakan hasil yang diperoleh, hasil pengujiannya seperti apa. Biasanya berbentuk table/gambar, dilanjutkan penjelasan dan hasil pengujian; harus detail
- Section IV Pembahasan → berisi pembahasan dari hasil (produk) dan pengujiannya
- Nama bab untuk Sec.II-IV disesuaikan, bisa ditambah atau digabungkan

Gambar dan tabel

- Section V Kesimpulan →
  - Tidak membahas hasil analisa di kesimpulan. Dari hasil analisa, ceritakan kesimpulan yang diperoleh apa. ‘aplikasi ini dapat …’ bukan ‘aplikasi ini diharapkan …’
  - Ceritakan dampak penelitian (terhadap tempat studi kasus)
  - Ceritakan kemungkinan pengembangan penelitian
- Semua gambar dan table harus dikutip/disinggung pada tulisan
- Gambar dan table harus proporsional dan jika ada tulisan, harus dapat dibaca

Daftar Pustaka

- Minimal 10:
  - Studi pustaka yang berasal dari D3 KA minimal 3
  - Paper lain yang diterbitkan di jurnal/proceedings minimal 2
  - Buku teks, usahakan Bahasa Inggris minimal 5
- Semua referensi di daftar pustaka harus di-cite/dibahas di paper
- Tidak diperkenankan mengambil daftar pustaka/referensi dari golongan blog/citizen journalism