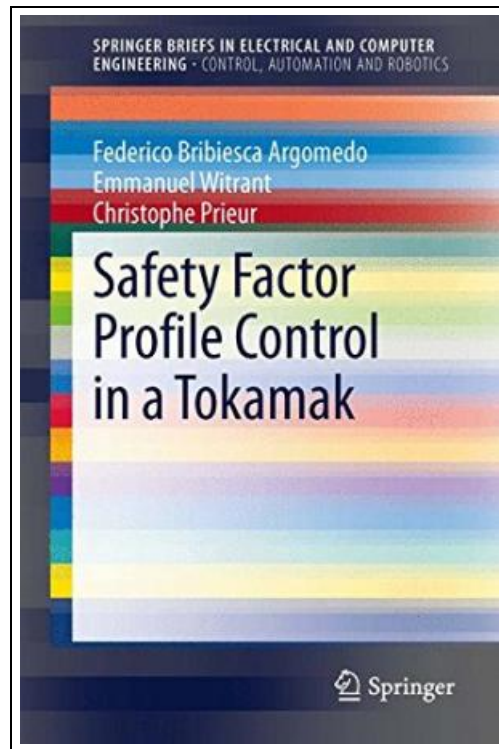


Safety Factor Profile Control in a Tokamak



Filesize: 1.29 MB

Reviews

Here is the best ebook we have read through right up until now. I could possibly comprehend every thing out of this written e pdf. Its been written in an remarkably easy way and is particularly only following i finished reading through this ebook by which in fact changed me, change the way i really believe.
(Etha Pollich)

SAFETY FACTOR PROFILE CONTROL IN A TOKAMAK

[DOWNLOAD PDF](#)

Springer International Publishing AG. Paperback. Condition: new. BRAND NEW, Safety Factor Profile Control in a Tokamak, Federico Bribiesca Argomedo, Emmanuel Witrant, Christophe Prieur, Control of the Safety Factor Profile in a Tokamak uses Lyapunov techniques to address a challenging problem for which even the simplest physically relevant models are represented by nonlinear, time-dependent, partial differential equations (PDEs). This is because of the spatiotemporal dynamics of transport phenomena (magnetic flux, heat, densities, etc.) in the anisotropic plasma medium. Robustness considerations are ubiquitous in the analysis and control design since direct measurements on the magnetic flux are impossible (its estimation relies on virtual sensors) and large uncertainties remain in the coupling between the plasma particles and the radio-frequency waves (distributed inputs). The Brief begins with a presentation of the reference dynamical model and continues by developing a Lyapunov function for the discretized system (in a polytopic linear-parameter-varying formulation). The limitations of this finite-dimensional approach motivate new developments in the infinite-dimensional framework. The text then tackles the construction of an input-to-state-stability Lyapunov function for the infinite-dimensional system that handles the medium anisotropy and provides a common basis for analytical robustness results. This function is used as a control-Lyapunov function and allows the amplitude and nonlinear shape constraints in the control action to be dealt with. Finally, the Brief addresses important application- and implementation-specific concerns. In particular, the coupling of the PDE and the finite-dimensional subsystem representing the evolution of the boundary condition (magnetic coils) and the introduction of profile-reconstruction delays in the control loop (induced by solving a 2-D inverse problem for computing the magnetic flux) is analyzed. Simulation results are presented for various operation scenarios on Tore Supra (simulated with METIS) and on TCV (simulated with RAPTOR). Control of the Safety Factor Profile in a Tokamak will be of interest to both...

[Read Safety Factor Profile Control in a Tokamak Online](#)[Download PDF Safety Factor Profile Control in a Tokamak](#)

Relevant Kindle Books



Oxford Reading Tree Read with Biff, Chip, and Kipper: Phonics: Level 2: Cat in a Bag (Hardback)

Oxford University Press, United Kingdom, 2011. Hardback. Book Condition: New. 172 x 142 mm. Language: English . Brand New Book. Read With Biff, Chip and Kipper is the UK's best-selling home reading series. It...

[Read eBook »](#)



Cloverleaf Kids: Kids and adults alike will enjoy these hilarious stories and antics of me, my siblings and our friends growing up in a small town in . over & over and always got a good laugh.

CreateSpace Independent Publishing Platform. PAPERBACK. Book Condition: New. 1482737256 Special order direct from the distributor.

[Read eBook »](#)



Internet Security: Take Control of Your Computer (New edition)

Flame Tree Publishing. Paperback. Book Condition: new. BRAND NEW, Internet Security: Take Control of Your Computer (New edition), Richard Williams, Jeffrey Keetings, We rely so heavily on the internet for communication, information, entertainment, business and...

[Read eBook »](#)



Instrumentation and Control Systems

Elsevier Science & Technology. Paperback. Book Condition: new. BRAND NEW PRINT ON DEMAND., Instrumentation and Control Systems, William Bolton, In a clear and readable style, Bill Bolton addresses the basic principles of modern instrumentation and...

[Read eBook »](#)



10 Most Interesting Stories for Children: New Collection of Moral Stories with Pictures

Paperback. Book Condition: New. This item is printed on demand. Item doesn't include CD/DVD.

[Read eBook »](#)

**TJ new concept of the Preschool Quality Education Engineering: new happy learning young children (3-5 years old) daily learning book Intermediate (2)(Chinese Edition)**

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment.Paperback. Pub Date :2005-09-01 Publisher: Chinese children before making Reading: All books are the

[Download Document »](#)

**Plentyofpickles.com**

Createspace, United States, 2013. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.Interested in taking a peek into the world of internet dating? Then order

[Download Document »](#)

**A Kindergarten Manual for Jewish Religious Schools; Teacher s Text Book for Use in School and Home**

Rarebooksclub.com, United States, 2012. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book ***** Print on Demand *****.This historic book may have numerous typos and missing text. Purchasers can download

[Download Document »](#)

**Rookie Preschool-NEW Ser.: The Leaves Fall All Around**

Book Condition: Brand New. Book Condition: Brand New.

[Download Document »](#)

**A Smarter Way to Learn JavaScript: The New Approach That Uses Technology to Cut Your Effort in Half**

Createspace, United States, 2014. Paperback. Book Condition: New. 251 x 178 mm. Language: English . Brand New Book ***** Print on Demand *****.The ultimate learn-by-doing approachWritten for beginners, useful for experienced developers who want to

[Download Document »](#)