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Autonomous Technologies: Applications That Matter

Edited by William Messner
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Summary: "In a unique effort to offer an introduction to the world of autonomous technologies, SAE International and AUVSI are pleased to present the reader with Autonomous Technologies: Applications That Matter. Focusing on nonmilitary use of autonomous mobile devices, the two organizations have teamed up and invited authors from multiple areas of expertise to discuss how the concept of autonomy is becoming a more natural fit with the way we live"--Foreword.


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Foreword

In a unique effort to offer an introduction to the world of autonomous technologies, SAE International and AUVSI are pleased to present the reader with *Autonomous Technologies: Applications That Matter*.

Focusing on nonmilitary use of autonomous mobile devices, the two organizations have teamed and invited authors from multiple areas of expertise to discuss how the concept of “autonomy” is becoming a more natural fit with the way we live.

From the use of domestic and commercial robots to do tasks such as cleaning and grass mowing, to automated farming, maritime applications, and environmental monitoring (which affects all of us), *Autonomous Technologies: Applications That Matter* looks at the new opportunities and challenges we are already dealing with: Can we trust driverless cars? And who is responsible for keeping the boundaries on privacy issues clear and straight? Will we become more efficient if we embed autonomous platooning in moving cargo and freight?

In addition to gaining efficiency, these technologies also have powerful market incentives. In 2013, a study by Morgan Stanley indicated that self-driving cars could contribute a staggering $5.6 trillion in annual savings around the world. An AUVSI study, also published in 2013, found that unmanned aircraft, employed in the agriculture sector, could create more than 100,000 jobs in the first decade after airspace integration, with more than $82.1 billion in revenue in the United States alone.

Interestingly enough, most of these “autonomy angles” touch upon one common thread: the exponentially growing world of sensors. Ever more precise and dedicated sensors are making data acquisition and decision support much easier and more informed, too.

The scope of this book is practical rather than theoretical, opening the door to future contributions to complement it.

For now, we kindly thank our authors and reviewers for the work and commitment to this project and willingness to share their knowledge.

We hope the readers will find *Autonomous Technologies: Applications That Matter* useful, easy to read, and a first, positive step into the realm of autonomous technologies.

Sincerely,

SAE International
AUVSI