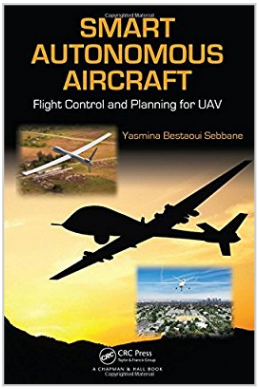

Smart Autonomous Aircraft: Flight Control and Planning for UAV

By Yasmina Bestaoui Sebbane

Smart Autonomous Aircraft: Flight Control and Planning for UAV By Yasmina Bestaoui Sebbane

With the extraordinary growth of Unmanned Aerial Vehicles (UAV) in research, military, and commercial contexts, there has been a need for a reference that provides a comprehensive look at the latest research in the area. Filling this void, **Smart Autonomous Aircraft: Flight Control and Planning for UAV** introduces the advanced methods of flight control, planning, situation awareness, and decision making.

This book is among the first to emphasize the theoretic and algorithmic side of control and planning in dynamic and uncertain environments. Focused on the latest theory that informs flight planning and control, it describes the use of computational intelligence modeling, control, and planning.

Providing background information on fixed-wing unmanned aerial vehicles, the book proceeds from the basics to advanced methods, from classical to the most innovative. It examines the current state of the art and covers the topics required to assess the autonomy of UAVs.

An ideal resource for researchers and practitioners working on solutions for implementing advanced capabilities in UAVs, the book details the mathematical underpinnings of each concept and includes illustrative case studies to reinforce understanding.

Providing an interdisciplinary point of view on autonomous aircraft, the book reviews the different methodologies of control and planning used to create smart autonomous aircraft. The topics covered in this book have been derived from the author’s research and teaching duties in smart aerospace and autonomous systems and from literature survey.

Assuming an understanding of engineering at the undergraduate level, this book is suitable for advanced-level graduate students and PhD students enrolled in UAV or aerial robotics courses.

Smart Autonomous Aircraft: Flight Control and Planning for UAV

By Yasmina Bestaoui Sebbane

Smart Autonomous Aircraft: Flight Control and Planning for UAV By Yasmina Bestaoui Sebbane

With the extraordinary growth of Unmanned Aerial Vehicles (UAV) in research, military, and commercial contexts, there has been a need for a reference that provides a comprehensive look at the latest research in the area. Filling this void, **Smart Autonomous Aircraft: Flight Control and Planning for UAV** introduces the advanced methods of flight control, planning, situation awareness, and decision making.

This book is among the first to emphasize the theoretic and algorithmic side of control and planning in dynamic and uncertain environments. Focused on the latest theory that informs flight planning and control, it describes the use of computational intelligence modeling, control, and planning.

Providing background information on fixed-wing unmanned aerial vehicles, the book proceeds from the basics to advanced methods, from classical to the most innovative. It examines the current state of the art and covers the topics required to assess the autonomy of UAVs.

An ideal resource for researchers and practitioners working on solutions for implementing advanced capabilities in UAVs, the book details the mathematical underpinnings of each concept and includes illustrative case studies to reinforce understanding.

Providing an interdisciplinary point of view on autonomous aircraft, the book reviews the different methodologies of control and planning used to create smart autonomous aircraft. The topics covered in this book have been derived from the author’s research and teaching duties in smart aerospace and autonomous systems and from literature survey.

Assuming an understanding of engineering at the undergraduate level, this book is suitable for advanced-level graduate students and PhD students enrolled in UAV or aerial robotics courses.

Smart Autonomous Aircraft: Flight Control and Planning for UAV By Yasmina Bestaoui Sebbane Bibliography

- Sales Rank: #2606325 in Books
- Published on: 2015-11-18
- Original language: English
- Number of items: 1
- Dimensions: 1.10" h x 6.20" w x 9.30" l, 1.70 pounds
- Binding: Hardcover
- 440 pages

Editorial Review

Review

"**Smart Autonomous Aircraft** gives an interdisciplinary point of view on autonomous aircraft. It develops models and reviews different methodologies of control and planning used to create smart autonomous aircraft. Some case studies are examined as well. An ideal resource for researchers and practitioners working on solutions for implementing advanced capabilities in UA V s, **Smart Autonomous Aircraft** details the mathematical underpinnings of each concept and includes illustrative case studies to reinforce understanding. The topics considered in the book are derived from Sebbane's research and teaching duties in smart aerospace and autonomous systems over several years. Some parts are based on the top literature in the field. Assuming an understanding of engineering at the undergraduate level, **Smart Autonomous Aircraft** is suitable for advanced-level graduate students and PhD students enrolled in UAV or aerial robotics courses, as well as researchers.
?*SirReadaLot.org,* February 2, 2016

About the Author

Yasmina Bestaoui Sebbane earned her PhD in Control and Computer engineering from Ecole Nationale Superieure de Mecanique, Nantes, France, in 1989 (Currently Ecole Centrale de Nantes) and the Habilitation to Direct Research in Robotics, from the University of Evry, France, in 2000.

She is with the Electrical Engineering Department of the University of EVRY since 1999. From 1989 to 1998, she was with the Mechanical Engineering Department of the University of NANTES. From September 1997 till July 1998, she was a Visiting Associate Professor in the Computer Science department at the Naval Post Graduate School, Monterey, California, USA.

Her research interests include control, planning, and decision making of unmanned systems, particularly unmanned aerial vehicles and robots. She is the author of two other books: *Lighter than Air Robots* (Springer) and *Planning and Decision Making for Aerial Robots* (Springer).

Users Review

From reader reviews:

Frances Oberlin:

This Smart Autonomous Aircraft: Flight Control and Planning for UAV book is not really ordinary book, you have it then the world is in your hands. The benefit you receive by reading this book is usually information inside this guide incredible fresh, you will get info which is getting deeper an individual read a lot of information you will get. This kind of Smart Autonomous Aircraft: Flight Control and Planning for UAV without we realize teach the one who reading it become critical in thinking and analyzing. Don't end up being worry Smart Autonomous Aircraft: Flight Control and Planning for UAV can bring once you are and not make your case space or bookshelves' become full because you can have it within your lovely laptop even cellphone. This Smart Autonomous Aircraft: Flight Control and Planning for UAV having good

arrangement in word and also layout, so you will not really feel uninterested in reading.

Iris Robertson:

This book untitled Smart Autonomous Aircraft: Flight Control and Planning for UAV to be one of several books that best seller in this year, that's because when you read this e-book you can get a lot of benefit upon it. You will easily to buy that book in the book shop or you can order it by means of online. The publisher of the book sells the e-book too. It makes you more readily to read this book, because you can read this book in your Mobile phone. So there is no reason for you to past this book from your list.

Keven Peterson:

Reading can called brain hangout, why? Because if you find yourself reading a book particularly book entitled Smart Autonomous Aircraft: Flight Control and Planning for UAV your head will drift away trough every dimension, wandering in every aspect that maybe not known for but surely can become your mind friends. Imaging every single word written in a reserve then become one web form conclusion and explanation in which maybe you never get just before. The Smart Autonomous Aircraft: Flight Control and Planning for UAV giving you a different experience more than blown away your thoughts but also giving you useful data for your better life in this era. So now let us show you the relaxing pattern at this point is your body and mind will be pleased when you are finished studying it, like winning an activity. Do you want to try this extraordinary shelling out spare time activity?

Palmer Schwartz:

In this period globalization it is important to someone to find information. The information will make you to definitely understand the condition of the world. The fitness of the world makes the information quicker to share. You can find a lot of recommendations to get information example: internet, newspapers, book, and soon. You will see that now, a lot of publisher which print many kinds of book. The particular book that recommended to your account is Smart Autonomous Aircraft: Flight Control and Planning for UAV this reserve consist a lot of the information in the condition of this world now. This book was represented how can the world has grown up. The words styles that writer use to explain it is easy to understand. The writer made some study when he makes this book. This is why this book suitable all of you.

Read Smart Autonomous Aircraft: Flight Control and Planning for UAV By Yasmina Bestaoui Sebbane for online ebook

Smart Autonomous Aircraft: Flight Control and Planning for UAV By Yasmina Bestaoui Sebbane Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Smart Autonomous Aircraft: Flight Control and Planning for UAV By Yasmina Bestaoui Sebbane books to read online.

Online Smart Autonomous Aircraft: Flight Control and Planning for UAV By Yasmina Bestaoui Sebbane ebook PDF download

Smart Autonomous Aircraft: Flight Control and Planning for UAV By Yasmina Bestaoui Sebbane Doc

Smart Autonomous Aircraft: Flight Control and Planning for UAV By Yasmina Bestaoui Sebbane Mobipocket

Smart Autonomous Aircraft: Flight Control and Planning for UAV By Yasmina Bestaoui Sebbane EPub

T39CRLWE7QH: Smart Autonomous Aircraft: Flight Control and Planning for UAV By Yasmina Bestaoui Sebbane