Newsletter – *February 2016*

ASB Systems Pvt. Ltd.

Attitude, huh ?!

Drones…life-savers for some, life-takers for others! The first drones were built to counter anti-social elements. And till date, Drones have been highly successful in their deployment in the most difficult of terrains.

But then, Drones are not just about demolition. An NGO manages to stockpile medicine for people in remote African villages, but they can't get to the remote areas fast enough to save lives. They simply use drones to transport the medicines! Police departments are known use drones for surveillance activities. And then there are the all-important applications of covering weddings, delivering Pizzas and covering Cricket matches!

So how does a drone fly? Its flight is usually controlled in two ways; either autonomously by computers in the vehicle (auto pilot) or under the remote control of a pilot on the ground.
One of the most critical parts of a Drone is its Attitude sensor.

These miniature Motion Sensors fitted inside the space-constrained Drone, provide the crucial information required for controlling and navigating the device. These are typically MEMS units (Micro-Electro Mechanical Systems) that are the size of silicon chips, which we know as ICs.

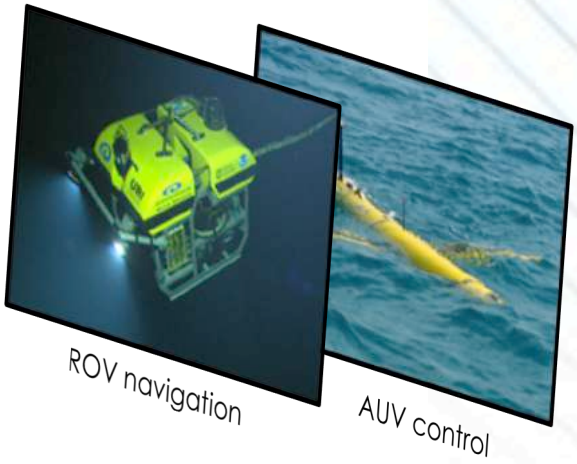
The saying "Attitude is a little thing that makes a Big difference", is apt for the MEMS technology (though in a different context, apologies, Mr.Churchill!)

In this issue…

Applications of MEMS sensors

MARINE

SUBSEA

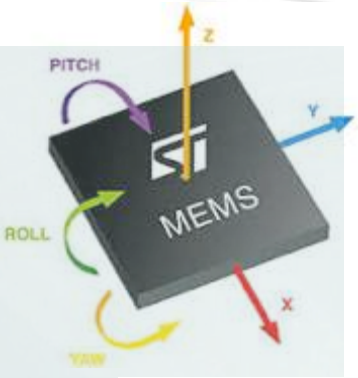


AEROSPACE

LAND

MACHINE GUIDANCE

SBG SYSTEMS



SBG Systems is a fast growing supplier of miniature, high performance and innovative motion sensing solutions. SBG Systems headquarters are based in Rueil-Malmaison, France.

SBG Systems offers a complete line of inertial sensors based on the state-of-the-art MEMS technology such as Attitude and Heading Reference System (AHRS), Inertial Measurement Unit (IMU), Inertial Navigation Systems with embedded GPS (INS/GPS), etc.

This technology, combined with advanced calibration techniques offers miniature and low-cost

SBG Systems is part of the 500 fastest growing company in EMEA

For the second year, SBG Systems in proud to be part of the Deloitte Fast 500 EMEA winners. This great achievement, making SBG Systems one of the fastest growing companies in Europe, Middle East and Africa.

DELOITTE TECHNOLOGY FAST 500 WINNER

MARS UGV equipped with SBG mini INS/GNSS - The Mars Rover Project, currently one of the three large-scale design projects at McGill Robotics, is to design and build a tele-operated and semi-autonomous Mars Rover, the Mc Gills rover integrates a miniature INS / GNSS from SBG Systems.

SBG SYSTEMS

SBG - Inertial Sensors for every application

MINIATURE INERTIAL SENSORS 0.1°

Ellipse Series

Roll, Pitch:	Up to 0.1°
Heading:	Up to 0.2°
Position:	Up to 2 cm
Heave:	10 cm

MID-ACCURACY INERTIAL SENSORS 0.05°

Ekinox Series

Roll, Pitch, and Heading:	Up to 0.05°
Position:	Up to 2 cm
Heave:	2.5 cm (Delayed), 5 cm (Real-time)

HIGH-ACCURACY INERTIAL SENSORS 0.008°

Apogee Series

Roll, Pitch, and Heading:	Up to 0.008°
Position:	2 cm (RTK GPS)
Heave:	2 cm (Delayed), 5 cm (Real-time)

Teledyne Benthos

The model R12K Deep Sea Acoustic Transponding benefits from a new electronics architecture. This new architecture provides new features and establishes the R12K as the most technologically sophisticated release in its class. Battery voltage and percent remaining indicators are complemented by a tilt accuracy indicated in one degree increments. With a positive indication of release status, operators have complete awareness of the condition of their releases.

Positioning Systems – Teledyne Benthos USBL (Ultra Short Baseline) and LBL (Long Baseline)

Wireless Underwater Range and Bearing: Teledyne Benthos underwater acoustic systems are used worldwide for subsea positioning. Based upon proven acoustic modem technology these positioning solutions are also fully capable of providing telemetry through water. Transponders and releases can create sea floor infrastructure to position mobile undersea systems such as AUVs, gliders, towed systems and ROVs. Range only or range and bearing can be derived from the appropriate configuration of Teledyne Benthos positioning products. For long-term installation or "low logistics" operations these products offer field proven solutions for positioning equipment underwater.

Keep watching this space for more info in the coming Newsletters!

Reach out to us:

ASB has its presence in every field, from Hydrography & Oceanography to Hydrology & Scientific research.

If you have a query regarding a requirement, please feel free to give us a call. ASBians are good listeners! In all likelihood, we would have something to offer.

So do feel free to drop us a query on email@asbsystems.net