

# STEP CON 20

SCIENCE ■ TECHNOLOGY ■ ENGINEERING ■ MATH

VIP Tour  
October 8, 2020



# Welcome



SCIENCE \* TECHNOLOGY \* ENGINEERING \* MATH

**STEP<sub>20</sub>**  
VIRTUAL

**STEP CONFERENCE  
VIP TOUR**

Thursday  
October 8, 2020  
10 - 11 am

Follow on Social Media:  
@STEPCon20  
#STEPCon20

For further information on STEP Programs:  
[www.stepconference.org](http://www.stepconference.org)

The STEP Board invites you to enjoy an amazing Virtual STEM Event for the Inland Empire! The STEPCon20 is designed to inspire students to pursue a STEM education and career.

We would love to have you join our VIP Tour. We hope to impact more than 8,000 students and 300 teachers!

Register at: <https://step.6connex.com/event/STEPCon20/VIPTour/register>

**BOURNS**  
1200 Columbia Ave.  
Riverside, CA 92507  
[www.bourns.com](http://www.bourns.com)

Science & Technology Education Partnership  
Inspiring students to pursue careers in science, technology, engineering and math.

**STEP**  
Post Office Box 21100  
Riverside, CA 92516-1100  
(708) 526-8781  
[stepstem@gmail.com](mailto:stepstem@gmail.com)



**Debra Johnson**

Logistics, STEP  
Planning Committee

# Virtual STEPCon20



**Yamileth Shimojyo**

Vice Chair, STEP Board  
STEM Administrator, RCOE





# Virtual STEPCon20

## Lobby:



# Virtual STEPCon20

- Educator STEPCon20 - **250** participants registered
- Student STEPCon20 - **13,682** students registered  
**282** teachers registered
- Over **42** Virtual Exhibitors
- CE-CERT - **1,400** HS students registered
- VIP Tour - **50** registered

Thank you to our  
**Atom Plus Sponsors!**



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OFFICE OF EDUCATION**  
JUDY D. WHITE, Ed.D.  
County Superintendent of Schools



The  
California  
Endowment

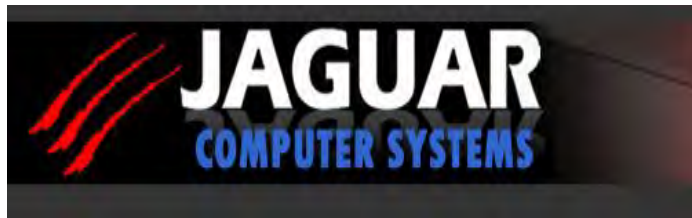


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Thank you to our  
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**Dr. Christopher Lynch**  
Dean, UCR Bourns College of Engineering

# Thank you to our In-Kind Sponsors!



College of Engineering –  
Center for Environmental  
Research and Technology



CORONA



Logos Education Systems



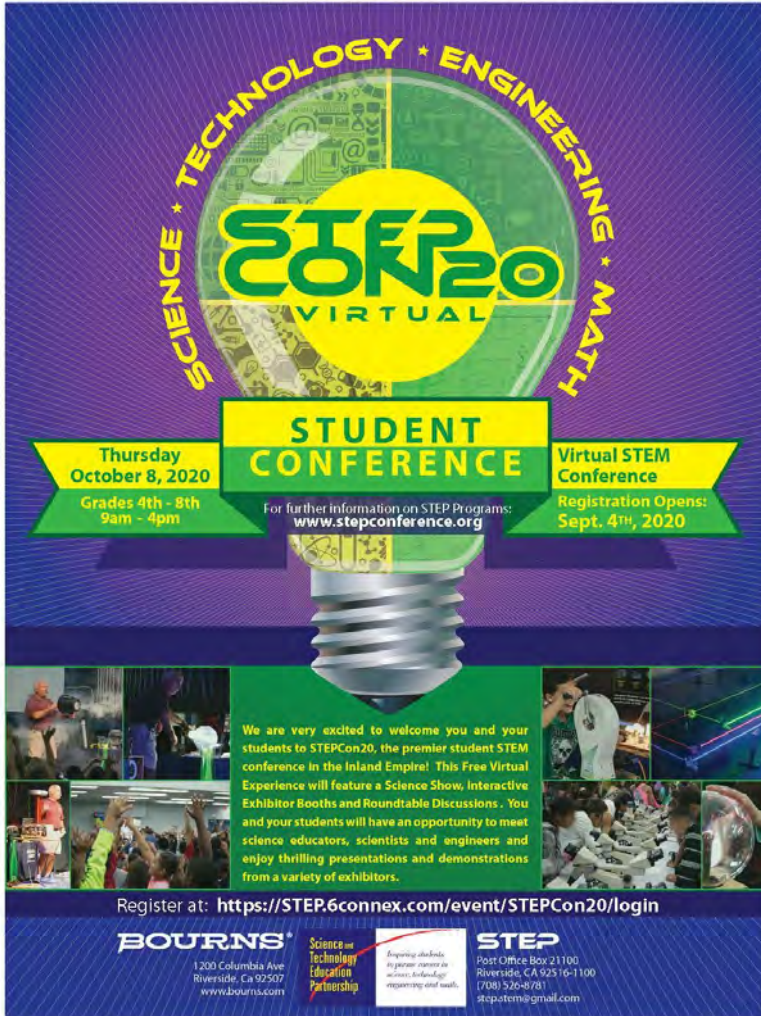
Corona-Norco Unified  
School District



San Bernardino County  
Superintendent of Schools



# Welcome from General Atomics!



The poster for STEPCon20 Virtual Student Conference features a large lightbulb graphic. The bulb's glass part is yellow and green, with the text "STEPCon20 VIRTUAL" in green. The base of the bulb is silver. The background is purple with a grid pattern. The text "SCIENCE \* TECHNOLOGY \* ENGINEERING \* MATH" is written in a circular arc around the bulb. Below the bulb, a yellow banner reads "STUDENT CONFERENCE". To the left, a green banner says "Thursday October 8, 2020 Grades 4th - 8th 9am - 4pm". To the right, a green banner says "Virtual STEM Conference Registration Opens: Sept. 4th, 2020". Below the banner, a small text block says "For further information on STEP Programs: www.stepconference.org". At the bottom, there are four small images showing students in various STEM activities. A central text block reads: "We are very excited to welcome you and your students to STEPCon20, the premier student STEM conference in the Inland Empire! This Free Virtual Experience will feature a Science Show, Interactive Exhibitor Booths and Roundtable Discussions. You and your students will have an opportunity to meet science educators, scientists and engineers and enjoy thrilling presentations and demonstrations from a variety of exhibitors." At the bottom left, it says "Register at: <https://STEP6connex.com/event/STEPCon20/login>". At the bottom right, there are logos for BOURNS, Science and Technology Education Partnership, and STEP.

Thursday  
October 8, 2020  
Grades 4th - 8th  
9am - 4pm

**STUDENT  
CONFERENCE**

For further information on STEP Programs:  
[www.stepconference.org](http://www.stepconference.org)

Virtual STEM  
Conference  
Registration Opens:  
Sept. 4th, 2020

We are very excited to welcome you and your students to STEPCon20, the premier student STEM conference in the Inland Empire! This Free Virtual Experience will feature a Science Show, Interactive Exhibitor Booths and Roundtable Discussions. You and your students will have an opportunity to meet science educators, scientists and engineers and enjoy thrilling presentations and demonstrations from a variety of exhibitors.

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Science and  
Technology  
Education  
Partnership

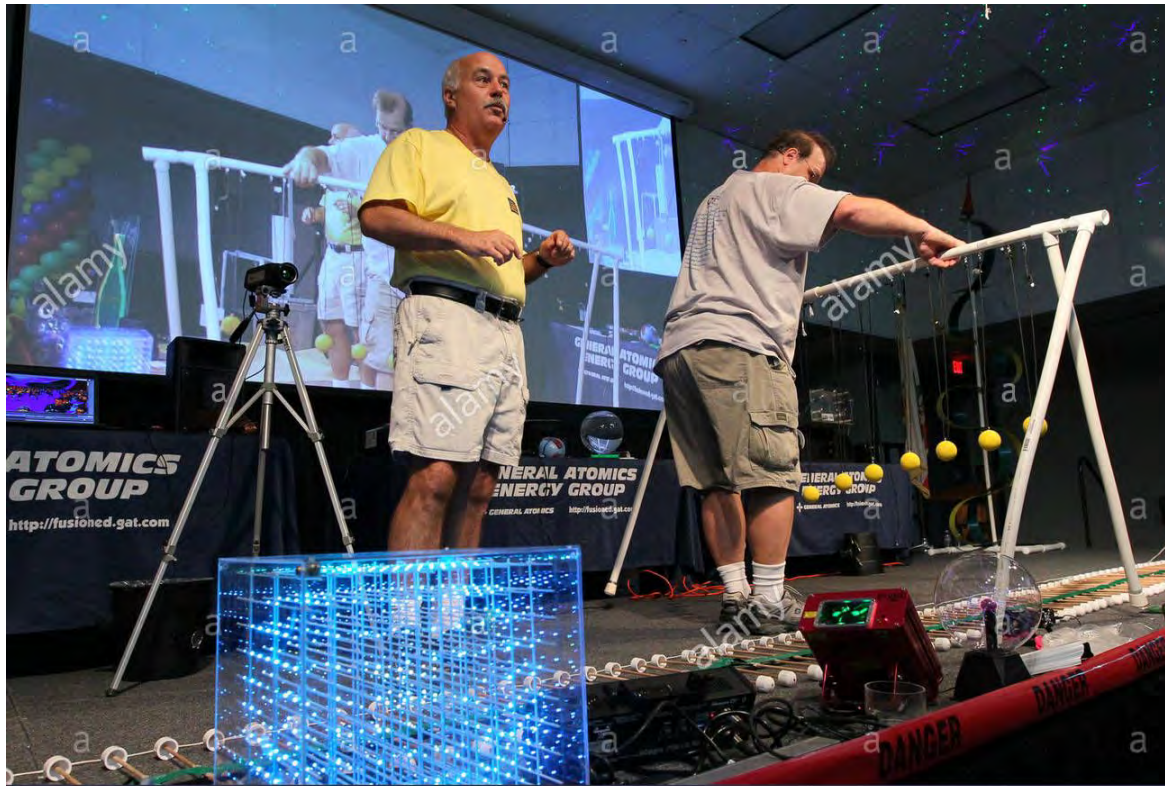
STEP  
Post Office Box 21100  
Riverside, CA 92516-1100  
(708) 526-8781  
[stepatemi@gmail.com](mailto:stepatemi@gmail.com)



## Gordon Bourns

Chairman of the Board &  
President, **STEP**  
Chairman of the Board & CEO  
**Bourns, Inc.**

# Science Show



**Special Thank  
you to General  
Atoms for 21  
years of  
Engaging  
Students in the  
Inland Empire!**

# Science Show





# CE-CERT Update



The poster for the STEP20 Virtual Conference is designed to look like a glowing lightbulb. The top half of the bulb is filled with a circular collage of icons representing science, technology, engineering, and math. The text "STEP20 VIRTUAL" is prominently displayed in the center of the bulb. Above the bulb, the words "SCIENCE \* TECHNOLOGY \* ENGINEERING \* MATH" are arranged in a semi-circle. Below the bulb, a banner reads "October 5TH - 9TH, 2020" and "Award Ceremony October 16, 2020". To the right of the bulb, another banner says "Virtual Learning Modules" and "Registration Opens: Sept. 4TH, 2020". The UCR logo and the name of the host institution, "MARLAN & ROSEMARY BOURNS COLLEGE OF ENGINEERING Center for Environmental Research & Technology", are also present. At the bottom, there are four small images showing students in various STEM activities. A central text block describes the event as a week-long learning module series followed by a live awards ceremony. Registration information and logos for Bourns, Science and Technology Education Partnership, and STEP are at the bottom.

**STEP20 VIRTUAL**

SCIENCE \* TECHNOLOGY \* ENGINEERING \* MATH

UCR MARLAN & ROSEMARY BOURNS COLLEGE OF ENGINEERING  
Center for Environmental Research & Technology

**October 5TH - 9TH, 2020**  
Award Ceremony October 16, 2020

**HIGH SCHOOL**  
[www.cert.ucr.edu](http://www.cert.ucr.edu)  
Virtual Log-in: <https://STEP6connex.com/event/STEPCon20/login>

**Virtual Learning Modules**  
Registration Opens: Sept. 4TH, 2020

The STEP Board invites you to enjoy an amazing STEM virtual event. Your class will interact with UCR researchers in a week-long learning module series. This hands-on series will teach high school students about smart cities & transportation, microgrids or artificial intelligence. The series will be followed by a live awards ceremony!

Register at: [www.cert.ucr.edu/stepcon20-conference](http://www.cert.ucr.edu/stepcon20-conference)

**BOURNS**  
7200 Columbia Ave.  
Riverside, CA 92507  
[www.bourns.com](http://www.bourns.com)

**Science and Technology Education Partnership**  
Empowering students to prosper, prosper all, all-in-one, technology, engineering and math.

**STEP**  
Post Office Box 21100  
Riverside, CA 92516-1100  
(951) 526-8781  
[stepstem@gmail.com](mailto:stepstem@gmail.com)



Jill Barber

Outreach and Events Coordinator



College of Engineering –  
Center for Environmental  
Research and Technology

# CE-CERT Update

## *CE-CERT Labs Tour*



## *Learning Module Kick-off*





# CE-CERT Update

Welcome to the  
**High School  
STEPCON  
Learning  
Modules**

The STEP Board invites you to enjoy an amazing STEM virtual event October 5th-9th & 16th, hosted by the Marlan and Rosemary Bourns College of Engineering (BCOE) and the Center for Environmental Research & Technology (CE-CERT). During this week-long learning module series your class will interact with UCR researchers and students, and industry representatives. This hands-on series will teach high school students about smart cities & transportation, microgrids, clean air sensors, or AI and security. The series will be followed by a live awards ceremony on October 16th, highlighting the top projects!

Artificial  
Intelligence &  
Security

Clean Air  
Sensors

Microgrids

Smart Cities &  
Transportation



**OCT.  
16TH**

**12:00PM-1:15PM**

**STEPCON  
LEARNING  
MODULES  
AWARDS  
CEREMONY**

We hope you will join us to celebrate another successful year of STEPCON! On October 16th, faculty will share an overview of their project and will highlight the top classes from each learning module - with a prize going to first place! Finally, you will hear from two very exciting speakers from the STEM world: Dr. Barry Barish, who is a distinguished professor of Physics at UC Riverside and also a Nobel Laureate; and Dr. Damien Odeau, Software Engineer from Google Inc. who leads efforts to build AI-based detection systems. Looking forward to seeing you all then!  
\*This will be recorded for those who cannot attend\*

**KEY  
NOTE  
SPEAKERS**



**Dr. Damien Odeau**  
Google Inc.  
Software Engineer



**Dr. Barry Barish**  
Professor of Physics, UCR  
Nobel Laureate

FOR MORE INFORMATION, CONTACT JILL BARBER [JBARBER@CERT.UCR.EDU](mailto:JBARBER@CERT.UCR.EDU)  
OR ELLIOT EMMER [ELLIOT.EMMER@UCR.EDU](mailto:ELLIOT.EMMER@UCR.EDU)



# Educator STEPCon20



SCIENCE \* TECHNOLOGY \* ENGINEERING \* MATH

**STEPCon20**  
VIRTUAL

**EDUCATORS  
CONFERENCE**

Wednesday  
October 7, 2020  
K - 12 Educators  
8 am - 3:30 pm

Follow on Social Media:  
@STEPCON20  
#STEPCON20

STEM Prizes will be Awarded! Registration Opens: **Aug. 14, 2020**

The STEP Board, California Space Grant Consortium, and UC Riverside Bourns College of Engineering, along with collaborating partners invite you to enjoy the premier regional STEM Educator Conference. The purpose of the FREE conference is to build a STEM culture in the Inland Empire by inspiring hundreds of area educators with motivating keynote speakers, immersive workshops, hands on activities, and engaging panels and discussions.

Register at: <https://sbcss.k12oms.org/27-190639>

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**Science as  
Technology  
Education  
Partnership**  
Inspiring students  
to become tomorrow's  
innovators, engineers,  
and scientists.

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**California Space Grant**



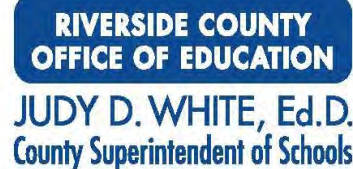
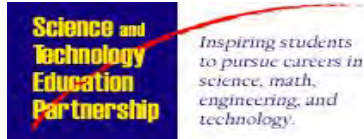
**Kim Terry**

Co-Chair, Educator STEPCon  
STEP Board Member  
Coordinator, Alliance for Education



San Bernardino County  
Superintendent of Schools

# Educator STEPCon20 Sponsors & Partners



# Educator STEPCon20: Sessions

- *Focus on the Question*
- *Engineering is Elementary - COVID Style*
- *Addressing the CS Equity Gap: The What, The Why, The How*
- *HyperDocs Lesson Design 101*
- *Planning Remote Math Instruction*
- *Machine Learning Using Scratch*
- *Research Experience in Computing for Inland Empire Teachers*
- *Everyone Should Notice and Wonder*
- *We are Phenomenal! Phenomena in NGSS Lessons*
- *Science: The “Write” Inspiration for Academic Language and Writing Genres*
- *Teaching STEM in the New Era*



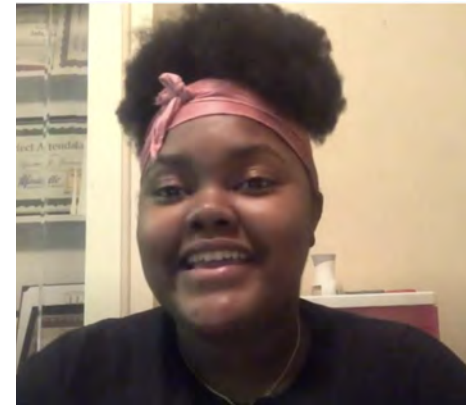
# Educator STEPCon20: STEP Student Video Scholarship

San Bernardino County



Jennifer Cruz, 12th Grader  
Apple Valley High School

Riverside County



Mariah Kannike, 12th Grader  
John W. North High School

***Videos are available on the STEPCon YouTube Channel for your viewing pleasure!***

# Educator STEPCon20 - Keynote



**Subhas Gupta, MD., C.M., Ph.D., FRCSC, FACS**

Professor and Chairman  
Department of Plastic Surgery  
Loma Linda University  
School of Medicine



LOMA LINDA  
UNIVERSITY

School of Medicine

# STEM Student Voices: Video Compilation



*Dimple Amitha Garuadapuri*

Eleanor Roosevelt High School  
eSTEM Academy  
Eastvale, CA

And my mind was BLOWN! For one, I was right science is pretty cool.



# Educator STEPCon21



The poster features a large lightbulb graphic with the text "STEP21" inside. The words "SCIENCE", "TECHNOLOGY", "ENGINEERING", and "MATH" are arranged around the top of the lightbulb. Below the lightbulb, a banner reads "EDUCATORS CONFERENCE". To the left of the banner, it says "Tuesday October 5, 2021" and "K - 12 Educators 8 am - 3:30 pm". To the right, it says "Follow on Social Media: @STEPCON21" and "#STEPCON21". Below the banner, it says "STEM Prizes will be Awarded!" and "Registration Opens: Aug. 13, 2021". At the bottom, there are three sections: a photo of a workshop, a paragraph of text, and a photo of a presentation. The text paragraph reads: "The STEP Board, California Space Grant Consortium, and UC Riverside Bourns College of Engineering, along with collaborating partners invite you to enjoy the premier regional STEM Educator Conference. The purpose of the FREE conference is to build a STEM culture in the Inland Empire by inspiring hundreds of area educators with motivating keynote speakers, immersive workshops, hands on activities, and engaging panels and discussions." The bottom section contains logos for Bourns, Science & Technology Education Partnership, STEP, and California Space Grant.

**EDUCATORS CONFERENCE**

Tuesday  
October 5, 2021  
K - 12 Educators  
8 am - 3:30 pm

Follow on Social Media:  
@STEPCON21  
#STEPCON21

**STEM Prizes will be Awarded!** Registration Opens: **Aug. 13, 2021**

The STEP Board, California Space Grant Consortium, and UC Riverside Bourns College of Engineering, along with collaborating partners invite you to enjoy the premier regional STEM Educator Conference. The purpose of the FREE conference is to build a STEM culture in the Inland Empire by inspiring hundreds of area educators with motivating keynote speakers, immersive workshops, hands on activities, and engaging panels and discussions.

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www.bourns.com

**Science & Technology Education Partnership**  
Register at: [stepstem.org](http://stepstem.org)  
stepstem@gmail.com

**STEP**  
Post Office Box 21100  
Riverside, CA 92516-1100  
(708) 526-8781  
stepstem@gmail.com

**California Space Grant**

**MARK YOUR CALENDAR:  
Educator STEPCon21  
is coming  
October 5, 2021**

# Student STEPCon21

**SCIENCE \* TECHNOLOGY \* ENGINEERING \* MATH**

**STEP21**

**STUDENT CONFERENCE**

Wed. & Thurs.  
Oct. 6 - 7, 2021

Grades K - 12  
9 am - Noon or 1 pm - 4 pm

For further information on STEP Programs:  
[www.stepconference.org](http://www.stepconference.org)

**Bourns Technology Center**  
1200 Columbia Ave.  
Riverside, CA 92507

**Hands-on Science Experiments**  
**Interactive Technology Exhibits**  
**Exciting Science Show**  
**Visit One-on-One with College Educators & Industry Professionals**

Register at: <https://STEP.6connex.com/event/STEPCon20/login>

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(708) 526-8781  
[step.stcm@gmail.com](mailto:step.stcm@gmail.com)

**MARK YOUR CALENDAR:**  
**Student STEPCon21**  
**is coming**  
**October 6-7, 2021**



# 2021 SUMMER LEARNING LABS

Focused on Careers in STEM

July 12 - 16

July 19 - 23

July 26 - 30



## DESIGN CHALLENGE PROJECTS

Work in Teams of 5  
No Cost to Participants  
Receive 5 Units of Elective Credit for RUSD  
per program (10 Units Max)

Prizes shared by Winning Teams:  
\$1,000 for First Place  
\$750 for Second Place  
\$500 for Third Place



# Sponsorship Benefits

Complete  
sponsorship  
information is  
available

Benefits	Atom \$10,000	Electron \$5,000	Proton \$2,500	Neutron \$1,000
Special STEP Recognition	✓			
Company name/logo included in advertising in the local newspaper	✓	✓		
Exclusive STEP Sponsor Dinner Invitation with Founder	6	4	2	
Company name/logo recognition on volunteer t-shirts	Company Logo	Company Name	Company Name	
Company name/logo recognition in video presentations shown to all attendees	✓	✓	✓	✓
Photo opportunity with the Conference Keynote Speaker and STEP dignitary (if applicable)	4	3	2	1
Company name/logo recognition in STEP literature and official STEP Program	✓	✓	✓	✓
Invitation to STEP Conference Special Events	6 tickets	4 tickets	3 tickets	2 tickets
Link on the STEP website if desired	✓	✓	✓	✓
A Big "Thank You" from all our participating students and teachers	✓	✓	✓	✓

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CONTACT US FOR DETAILS.**



# STEPCon21

**Thank you so much for attending the VIP Tour!**

**Questions?**

