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VISION BASED MOBILE LOCATION TRACKING AND CONTROLLING SYSTEM

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Abstract: *At first the GPS incessantly takes input file from the satellite and stores the latitude and meridian. With the assistance of propose system we will track our mobile. In propose system if we wish to trace mobile location then we'd like to send a message to our device, by that it gets activated. Once application gets activated It takes the present latitude and meridian positions values from the GPS and sends a mail to the actual email id that is predefined at registration. Propose system may well be wont to track kids current location.*

Location Sensing, Energy Efficiency, Location-Based Applications,Smartphone.

I. INTRODUCTION

With dynamic times, the mobile technology has modified tons and within the previous couple of years we've got seen the arrival of varied new types of gadgets within the variety of Smartphone, camera-phone, golem and pill phones. In fact, the French telephone trade has turned from easy budget handsets to modern high finish mobile phones. Today's device is nearly everything it's modern, innovative, appealing, high-performing, durable, fashionable and multitasking. Latest gadgets are often used for varied functions like browsing mobile, internet, taking part in games, emailing, and blogging, messaging, GPS, YouTube, Google search, Gmail and additional. The Global Positioning System (GPS) may be a location system supported a constellation of twenty four to thirty two satellites orbiting around the earth at altitudes of eleven,000 miles. every satellite is battery-powered by the Sun via its electrical device. In its earlier years, GPS was developed within the United States for military use, for the Department of Defense (DOD). Through the years of development and improvement, we've got advanced the utilization of GPS to trailing our precise location worldwide and as a navigation aiding tool for civilian usage.

Currently, it's United Statesed as navigation tool device to help us find the shortest route to our destination. will|we will|we are able to} use GPS to search out lost transportable or folks can track to their youngsters location.

With changing times, the mobile technology has changed a lot and in the last few years we have seen the arrival of various new kinds of gadgets in the form of Smartphone, camera-phone, Android and tablet phones. In fact, the handset industry has turned from simple budget handsets to ultramodern high end mobile phones. Today's device is almost everything it is fashionable, innovative, appealing, high-performing, durable, stylish and multitasking. Latest gadgets can be used for various purposes like browsing mobile, internet, playing games, emailing, and blogging, messaging, GPS, YouTube, Google search, Gmail and more.

The Global Positioning System (GPS) is a location system based on a constellation of 24 to 32 satellites orbiting round the earth at altitudes of 11,000 miles. Each satellite is powered by the Sun via its solar panel. In its earlier years, GPS was developed in the US for military use, for the Department of Defense (DOD). Through the years of development and improvement, we have advanced the use of GPS to tracking our precise location worldwide and as a navigation aiding tool for civilian usage. Currently, it is used as navigation tool device to assist us in finding the shortest route to our destination. We can use GPS to find lost mobile phone or parents can track to their children location. We can also activate the camera of the mobile phone and get the picture on are registered email id and can also turn the mobile from silent to general mode when the mobile phone is misplaced.

II. LITERATURE SURVEY

According to literature survey after studying different IEEE paper, collected some related papers and documents some of the point discussed here:

1. Paper Name: Multi-satellite Formation control for Remote Sensing Applications using Artificial Potential Field and adaptive Fuzzy sliding Mode control

Author: RanjithRavindranathan Nair, LaxmidharBehera, Vinod Kumar, Mo Jamshidi Paper Explanation: The formation management of satellites for remote sensing applications has received goodish attention throughout the past decade. This

work deals with the event of a formation management strategy for the circular formation of a bunch of satellites. during this paper, artificial potential field technique is employed for path coming up with, and slippy mode management (SMC) technique is employed for coming up with a sturdy controller. A fuzzy logical thinking mechanism is employed to cut back the chattering development inherent within the standard SMC. AN adaptational standardisation formula is additionally derived supported Lyapunov stability theory to tune the fuzzy parameter. The projected fuzzy-SMC-based technique is meant to catch up on the modeling uncertainties existing in sensible applications. The results of simulations in deep trouble a bunch of 5 satellites creating a circular formation make sure the soundness and hardiness of this theme.

2. Paper Name: Optimizing sensor Locations in a very Multisensor Single-Object tracking System

Author: jasmine Cashbaugh, christopher Kitts Paper Explanation: trailing a mobile object presents several challenges, particularly once the caterpillar-tracked object is autonomous or semiautonomous and should move erratically. the employment of autonomous mobile sensing element systems permits for bigger chance to trace the mobile object however doesn't forever yield AN estimate of the caterpillar-tracked object's location that minimizes the estimation error. This paper presents a technique to optimize the sensing element system locations, given one object and a set variety of sensing element systems, to realize an edge estimate that minimizes the estimation error. The trailing stations might then be controlled to realize and maintain this optimum position, beneath position constraints. the idea predicts that given 'n' sensing element systems and one object there's a sensing element system configuration that may yield an edge estimate that minimizes the estimation error. A mathematical basis for this theory is conferred and simulation and experimental results for 2 and 3 sensing element system cases square measure shown let's say the eff ectiveness of the idea within the laboratory.

3. Paper Name: constrained Extended Kalman Filter for Target tracking in Directional sensor Networks

Author Name: Sha wen, ZixingCai, Xiaoqing Hu Paper Application: The target trailing drawback in directional sensing element networks (DSNs) is attracting increasing attention. in contrast to the normal omnidirectional sensing element, a directional sensing element encompasses a special angle of read. It can give direction data instead of simply the sensing signal activity with relation to the detected target. the present trailing approaches in DSNs forever singly think about the direction and activity information; they hardly promise the trailing performance of minimum variance. during this paper, the sector of read of directional sensing element is approximated to a rectangle; per se the aff ected space during which the target is certain to be is made. Then, the target trailing drawback is developed as a aff ected estimation drawback, and a aff ected extended Kalman filter (CEKF) trailing formula integration the direction and activity data is presented; its structural and applied math properties square measure strictly derived. it's tested that CEKF is that the linear unbiased minimum variance expert, and CEKF will yield a smaller error variance than the free ancient extended Kalman filter victimization solely sensing element measurements. Simulation results show that the CEKF has superior trailing performance for directional wireless networks.

4. Paper Name: Experiments with Underwater robot Localization and tracking

Author: Peter Corke, Carrick Detweiler, Matthew Dunbabin, archangel Hamilton, Daniela Rus, IuliuVasilescu Paper Explanation: This paper describes a unique experiment during which 2 terribly completely diff erent strategies of underwater mechanism localization square measure compared. the primary technique relies on a geometrical approach during which a mobile node moves inside a field of static nodes, and every one nodes square measure capable of estimating the vary to their neighbors acoustically. The second technique uses visual odometry, from stereo cameras, by integration scaled optical flow. the basic algorithmic principles of every localization technique square measure delineated . we tend to conjointly gift experimental results scrutiny acoustic localization with GPS for surface operation, and a comparison of acoustic and visual strategies for underwater operation.

5. Paper Name: On a decentralized active sensing strategy using mobile sensor platforms in a network

Author: T. H. Chung, V. Gupta, J. W. Burdick, R. M. Murray Paper Explanation: during this paper, we tend to think about the matter of active sensing victimization mobile nodes as a sensing element network to estimate the state of a dynamic target. we tend to propose a gradient-search-based localized formula that demonstrates the advantages of distributed sensing. we tend to then examine the task of trailing multiple targets, and address it via an easy extension to our formula. Simulation results show that our easy localized approach performs quite well and ends up in attention-grabbing cooperative behavior.

6. Paper Name: Dynamic positioning of beacon vehicles for cooperative underwater navigation

Author: Alexander Bahr, John J. Leonard, AlcherioMartinoli Paper

Explanation: Autonomous Underwater Vehicles (AUVs) square measure used for AN ever increasing vary of applications thanks to the maturing of the technology. thanks to the absence of the GPS signal underwater, the proper estimation of its position may be a challenge for submerged vehicles. One promising strategy to mitigate this drawback is to use a bunch of AUVs wherever one or a lot of assume the role of a beacon vehicle that encompasses a terribly correct position estimate thanks to a fashionable navigation suite or frequent egress. These beacon vehicles broadcast their position and therefore the remaining survey vehicles will use this position data and intra-vehicle ranges to update their

position estimate. The effectiveness of this approach powerfully depends on the pure mathematics between the beacon vehicles and therefore the survey vehicles. The trajectories of the beacon vehicles ought to so be planned with the goal to reduce the position uncertainty of the survey vehicles. we tend to propose a distributed formula that dynamically computes the regionally optimum position for a beacon vehicle victimization solely data obtained from broadcast communication of the survey vehicles. It doesn't would like previous data concerning the survey vehicles' flight and might be used for any cluster size of beacon and survey vehicles.

7. Paper Name: Cluster space Specification and control of Mobile Multi-robot Systems

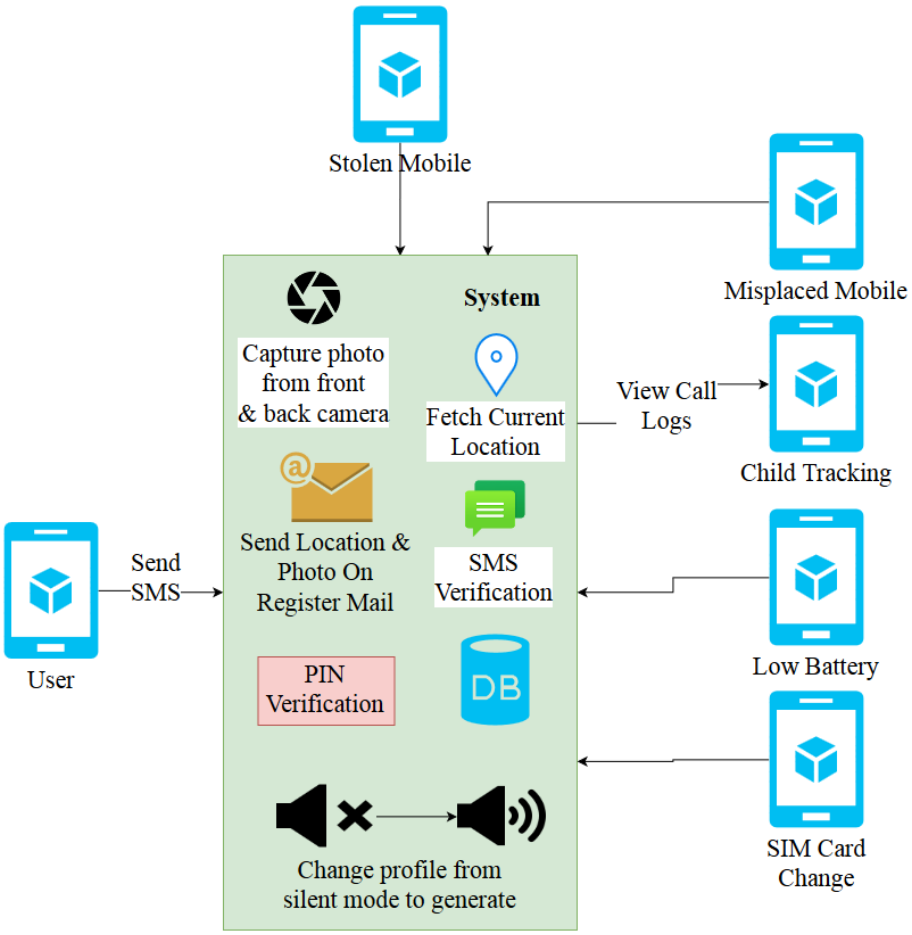
Author: christopher A. Kitts, Ignacio Mas

Paper Explanation: The cluster house state illustration of mobile multi-robot systems is introduced as a method of facultative increased management of mobile multi-robot systems. A abstract framework is projected for the choice of acceptable cluster house state variables for AN n-robot system, the event of formal mechanics that associate the cluster house state variables with robot-specific variables, and therefore the implementation of a cluster house system design. The cluster house approach is then incontestible for samples of two- and three-robot clusters consisting of differential drive robots operational in a very plane. In these examples, we tend to demonstrate cluster house variable choice, review the essential kinematic relationships, and gift experimental results that demonstrate the power of the systems to satisfy management specifications whereas permitting one operator to simply specify and supervise the motion of the clusters.

PROPOSED SYSTEM

In propose system user can have main three choices to search out or track their mobile location. If use forget their mobile in home then user can send preformatted SMS to their phone then mobile can begin ringing. If user forgot their phone outside of home then he will track by propose system

SYSTEM DESIGN



ADVANTAGES

- Easy way to find mobile location
- Save time and efforts to find mobile phone

CONCLUSION

Propose system is mobile application following application. This application provides study security to Smartphone once it's lost or taken by stealer. It takes the picture an sends to the registered email id. It also turns the mobile from silent to geneeal mode by sending the msg to the mobile number which is misplaced.

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