



**SDI Review Form 1.6**

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| Journal Name:            | <b><u>British Journal of Applied Science &amp; Technology</u></b>                         |
| Manuscript Number:       | <b>Ms_BJAST_23915</b>                                                                     |
| Title of the Manuscript: | <b>Using Radio Frequency Identification to Develop an Algorithm for Tracking Vehicles</b> |
| Type of the Article      | <b>Original Research Article</b>                                                          |

**General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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**PART 1: Review Comments**

|                                            | Reviewer's comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b><u>Compulsory</u></b> REVISION comments | <p>1. Abbreviations and Symbols should use the same name at their all appearance. For example, ITS = I.T.S?</p> <p>2. Some editing work is needed, such as adjusting reference [1][7]'s format. [1] 's year is lost. [7] has two year (2007 or 2001). Many typos in Fig .1.</p> <p>3. Not every element of the system is clearly explained. I cannot find any unique innovative points.</p>                                                                                                                                                                           | <p>1. This had been corrected</p> <p>2. These had been corrected</p> <p>3. Had been corrected</p> <p>4. This is personal</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b><u>Minor</u></b> REVISION comments      | <p>1.How to prove the proposed algorithms have better performance than previous systems?</p> <p>2.The authors should illustrate why you only use RFID tracking without comparing with other schemes.</p>                                                                                                                                                                                                                                                                                                                                                              | <p>1. The difference between this and other existing systems had been highlighted</p> <p>2. That is an area for further research i.e. comparative analysis of different schemes</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b><u>Optional/General</u></b> comments    | <p>There many similar related new papers should be listed in reference. For example,</p> <p>1.RFID Vehicle Plate Number (E-Plate) for Tracking and Management System ,Evizal; Rahman, T.A.; Rahim, S.K.A. Parallel and Distributed Systems (ICPADS), 2013 International Conference on Pages: 611 – 616.</p> <p>2.Global Localization and Position Tracking of Automatic Guided Vehicles using passive RFID Technology , Roehrig, Christof; Heller, Andre; Hess, Daniel; Kuenemund, Frank ISR/Robotik 2014; 41st International Symposium on Robotics; Pages: 1 - 8</p> | <p>Read the abstracts of the two papers but could not read the whole paper because I needed to pay an amount I cannot afford now before I can gain access to it.</p> <p>These I will read and adopt in my next paper which deals with comparative analysis of RFID applications.</p> <p>Nowadays, internet are used almost in any application and field, even small item registered with code and update in database then can buy it by online system. Numbers of vehicles are significant increase every year and many cases of vehicle theft and missing thus internet of things (IoT) is a technology can be use to overcome the issues. This paper presents on the use of RFID vehicle plate number (e-plate) for tracking and</p> |



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|  |  | <p>management system. Started by design RFID e-plate antenna based and vehicle plate number size to achieve optimum performance by utilization of plate number size then an RFID chip attached to the plate. Proposed antenna of e-plate design using a low cost FR4 material and antenna band works at 902-928 MHz frequency for UHF RFID application, with result 3.8 dbi antenna gains there is performance improvement compared to the current tag antenna. The shape of antenna is rectangular and has a dimension of 300 mm x 100 mm, which is usually the typical size of the conventional vehicle registration plate number. Since vehicle e-plate used RFID chip and some information stored inside the tag then when RFID readers install at strategic point able capture vehicle information. All information collected by readers can be analyzed for vehicle tracking, monitoring and transportation management system.</p> <p>Automated Guided Vehicles (AGVs) are used in warehouses, distribution centers and manufacturing plants in order to automate the internal material flow. Usually AGVs are designed to transport large and heavy transport units such as Euro-pallets or mesh pallets. Just-in-time inventory management and lean production requires small transportation units to enable one-piece-flow. A solution to meet these demands are small automatic vehicles for material</p> |
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|  |  | <p>transport, which can replace conventional conveyor systems or large AGVs. This paper presents an inexpensive solution for localization and tracking of small AGVs. Global localization is realized by detection of RFID transponders, which are integrated in the floor. The measurements of the RFID reader are fused with data from wheel encoders using Quantized Kalman filtering. The paper presents results from experiments with a NaviFloor(r) installation. The experiments show, that the proposed Quantized Kalman Filter provides a similar localization accuracy compared to a Monte Carlo Particle Filter, but with much lower computational expense</p> |
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