Eurasian Journal of Analytical Chemistry
ISSN: 1306-3057 OPEN ACCESS 2018 13 (3): 674-678

Express Way Management

C. Snehith Sharon, Shaik Afridi, Dr.C. Rajabhushanam

Received: 02 Jan 2018 ▪ Revised: 07 March 2018 ▪ Accepted: 30 March 2018

Abstract: Tolls are a form of user tax that usually pays for the cost of road construction and maintenance without raising taxes on non-users. Historically, and sometimes today, tolls are collected as a type of tax for the use of the local government or lord. Investor's bonds necessary to pay for the construction and maintenance of the roads are issued and sold with the expectation that the bonds will be paid back over time by user tolls. After the bonds are paid off the road typically reverts to the government agency that owns the land it was built on and had authorized the construction. access to toll roads are restricted to prevent non-payers from using the road. Toll roads may be built to allow some users to travel faster from one location to another relieving traffic congestion and speeding up traffic for those who can afford it. These type systems may be one restricted toll lane or more on an otherwise "free" road all roads have to be paid for somehow and are never "free". Normally, road construction costs are paid for by the taxes on gasoline, diesel, or other fuel. Users of toll roads still pay these taxes and the tolls for using this particular road or lane. In addition to toll roads, toll bridges and toll tunnels are also used by public authorities for revenue generation to repay for long-term debt issued to finance the building and maintenance of the toll facility. Some tolls are collected to accumulate finances to build future capacity expansion and maintenance of roads, tunnels, bridges, etc. Some tolls are used as general tax fund for local governments and may have little or nothing to do with transportation facilities. These types of tolls are usually limited or prohibited by central government legislation. Also road congestion pricing schemes have been implemented in a limited number of urban areas as a transportation demand management tool in an attempt to reduce traffic congestion and air pollution.

Keywords: Way Management, Implemented Using ETC, Air Pollution, Road Construction.

INTODUCTION

Introduction about the Domain

Let us first understand the concept of toll system. What exactly is a toll system Toll collection system or toll system, as it is simply called, is a direct way of getting investment back to an agency that constructed the roads. Toll systems can be grouped into three categories; basic, semi-automatic and fully-automatic or electronic toll systems. Tolls are a form of user tax that usually pays for the cost of road construction and maintenance without raising taxes on non-users. Historically, and sometimes today, tolls are collected as a type of tax for the use of the local government or lord. Investor's bonds necessary to pay for the construction and maintenance of the roads are issued and sold with the expectation that the bonds will be paid back over time by user tolls. After the bonds are paid off the road typically reverts to the government agency that owns the land it was built on and had authorized the construction. Access to roads are restricted to prevent non-payers from using the road. Toll roads may be built to allow some users to travel faster from one location to another relieving traffic congestion and speeding up traffic for those who can afford it. These type systems may be one restricted toll lane or more on an otherwise "free"

C. Snehith Sharon, UG Scholar, Department of Computer Science and Engineering, BIST, BIHER, Bharath Institute of Higher Education & Research, Selaiyur, Chennai.

Shaik Afridi, UG Scholar, Department of Computer Science and Engineering, BIST, BIHER, Bharath Institute of Higher Education & Research, Selaiyur, Chennai.

Dr.C. Rajabhushanam, Professor, Department of Computer Science and Engineering, BIST, BIHER, Bharath Institute of Higher Education & Research, Selaiyur, Chennai. E-mail: rajabhushanamc.cse@bharathuniv.ac.in

road all roads have to be paid for somehow and are never "free". Normally, road construction costs are paid for by the taxes on gasoline, diesel, or other fuel. Users of toll roads still pay these taxes and the tolls for using this particular road or lane. Fees or tolls usually vary by vehicle type, weight or number of axles. Fees or tolls were traditionally collected by hand by toll gate workers at toll booths, toll plazas, toll stations, toll bars or toll gates. Some toll collection points are unmanned and the user deposits money in a receptacle which measures the amount and allows passage or entry if sufficient. To cut cost and minimize time delay many tolls today are collected with some form of automatic utilizing some sort of electronic communication from a toll payer's transponders and the toll collection system. Toll booths are usually still required for the occasional users who have not obtained a transponder yet. The tolls are often prepaid or collected "automatically" from an affiliated credit card service. Some toll roads have "automated" toll enforcement

Scope of the Project

Here we are going to see some points regarding to purpose behind choosing this topic & what is the requirement of this type of the project in our day to day life. Avoid the fuel loss. Saving of time in collecting toll. Avoid financial loss. To monitor the traffic. So, according to serve of Maharashtra Government carried out in Sept.2010, they have proposed to get the annual toll collection of 1500 corers/year But in the present situation only 1200 corers of the toll value is collected. Means there is loss of 300 cores due to some human errors. So, we have to control this leakage. Now the present system we have with us on the high ways takes 1 minute to complete the toll collection process for one vehicle. With this automatic process, it will take just 40 to 42 sec. to complete the whole process. As there is reduction in time for completion of the process so indirectly there will be no traffic as such & as there is no traffic so no fuel wastage takes place & the purpose of designing the highways is achieved i.e. reduction in journey time & also the money loss will be reduced.

LITERATURE SURVEY

William Vickrey the Nobel Economics prize winner, in 1959, was the first who proposed electronic toll system for Washington Metropolitan Area. Free flow tolling with fixed transponders undersides of vehicles and the readers were located under the highway surfaces (1960s and 1970s). ISSN(Online): 2320-9801 ISSN (Print): 2320-9798 International Journal of Innovative Research in Computer and Communication Engineering (An ISO 3297: 2007 Certified Organization) Vol. 3, Issue 5, May 2015 Copyright to IJIRCCE DOI: 10.15680/ijircce.2015.0305093 4088 Norway wide spread implementation of this transponder and reader technology. This system was first introduced in Bergen (1986). World’s first use of completely unaided full speed electronic toll system was introduced by Trondheim (1991). Norway has electronic fee collection EFC. Single, universal system was applied firstly by Portugal (1995). Next The United States was another country used ETC system in several states. In Garden State Parkway, California, Texas and Pennsylvania, Delaware and Florida, vehicles can travel at full speed through electronic lanes. If the lengths in electronic lanes are same as in manual lanes, e-toll saves the vehicle time which has been registered, eliminates the stoppage at toll machine. Toll gates are very typically wider than the rest of the highway that reduced the need for them made it possible to fit toll roads into tight corridors. Despite of these limitations, if delay at the gate is reduced, however, throughput increases. The greater the throughput is increased the fewer the lanes were required and the greater the fraction of automated lanes, the lower was the cost of operation was required for the short term, but for long term, the greater the registering and turning one’s vehicle into e-toll, the faster vehicles were converted from manual toll. In Australia, many organizations which includes Roads and Maritime Services, Roam and E-toll. Some operators including Sydney’s Sydney Harbour Tunnel, Lane Cove Tunnel and Westlink M7, MelbournesCitylink and Eastlink and Brisbane’s Gateway Motorway. Liber-T for light vehicles and TIS-PL for high vehicles are used in some states of France. The Sem Para/Via-Facil system in Brazil in the states Sao Paulo, Paran, Santa Catarina, Rio Grande do Sul, Bahia and Rio de Janerio allows clients to pass through tolls in 1000+ lanes. The National Database and registration authority implemented ETC system using RFID in Pakistan. Santiago, Chile implemented first world’s 100% full speed e-tolling with trandponders between 2004 and 2005. In 2007 rtc in Dubai was implemented by The UAE called Salik. Congestion pricing and Urban toll schemes were also implemented using ETC and cameras for number plate recognition.

EXISTING SYSTEM

In existing system, current times of increasing traffic on the road, it is important to collect the toll tax in a managed and controlled process so that it doesn't result in a total unorganized jungle of traffic. It is

very challenging to handle a vehicular flow by a manual system of revenue collection. Poor management at toll plaza may result into great chaos and revenue loss. This would not be desired any one.

Disadvantage: However, existing CQA forums usually provide only textual answers, which are not informative enough for many questions.

PROPOSED SYSTEM

Vehicles online gate pass require less time to conduct a toll transaction. Thus the average service rate of a mixed toll lane is generally higher than a manual lane, depending on the proportion of tagged vehicles in a mixed-use lane. Reduction in vehicle waiting times: An increase in a toll lane service rate causes a decrease in the average waiting time of vehicles at the toll plaza.

Advantage: In proposed CQA forums provide multimedia answers (text, image, Video), which are informative enough for many questions.

CONCLUSION

Vehicles online gate pass require less time to conduct a toll transaction. Thus the average service rate of a mixed toll lane is generally higher than a manual lane, depending on the proportion of tagged vehicles in a mixed-use lane. Reduction in vehicle waiting times: An increase in a toll lane service rate causes a decrease in the average waiting time of vehicles at the toll plaza. With the elimination of human interaction in the entire toll collection process, it is possible to create an efficient toll collection process. It can also significantly improve the efficiency of toll stations and avoid the traffic congestions on roadways.

REFERENCES

[1] Khanaa, V., & Thooyamani, K.P. (2013). Using triangular shaped stepped impedance resonators design of compact microstrip quad-band. *Middle-East Journal of Scientific Research*, *18*(12), 1842-1844.

[2] Asiri, S., Sertkol, M., Güngüneş, H., Amir, M., Manikandan, A., Ercan, İ., & Baykal, A. (2018). The temperature effect on magnetic properties of NiFe 2 O 4 nanoparticles. *Journal of Inorganic and Organometallic Polymers and Materials*, *28*(4), 1587-1597.

[3] Thaya, R., Malaikozhundan, B., Vijayakumar, S., Sivakamavalli, J., Jeyasekar, R., Shanthi, S., & Sonawane, A. (2016). Chitosan coated Ag/ZnO nanocomposite and their antibiofilm, antifungal and cytotoxic effects on murine macrophages. *Microbial pathogenesis*, *100*, 124-132.

[4] Kolanthai, E., Ganesan, K., Epple, M., & Kalkura, S. N. (2016). Synthesis of nanosized hydroxyapatite/agarose powders for bone filler and drug delivery application. *Materials Today Communications*, *8*, 31-40.

[5] Thilagavathi, P., Manikandan, A., Sujatha, S., Jaganathan, S.K., & Antony, S.A. (2016). Sol-gel synthesis and characterization studies of NiMoO 4 nanostructures for photocatalytic degradation of methylene blue dye, Nanoscience and Nanotechnology Letters, *8*(5), 438-443.

[6] Thamotharan, C., Prabhakar, S., Vanangamudi, S., & Anbazhagan, R. (2014). Anti-lock braking system in two wheelers. *Middle - East Journal of Scientific Research*, *20*(12), 2274-2278.

[7] Thamotharan, C., Prabhakar, S., Vanangamudi, S., Anbazhagan, R., & Coomarasamy, C. (2014). Hydraulic rear drum brake system in two wheeler. *Middle - East Journal of Scientific Research*, 20(12), 1826-1833.

[8] Vanangamudi, S., Prabhakar S., Thamotharan C., & Anbazhagan, R. (2014). Collision control system in cars. *Middle - East Journal of Scientific Research*, *20*(12), 1799-1809.

[9] Vanangamudi, S., Prabhakar, S., Thamotharan, C., & Anbazhagan, R. (2014). Drive shaft mechanism in motor cycle. *Middle - East Journal of Scientific Research, 20*(12), 1810-1815.

[10] Anbazhagan, R., Prabhakar, S., Vanangamudi, S., & Thamotharan, C. (2014). Electromagnetic engine. *Middle - East Journal of Scientific Research*, *20*(3), 385-387.

[11] Kalaiselvi, V.S., Prabhu, K., Ramesh, M., & Venkatesan, V. (2013). The association of serum osteocalcin with the bone mineral density in post menopausal women. *Journal of Clinical and Diagnostic Research,* 7(5), 814-816.

[12] Kalaiselvi, V. S., Saikumar, P., & Prabhu, K. (2012). The anti mullerian hormone-a novel marker for assessing the ovarian reserve in women with regular menstrual cycles. *Journal of clinical and diagnostic research: JCDR*, *6*(10), 1636-1639.

[13] Thanigai Arul, K., Manikandan, E., Ladchumananandasivam, R., & Maaza, M. (2016). Novel polyvinyl alcohol polymer based nanostructure with ferrites co-doped with nickel and cobalt ions for magneto-sensor application. *Polymer International*, *65*(12), 1482-1485.

[14] Das, M. P., & Kumar, S. (2015). An approach to low-density polyethylene biodegradation by Bacillus amyloliquefaciens. *3 Biotech*, *5*(1), 81-86.

[15] Vanangamudi, S., Prabhakar, S., Thamotharan, C., & Anbazhagan, R. (2014). Turbo charger in two wheeler engine. *Middle-East Journal of Scientific Research*, *20*(12), 1841-1847.

[16] Vanangamudi, S., Prabhakar, S., Thamotharan, C., & Anbazhagan, R. (2014). Design and calculation with fabrication of an aero hydraulwicclutch. *Middle-East Journal of Scientific Research*, *20*(12), 1796-1798.

[17] Saravanan, T., Raj, M.S., & Gopalakrishnan, K. (2014). VLSI based 1-D ICT processor for image coding. *Middle-East Journal of Scientific Research*, *20*(11), 1511-1516.

[18] Ajona, M., & Kaviya, B. (2014). An environmental friendly self-healing microbial concrete. *International Journal of Applied Engineering Research*, 9(22), 5457-5462.

[19] Hemalatha, R., & Anbuselvi, S. (2013). Physicochemical constituents of pineapple pulp and waste. *Journal of Chemical and Pharmaceutical Research*, *5*(2), 240-242.

[20] Langeswaran, K., Revathy, R., Kumar, S. G., Vijayaprakash, S., & Balasubramanian, M. P. (2012). Kaempferol ameliorates aflatoxin B1 (AFB1) induced hepatocellular carcinoma through modifying metabolizing enzymes, membrane bound ATPases and mitochondrial TCA cycle enzymes. *Asian Pacific Journal of Tropical Biomedicine*, *2*(3), S1653-S1659.

[21] Masthan, K.M.K., Babu, N.A., Dash, K.C., & Elumalai, M. (2012). Advanced diagnostic aids in oral cancer. *Asian Pacific Journal of Cancer Prevention*, *13*(8), 3573-3576.

[22] Asiri, S., Güner, S., Demir, A., Yildiz, A., Manikandan, A., & Baykal, A. (2018). Synthesis and magnetic characterization of Cu substituted barium hexaferrites. *Journal of Inorganic and Organometallic Polymers and Materials*, *28*(3), 1065-1071.

[23] Vellayappan, M.V., Jaganathan, S.K., & Manikandan, A. (2016). Nanomaterials as a game changer in the management and treatment of diabetic foot ulcers. *RSC Advances*, *6*(115), 114859-114878.

[24] Vellayappan, M.V., Venugopal, J.R., Ramakrishna, S., Ray, S., Ismail, A.F., Mandal, M., & Jaganathan, S.K. (2016). Electrospinning applications from diagnosis to treatment of diabetes. *RSC Advances*, *6*(87), 83638-83655.

[25] Bavitra, K., Sinthuja, S., Manoharan, N., & Rajesh, S. (2015). The high efficiency renewable PV inverter topology. *Indian Journal of Science and Technology*, *8*(14).

[26] Vanangamudi, S., Prabhakar, S., Thamotharan, C., & Anbazhagan, R. (2014). Design and fabrication of dual clutch. *Middle-East Journal of Scientific Research*, *20*(12), 1816-1818.

[27] Sandhiya, K., & Kaviya, B. (2014). Safe bus stop location in Trichy city by using gis. *International Journal of Applied Engineering Research*, *9*(22), 5686-5691.

[28] Selva Kumar, S., Ram Krishna Rao, M., Deepak Kumar, R., Panwar, S., & Prasad, C.S. (2013). Biocontrol by plant growth promoting rhizobacteria against black scurf and stem canker disease of potato caused by Rhizoctonia solani. *Archives of Phytopathology and Plant Protection*, *46*(4), 487-502.

[29] Sharmila, S., & Jeyanthi Rebecca, L. (2012). GC-MS Analysis of esters of fatty acid present in biodiesel produced from Cladophora vagabunda. *Journal of Chemical and Pharmaceutical Research*, *4*(11), 4883-4887.

[30] Ramkumar, M., Rajasankar, S., Gobi, V.V., Dhanalakshmi, C., Manivasagam, T., Thenmozhi, A.J., & Chidambaram, R. (2017). Neuroprotective effect of Demethoxycurcumin, a natural derivative of Curcumin on rotenone induced neurotoxicity in SH-SY 5Y Neuroblastoma cells. *BMC complementary and alternative medicine*, *17*(1).

[31] Selvi, S.A., & Sundararajan, M. (2016). A Combined Framework for Routing and Channel Allocation for Dynamic Spectrum Sharing using Cognitive Radio. *International Journal of Applied Engineering Research*, *11*(7), 4951-4953.

[32] Valliappan, R. (2018). Production of Methane Gas from Cow's Residue: Biogas as Alternative Energy in Transportation and Eletricity. *Eurasian Journal of Analytical Chemistry*, *13*(3), 121-124.

[33] Valliappan, R. (2018). Theory of Lim Law: Leadership Style. *Eurasian Journal of Analytical Chemistry*, *13*(6), 125-136.

[34] Liyana, S.A. (2018). Aligning IS/IT with Business Allows Organizations to Utilize Dark Data. *Eurasian Journal of Analytical Chemistry*, *13*(3), 137-145.

[35] Valliappan, R.K.C. (2018). Economics behind Education: Elements of Development Outcomes through Political Involvement. *Eurasian Journal of Analytical Chemistry*, *13*(3), 146-157.

[36] Krupaa, R.J., Sankari, S.L., Masthan, K.M.K., & Rajesh, E. (2015). Oral lichen planus: an overview. *Journal of pharmacy & bioallied sciences*, *7*(1), S158-S161.

[37] Srividya, T., & Saritha, B. (2014). Strengthening on RC beam elements with GFRP under flexure. *International Journal of Applied Engineering Research*, *9*(22), 5443-5446.

[38] Kumar, J., Sathish Kumar, K., & Dayakar, P. (2014). Effect of microsilica on high strength concrete. *International Journal of Applied Engineering Research*, *9*(22), 5427-5432.

[39] Saraswathy, R., & Saritha, B. (2014). Planning of integrated satellite township at Thirumazhisai. *International Journal of Applied Engineering Research*, *9*(22), 5558-5560.

[40] Saritha, B., Ilayaraja, K., & Eqyaabal, Z. (2014). Geo textiles and geo synthetics for soil reinforcement. *International Journal of Applied Engineering Research*, *9*(22), 5533-5536.

[41] Iyappan, L., & Dayakar, P. (2014). Identification of landslide prone zone for coonoortaluk using spatialtechnology. *International Journal of Applied Engineering Research*, *9*(22), 5724-5732.

[42] Arunachalam, A.R. (2014). Bringing out the effective learning process by analyzing of e-learning methodologies. *Indian Journal of Science and Technology*, *7*, 41-43.

[43] Wasy, A., Balakrishnan, G., Lee, S.H., Kim, J.K., Kim, D.G., Kim, T.G., & Song, J.I., (2014). Argon plasma treatment on metal substrates and effects on diamond-like carbon (DLC) coating properties, Crystal Research and Technology, *49*(1), 55-62.

[44] Jaganathan, S.K., Mani M.P., Ismail A.F., Ayyar M. (2017). Manufacturing and characterization of novel electrospun composite comprising polyurethane and mustard oil scaffold with enhanced blood compatibility. *Polymers*, 9(5).

[45] Ivan, C. (2018). Comparative Evaluation Of The Effect Of Pyrimidine Mapic, Derivatives Of Maleopimaric Acid In Combination With Anylocaine And Polylophacin On The Cell- And Non-Cell-Mediated Immune Response. *Eurasian Journal of Analytical Chemistry, 13*(3), 95-104.

[46] Siew, P.P. (2018). Conceptualizing the Application for Ethereum Blockchains: Front End Application Development. *Eurasian Journal of Analytical Chemistry*, *13*(3), 105-113.

[47] Mohammed, H. (2018). Malaysian Tourism Sector: Technical Review on Policies and Regulations. *Eurasian Journal of Analytical Chemistry, 13*(3), 114-120.