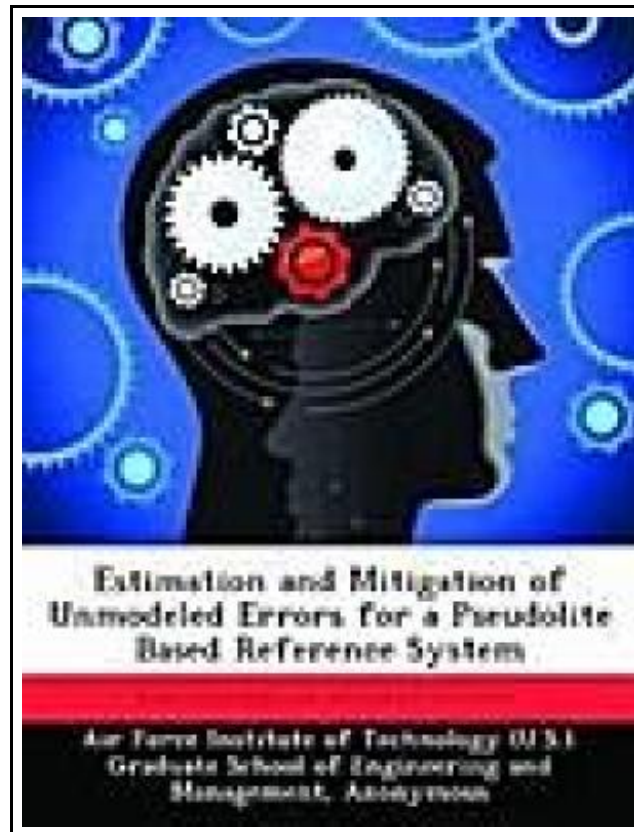


## Estimation and Mitigation of Unmodeled Errors for a Pseudolite Based Reference System



Filesize: 7.6 MB

### ***Reviews***

*Basically no phrases to describe. I was able to comprehend everything out of this published ebook. You can expect to like the way the author compose this ebook.*

***(Mrs. Novella Will)***

## ESTIMATION AND MITIGATION OF UNMODELED ERRORS FOR A PSEUDOLITE BASED REFERENCE SYSTEM

DOWNLOAD



Biblioscholar Sep 2012, 2012. Taschenbuch. Book Condition: Neu. 246x189x8 mm. This item is printed on demand - Print on Demand Neuware - Current flight reference systems rely heavily on the Global Positioning System (GPS), causing susceptibility to GPS jamming. Additionally, an increasing number of tests involve jamming the GPS signal. A need exists to develop a system capable of GPS-level accuracy during these outages. One promising solution is a ground-based pseudolite system capable of delivering sub-centimeter level accuracy, yet operating at non-GPS frequencies. This thesis attempts to determine the unknown errors in the Locata system, one such pseudolite-based system, to achieve the accuracy required. The development of a measurement simulation tool along with a Kalman filter algorithm provides confirmation of filter performance as well as the ability to process real data measurements and evaluate simulated versus real data comparatively. The simulation tool creates various types of measurements with induced noise, tropospheric delays, pseudolite position errors, and tropospheric scale-factor errors. In turn, the Kalman filter resolves these errors, along with position, velocity, and acceleration for both simulated and real data measurements, enabling error analysis to pinpoint both expected and unexpected error sources. Simulated results confirmed the ability to render centimeter level solutions in a noisy environment, proper pseudolite position error estimation, and suitable tropospheric scale-factor estimation. Additionally, the simulation demonstrated the inability to conduct simultaneous estimation of both the pseudolite position errors and the tropospheric scale-factor. Real data results indicate the algorithm renders a highly accurate (6cm) position solution after applying the low elevation tropospheric delay model substantiated in this thesis. Furthermore, the ability to resolve the pseudolite position errors and tropospheric scale-factor provide mitigation of previously unmodeled errors, and highlight the fact additional errors exist, which remain undetermined. 140 pp. Englisch.



[Read Estimation and Mitigation of Unmodeled Errors for a Pseudolite Based Reference System Online](#)



[Download PDF Estimation and Mitigation of Unmodeled Errors for a Pseudolite Based Reference System](#)

## Relevant PDFs



### **Psychologisches Testverfahren**

Reference Series Books LLC Nov 2011, 2011. Taschenbuch. Book Condition: Neu. 249x191x7 mm. This item is printed on demand - Print on Demand Neuware - Quelle: Wikipedia. Seiten: 100. Kapitel: Myers-Briggs-Typindikator, Keirsey Temperament Sorter, DISG,...

[Download PDF »](#)



### **Programming in D**

Ali Cehreliz 2015, 2015. Buch. Book Condition: Neu. 264x182x53 mm. This item is printed on demand - Print on Demand Neuware - The main aim of this book is to teach D to readers...

[Download PDF »](#)



### **Adobe Indesign CS/Cs2 Breakthroughs**

Peachpit Press, 2005. Softcover. Book Condition: Neu. Gebraucht - Sehr gut Unbenutzt. Schnelle Lieferung, Kartonverpackung. Abzugsfähige Rechnung. Bei Mehrfachbestellung werden die Versandkosten anteilig erstattet. - Adobe InDesign is taking the publishing world by storm and...

[Download PDF »](#)



### **Tinga Tinga Tales: Why Lion Roars - Read it Yourself with Ladybird**

Paperback. Book Condition: New. Not Signed; This is a Tinga Tinga tale inspired by traditional stories from Africa. Lion is king of Tinga Tinga but he can't roar! Can his friend Flea help Lion to...

[Download PDF »](#)



### **New KS2 English SAT Buster 10-Minute Tests: 2016 SATs & Beyond**

Paperback. Book Condition: New. Not Signed; This is Book 2 of CGP's SAT Buster 10-Minute Tests for KS2 Grammar, Punctuation & Spelling - it's a brilliant way to introduce English SATS preparation in bite-sized chunks....

[Download PDF »](#)