Exciting Summer Research...

on Sustainable Electronics for High School Science Teachers Through the Research Experiences for Teachers (RET) Site Program

Purdue University and Tuskegee University seek high school teachers (chemistry, physics, biology, engineering) to participate in summer research on sustainable electronics. Teachers will work on projects to make cell phones, laptops, and other electronic devices greener.

Research projects include:

• Finding environmentally friendly replacements for toxic materials often used in electronics
• Cost-effectively recovering and reusing electronics instead of sending them to landfills
• Life cycle assessment of the environmental impacts of electronics

Summer RET activities include an orientation, introduction to basic engineering principles and terms, initial interviews to understand teachers’ interests and instructional needs, and matching teachers with unique research projects related to science or engineering standards. Also:

• Fields trips to local electronics recycling centers and other industries related to electronics
• Teachers participate at either Purdue University-West Lafayette (8 teachers) or Tuskegee University (3 teachers) for 6 weeks during summer (June 5 – July 14, 2017)
• Assistance with designing lesson plans related to green electronics, and follow-up by faculty and graduate students during the school year to support implementation of new classroom activities and curricula

The RET Site program will be offered for second time in 2017. Teachers typically participate for one year but may do so for two consecutive years, if they choose.

Each teacher will be paid an $8000 stipend, plus $2000 for high school instructional materials. Additional funds will be provided to conduct the research at Purdue or Tuskegee. This program is funded by the National Science Foundation, awards #1542418 and #1542422.

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