Information and Command Control Systems

Papers Presented at the AIAA SciTech Forum and Exposition 2019

San Diego, California, USA 7 - 11 January 2019

ISBN: 978-1-5108-8416-8

Printed from e-media with permission by:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

The contents of this work are copyrighted and additional reproduction in whole or in part are expressly prohibited without the prior written permission of the Publisher or copyright holder. The resale of the entire proceeding as received from CURRAN is permitted.

For reprint permission, please contact AIAA's Business Manager, Technical Papers. Contact by phone at 703-264-7500; fax at 703-264-7551 or by mail at 34922 Uwptkug'Xcmg{'Ftkxg."Uwkg'422, Reston, VA 20191, USA.

TABLE OF CONTENTS

ENABLING AUTONOMY IN COMMAND AND CONTROL VIA GAME-THEORETIC MODELS	
AND MACHINE LEARNING WITH A SYSTEMS PERSPECTIVE	1
Ali K. Raz, Erik Blasch, Robert Cruise, Sriraam Natarajan	
DEFINITION OF OPTIMAL AGENT BEHAVIORS USING REINFORCEMENT LEARNING	15
Joshua K. Price, Olivia J. Pinon, Dimitri N. Mavris	
A FRAMEWORK FOR ANALYSIS OF COMBAT MANEUVERS INPUT STRATEGY USING	
ENERGY-BASED METRICS	37
Nazmia Humaira, Emre Koyuncu	
SOLVING PATH PLANNING PROBLEMS IN URBAN ENVIRONMENTS BASED ON A PRIORI	
SENSORS AVAILABILITIES AND EXECUTION ERROR PROPAGATION	53
Jean-Alexis Delamer, Yoko Watanabe, Caroline P. C. Chanel	
AIR TRAFFIC MANAGEMENT BLOCKCHAIN INFRASTRUCTURE FOR SECURITY,	
AUTHENTICATION, AND PRIVACY	69
Ronald J. Reisman	
Author Index	