

2015 DGON Inertial Sensors and Systems Symposium (ISS 2015)

**Karlsruhe, Germany
22 – 23 September 2015**



**IEEE Catalog Number: CFP1557W-POD
ISBN: 978-1-4673-6739-4**

TABLE OF CONTENTS

	Reference	Page
Editors Preface	iii	
Table of Contents	iv	
Author's Index	vi	
Quartz Pendulous Accelerometers for Navigation and Tactical Grade Systems <i>J. Beitia, A. Clifford, C. Fell, P. Loisel</i>	P01	
A New High Performance Sigma-Delta MEMS Accelerometer for Inertial Navigation <i>P. Ullah, V. Ragot, P. Zwahlen, F. Rudolf</i>	P02	
Control and Damping Imperfection Compensation for a Rate Integrating MEMS Gyroscope <i>Zhongxu Hu, Barry Gallacher</i>	P03	
Development and Evaluation of a Navigation Grade Resonator Fiber Optic Gyroscope <i>E. Benser, G. Sanders, M. Smickilas, J. Wu, L. Strandjord</i>	P04	
Electromechanical and process design of a 3 axis piezoelectric MEMS gyro in GaAs <i>A. Piot, B. Bourgeteau, O. Le Traon, I. Roland, N. Isac, R. Levy, P. Lavenus, J. Guérard, A. Bosseboeuf</i>	P05	
A New Versatile Hardware Platform for Closed-Loop Gyro Evaluation <i>A. Omar, A. Elshennawy, A. Ismail, M. Nagib, M. Elmala, A. Elsayed</i>	P06	
Continuous-Time Lowpass and Bandpass $\Delta\Sigma$ -Modulators for Closed-Loop Readout Circuits of Capacitive MEMS Gyroscopes <i>S. Rombach, M. Maurer, Y. Manoli</i>	P07	
A Closed-loop Procedure for the Modeling and Tuning of Kalman Filter for FOG INS <i>A. Benini, R. Senatore, F. D'Angelo, D.N. Orsini, E. Quatraro, M. Verola, A. Pizzarulli</i>	P08	

Using the principle of measurement reproduction in federated filters for navigation data processing	P09
<i>Yuliya A. Litvinenko, Viktor A. Tupysev</i>	
Sensor fusion based vibration estimation using inertial sensors for a complex lightweight structure	P10
<i>P. Kaswekar, J. F. Wagner</i>	
Development of Mapping Position and Orientation Systems with Commercial Grade MEMS	P11
<i>V. Varavva, J. Hutton, A. Lambert</i>	
A laser and image based navigation and guidance system for autonomous outdoor-indoor transition flights of MAVs	P12
<i>M. Popp, G. Scholz, S. Prophet, G.F. Trommer</i>	
On the generation of realistic simulated inertial measurements	P13
<i>M.E. Parés, J.A.Navarro, I. Colomina</i>	
Multi-Sensor vehicle testing: Recording Inertial Sensors via CAN bus in Combination with Recorded GNSS RF signals	P14
<i>K. von Hünerbein, P. Argent, T. Schulze</i>	
Development of a Modular Inertial Sensor Package and its Application for Improvement of Handheld Grenade Launcher	P15
<i>A. Newzella, F. Gathmann, J. Schoder, M. Weidacher</i>	
Dedicated algorithm for line of sight stabilization and orientation	P16
<i>L. Davain, S. Fabien, T. Erler</i>	
A Study of Non-Stochastic IMU Errors in Strapdown Airborne Gravimetry	P17
<i>D. Becker, M. Becker</i>	
Tuning Fork MEMS Gyroscope for Precision Northfinding	P18
<i>B. Johnson, K. Christ, D. Endean, B. Mohr, R. Supino, H. French, E. Cabuz</i>	
The Development and Evaluation of a Two-Axis Indexing NFFDLG INS for Marine Navigation	P19
<i>S. Han, B. Yuan, G. Lu, G. Rao, G. Wang</i>	
Sensor Fusion and Transfer Alignment Concept for Pointing Stabilization	P20
<i>F. D'Angelo, A. Pizzarulli, R. Senatore, G. Biancucci, M. Catasta, M. Verola</i>	
On the Performance of Inertial/GNSS/Doppler Velocity Log Integrated Navigation Systems for Marine Applications	P21
<i>M. Romanovas, L. Lança, R. Ziebold</i>	