Synopsys Announces Results of Robert S. Hilbert Memorial Optical Design Competition

Annual Competition Recognizes Student Achievements in Optical Design

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Synopsys, Inc. (Nasdaq: SNPS) today announced that students from the University of Rochester and University of Arizona received awards for their entries in the 2015 Robert S. Hilbert Memorial Optical Design Competition. The annual competition is open to students in North America working toward a bachelor's, master's or doctorate degree who utilize Synopsys' CODE V® or LightTools® software to perform optical design and engineering research. The awards are granted to students who have submitted papers that demonstrate optical design excellence.

This year's award winners are:

- Jacob Reimers of the University of Rochester, for his paper titled, "Compact Offner-Chrisp Imaging Spectrometer using Freeform Surfaces." The paper describes the use of freeform optics to significantly improve the compactness of a high-performance Offner-Chrisp spectrometer in order to meet stringent size and weight requirements for aerospace and airborne optical systems. The design was developed using CODE V software.
- Yi Qin of the University of Arizona, for his paper titled, "Design of a Multi-Resolution Foveated Laparoscope." Using CODE V, Qin developed a laparoscope design capable of providing both wide-angle and high-resolution views during surgery, with the goal of improving the field of view to make laparoscopic surgeries safer and more efficient.
- Scott Paine of the University of Rochester, for his paper titled, "A View from the Top: Design of a Wide Field of View Climbing Camera." Paine designed a digital video camera with a large field of view specifically for rock climbing. The camera can be attached to a belay rope to provide a close view of climbers' movements over a wide area. Paine leveraged CODE V's optimization capabilities to achieve good tolerances and a rugged system.
- Stephanie Guzman, Travis Sawyer, Nicholas Lyons, and Fabian Wildenstein, all of the University of Arizona, for their paper titled, "Methane Submersed High-Resolution Imager." The paper describes a camera system designed to produce high-resolution images of the Kraken Mare seafloor on Titan, Saturn's largest moon. The system, developed in CODE V, incorporates a high-resolution camera, a CCD chip, and an illumination system that acts as the light source.

"It is a great honor to receive this award, which encourages me to pursue a career in optics," said Yi Qin. "I would like to thank Synopsys for providing CODE V to use in my work on a multi-resolution foveated laparoscope design, which has great potential to improve the efficiency and outcomes of laparoscopic surgery."

"The winning entries in this year's competition provided new ideas for a variety of challenging imaging optics applications, ranging from space-borne systems and medical devices to digital cameras," said George Bayz, vice president and general manager of Synopsys' Optical Solutions Group. "Congratulations to all the winners on their effective use of Synopsys' CODE V software."

About the Robert S. Hilbert Memorial Optical Design Competition

The annual Robert S. Hilbert Memorial Optical Design Competition recognizes excellence in optical design projects completed by students. The competition was established in 2000 by Optical Research Associates (ORA®), now Synopsys' Optical Solutions Group, and was named in honor of ORA's former president and chief executive officer, Robert S. Hilbert. The competition is open to students in North America working toward a bachelor's, master's or doctorate degree. To participate, students can enter an optical design class assignment or thesis work that uses CODE V or LightTools software. For more information, visit https://optics.synopsys.com/learn/learn-design-competition.html.

About Synopsys

Synopsys, Inc. (Nasdaq: SNPS) is the Silicon to Software™ partner for innovative companies developing the electronic products and software applications we rely on every day. As the world's 16th largest software company, Synopsys has a long history of being a global leader in electronic design automation (EDA) and semiconductor IP, and is also growing its leadership in software quality and security solutions. Whether you're a system-on-chip (SoC) designer creating advanced semiconductors, or a software developer writing applications that require the highest quality and security, Synopsys has the solutions needed to deliver innovative, high-quality, secure products. Learn more at www.synopsys.com.

Editorial Contacts:
Tess Cahayag

Synopsys, Inc.
650-584-5446
maritess@synopsys.com

Lisa Gillette-Martin
MCA, Inc.
650-968-8900, ext.115
lgmartin@mcapr.com

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