

Press Release

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Two First Prizes at the 2013 euRobotics Technology Transfer Award

Brussels, 25 March 2013 – The tenth euRobotics Technology Transfer Award was presented during the European Robotics Forum 2013 (19-21 March) in Lyon, France. The contest for best Technology Transfer in robotics resulted in two first place winners: “Autonomous Miniature Drones for civil use”, a cooperation of SenseFly Ltd. and Laboratory of Intelligent Systems, EPFL, in Switzerland; and “Robot Based Motion Simulator for Cost effective Safe Pilot Training”, cooperation of DLR (German Aerospace Center), Grenzebach Maschinenbau GmbH, and KUKA.

Martin Hägele, head of the Robot Systems division of the Fraunhofer IPA, also the organiser of the annual euRobotics Technology Transfer Award, presented the five finalists and the awards consisting of €6,000 plus certificates, at the occasion of the European Robotics Forum’s Gala Dinner. “Never before had we received so many excellent applications with research clearly benefiting industry or ending up in commercially viable products. The winning applications were both excellent examples of technology transfer culminated in commercially successful products. It was inconceivable for the jury to choose one over the other given the fact that the two were entirely different products and not comparable”, commented Martin Hägele.

The “Autonomous Miniature Drone for Civil Use” is a mini. Light weight fixed-wing drone deployed in rescue missions and GIS (Geographic Information Systems) data acquisitions. It contains a vision- based control system capable of autonomously regulating attitude, altitude, and collision-free flight. The control system, strongly inspired from insect vision and flight control, relies, among others on optic flow signals extracted from multiple viewing directions. SenseFly has become one of world leaders in miniature fixed-wing drones for GIS data acquisition with the unique feature that a swarm of drones can cooperate to jointly acquire precise 3D environmental data in large areas. The company has already sold several hundreds of autonomous fling cameras in more than 45 countries. GIS are used in various fields such as construction site surveying, mining, precision agriculture, land management, humanitarian aid, entertainment and many more application scenarios.

The “Based Motion Simulator for Cost effective Safe Pilot Training” utilizes a standard industrial robot system as motion platform for a light airplane flight simulator with full motion support. As the robot is an off-the-shelf component mass-produced for the manufacturing industry, it is possible to cut the costs for such a pilot simulator from 7-25 M€ to about 1 M€. This renders the simulator interesting for flight-schools with small airplanes, as it allows reducing the number of training hours in real aircraft by as much as 75%. The availability of high-end flight simulators also improves training quality significantly. The commercial product, a full-flight simulator for the Diamond DA42 aircraft developed during this project, has reached prototype status at the beginning of 2013 and orders for 20+ units have been commissioned.

The euRobotics Technology Transfer Award session, which takes place annually as part of the European Robotics Forum, is the highlight of the three day event. The roboticists who gathered in Lyon, France for the Forum heard presentations from all five finalists during the second day of the conference. Henrik A. Schunk, managing partner of SCHUNK and chairman of EUnited Robotics, commented: "The euRobotics Technology Transfer Award has established itself as a visible expression of success for industry academia cooperation bringing innovative new products to the market."

The other three applications at the euRobotics Technology Transfer Award were:

- ROBmade - Robotically controlled non-standard facing brick facades, cooperation of ETH Zurich, Keller AG Ziegeleien, ROB Technologies AG
- Active Contact Flange ACF, cooperation of FerRobotics Compliant Robot Technology and Johannes Kepler University Linz
- Prensilia: Anthropomorphic Hands for Robotics, cooperation of Prensilia Srl and Scuola Superiore Sant'Anna

The euRobotics Technology Transfer Award is presented each year in recognition of outstanding innovations in the field of robotics and automation, in order to promote excellence in applied research, and technology transfer between research and industry.

The award is supported by EUnited Robotics, the European Robotics Association, and is financially sponsored by the following industrial members: ABB, KUKA Roboter, COMAU, GÜDEL and SCHUNK.

EUnited Robotics, European Robotics Association, was founded in 2004 by major European robot manufacturers. EUnited Robotics serves as a platform for manufacturers, component suppliers, and system integrators of robotics in Europe, creating a network of industry leaders. EUnited Robotics is the robotics industries' voice in Europe representing the robot suppliers' view on industry issues and R&D policies. The association is also a cooperation platform among all robotics stakeholders – from research institutes to national associations and customers.

Members: ABB (Sweden), COMAU (Italy), Güdel (Switzerland), ISRA Vision (Germany), KUKA Roboter (Germany), Reis Robotics (Germany), SCHUNK (Germany), Spinea (Slovakia) and SUMITOMO (Germany)

Cooperation partners: DLR German Aerospace Centre (Germany), Fraunhofer IPA (Germany), and Technische Universität München (Germany).

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