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Unibap announces IVS-70 Intelligent Vision System for smart factories and advanced robotics

Unibap AB (publ) announces the Intelligent Vision System 70 (IVS-70) platform for industrial robotics and automation applications on schedule as previously announced. IVS-70 testing and evaluation production (0-series) units are now available after successfully concluding preliminary certification, with planned completed extended certification and manufacturing ramping up during fall 2017 of specific products. IVS 0-series units will be provided to partners and pilot projects for application implementation and development.

"I am very proud of our employees for their hard work leading to the release of our IVS-70 which allows us to expand and pursue business in intelligent industrial robotics and autonomous quality assurance. This is right at the heart of our vision of making it easy for small and medium enterprises as well as large to harness the power of AI, vision, and autonomous systems. The IVS platform can be tailored to different market segments and different environmental specification giving us flexibility to address the market needs and opportunities," says Unibap's CEO Dr. Fredrik Bruhn.

Unibap's Intelligent Vision System platform provides increased productivity in smart factories and advanced robotics by combining hardware reliability of aerospace heritage, machine vision, and artificial intelligence (AI). The IVS-70 has the goal of reducing the customer complexity for adopting Industry 4.0.

The Intelligent Vision System (IVS) 70 millimeter is the first highly integrated 3D vision solution on the market with local AI capabilities and advanced hardware and software error checking while offering up to IP 65 environmental certification for rugged applications. Unique features of the IVS includes fast electronically controllable focus with variable focus from 12 cm to infinity and local execution of optimized artificial intelligence algorithms using a heterogeneous computing architecture.

Typical applications for IVS are intelligent industrial automation, intelligent 3D vision, machine tool inspection, agricultural robotics, service robotics, and autonomous surveillance.

"This release is key in numerous ways for Unibap. We now release a vision system that will make a difference in intelligent manufacturing. With the IVS-70 we can reach the huge and fast-growing market of autonomous robots and industry 4.0 with built in quality assurance capability. We enable autonomous robots to navigate in a safe way, we make blind industrial robots able to see in real time. We can expand our business into smart solutions with a minimal impact on existing software and solutions," says Unibap's Chief Science Officer Dr. Lars Asplund.

IVS supports Unibap's Deep Delphi software environment which includes Deep Learning and real-time control capabilities built on the software and computing infrastructure from Unibap's spaceflight proven SpaceCloud line of products. The SpaceCloud heritage empowers the IVS with advanced real-time health and performance monitoring and optional remote maintenance and software upgrades.

Being designed for commercial, industrial, and surveillance applications, the IVS comes with two 5.2 Mpixel Color CMOS sensors with global shutter and industrial standard interfaces including dual IEEE-802.3 Gigabit Ethernet (GbE), IEEE 802.11at (30 W) Power-over-Ethernet (PoE), optional 10 V-60 V DC input, Controller Area Network (CAN) v2.0b, USB, External input and output signals, and M12 connectors (on industrial and surveillance offerings). Additionally, the IVS includes a nine degree-of-freedom (9-DOF) inertial sensor with accelerometers, gyros, and magnetometers to support advanced machine vision and motion control. The IVS include an optional internal powerful LED illumination capability to provide color temperature correction and good lighting conditions for better performance. Internal solid-state storage (SSD) provide continuous operation and acquisition during network disconnects or in closed-loop applications.

IVS products are interoperable with cloud based services, including Unibap's cloud services for Deep Learning training, remote health monitoring and performance analysis, and Fog based industrial networks while offering local execution of machine learning algorithms. Unibap's Deep Delphi software environment include many open source common libraries and support for industry standards (e.g. Linux operating system, Robotic Operating System (ROS), Open Computer Vision (OpenCV), Caffe, Torch, Vulkan™ 1.0, OpenCL® 1.1+, OpenGL® 4.5+). The IVS computing core is developed together with AMD® and Microsemi® and features AMD® G-series SOC generation 2 x86 and Microsemi® SmartFusion2™ FPGA with ARM® Cortex® M3 processing products. The IVS power consumption fits the 30 W power envelope of Power-over-Ethernet and the standard weight with electronically focus controllable lenses is approximately 2 000 gram.

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About Unibap

The Company's business operations are mainly conducted in Sweden and focuses on integrated intelligent vision and computing solutions in industrial robotics, quality assurance, and space and surveillance. Unibap's background is based on long experience from space exploration, design and manufacturing of rugged industrial computer solutions, and advanced robotics. Unibap's solutions and products are designed for mission critical intelligent automation and robotics systems for smart factories and Industry 4.0. The Company is listed on the Nasdaq First North exchange under the ticker UNIBAP.

For further information, please visit the Company's website unibap.com.

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