

Introduction to RADAR

7/10-7/20

Audience

The session was attended by 13 participants (69% Minority). The participants ranged from high school sophomores to high school seniors. Students came from all over the United States, including a large percentage of Puerto Rican students. They were selected based on GPA, transcripts, and completed applications.

Funding

Participants paid a fee of \$1500, which covers all academic sessions, recreational activities, as well as room and board.

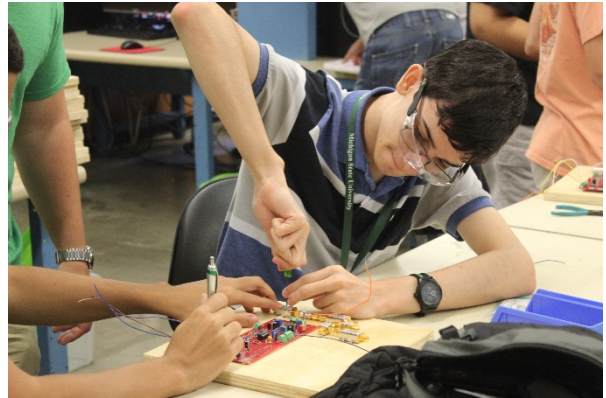
Objectives

The program goals are to:

- Expose participants to how Radars are designed and programmed.
- Develop teamwork and problem-solving skills
- Introduce participants to the Grand Challenges of engineering and provide opportunities to work through and solve these problems
- Apply Science, Technology, Engineering and Math (STEM) knowledge to solve problems
- Analyze and interpret data
- Gain research and professional skills through the development of a presentation on a specific field related to signal processing and control of systems.
- Provide participants with an authentic university environment and experience

Description

Intended for rising high school juniors and seniors seriously considering electrical engineering/technology as their career choice, the program is designed to give in-depth experiences in radar technology. Students spend academics sessions learning about how radar technology works and its uses. Later in the week, they team up with graduate students to build their own radar, which is then used to perform tests. Presentations by the Honors College, Office of Admissions, Office of Study Abroad, The Center for Spartan Engineering (co-op/internship opportunities), and the Engineering K-12 Outreach Office allow students to better understand MSU.



Outcomes

Participants completed a post-evaluation and provided the below feedback on several aspects of the program, including academic sessions, college readiness, staff, social activities, and more.

- The highest-rated benefits of the program were a more clear identification of the student towards engineering, develop skills that will be of academic assistance, and develop social skills.
- After participation, 100% of students rated their knowledge of engineering as “Moderate understanding” or “Very good understanding.”
- 100% of participants rated the program as “Excellent” or “Good”
- The majority of participants agreed that both College of Engineering faculty and the mentors were helpful and easy to approach, with specific praise given to student mentors.

Participant testimonials:

- “The best part was the experience around campus and meeting people from diverse backgrounds”
- “Talking with mentors and professors was the best part of the Introduction to Radar program”

Additional Significant Information

RADAR staff includes personnel from the Electrical Engineering Department, office of Recruitment & K-12 Outreach, and graduate and undergraduate student mentors. The engineering sessions provide a great opportunity for prospective students to explore Electrical Engineering at MSU and connect with faculty.

Contact Information

Luis Donado
Assistant Director for Recruitment & K-12 Outreach,
Summer Program Coordinator
428 S. Shaw Ln, Room 3200 Engineering Building
East Lansing, MI 48824
Phone: 517-353-7282
Email: donadoto@egr.msu.edu
Website: <http://www.egr.msu.edu/future-engineer/programs>