



## Smart Grid Technologies Outreach

The vision for Smart Grid Technologies outreach (iCREDITS) is to promote and share the work of the Center in smart grids. We provide workshops, presentations, conference support, and summer camps.

iCREDITS will build sustainable generation capacity by shifting the paradigm from power delivery to energy delivery, using smartgrid concepts. The vision for the CREST facility is to create a permanent and internationally recognized research center, focused on the development of the science of intelligent smart grid technologies, that prepares a diverse cadre of students to make a local and global impact in the smartgrids science and engineering workforce.

The need to advance the state-of-the-art in smart grid technologies is increasingly recognized by scientists, engineers, practitioners and policy makers, as the critical mechanism to improve the energy efficiency of producing and using electricity in our homes, businesses, and public institutions. The smart grid enhances the traditional electricity distribution system with three components: two-way communications of energy and digital information (thus enabling the combination of energy and information as entities being exchanged), monitoring infrastructures to supply information to the communication network, and computational intelligence to use such information to maintain stable optimal operational efficiency and energy delivery and to enable autonomous response to abnormal or disruptive events. The smart grid allows the control and monitoring of the entire grid, from the utility to the smart home (e.g., smart appliances, plug-in electric vehicles). The overall goals are energy conservation, cost reduction, and enhanced reliability, security and transparency.

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### Details

**Ages:** All ages

**Restrictions:** None

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### Services

Education   Educational Programs

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### Locations

*NMSU Science Hall*

*Las Cruces, NM 88003*

**Mailing:**

*PO Box 30001, MSC CS*

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## **Parent Organization**

### **Center for Smart Grid Technologies**

The NMSU Center for Smart Grid Technologies (aka: iCREDITS) is an NSF Center for Research Excellence, focusing on the development of the science of intelligent smart grid technologies. Utilizing an interdisciplinary approach to coordinate, connect, and nurture research, education, and outreach to make a local and global impact in the smart grids science and engineering workforce.

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