

From Labs to Lives

How Research Funding Solves Real-World Problems

Federally-Funded Research on Keeping Critical Networks Strong

From power grids to social media and global supply chains, our world runs on complex networks. At UC Davis, Raissa D'Souza is leading federally-funded research to predict how these systems respond to disruptions — whether from intentional attacks, natural disasters or unexpected failures. She is revealing how hidden connections between networks introduce vulnerabilities that can cascade across systems or can provide new opportunities to control them. Her work is helping guide smarter designs that make essential networks more resilient and secure.

Helping Humanity

A single failure in a power grid can leave millions without electricity. Cascading delays in airline networks can disrupt economies and leave passengers stranded. D'Souza's research helps prevent these crises by strengthening the systems we rely on every day. Without continued federal funding, we risk being unprepared for the next major failure, leaving communities vulnerable to disruptions that could affect safety, communication and daily life. Investing in this research means building a future where the networks we depend on are stronger, safer and better prepared for whatever comes next.

// Academia is the birthplace of AI, and it's the place where all the needed voices can come together to keep the values of humans front and center as we roll out new AI technologies. It is where we train our tech workforce. Without federal funding, we hand over AI dominance to foreign nations.” — Raissa D'Souza, Ph.D.



Raissa D'Souza, Ph.D.

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Network Resilience

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