

Preface

Citation for published version (APA):

Fossen, T. I., Pettersen, K. Y., & Nijmeijer, H. (2017). Preface. In T. I. Fossen, K. Y. Pettersen, & H. Nijmeijer (Eds.), *Sensing and control for autonomous vehicles: applications to land, water and air vehicles* (pp. v-vi). (Lecture Notes in Control and Information Sciences; Vol. 474). Springer.
http://www.springer.com/cda/content/document/cda_downloadaddocument/9783319553719-p1.pdf?SGWID=0-0-45-1608108-p180703640

Document status and date:

Published: 01/01/2017

Document Version:

Publisher's PDF, also known as Version of Record (includes final page, issue and volume numbers)

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

www.tue.nl/taverne

Take down policy

If you believe that this document breaches copyright please contact us at:

openaccess@tue.nl

providing details and we will investigate your claim.

Preface

Sensing and Control for Autonomous Vehicles: Applications to Land, Water and Air Vehicles contains a collection of contributions presented at an invited workshop with the same name held June 20–22, 2017 in Ålesund, Norway.

The subject of the book is sensing and control with applications to autonomous vehicles. Guidance, navigation and motion control systems for autonomous vehicles are increasingly important in land-based, marine and aerial operations. Autonomous underwater vehicles may be used for pipeline inspection, light-intervention work, underwater survey, and collection of oceanographic/biological data. Autonomous aerial and ground vehicles can be used in a large number of applications such as inspection, monitoring, data collection, surveillance, etc. At present, vehicles operate with limited autonomy and intelligence. There is a growing interest for cooperative and coordinated multi-vehicle systems, localization and mapping, path planning, robust autonomous navigation systems, and robust autonomous control of vehicles. Unmanned vehicles with high levels of autonomy may be used for safe and efficient collection of environmental data, for assimilation of climate and environmental models and to complement global satellite systems.

With an appropriate balance between mathematical theory and practical applications, academic and industrial researchers working on sensing and control engineering aspects of autonomous vehicles will benefit from this comprehensive book. It is also suitable for final year undergraduates and postgraduates, lecturers, development officers, and practitioners in the areas of guidance, navigation and control of autonomous vehicles.

Acknowledgements

We are grateful to our sponsors:

- Center for Autonomous Marine Operations and Systems (NTNU AMOS) at the Norwegian University of Science and Technology, Trondheim, Norway (Norwegian Research Council grant no. 223254).
- Rolls-Royce Marine, Alesund, Norway

Trondheim, Norway
Trondheim, Norway
Eindhoven, The Netherlands

Thor I. Fossen
Kristin Y. Pettersen
Henk Nijmeijer



<http://www.springer.com/978-3-319-55371-9>

Sensing and Control for Autonomous Vehicles

Applications to Land, Water and Air Vehicles

Fossen, T.I.; Pettersen, K.Y.; Nijmeijer, H. (Eds.)

2017, IX, 518 p. 212 illus., 170 illus. in color., Hardcover

ISBN: 978-3-319-55371-9