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Opportunity Title: Postdoctoral Research Opportunity in Cotton Ginning
Opportunity Reference Code: ARS-CGRU-2018-157-0010-01

Organization	U.S. Department of Agriculture (USDA)
Reference Code	ARS-CGRU-2018-157-0010-01
How to Apply	A complete application package consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. Selected candidate must provide proof of completion of the degree before the appointment can start. Proof must be sent to ORISE directly from the academic institution including graduation date and degree awarded. All transcripts must be in English or include an official English translation. Click **Here** for detailed information about acceptable transcripts.
- A current resume/CV
- Two references – While two references are requested, applications will be considered without reference information. It is preferred that a complete application package contains a minimum of one reference.

If you have questions, send an email to USDA-ARS@orau.org. Please include the reference code for this opportunity in your email.

Description	A research opportunity is available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Cotton Ginning Research Unit (CGRU) in Stoneville, Mississippi.

The mission of the Cotton Ginning Research Unit (CGRU) is to discover, develop, and evaluate basic and applied principles useful for storing, conditioning and cleaning seed cotton; separating lint from seed; cleaning and packaging lint; optimizing the ginning process; utilizing byproducts; and mitigating the environmental impact of ginning. Our unit develops new technology and evaluates the performance of existing technology in terms of cotton quality preservation and improved financial return to cotton growers with different cotton varieties, production practices, and harvesting methods. CGRU research is directed towards producing high quality fiber for the textile industry, and ultimately the consumer, in an economically and environmentally sustainable manner, for cotton producers and ginners.

Under the guidance of a mentor, the participant will be trained on developing novel cotton ginning machinery and processes which will result in improved cotton ginning as measured by: maximized lint quality, reduced plastic contamination, and improved understanding of cotton processing efficiency.

The participant will collaborate with and learn from a team of other engineers and scientists in the planning and conducting of the research, analyzing statistical data, and the reporting of results in the development of new knowledge, processes, and machinery for the improvement of US cotton ginning. Through this project, the participant will gain knowledge in cotton ginning process, including (1) new methods and intelligent devices to detect and remove plastic contamination in cotton fields and gins; (2) the methodology and machinery to separate seed-cotton based on fiber quality to optimize producers' profit.

This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and ARS. The initial appointment is for one year, but may be renewed for an additional year upon recommendation of ARS and is contingent on the

availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience. Proof of health insurance is required for participation in this program. The appointment is full-time at ARS in the Stoneville, Mississippi area. Participants do not become employees of USDA, ARS, DOE or the program administrator, and there are no employment-related benefits.

For more information about the ARS Research Participation Program, please visit the **Program Website**.

This opportunity is available to U.S. citizens only.

Anticipated Appointment Start Date: January 2019

Qualifications

The qualified candidate should have received a doctoral degree in the relevant fields.

Preferred skills:

- Design and application of electronics and sensor
- Image processing
- Data analysis
- Mechanical design

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree.
- **Discipline(s):**
  - **Engineering** (4 👁)
  - **Life Health and Medical Sciences** (1 👁)