

# Models Support Energy-Saving Microwave Technologies



## *Kennedy Space Center*

### *Ceralink Troy, New York*

#### **NASA Technology**

- ◆ Lunar dust—which has sharp, irregular edges and is laden with radiation—poses a threat to equipment and health and safety risks to astronauts
- ◆ NASA has researched a variety of tools to deal with the dust, and in 2009 investigated a method to harden the dust into a pavement-like surface



#### **Partnership**

- ◆ Kennedy awarded Small Business Innovation Research (SBIR) funding to Ceralink to develop a microwave system for heating lunar soil to 2,000 °F
- ◆ As a part of the SBIR and in partnership with Rensselaer Polytechnic Institute, Ceralink also developed modeling software to accurately simulate microwave heating on a large scale

#### **Benefits**

- ◆ Ceralink specializes in microwaves, materials, processing, and design; they provide microwave technology for research and manufacturing
- ◆ Working with the U.S. Department of Energy, the company is using the program to test microwave technology as an energy-saving method for making plastics