

**IEEE
Conferences
Events & Experiences™**

Junior Engineers Program

Planning Toolkit | Getting Started

Program Overview

The Junior Engineers Program is a youth-focused session woven into the broader conference experience. Students present original STEM research, then field questions from peers, families, and industry professionals.



WHO

Ages 6 to 18 (Grades 1 to 12)

Guests of a primary registrant



WHAT

Original Research

Across science, technology, engineering, math, or other age-appropriate areas of interests



HOW

Presentation + Audience Q&A

Scaled to age, group size, and format

For many participants, the program becomes an early entry point into STEM, a stepping stone toward careers in science and engineering, and a pathway into the conference community.

Inspiration & Mission

30+

YEARS

with established practice at
the IEEE Aerospace
Conference

A Program Worth Modeling

Founded by IEEE Aerospace Conference Board Member Emerita Karen Profet and originally titled the Junior Engineering & Science Conference, this program mirrors the research-driven format of its parent conference, immersing youth in STEM through a professional environment while expanding the overall conference experience for families.

Alignment with IEEE's Mission

The program advances IEEE's mission to promote education and lifelong learning by welcoming young voices into professional spaces and helping cultivate the next generation of engineers and innovators.



From Inspiration to Implementation

Every conference has its own scale, audience, and format. Developed by IEEE Conferences, Events & Experiences (CEE), this toolkit incorporates insights from IEEE Junior Conference co-chairs and firsthand program observations to transform the original model into a flexible framework organizers can adapt for their own junior programs.

Phased Planning Roadmap

A Junior Engineers Program runs as a parallel planning track to your main conference, moving through six connected phases.

01



Safety & Compliance

Office of Risk and Insurance
Management Services (ORIMS)
registration, training, screening,
parental consent.

02



Program Design

Format, capacity, team roles,
judging, engagement opportunities
for young attendees.

03



Communications & Submissions

Announce, collect abstracts, register
and presentations.

04



Pre-Event Prep

Schedule build, judge briefing,
rehearsals, AV checks.

05



On-Site Execution

Check-in, presentation flow,
judging, awards.

06



Post-Event Follow-Up

Thank yous, surveys, highlights,
lessons learned.

Detailed milestones for each phase follow on pages 6 to 11.

Master Timeline

The timeline below maps the key milestones, from kickoff through post-event follow-up.



01

PHASE 01

Safety & Compliance



Ensuring the safety and well-being of minors is the program's top priority. All staff and volunteers must follow IEEE policy and complete required steps before the program begins.

Key Activities

1

Designate a Primary Contact

Primary program contact responsible for compliance with [IEEE Activities with Children](#) requirement. Review all [IEEE Guidelines for Working with Children](#).

2

Register with IEEE Office of Risk and Insurance Management Services (ORIMS)

[Submit registration](#) at least **30 days prior** to the program. Annual renewal required for recurring events.

3

Complete Training & Screening

ORIMS provides instructions for required training and, where applicable, background screening.

4

Add Minors Disclosures

Include the required disclaimer, liability release, and media release language on the event registration form.

Tip

Because regulations for working with minors differ by country, engage IEEE Legal early to confirm compliance with local laws and safety requirements. Doing so helps ensure the program is safe, effective, and true to its educational purpose.



Program design sets the foundation. Decisions made here about format, capacity, team, and judging shape everything that follows.

Key Activities

1

Define Format & Capacity

Session count, length, and enrollment. For first-year programs, cap at 20 to 25 participants for a half-day program.

2

Assemble the Team

Program Chair, Committee, Volunteers, and Judges. Walk a RACI matrix together early on.

3

Reserve Space & AV

Book a venue space that fits participants, families, and audience, with the required AV. This can be within your existing footprint for your main conference.

4

Set Submissions & Judging

Abstract guidelines, final presentation specs, and a rubric or recognition model.

5

Plan Youth-Friendly Touches

Create a welcoming experience through branded keepsakes, organized social gatherings, fun hands-on activities, and opportunities for visible recognition.

Tip

Build a support team before developing the program. Even a strong Program Chair needs committee support to avoid burnout.

Alternative Formats

When the main format does not fit your event, these alternatives expand access or scale the program down without losing its purpose.



EXPAND REACH

Hybrid or Virtual

Students submit abstracts and present over video, live or pre-recorded with a live Q&A. Confirm ORIMS coverage for virtual minors and update consent for recording and distribution.



ENGAGE THE HOST CITY

Local Partnership

Educational-focused organizations, including schools, STEM programs, IEEE Sections, and libraries, can recruit local students to present, reducing barriers, expanding community reach, and bringing new voices to the conference floor.



WHEN TIME IS LIMITED

Scalable Supplements

Lunch and Learns, mini poster sessions, and break-time STEM activities. Low-lift options that stand alone or pair with either model above.

03

Communications & Submissions



Most junior participants are entering a professional conference for the first time. Clarity and patience at every touchpoint matters, from first announcement to final reminder.

Key Activities

1

Announce the Program

Share key dates and a registration preview about six months out.

2

Open Registration

Parents or guardians register the participant. Use clear instructions and deadlines.

3

Collect Abstracts

One designated submission method. Confirm acceptance and next steps within 48 hours.

4

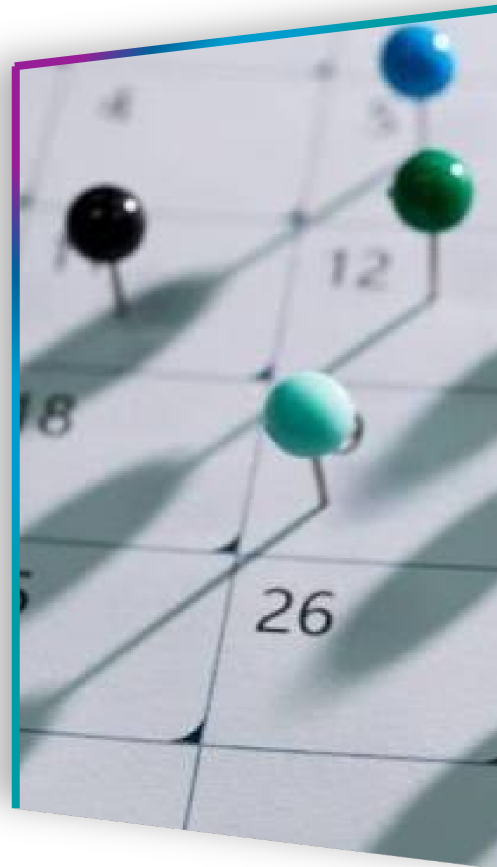
Manage Final Presentations

Communicate format, deadlines, and the late policy. Send a reminder before close.

5

Send Know Before You Go

Two weeks out: final program, check-in details, practice session, last-minute updates.



Tip

Assume families won't see every email, repeat key dates at each touchpoint, not just in the initial announcement.



With participants registered, focus shifts to program execution, finalizing the schedule, run of show, and day-of preparations to ensure a smooth event experience.

Key Activities

1

Organize Along an Age-Grade Gradient

Group participants by age or grade level, from youngest to oldest. Following a developmental gradient ensures participants present alongside their peers.

2

Set Time Limits

Scale presentation length to age and group size. Build in buffers for transitions and Q&A with the audience.

3

Brief the Judges

Define and distribute the rubric, schedule, and expectations ahead of the event.

4

Prepare Participants

Send presentation guidelines, time limits, and day-of logistics well in advance.

5

Day-Before AV Check

Optional rehearsal plus a full AV walkthrough and review of run of show. Download and back up every presentation file organized in the order of presenting.

Tip

Designate a team member as the primary contact for technical support and day-of troubleshooting.

05

PHASE 05

On-Site Execution



The planning is complete and the program comes together. Day-of execution focuses on pacing, participant experience, and quietly managing logistics in the background.

Key Activities

1

On-Site Rehearsal

Run an optional rehearsal session in the event space to test equipment, familiarize participants with the stage, and refine pacing before the live audience.

2

Confirm Parent or Guardian

A parent, guardian, or designated chaperone is required at check-in and must accompany participants under age 18 throughout all program activities.

3

Seat in Presentation Order

Reserve front-row seating near the stage, with participants seated in presentation order from youngest to oldest.

4

Use Visual Time Signals

Cue cards or countdown timers at 1 minute and 30 seconds eliminate the need for verbal interruptions.

5

Recognize Every Presenter

Acknowledge each participant by name. Awards and certificates ready ahead of time.

Tip

Assign a volunteer to call the next presenter to the stage one to two speakers ahead, ensuring seamless transitions.



What happens after matters as much as the event itself. Recognize participants, gather feedback, highlight key moments, and capture lessons learned while they're still fresh.

Key Activities

1

Send Thank You First

Within 24 to 48 hours, with feedback survey attached. Recognition leads, feedback follows.

2

Survey All Audiences

Three short surveys: participants, parents, judges and volunteers. Five to six questions each.

3

Share Highlights

Within one week, distribute photos and recordings to families, and consider sharing your results with IEEE for the annual Social Impact Report.

4

Run a Lessons Learned Debrief

Within one month, with chairs, volunteers, and judges. Capture wins and friction.

5

File for the Next Team

Convert insights into specific recommendations. Store in a shared location with named owners.

Tip

Avoid vague recommendations. "Improve communication" describes a goal, not an action.

Best Practices



Start Small, Scale Later

Begin with a smaller number of participants during the program's first one to two years, then reassess whether capacity should be expanded.



Define the Format Early

The format sets enrollment, space, and timeline, and the final decision will inform the structure that follows.



One Point of Contact

Assign a single owner and central hub for all program-related questions and decisions.



Small Acknowledgments Go a Long Way

Even a simple receipt confirmation can reassure families and reduce incoming questions regarding submissions.



Create Moments That Matter

Enable participants to meaningfully connect with peers and the larger conference, celebrate their involvement, and offer keepsakes worth keeping.



Thank You Before Survey

When appreciation comes first, families are more likely to feel seen and give honest feedback.



Turn Post-Event Feedback into Action

Capture feedback within 24-48 hours, document what worked and didn't with examples, turn insights into actions and store in a shared repository for future teams.

Sample Program Schedule

Below is a sample program schedule outlining the proposed flow, timing, and required actions for each segment.

Time	Segment	Notes
8:30 AM	Doors Open & Find Seats	Verify each participant has parent or guardian. Seat participants in the order they will present.
9:00 AM	Welcome & Opening Remarks	Program Chair welcomes participants and families. Reviews format.
9:10 AM	Elementary Block	8 to 10 presentations at 3 to 4 minutes each plus Q&A. Group transitions every 3 to 4 presenters.
10:15 AM	Middle School Block	8 to 10 presentations at 5 to 7 minutes each plus Q&A.
11:35 AM	High School Block	5 to 7 presentations at 8 to 10 minutes each plus Q&A.
12:35 PM	Judging Deliberation	Judges retire to score. Participants and families enjoy refreshments and informal mingling.
12:55 PM	Awards & Recognition	Every participant acknowledged by name. Awards or special recognitions presented (if applicable).
1:20 PM	Group Photo & Closing	Group photo. Closing remarks from Program Chair. Distribution of certificates and keepsakes.
1:35 PM	Program Ends	Reset the room for the next session.

Event Checklist

Key activities in each phase to support progress tracking. Use this checklist to stay aligned throughout the process.

01 Safety & Compliance

- ☐ Primary program contact designated
- ☐ ORIMS registration submitted 60+ days out
- ☐ Training and screening complete
- ☐ Minors disclosures on registration form

02 Program Design

- ☐ Chair, committee, and judges confirmed
- ☐ Capacity set (20 to 25 for year one)
- ☐ Space booked, AV requirements set
- ☐ Abstract and judging criteria approved

03 Comms & Submissions

- ☐ Program announced ~6 months out
- ☐ Registration opened with clear deadlines
- ☐ Acceptance confirmations sent in 48 hours
- ☐ Know Before You Go sent ~2 weeks out

04 Pre-Event Preparation

- ☐ Participants grouped by age, alphabetized
- ☐ Judges briefed with rubric 2 to 3 weeks out
- ☐ Presentation files loaded and backed up
- ☐ Awards, certificates, and signage staged

05 On-Site Execution

- ☐ Parent or guardian confirmed at check-in
- ☐ Front rows reserved in presentation order
- ☐ Visual time signals ready
- ☐ Every participant acknowledged by name

06 Post-Event Follow-Up

- ☐ Thank you sent within 24 to 48 hours
- ☐ Surveys distributed to all audiences
- ☐ Highlights shared within ~1 week
- ☐ Capture and apply lessons learned and insights for future teams

Every event is different. This is your starting point.

Create a memorable experience that encourages curiosity, participation, and STEM exploration.

KEY RESOURCES

- [IEEE Activities with Children](#)
- [IEEE ORIMS Registration Form](#)
- [Download Toolkit Companion with Additional Resources](#)



Have questions or ideas to share? Connect with the IEEE CEE team.