Press Release

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London

Autonomous Shipping breakthrough:

Robosys Artificial Intelligence 'Technology Ready' now for conventional ships

A Damen FCS operated by SeaZip underway with the Robosys Voyager 100 SmartPilot 'at the helm' (just for reference the vessel in the background is OCTANS)

British company Robosys Automation Limited, a pioneer in artificial intelligence (AI) for the maritime industry, launches the latest version of its Voyager 100 series software for commercial vessels at MARIN, Wageningen, Netherlands on 29 and 30 January.

Billed as a virtual 'Junior Officer of the Watch' able to operate 24/7 at a predictable, pre-determined level of performance, Voyager 100 is the first and only software system developed specifically to support Bridge Watchkeepers.

The proliferation of lean-manned bridges in ships at sea, incidents of tired, poorly trained, overworked officers of the watch involved in collisions or near misses is all too well known.

This new software improves safety, intelligent capability and 'manpower' assistance while freeing up the Bridge Watchkeeper's time allowing him to complete other tasks while supervising Voyager 100.

A major benefit is that this software can be installed NOW into existing bridges, making it a very cost-effective way to upgrade a vessel for increased safety and efficiency.

The Voyager 100 series is available in two versions: SmartCaptain is an advisory system offering a basic 'Decision Aid' for navigation and collision avoidance, useful in busy waters. SmartPilot is linked to the ship's autopilot and propulsion system to provide an 'Intelligent Autopilot'.

In simple terms, the Voyager 100 series analyses the navigational and shipping situation and presents a prioritised set of recommendations to the onboard crew. SmartCaptain acts solely in an advisory capacity. On the other hand, SmartPilot manoeuvres the vessel on behalf of the crew, who can take complete control instantly should they wish to do so.

"Several ship operators and ship builders are very interested in this system. Voyager 100 does not aim to replace crew – they are essential to the modern ship and in short supply, so we need to use them wisely. Voyager 100 allows the bridge crew to multitask safely, whilst providing a steady 'hand on the helm," comments Robosys CEO Aditya Nawab.

To further enhance both versions of the Voyager 100 series, Robosys has developed a new Human Machine Interface which it will be also be launching it at the MARIN facilities end of January 2020.

Robosys Automation Ltd is already working in close collaboration with MARIN, having been one of a consortium of sixteen Dutch and European organisations engaged in a Netherlands Joint Industry Project on Autonomous Shipping (JIP) in 2019. The JIP was a well-constructed programme of practical and academic rigour, carefully planned simulation tests at the MARIN facilities in Wageningen, culminating in a sea trials programme in the North Sea. The Robosys autonomous navigation system was integrated in a Damen 26m FCS. The two other "target" vessels, a 30m Research Vessel and a 65m Coastguard Emergency Towing Vessel were tasked with challenging our collision avoidance capability. Throughout the trial our Obstacle Avoidance Software proved its ability to navigate safely, taking full account of the risks and complying with the International Collision regulations.

There is a growing demand for autonomy amongst industry leaders across the military and commercial sectors of the maritime environment. A robust, predictable, legally compliant and safe collision avoidance system will be at the heart of any enduring solution. Robosys Voyager brings a range of advantages:

- It frees up manpower for other, more complicated tasks.
- It is not distracted; it does not get bored or fall asleep on watch.
- Minimal hotel services required – just power supplies and possibly air conditioning.
- Minimal space afloat – no living accommodation, recreation space, ladders or life raft.
- Minimal operator training. The software itself requires no training, no leave, no sick pay, no pension.
- It can be installed in manned or unmanned vessels.

Unmanned Surface Vehicles

Taking IMO autonomy from Degree 1 up to degrees 3 & 4 is Robosys flagship product the Voyager 300 series which is designed for remotely piloted unmanned vessels. Robosys' Unique Selling Point is the ability of the Voyager 300 series software to operate autonomously – without any external communications. It has a refined Obstacle Avoidance module which allows it to navigate safely and comply with the COLREGS, enabling the vessel to carry on with the mission even in the event of a complete loss of communications with the remote operator. This makes it very suitable for a wider range of surveying tasks too. Most of its competitors offer a remote piloting capability with only limited 'full autonomy'.

Bureau Veritas said in a recent article for Veristar: "Features that provide decision support represent the most fruitful target in the short-term. The next logical target is autonomous navigation systems. In this scenario, a ship would be able to steer itself under the supervision of crew, much as a commercial airliner uses autopilot… under the watchful eye of a pilot". With the Robosys Voyager system, that step is a reality.

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For more information on both Robosys Voyager 100 or 300 series, to arrange an interview with a representative of Robosys and for high res images, please contact:

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About Robosys Automation Limited

Maritime Autonomous Control Systems. With more than 15 years of experience in the field, Robosys is a leading provider of Autonomous control platforms for the maritime sector. Whether you are looking to augment the crew of a conventional ship, or design and build a state-of-the-art Unmanned Surface Vehicle (USV), Robosys has the experience and the technology to unleash your full potential. We use cutting edge Artificial Intelligence to provide scalable levels of autonomy to existing and new-build vessels. We enjoy excellent links with leading equipment manufacturers, offering sophisticated control solutions for bridge systems, machinery and sensors. Our Robosys Voyager software can transform an existing vessel into a fully autonomous USV, capable of independent navigation and collision avoidance. In its simplest form, Robosys Voyager supports the vessel's master by providing an 'intelligent autopilot' capable of navigating safely in confined or open waters; the level of autonomy is up to you. Using modern communications bearers, Robosys Voyager enables remote piloting, allowing a shore-based operator full control of the vessel and its systems to undertake a variety of missions.
www.robosysautomation.com