

Sensor Systems and Information Fusion

Papers Presented at the AIAA AVIATION 2026 Forum

San Diego, California, USA
8 - 12 June 2026

ISBN: 979-8-3313-3868-8

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 12700 Sunrise Valley Drive, Suite 200, Reston, VA 20191, USA.

TABLE OF CONTENTS

Certifiability-Aware Vision-Assisted Decision-Support Framework for Reliable Vertiport Identification in Advanced Air Mobility (AAM) Operations	1
<i>Arshad Basha Shaik</i>	
Autonomous Thermal-Vision Human Condition Detection Using Unmanned Aerial Systems.....	10
<i>Owais Ahmed, Joseph Stanziano, Adeel Khalid</i>	
Real-Time Vehicle Detection and Enumeration Using Unmanned Aerial Systems	26
<i>Adeel Khalid, Owais Ahmed, Ethan Debeb</i>	
Event-Based Object Detection on a Lighter-Than-Air UAV	43
<i>Brendan Cox, Paul Coen, Or D. Dantsker</i>	
AI-Based Flight State Identification for Aerospace Control Systems	54
<i>Anam Iqbal, Graham Wild, Kanwal Iqbal</i>	
HARBOR: Heading Analysis and Reconstruction from Behavioral Observation and Radar.....	61
<i>Joao Dantas, Paulo Silva Filho, Jelton Cunha, Gabriel Dietzsch</i>	
Development of Low Altitude Sounding Rocket for Collecting Eulerian Slices of Atmospheric Boundary Layer	73
<i>John Pippin, Alyssa S. Avery</i>	
Thermal Human Head Temperature Estimation Using Unmanned Aerial Systems for Search and Rescue Operations.....	84
<i>Owais Ahmed, Justin Guye, Adeel Khalid</i>	

Author Index