



SheSpark

Spark Your Circuit Journey

A STEM Empowerment Program by IEEE SSCS Kerala Chapter

Overview

SheSpark-Spark Your Circuit Journey is a one-day initiative by the IEEE Solid-State Circuits Society (SSCS) Kerala Chapter, aimed at inspiring higher secondary girl students to explore careers in electronics and solid-state circuits through motivation, mentorship, and hands-on learning.

Purpose of this Event

The gender gap in STEM, especially in hardware-focused domains like circuit design and VLSI, persists due to limited exposure and encouragement at the school level. This initiative addresses that gap by offering:

- 1.Inspiration through real-life stories of women engineers.
- **2. Information** on diverse career opportunities in electronics.
- **3.Interaction** with real circuits through a guided workshop.

Participants

1.Students: 36 girl students from school (12 teams of 3)

2.Target students: students of class 11th and 12th

3.Date and Duration: Aug 21st (10:00 AM to 1:00 PM)

• 4.Venue: Amal Jyothi College of Engineering





Event Highlights

1. Motivational Session

A dynamic talk by a woman in electronics, sharing her journey to spark inspiration.

2.Career Talk: Future in Circuits

An industry expert highlights careers in VLSI, IC design, AI hardware, and more.

3. Hands-on Workshop: Build an Audio Amplifier

Students will assemble functional audio amplifiers, gaining real circuit-building skills.

EVENT SCHEDULE

| EVENT SCHEDULE | | | | | |
|----------------|--|--------------|--|--|--|
| S.NO. | EVENT | TIME | | | |
| 1 | Inauguration | 10:00-10:15 | | | |
| 2 | Interactive session (talk session) | 10:15-11:15 | | | |
| 3 | Circuit Introduction and Hands-on Workshop | 11:15-1:15 | | | |
| 4 | Lunch Break | 1:00 onwards | | | |

Resources & Support Required from Host Institutuion

- 1. Contacting schools and arranging 36 girl participants
- 2. Facilities: Projector, sound system, seating arrangements with tables
- 3.Venue Logistics
- 4. Assistance in Finding Resource Person for 2 sessions other than the workshop





COMPONENT LIST

| S.NO. | COMPONENT | | |
|-------|------------------------------|--|--|
| 1 | Audio Jack | | |
| 2 | LM386 Audio Amplifier Module | | |
| 3 | Mini Breadboard | | |
| 4 | 9V Battery | | |
| 5 | Battery connector | | |
| 6 | 1w 8 Ohm Speaker | | |
| 7 | 1000uf cap | | |
| 8 | 0.1uf cap | | |
| 9 | 10ohm resistor | | |
| 10 | 5k pot | | |
| 11 | Single Strand wire | | |
| 12 | Wire strippers | | |

BUDGET

| TOTAL BUDGET | | | | | | |
|--------------|-------------------------------|---------------|------|--------------|--|--|
| S.NO. | ITEM | QTY | RATE | TOTAL | | |
| 1 | Components | 15 kits | 320 | 4800 | | |
| 2 | Participants Refreshment | 36 | 21 | 750 | | |
| 3 | Goodies | 36 | 40 | 1440 | | |
| 4 | Remuneration for speaker | 2 | 2250 | 4500 | | |
| 5 | momento (professional diary) | 2 | 350 | 700 | | |
| 6 | Banner | 2 | 800 | 1600 | | |
| 7 | travel allowance (volunteers) | 6 | 700 | 4200 | | |
| 8 | miscellaneous | | | <u>4500</u> | | |
| | | <u>Total:</u> | | <u>22490</u> | | |





Expected Impact

- Students gain confidence and early exposure to electronics.
- Clear visibility into career paths in solid-state circuits.
- Real-world skills and curiosity sparked through hands-on learning.
- Encourages **long-term inclusion** of women in core technology sectors.

Vision Ahead

SheSpark is more than a one-time event. This will be a launchpad. This initiative has been planned to scale across multiple districts, cultivating a new generation of women engineers starting from school.