2019 International Conference on Range Technology (ICORT 2019)

Balasore, India 15 – 17 February 2019



IEEE Catalog Number: CFP19S79-POD ISBN: 978-1-7281-1354-8

Copyright © 2019 by the Institute of Electrical and Electronics Engineers, Inc. All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

*** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.

 IEEE Catalog Number:
 CFP19S79-POD

 ISBN (Print-On-Demand):
 978-1-7281-1354-8

 ISBN (Online):
 978-1-7281-1353-1

Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA Phone: (845) 758-0400

Fax: (845) 758-2633

E-mail: curran@proceedings.com Web: www.proceedings.com



TABLE OF CONTENT

Full Papers

SI No	Paper Title	рр.
1.	Study of Coefficient of Drag and Shock wave pattern for 155mm ERFB	1-5
	(BT) supersonic artillery shell with Recovery plug / Fuze	
2.	Robust Control Law Design for Medium Altitude Long Endurance UAV	6-10
3.	Evaluation of Stabilized Electro-Optical System	11-14
4.	Hazard Assessment modelling for the Target end Control room of a Penta track Dynamic Trial Facility	15-19
5.	Dual Feed Dual Circularly Polarized Horn Antenna at Ka Band for telemetry application	20-23
6.	Artillery gun recoil measurement using high speed imaging and image processing technique	24-27
7.	Distributing Telemetry Data Using TMoIP Networks	28-31
8.	Background Oriented Schlieren (BOS) Technique: An Effective Flow Visualization Tool for Intermediate Ballistics	32-36
9.	Characterization of MEMS based Inertial Measurement Unit	37-41
10.	Compact Dual T/R Module Controller Board Design using Embedded Resistor Technique	42-46
11.	Multipath Radio Propagation in a UAV Test Range	47-50
12.	Experimental Investigation on burning behaviour of different	51-54
	Propellants in Closed Vessel of Gas generator Cartridge for water-jet application	
13.	Robust H∞ Based PI Control Design For 2-DOF Helicopter: An LMI	55-59
14.	Approach New Low Complexity Variance Method for Automatic Modulation	60-64
14.	Classification and Comparison with Maximum Likelihood Method	00-04
15.	Height of Burst, Fuze Function time and other ballistic parameters of Air	65-68
13.	Burst Grenade with Non- Intrusive measurement	05 00
16.	Experiment on PN ranging for missile application	69-72
17.	NavIC and GPS State Vector as Tracking Sources for Flight Safety	73-76
18.	Emulating High Speed Ballistic Target Interception with Low Speed	77-81
	Target	
19.	Target State Bias Estimation Using Co-Located Radar Measurements	82-86
20.	A comparison between different adaptive beamforming techniques	87-90
21.	RADHAZ and HERO safety in the vicinity of high power RF transmitters	91-93
22.	Integrated Modular Avionics for Missile Applications	94-98
23.	Effect of Igniter Design on Differential Pressure	99-103
24.	Camera Zoom Motion Detection in the Compressed Domain	104-107
25.	Numerical Simulation of the In-bore Motion of a Typical Artillery Shell	108-111
26.	Development of a Decision Algorithm for Range Safety during Missile Flight Test	112-116
27.	A Novel Clustering Algorithm for Faster Passive Sensor Measurement Association	117-121
28.	Synthesis and Analysis of Bioceramic Material for Mitigation of Electromagnetic Interference in Radar Communication	122-126
29.	Unmanned Aerial System (UAS) Hazard identification, reliability, risk	127-131

	analysis & Range Safety	
30.	Global Navigation Satellite Systems and Indian Defence Research - A	132-135
	Review	
31.	3D Pose estimation of UAVs using Stereovision	136-140
32.	Futuristic Trends & Technologies of Range Control Centre (RCC) System	141-144
	for Electronic Warfare (EW) Test Ranges	
33.	Design challenges in Printed Circuit Boards for EMC compliance	145-148
34.	Compact UWB Bandpass Filter with a Notch Band Using Y-Stub Loaded	149-152
	Multiple-Mode Resonator	
35.	Design of Integrated Wideband Passive Band-pass Filter for WiMAX,	153-157
_	WLAN and 5G Communication Systems using 180 nm Technology	
36.	A Compact Size Low Noise Amplifier for GNSS Upper L Band	158-162
37.	Range Instrumentation for Aeronautical Telemetry	163-167
38.	Enhanced MRF based Super Resolution Method for Remote Sensing	168-172
	Images	
39.	Automatic Target Recognition Using Recurrent Neural Network	173-177
40.	Effect of Gun Barrel Wear on Muzzle Velocity of a typical Artillery Shell	178-180
41.	Data Fusion algorithms to improve test range sensors accuracy and	181-184
40	precision	405 400
42.	Simulation of Bullet Penetration using Finite Element Method	185-188
43.	Easy configuration, checking and management of on-board Network	189-193
44.	Telemetry Systems Horn Feed with Switchable Polarization for Radar & Tracking Antenna	194-196
44.	System	154-150
45.	Study of Atmospheric Attenuation of IR Signature of airborne vehicle	197-201
46.	High Gain Improved Sidelobe-Level Series-Fed Linear Microstrip Array	202-205
40.	with Circular Patches	202 203
47.	Avionics ICD representation using JSON for Configurable Data Analyzer	206-210
48.	A New Scheme for Ultra Wide Band PPM communication	211-215
49.	Dynamic evaluation of Bi modular charge system for 155 mm Artillery	216-218
	gun	
50.	Methods for Measuring Projectile In-Bore Profile using Ka band Doppler	219-223
	radar and Piezoelectric Transducers	
51.	Design & Simulation of MEMS Based Shockwave Pressure Sensor for	224-227
	Test & Evaluation Applications	
52.	Cumulant based Blind Channel Estimation and Equalization in	228-231
	Aeronautical Telemetry Channel	
53.	Passive Radar using non-electronic steering surveillance radar as source	232-236
54.	Novel Pilot-Aided Channel Estimation Scheme for Power Domain	237-241
FF	NOMA-UFMC System in Fading Scenarios	242 245
55.	Slotted Microstrip Antenna for 5.8 GHz ISM Band Applications	242-245
56.	Low-cost GNSS modules for Precise Positioning Design and Modelling of Solid State T/R Module for RADAR Applications	246-249
57. E0	Design and Modelling of Solid-State T/R-Module for RADAR Applications Acronautic Telemetry Channel Estimation Using Field Data	250-254
58. FO	Aeronautic Telemetry Channel Estimation Using Field Data	255-258
59.	Least Square Regression based Non Uniformity Correction for Infra red Focal Plane Arrays	259-263
60.	On The Techniques For Functional Test and Performance Evaluation of	264-268
υυ.	FMCW based Radio Altitude Sensor	20 4 -200
61.	Hardware Software Co-Design for Real Time Detection of Small Target	269-273
01.	Transmare Software Co Design for Real Time Detection of Small Target	203 213

	in IR Video	
62.	Advanced Techniques for Low sidelobe level array antennas	274-277
63.	Specific Emitter Identification Over Fading Channels	278-282
64.	Through-Wall Heartbeat Frequency Detection Using Ultra-Wideband Impulse Radar	283-287
65.	Robust Trajectory Tracking of an Under-actuated Three Degree of Freedom Hovercraft	288-291
66.	On Planning of Transmit Signal Frequencies of MFCW Radar for Test Range Application	292-295
67.	1 KW GaN HEMT based Power Amplifier in UHF Band	296-299
68.	Multiple Hypothesis based Failure Diagnosis for Range Safety	300-304