Programme Day 1 - 2018 DGON Inertial Sensors and Systems

Tuesday, September 11, 2018

8:00 9:00	Registration Welcome	 Peter Hecker *TU Braunschweig, Germany*
	Session 1: Optical gyroscopes - Chairmain: tbd.	
9:20	Sensitivity enhancement of a mode-locked ring laser gyroscope by giant intracavity dispersion	Matthias Lenzner *Lenzner Resarch LLC, USA*
9:45	Improvements to signal processing and component miniaturization of compact resonator fiber optic gyroscopes	Wesley Williams *Honeywell Advanced Technology, USA*
10:10	Reduction of thermal strain induced rate error for navigation grade fiber optic gyroscope	Berk Osunluk *Bilkent University, Turkey*
10:35	**Coffee Break**	
11:00	First inertial head navigation system	Frédéric Guattari *iXblue, France*
	Session 2: Resonator gyroscopes - Chairman: tbd.	
11:25	The world smallest, most accurate and reliable pure inertial module: ONYX™	Benjamin Deleaux *Safran, France*
11:50	Strapdown inertial navigation system of minimum dimension (3D oscillator as a complete inertial sensor)	Sergey E. Perelyaev *Russian Academy of Sciences, Russia*
12:15	**Lunch**	
	Session 3: MEMS I - Chairman: tbd.	
13:45	Multi-degree-of-freedom MEMS coriolis vibratory gyroscopes designed for dynamic range, robustness, and sensitivity	Andrei M. Shkel *University of California, USA*
14:10	Reduction of vibration and mechanical shocks in MEMS gyroscopes for space application	Mikulas Jandak *Honeywell Int., Czech Republic*
14:35	A resonant frequency shift quartz accelerometer with 1st order frequency ΔΣ modulators for a high performance MEMS IMU	Masayoshi Todorokihara *Seiko Epson Corporation, Japan*
15:00	**Coffee Break**	
15:30	Behavioral performance during vibration and shock for a tactical grade IMU	Hans Schou *Sensonor AS, Norway*
	Session 4: MEMS II - Chairman: tbd.	
15:55	Analysis and simulation of phase errors in quadrature cancellation techniques for MEMS capacitive gyro-scopes	Ahmed Omar *Si-Ware Systems, Egypt*
16:20	Digital architecture for vibrating inertial sensors: modularity, performances, self-calibrations	Léopold Delahaye *Onera, France*
17:45 19:00	**Come together „City-Walk“ @ Meetingpoint Burgplatz (Statue Lion)** **Restaurant Rudas - Best Western FOURSIDE - Burgpassage**	

Programme Day 2 - 2018 DGON Inertial Sensors and Systems

Wednesday, September 12, 2018

	Session 5: Visual Aiding - Chairmain: tbd.	
9:00	Visual inertial hybridization technique based on beacons identified by Deep Learning	Fabrice Delhaye *Safran Electronics & Defense, France*
9:25	Qualification of a new CVG-based inertial reference unit in a combined stellar-inertial attitude determination system for space applications	Florian Schuh *Jena-Optronik, Germany*
9:50	SLAM for direct optimization based visual inertial fusion	Manuel Schwaab *Hahn-Schickard-Gesellschaft für angewandte Forschung, Germany*
10:15	**Coffee Break**	
	Session 6: Data Fusion and Filtering - Chairman: tbd.	
10:45	A graph approach to dynamic fusion of sensors	XIN ZHANG *Shanghai Jiao Tong University, China*
11:10	Novel robust generalized high-degree cubature kalman filter for transfer alignment	Kai Wang *Harbin Institute of Technology, China*
11:35	**Poster Intro**	
12:10	**Lunch**	
	Session 6 continue	
14:00	Electrically integrated miniature motion tracking module with multiple external GNSS receiver support	Michele Crabolu *Xsens Technologies, Netherlands*
14:25	In-motion alignment algorithm of strapdown inertial navigation systems	Ana Cristina Vieira Gonçalves *Military Institute of Engineering, Brazil*
14:50	**Coffee Break**	
	Session 7: Systems - Chairman: tbd.	
15:15	An advanced ITAR-Free INS/GPS designed and developed in Italy	Giovanni Mattei *Northrop Grumman Italia, Italy*
15:40	An integrated gravimetric system to measure absolute gravity aboard a moving base	Alexander Sokolov *Concern CSRI Elektropribor, Russia*
16:05	Development of inertial sensors for AHRS considering DO-254	Uwe Herberth *Northrop Grumman LITEF, Germany*
16:30	Goodbye	Peter Hecker *TU Braunschweig, Germany*
16:35	**End of Conference**	