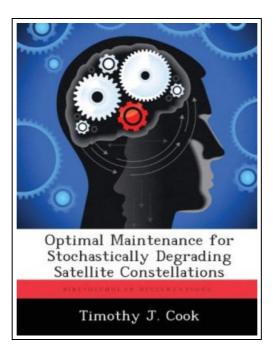
Optimal Maintenance for Stochastically Degrading Satellite Constellations (Paperback)



Filesize: 2.58 MB

Reviews

A must buy book if you need to adding benefit. It is actually rally fascinating throgh studying time. Your way of life span will likely be transform as soon as you complete looking over this publication. *(Ms. Bernice Rolfson)*

OPTIMAL MAINTENANCE FOR STOCHASTICALLY DEGRADING SATELLITE CONSTELLATIONS (PAPERBACK)



Biblioscholar, United States, 2012. Paperback. Condition: New. Language: English . Brand New Book ***** Print on Demand *****.This thesis develops a methodology to determine an optimal policy for maintaining a satellite constellation that degrades over time. Previous work has developed a methodology to compute an optimal replacement policy for a satellite constellation in which satellites were viewed as binary entities, either operational or failed. This research extends the previous models by developing an optimal maintenance policy for satellite constellations in which each satellite may operate in a finite number of degraded states. The constellation is assumed to consist of a finite number of satellites, each with a finite number of functions with distinct failure mechanisms. Assuming each function lifetime is exponentially distributed, the stochastic degradation process is modelled as a discrete-time Markov chain. The degradation process is subsequently used to formulate an optimization problem as a finite planning horizon Markov decision process in which the total expected loss of utility is minimized. The maintenance actions considered include on-orbit repairs and satellite replacements, each of which has an associated level of risk. Numerical examples are presented to illustrate the model, and a parametric sensitivity analysis is performed using notional data to determine conditions for which the resulting policy consists of only replacements, only on-orbit repairs, or mixtures of replacements and on-orbit repairs.

Read Optimal Maintenance for Stochastically Degrading Satellite Constellations (Paperback) Online
Download PDF Optimal Maintenance for Stochastically Degrading Satellite Constellations (Paperback)

You May Also Like

	-	

Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselues By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1624-1625) Proquest, Eebo Editions, United States, 2010. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book

***** Print on Demand *****.EARLY HISTORY OF RELIGION. Imagine holding history in your hands. Now... Read Book

	\mathbf{N}
	_

Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselues By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1625)

Proquest, Eebo Editions, United States, 2010. Paperback. Book Condition: New. 246 x 189 mm. Language: English Brand New Book ***** Print on Demand *****. EARLY HISTORY OF RELIGION. Imagine holding history in your hands. Now you...

Read Book

			2
	_	-	

Children s Handwriting Book of Alphabets and Numbers: Over 4,000 Tracing Units for the Beginning Writer Createspace, United States, 2015. Paperback. Book Condition: New. 254 x 203 mm. Language: English . Brand New Book ***** Print on Demand *****. The Children s Handwriting Book of Alphabets and Numbers provides extensive focus on...

Read Book

_	_
_	-
_	

ESV Study Bible, Large Print (Hardback)

CROSSWAY BOOKS, United States, 2014. Hardback. Book Condition: New. Large Print. 249 x 178 mm. Language: English . Brand New Book. The ESV Study Bible, Large Print edition transforms the content of the award-winning ESV... Read Book

1			2
	Ξ	_	

ESV Study Bible, Large Print

CROSSWAY BOOKS, United States, 2014. Leather / fine binding. Book Condition: New. Large Print. 257 x 190 mm. Language: English . Brand New Book. The ESV Study Bible, Large Print edition transforms the content of... Read Book

»

