

Noteworthy SIXTY YEARS of DISCOVERY

The Hawaii State Science & Engineering Fair (HSSEF) will be 60 in spring 2017. Started in 1958, the fair is the oldest and largest secondary science & engineering competition in the State.

In 1958, Sputnik was the first artificial Earth satellite which was launched by Russian scientists. *Sputnik* provided scientists with valuable information and this surprise success precipitated the American <u>Sputnik crisis</u> and triggered the <u>Space Race</u>, a part of the larger <u>Cold War</u>. The launch ushered in new political, military, technological, and scientific developments.

The Space Race was the push that led the members of the Hawaii Academy of Science to discuss ways that they could promote new technological and scientific developments. They wanted to encourage our youth into science fields and adopted the International Science & Engineering Fair, which was founded in 1950 by Science Service (now the Society for Science & the Public). The program involved working with students and teachers in the promotion of science exploration and experimentation. It based its projects on using the scientific process and recognized students and their projects with awards.

The First Hawaiian Science Fair was held April 11 – 13, 1958 at Fort DeRussy under the direction of L.J. Rhodes. There were 156 project with 91 senior division and 65 in the intermediate division. The fair moved from DeRussy to the Neal Blaisdell Exhibition Hall and changed its name to the Hawaiian Science & Engineering Fair. The fair grew and ran along side DOE woodshop and auto mechanics competitions and displays. Awards ceremonies were held in the Pikake Suite to standing room only crowds. The late Senator Daniel K. Inouye suggested that the fair move to the Hawaii Convention Center. This new venue provides a convention like atmosphere for the participants and displays all projects effectively.

LISA NILOS – NEWEST MEMBER OF THE BOARD

The newest member to the Hawaii Academy of Science Board of Directors is Lisa Nillos. Lisa is Vice President of the Commercial Real Estate Lending Division at Central Pacific Bank. She has a young daughter and is excited to get involved in the Academy's work with STEM programs to see how STEM can challenge and offer opportunities to our youth.

We welcome Lisa to the Board. The Hawaii Academy of Science is fortunate to have her expertise and energy.







Rajeev at the Participant Wall at 2016 ISEF in Phoenix

Hawaii Wins

By Rajeev Jha, Roosevelt Senior, recognized as Best in Category at ISEF

When I relocated my life to Hawaii at the beginning of my sophomore year, I had no idea how engulfing the presence of science would become in my life. Culminating recently in Phoenix at the International Science and Engineering Fair, the journey of curiosity, research, and invaluable mentorship melded the definitive science framework I hope to embrace for the rest of my life. With the help of my wonderful sophomore year Honors Chemistry teacher, Mr. Akamine, I designed and conducted my first ever formal scientific investigation. From raising fishes in the local greenhouse, to collecting samples to test for melanoma, I had plenty of information to share at the District Science Fair, and even at the Hawaii State Science Fair. The atmosphere of the State Fair blew me away as I saw hundreds of willing young scientists, so passionate about their research, share their experiments and experiences. Quite a sight, all the students in the Animal Science Category became one cohesive friend group, even dubbing ourselves "The Animals!"

Junior Year, I had the wonderful opportunity to conduct experiments at a research institution, where I delved into my true passion: neuroscience with my wonder mentor, Dr. Nicholas James. Though finding information in the textbook is one source of knowledge, finding new information based on one's own findings is a joy rivaled by none. Soon I was sharing a full summer and half a school year of research to judges, and was pleasantly surprised and delighted to be given an opportunity to represent Hawaii internationally. In Pittsburg, I found a very close group of friends from across all islands, who made my experience all the more enjoyable. Also, I found friends from all over the world, including but not limited to: Brazil, China, India, Japan, Canada, and even Saudi Arabia, during my week. Science really had a strong foothold on each individual, and everyone seemed to have such great and innovative projects. Excited by the experience and wanting more, I submitted my project for PS3. In a different dynamic of presentation, PS3 refined and honed my communication skills. At the National Stage in Dayton, Ohio, I reconnected with old friends and found many more new ones. Furthermore, I found a plethora of careers in Science, something which was of central focus. Ultimately, my last Science Fair experience was to be in Phoenix in my second ISEF, where I spent my official last week of high school - that's how much science mattered to me!

Winning on an International Stage on my last day of high school is a fictional story improbable to happen, yet it seemed so fitting after my adventure with science. Science gave me so much: a chance to explore and discover the world with new lens, opportunities to network, refine my communication skills, find bold new experiences, and above all, forge new friendships. Science has so much value to our students because it is the perfect multifaceted playing ground to learn, discover, and experience. It is the path which students can walk on to find the gate of opportunities, not only to grow in knowledge and wisdom but to have a chance to ultimately better serve mankind. I'm so grateful for all of my advisors, mentors, teachers, and the academy for a chance to explore this journey. As I enter Harvard next year, I'll be sure to continue researching and immersing myself in science, because it is the only fruitful pathway I've come to know. As a fellow science fair friend Luke Jones best put it, "...have everyone together, who all love the same thing, having so many science nerds geek out about their passion - it's the coolest thing."



Pacific Symposium for Science and Sustainability



The annual Pacific Symposium for Science and Sustainability (PS3) was held on January 15-16, 2016. This annual conference serves as a regional competition for students to advance to the Junior Science and Humanities Symposium (JSHS). The JSHS is a national program funded by the United States Department of the Army, Navy, Air Force and sponsored by the Academy of Applied Science. Students register for the conference by submitting their research papers, which reviewed by a panel of judges. Finalists are selected and present their papers to a panel of judges in a PowerPoint presentation. Other participants share their papers in breakout sessions and are eligible for awards in library and experimental research.

Sixty participants in grades 9 - 12 from across the state and the Pacific presented their scientific research papers at PS3 held at the John A Burns School of Medicine. Participants socialized at Dave & Buster's, shared their research and left the conference with new ideas and friends.

Finalist representing Hawaii at the National Junior Science and Humanities Symposium were First Place – Rajeev Jha, –Roosevelt HS; Second Place – Ariana Kim, -St.Andrews Priory and Third Place – Lily Jenkins, -Molokai HS. Accompanying the finalist were poster presenters: Christopher Lindsay, -Iolani and Hope Ushirado-Garma-Kamehameha, -Kapalama. Alternate Presenter was Charu Joserose, -Tafuna HS.

S.T.E.M. EXCELLENCE PROJECT

S.T.E.M. equals Science, Technology, Engineering and Mathematics.

S.T.E.M. equals Hawaii Academy of Science involvement.

For the past two years, the Hawaii Academy of Science has been supporting S.T.E.M. programs, i.e. Robofest, Math Counts through monetary support, web listing and advertising. We share a similar mission, and the Academy believes in these programs and appreciates what they do to encourage our youth to explore the opportunities in S.T.E.M. fields and related careers.



Get Involved – JUMP IN

Become a project mentor, an Academy sponsor, an Award sponsor, an HSSEF volunteer

Projects and program coordinated by the Academy never run on just their reputation. These worthy projects are the result of many hours of work done mainly by volunteers. Please consider helping us continue our mission of promoting science education and research in Hawaii and the Pacific.

Call us at (808) 956-7930 or email to: acadsci@hawaii.edu to become connected with student participants as a mentor – make a difference with helping a student develop a passion for science. Volunteer to assist with the Pacific Symposium or the Hawaii State Science & Engineering Fair.





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CALENDAR OF EVENTS

Pacific Symposium for Science and Sustainability – January 13-14, 2017 - TBD

Friends of the Science Fair Fundraiser – January 9, 2017 – Pacific Club

Hawaii State Science & Engineering Fair – April 10 - 12, 2017 – Hawaii Convention Center