IRES
The goal of the National Science Foundation’s IRES program is to provide high quality educational experiences for small groups of U.S. students through active research participation in collaboration with foreign researchers at an international site... and provide students with international collaborative research training and a personal network on which to build future collaborations.
IRiKA is a competitive program, and selected students will receive:

- Plane fare
- Professional development workshop sessions
- 8-week paid research internship in Korea
- Food and accommodation in Korea

This is our first cohort (2019), which will consist of 5 students to be selected in February.

Research
The unifying research theme of IRiKA is smart systems with the subtopics of sensors, emerging electronics, and materials & process development. The advancement in many sectors enabled by the use of computing and networking technologies has resulted in numerous emerging, highly multi-disciplinary research areas typically termed as "smart technologies". Products are increasingly integrated into systems where smart sensors are able to communicate. This trend is transforming our society and will have an enormous economic impact, domestically and globally. A major challenge in smart systems is the integration of a multitude of diverse components, developed and produced in different technologies and materials. IRiKA students will learn how the systems approach brings together interdisciplinary technological approaches and solutions for manufacturing, healthcare, energy, safety and security, transportation, and logistics.

Partner Institutions in Korea
Schedule

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Activities</th>
</tr>
</thead>
</table>
| Nov. – Feb. | • Recruitment and selection of five (5) students  
• Project matching and research mentor assignment  
• Decision letters sent in February |
| May | • Professional Development Workshop enrollment  
• Completion of the Responsible Conduct of Research (RCR) – CITI Program  
• Orientations (US and Korea via webcast and in-person at participants’ respective home institution) |
| Week 1 (Jun.) | • Research fundamentals seminar  
• Research proposal preparation with research mentor  
• Professional Development Workshop session #1  
• Depart for Korea  
• On-site orientation |
| Weeks 2 – 9 | • Full-time research in lab  
• Weekly research reports  
• Weekly IRiKA web conferences  
• Cohort Professional Development Workshop sessions #2 - 4  
• Cohort visits  
• Industry and national lab visits – Samsung, Hyundai, KITECH |
| Week 10 (Aug.) | • Professional Development Workshop session #5  
• Final report |
| Aug. | • Return home |

Application and Contact Information

IRiKA’s website ([nsfiriaka.wordpress.com](http://nsfiriaka.wordpress.com)) is available now. Project descriptions will be updated by the host labs through the first week of December. Deadline to apply is January 20. Applications will be accepted through the website. Contact Dr. Gloria Kim ([nsf.irika@gmail.com](mailto:nsf.irika@gmail.com)) for details.

Anticipated dates for the start of in-country activities for 2019 are the 3rd week of June, and an end of IRES in-country activities at the first week of August. All applicants will expected to be available for occasional Skype training meetings between May 15 and the start of the on-site program in June.