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

Annual Competition Recognizes Student Achievements in Optical Design

MOUNTAIN VIEW, Calif., Aug. 25, 2016 /PRNewswire/ -- Synopsys, Inc. (Nasdaq: SNPS) today announced that students from the University of Rochester, University of Saskatchewan, University of Southern California and the University of Arizona received awards for their entries in the 2016 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:

- Francisco Santos of the University of Rochester, for his paper titled, "LWIR Multi Sensor Aerial Reconnaissance Camera." Using CODE V, Santos designed a wide field of view, compact camera system utilizing an array of sensors, which is suitable for reconnaissance use in unmanned aerial vehicles (UAVs).

  "I am very excited that my design was selected for an award in the Robert S. Hilbert Memorial Design Competition," said Santos. "Learning lens design in CODE V has been both enjoyable and useful. I am eager to start my career in optics and demonstrate the skills I learned in school."

- Matthew Kozun of the University of Saskatchewan, for his paper titled, "Aerosol Limb Imager Version 2." The paper describes Kozun's use of CODE V to design an updated version of an optical remote sensing instrument developed at the University of Saskatchewan called the Aerosol Limb Imager (ALI). ALI can be used to image scattered sunlight from the atmospheric limb, which is an important tool for mapping the atmosphere.

  "The Robert S. Hilbert Memorial Design Competition highlights the innovative ways students are using optical software from Synopsys," said Kozun. "I have learned CODE V with very little formal instruction, which I believe shows how intuitive and powerful the software is for modeling complex optical systems."

- Furkan Sahin of the University of Southern California, for his paper titled, "Distortion Optimization for Wide-Angle Computational Cameras." Sahin's CODE V project includes the design of miniature wide-angle cameras to be used in implantable retinal prostheses for people who are blind or visually impaired.

  "I used CODE V's optimization and analysis tools extensively for my Ph.D. research on camera systems to restore functional vision to blind and vision-impaired patients," said Sahin. "The wealth of resources, high level of support and ongoing software training provided by Synopsys were very helpful to me in my project."

- Weichuan Gao of the University of Arizona, for his paper titled, "Design of a Catadioptric Ultra-Broadband IR Microscope Objective." Using CODE V, Gao developed an infrared (IR) microscope design suitable for use in semiconductor applications as well as for biomedical and biochemical research.

  "I appreciate that Synopsys offers a competition that motivates young designers to explore and enjoy the beauty of optics," said Gao. "Receiving this award is a great honor, and the experience will further inspire me in the study of optical design."

"Each year we receive student design competition entries that represent a wide range of optical technologies," said George Bayz, vice president and general manager of Synopsys' Optical Solutions Group. "This year's winning entries demonstrate innovative use of Synopsys' CODE V software for imaging applications ranging from reconnaissance to atmospheric and biomedical research. Congratulations to all the student participants on their achievements."

About the Robert S. Hilbert Memorial Optical Design Competition

The annual Robert S. Hilbert Memorial Optical Design Competition recognizes excellence in student optical design projects. 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

http://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 15th 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.

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