

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

Annual Competition Recognizes Student Achievements in Optical Design

SAN DIEGO, Aug. 23, 2011 /PRNewswire/ -- Synopsys, Inc. (Nasdaq: SNPS), a world leader in software and IP for semiconductor design, verification and manufacturing, today announced University of Rochester students Bin Ma and Dustin Moore are the winners of the 2011 Robert S. Hilbert Memorial Optical Design Competition. The competition was created in 2000 by Optical Research Associates (ORA®), now the Optical Solutions Group at Synopsys, and was named in honor of ORA's former president and chief executive officer Robert S. Hilbert. The annual competition is open to students in North America working toward a bachelor's, master's, or Ph.D. degree who utilize the company's CODE V® or LightTools® software to perform optical design and engineering research. Awards are granted to students who have submitted papers that demonstrate optical design excellence.

Bin Ma, a Ph.D. candidate at the University of Rochester, was recognized for his work on aspheric lens design using CODE V in his paper titled, "Design of Lithographic Lenses with Slope Constrained Q-Polynomials." Applications of Ma's project include ultra-precise projector lenses used to make integrated circuits. Dustin Moore, also a Ph.D. student at the University of Rochester, was recognized for his work on a panoramic imaging system using CODE V in his paper titled, "A High Resolution Four-Pi Steradian Panoramic Video System." The goal of Moore's design is to improve the quality of systems providing 360-degree, interactive video.

"Each year we are impressed with the variety, scope and quality of projects that students submit to our design competition," said George Bayz, vice president and general manager of the Optical Solutions Group at Synopsys. "This year, Bin Ma's and Dustin Moore's entries stood out for their effective communication of optical design principles and innovative use of CODE V for imaging systems design. I congratulate both of them for their outstanding work on these projects."

Samples of the two projects will be on display at Synopsys' booth 711 at SPIE Optics + Photonics, August 23-25, at the San Diego (Calif.) Convention Center.

## 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 honors the memory of Robert Hilbert (1941-2008), former president and chief executive officer of Optical Research Associates, who was deeply committed throughout his career to fostering technical innovation in optics and supporting optics education. The competition is open to students enrolled in a post-secondary degree program in North America, working toward a bachelor's, master's or Ph.D. degree. To participate, students can enter an optical design class assignment or thesis work that uses CODE V or LightTools software. Awards totaling \$4,000 are granted each year. For more information, visit [www.opticalres.com/student/optical\\_design\\_competition.html](http://www.opticalres.com/student/optical_design_competition.html).

## About Synopsys' Optical Solutions Group

Synopsys' Optical Solutions Group, formerly Optical Research Associates, is one of the world's leading developers of optical design and analysis tools - CODE V imaging design software and LightTools illumination design software. The group is also an independent supplier of optical systems design services, with more than 4,800 completed projects in imaging, illumination and optical systems engineering.

## About Synopsys

Synopsys, Inc. (Nasdaq:SNPS) is a world leader in electronic design automation (EDA), supplying the global electronics market with the software, intellectual property (IP) and services used in semiconductor design, verification and manufacturing. Synopsys' comprehensive, integrated portfolio of implementation, verification, IP, manufacturing and field-programmable gate array (FPGA) solutions helps address the key challenges designers and manufacturers face today, such as power and yield management, system-to-silicon verification and time-to-results. These technology-leading solutions help give Synopsys customers a competitive edge in bringing the best products to market quickly while reducing costs and schedule risk. Synopsys is headquartered in Mountain View, California, and has approximately 70 offices located throughout North America, Europe, Japan, Asia and India. Visit Synopsys online at <http://www.synopsys.com/>.

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