

# THE *Current*

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## **Dissertations in geography and electrical & computer engineering receive Lancaster awards for excellence**

Doctoral students S. Shailja and Evan Greenberg have received the [Winifred and Louis Lancaster Dissertation Award](#) for their dissertations in electrical and computer engineering and geography, respectively.

“It is always so exciting to see the amazing research our students are doing in different fields,” said Interim Graduate Dean Leila J. Rupp. “The Lancaster Award recognizes the best of the best, showcasing the diversity of talent across campus.”

Shailja received the mathematics, physical sciences and engineering award for her dissertation, “Reeb graphs for topological connectomics of the human brain.” Advised by B. S. Manjunath, chair of UCSB’s Electrical and Computer Engineering Department, Shailja builds mathematical tools for modeling neuronal fibers in human brains as geometrical objects in three-dimensional space. Modeling connectivity of the human brain is critical to understanding and treating neurological disorders such as Alzheimer’s disease and strokes.

“What an honor,” said Shailja, [an incoming postdoctoral fellow at Stanford University](#). “It added to the feeling of accomplishment, marking a spectacular finish

to this long journey.”

For Shailja, the award has additional significance because her mother will make her first trip to the U.S. to attend the commencement ceremony. “I feel so proud that I will be named a Lancaster Dissertation Award winner in front of her. This has made the commencement day very special for us. I feel incredibly fortunate to have been selected from a pool of such talented peers and I felt grateful to the award committee for deeming my thesis worthy of this award.”

Greenberg received the social sciences award for his dissertation, “Remote Sensing of River Mobility: Quantifying the Controls, Timescales, and Stratigraphic Record of River Movement.” His advisor is Vamsi Ganti, who leads the UCSB Surface Processes Group in the Department of Geography. Greenberg’s dissertation focuses on terrestrial geomorphic processes using multi-spectral time series.

“I’m broadly interested in remote sensing methods and have worked with both multi-spectral and hyper-spectral methods on data handling and correction as well as scientific applications,” said Greenberg, who recently published a paper in the journal Earth and Planetary Science Letters that presents an account of [what drives the migration rates of meandering rivers](#).

The award includes a \$1,000 prize to be presented at the [Graduate Division commencement ceremony](#) on June 14. The awardees will also serve as UCSB’s entrants in the national competition sponsored by the Council of Graduate Schools and ProQuest.

Two [Lancaster](#) awards are given annually to doctoral degree recipients or candidates from two broad academic areas. The four fields of competition alternate each year, as specified by the National Council of Graduate Schools.

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## **About UC Santa Barbara**

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.