Caribbean Science Foundation
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"Grooming the next generation of Caribbean science and engineering leaders"

PROJECTS OF THE CARIBBEAN SCIENCE FOUNDATION

ABOUT THE CSF

The Caribbean Science Foundation (CSF) is an independent, private, non-profit, non-governmental organization, founded in 2010 by the Caribbean Diaspora for Science, Technology and Innovation (CADSTI). The mission of the CSF is to assist with the diversification of the economies of the Caribbean Region by harnessing Science, Technology, Engineering and Mathematics (STEM) for economic development and thereby helping to raise the standard of living. The CSF is achieving this objective by:

- Accelerating education reform that supports technology-based entrepreneurship, (b) offering STEM, business and entrepreneurship education programs for Caribbean youth, (c) carrying out STEM teacher training exercises, and (d) enhancing the communication skills of the youth in CSF programs
- Stimulating technology-based entrepreneurship for new company formation
- Providing scientific and engineering advisory services to Caribbean Governments

Student Program for Innovation in Science and Engineering (SPISE)

SPISE, launched in 2012, is an annual, 5-week intensive summer STEM program for Caribbean students, 16-18 years of age, who are highly gifted in science, engineering and math, and interested in studying and exploring careers in these disciplines. SPISE is modelled after the well-known and highly successful MITES program at MIT. During SPISE, students are totally immersed in university-level calculus, physics, biochemistry, entrepreneurship, and hands-on projects in electronics or robotics and computer programming. Rote learning is discouraged; instead, students are taught how to focus on mastering and applying the fundamentals to solve novel and complex problems. The benefits of SPISE also include improved teamwork, time management and multi-tasking skills, increased experience in public speaking, and greater self-confidence. SPISE graduates have enrolled in the top science and engineering universities, including MIT, Stanford, Harvard and Princeton. The ultimate goal of SPISE is to groom the Region's next generation of science, engineering, technology and business leaders. Please visit https://caribbeanscience.org/spise/


Barbados Junior Robotics Camps (BJRC)

The BJRC, launched in 2015, are annual summer enrichment programs for Barbadian students 10-18 years of age who are interested in robotics. At the camps, held on the UWI Cave Hill campus, students participate in team-based robotics building and programming projects in a fun environment. Teamwork is emphasized, and its value is highlighted. The aim of the camps is to introduce basic technology and engineering concepts to children and ignite their excitement for STEM. The BJRC offer robotics at 4 levels. Levels I & II are for children who have little or no previous STEM, programming, or robotics experience. Scratch is used primarily as the Levels I and II programming language. Level III comprises a mix of building, and the use of higher-level programming languages and micro-controllers. Level IV Students are contributing to a multi-year project of making a humanoid robot. Campers use a 3-D printer to create custom parts as needed. The BJRC ends with a robotics showcase where the campers demonstrate their robots to the public. Registration for the 2026 BJRC is now open.

For more details visit: https://caribbeanscience.org/barbados-junior-robotics-camp/

Caribbean STEM Olympiads (CSO)

The annual Caribbean STEM Olympiads, launched in 2023, comprises 3 competitive categories: Math Olympiad, Computer Coding Olympiad, and Robotics & Electronics Systems Olympiad. Students 13-21 years of age compete in one of three age levels in each category for medal certificates and cash prizes. More than 250 students participate each year. Held in virtual format, the CSO showcases and celebrates the Region's most outstanding STEM students and encourages more youth to embrace science and engineering. It tests the competitors' creativity, critical thinking, problem solving ability, leadership, and team working skills. Objectives are to:

- Assist with enhancing the quality of secondary and tertiary STEM education and science popularization
- Ignite and nurture STEM inventiveness in our youth
- Encourage students to pursue further studies in STEM-related disciplines
- Give our medalists a competitive advantage on their university applications
- Provide a launch pad for Caribbean teams to compete in international STEM Olympiads.

Please visit https://caribbeanscience.org/cso/

Caribbean Computer Coding Workshops (C3W)

The C3W were launched in 2018 with the following aims: (1) help increase the low number of persons in the Region who have competency with modern computer programming languages, (2) help train the technology workforce of the future (goal is a 50/50 gender balance), (3) assist with the training of persons from low-income households, and persons with disabilities, (4) stimulate more technology-based entrepreneurship, and (5) generate more student interest in going beyond programming and into the field of advanced computer science. The workshops offered to-date have been on Website Development, Python and Machine Learning/AI.

The workshops, offered via Zoom to CARICOM citizens 13 years and older, cover the basics while still providing a taste of the more advanced code libraries used to address practical applications. The CSF truly believes that "*there is no reason why the next Google cannot start in the Caribbean*". Registration for the 2026 C3W is now open. For more details visit: https://caribbeanscience.org/coding-workshop/

Caribbean SEED (STEM Engine for Economic Development) Summit

The 2026 Caribbean SEED (STEM Engine for Economic Development) Summit will take place on 25-28 June 2026 under the theme "Harnessing STEM for Caribbean Economic Development". It is the premier gathering event for Caribbean nationals and global collaborators who are leading ground-breaking research, pursuing real-world applications of STEM, financing STEM companies, and engaging in STEM education reform. It will serve as a catalyst to provide a pathway for STEM talent and entrepreneurs to come together with funding sources for new company formation.

The inaugural Summit is being held in collaboration with the Barbados Ministry of Industry, Innovation, Science and Technology (MIIST). Persons may participate either virtually or in-person (at the Accra Beach Hotel, Barbados). The Summit will feature: (1) business plan pitches by technology entrepreneurs and early-stage companies, (2) high-impact technology research and development presentations, and (3) networking sessions for the exchange of technical and business information. Registration is open for abstracts of contributed STEM research papers, summaries of business plans, and observers. Visit https://caribbeanscience.org/stem-summit/

Barbados Robotics-Innovation Challenge (BRIC)

The BRIC is a competition where participants must design and build a remote-controlled robot that can: (a) climb a coconut tree, (b) trim away dead or dying leaves, (c) cut the coconuts, and (d) lower the harvested coconuts to the ground in a safe manner. BRIC has 3 implementation phases:

- Phase I - Robotics System Engineering Design (2026 competition)
- Phase II - Prototype Development and Demonstration (robot climbing only)
- Phase III - Full system design and assembly phase.

The BRIC, being held in partnership with the Abed Foundation, rewards teams that apply creative problem-solving approaches to address challenges relevant to the needs of Barbados. Barbadian citizens, or residents for the past 4 consecutive years, who are 15 to 30 years old are eligible to participate. Secondary and tertiary students and members of robotics clubs and associations are encouraged to apply. Phase I Engineering Design Proposals are due on 16 August 2026. Virtual information sessions (at https://us02web.zoom.us/s/86884952617) will be held on 03 May, 07 June, 05 July and 02 August to give guidance on the challenge. For more information, please visit https://caribbeanscience.org/bric/