Winners named for 2015 Prism Awards for Photonics Innovation

Product innovations include new tools for medical diagnostics, chemical sensing, 3D manufacturing

12 February 2015

LUXeXcel (above) was among the winners in the 2015 Prism Awards for Photonics Innovation announced Wednesday evening, in a night of celebration of photonics.

SAN FRANCISCO, California, USA -- A gala gathering of photonics industry leaders celebrated top innovations in the field, with companies large and small from around the world walking away with top honors in the annual Prism Awards for Photonics InnovationWednesday evening during SPIE Photonics West at Moscone Center.

Winners included medical diagnostic and chemical sensing devices for mobile devices, a ground-breaking laser with uses including solar panel manufacture, and the first of a new class of connects that will enable the next generation of data center functionality. Several were collaborative projects among companies, and products demonstrated a strong theme of multi-technology applications.

Sponsored by SPIE, the international society for optics and photonics, and Photonics Media, the annual awards recognize photonic products that break with conventional ideas, solve problems, and improve life through the application of light-based technologies.

Results were determined by a panel of expert judges, and announced by presenters from leading companies across the photonics industry. The awards ceremony was attended by 340 industry executives, analysts, technologists, and investors from around the world.

Photonics technology has an important role in improving quality of life, and its applications have significant economic impact as well, said SPIE CEO Dr. Eugene Arthurs. "This year -- during the United Nations' International Year of Light and Light-based Technologies -- it is especially fitting to recognize and celebrate the remarkable ability of photonics to enable solutions to the world's challenges. Ours is an industry of creative minds, and the Prism Awards give us an opportunity to celebrate some of the most outstanding among those."

Laurin Publishing CEO Tom Laurin also praised the winners' creativity. "It is our great pleasure to collaborate annually with SPIE to present the Prism Awards, and we congratulate this year's winners," he said. "It is wonderful to witness the ongoing innovation from companies that have been part of the industry for years, as well as to support the emerging organizations and individuals shaping the future of the photonics industry."

Winners in each category are:

Additive Manufacturing: **LUXeXcel** (Netherlands) Printoptical Technology, an additive, on-demand process for simple, affordable, scalable manufacturing of optical components and lenses, using 3D printing technology that jets individual UV-curable material droplets; enabling optics testing with easy iterations and the possibility to customize according to the application, project, or particular product.

Biomedical Instrumentation: **BacterioScan**(USA) Laser Microbial Growth Monitor, a low-cost method of measuring bacteria in fluids at concentrations below the limit of detection of other state-of-the-art technologies; able to detect changes in bacterial growth within 10%, urinary tract infection within 90 minutes with > 90% sensitivity, complete antibiotic resistance measurements in

Detectors and Sensors: **Hamamatsu** (Japan) Micro-spectrometer (C12666MA), fingertip-sized spectrometer consisting of a grating chip and CMOS image sensor chip facing each other across an air gap, fabricated with MOEMS technology and methods, to be integrated into equipment or connected to handheld mobile devices to perform spectral measurements such as point-of-care testing and color measurements; hermetically sealed so usable in adverse conditions.

Imaging and Cameras: **Seek Thermal** (USA) and **Raytheon** (USA) Seek Thermal Camera, a lightweight smartphone plug-in that allows capture and sharing of thermal photos and videos, with options to highlight subject matter above or below a specified temperature, select from 9 look-up tables, and swipe between regular and thermal images.

Industrial Lasers: **IPG Photonics** (USA) GLPN-500-R, a 500-W quasi-continuous-wave green single-mode fiber laser, bringing the advantages of fiber laser technologies to the visible spectrum with high output power, excellent wall-plug efficiency, and low cost; providing industrial-grade reliability, excellent output beam quality, and flexibility of fiber delivery for industrial manufacturing applications from copper welding to solar cell manufacturing.

Materials and Coatings: **Inrad Optics** (USA) Stilbene Scintillation Crystals, large single crystals of stilbene grown from solution for fabricating into cylinders and other geometries, packaged in protective housing and coupled to a photodetector to become a neutron detection system; availability of stilbene will enable next-generation systems to better detect neutrons in security, scientific, and industrial applications.

Optics and Optical Components: **Intel** (USA), **Corning** (USA), and **US Conec** (USA) MXC Connector, a parallel optical connector designed with advanced composite, precision-molded plastics to meet the needs of next-generation data centers for a new class of connectors that carry more data, are smaller, more resilient, not prone to dust contamination, and available at a lower cost; supports up to 64 fibers, and with 25Gbps per fiber, IT managers will be able to install cables carrying 1.6Tbps of data.

Other Metrology Instrumentation: **WITec** (Germany) and **Tescan Orsay** (Czech Republic) for RISE Microscopy, combining scanning electron and Raman spectroscopies for chemical imaging, enabling correlation of ultrastructural and chemical information with one microscope system for

comprehensive sample characterization; able to generate 2D and 3D images and depth profiles to visualize distribution of molecular compounds within a sample.

Scientific Lasers: **Fianium** (UK) WhiteLase SC400-20, a single widely tunable laser source that produces high power output across the visible and near-infrared spectrum for applications ranging from medicine to electronic devices; rovides unprecedented spectral brightness across the 400nm to 2400nm range, and with the addition of a tunable filter, can deliver over 100mW of tunable (narrowband) output power at any wavelength.

More information about products, companies, and the competition is online at www.photonicsprismaward.com.

About SPIE

SPIE is the international society for optics and photonics, a not-for-profit organization founded in 1955 to advance light-based technologies. The Society serves more than 235,000 constituents from approximately 155 countries, offering conferences, continuing education, books, journals, and a digital library in support of interdisciplinary information exchange, professional networking, and patent precedent. SPIE provided over $3.4 million in support of education and outreach programs in 2014. Learn more at www.spie.org.

About Photonics Media

Photonics Media, a business unit of Pittsfield, Mass.-based Laurin Publishing Co. Inc., publishes *Photonics Spectra, BioPhotonics, EuroPhotonics, Photonics Buyers' Guide* and Photonics.com. With a collective subscriber base of more than 150,000 worldwide and more than 2 million website visits per year, Laurin Publishing's Photonics Media products and publications lead the photonics industry with editorial excellence and integrity fostering a tradition of innovation and progress by sharing knowledge, insights and visions for the future. Learn more at www.photonics.com.

Contact:
Amy Nelson
Public Relations Manager
amy@spie.org
+1 360 685 5478
@SPIEtweets