
Asian American
Engineer of the
Year Award
2012
Albuquerque
New Mexico
AAEOY
Saturday, March 3, 2012
Chinese Institute of Engineers - USA

Proud Sponsor of the Asian American Engineer of the Year Award

CIE-USA Chairman's Remarks

Dr. Yung Sung Cheng

Chair of the CIE-USA National Council

It is my great honor and pleasure as the Chair of National Council, Chinese Institute of Engineers-USA (CIE-USA) to welcome all the distinguished guests, the awardees, and sponsors to Albuquerque. We celebrate the 11th year of the Asian American Engineer of the Year Award (AAEOY), the first time in New Mexico. New Mexico is rich in culture diversity but also has a strong science and engineering base with two national laboratories, research institutes, universities, and high tech industries. Our program includes technical and culture tours, and ethnic performances. I hope most of you have the opportunity to sample the unique culture diversity and technical capabilities in the land of enchantment.

CIE-USA is a member of the Diversity Council in the National Engineers Week Foundation, dedicated to ensuring a diverse and well-educated future engineers by increasing interest in engineering and technology careers among young students and by promoting literacy in math and science. Engineers Week also raises public understanding and appreciation of engineers' contributions to society.

AAEOY is one of the E-Week programs to recognize outstanding Asian American engineers and executives for their technical achievements and public service. The AAEOY Award also celebrates the achievements of Asian Americans of global stature and influence with "Distinguished Awards". This year we are honored to give the Distinguished Science and Technology Award to Dr. Venky Narayanamurti and Distinguished Lifetime Achievement Award to Dr. Alice Huang. Dr. Alice Huang is the first female Asian-American scientist so honored.

I would like to congratulate all the awardees for your excellent achievements and great contribution to the society. Finally I would like to thank our sponsors for their continuous support of the AAEOY award, our local communities for their participation and our 2012 AAEOY Executive Committee members for their dedicated efforts. I am looking forward to working with all of you in continuing this great tradition.

Respectfully yours,

Yung Sung Cheng, Ph.D.
Chair of the CIE-USA National Council

AAEOY 2012

Chairman's Remarks

Dr. Eliot Fang

Chair of the 2012 AAEOY Executive Committee

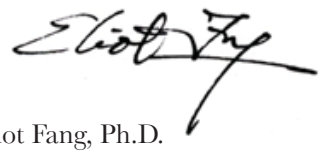
On behalf of the 2012 Asian American Engineer of the Year (AAEOY) Executive Committee, I would like to welcome all honorees, corporate representatives, distinguished guests, community leaders, members of the Chinese Institute of Engineers – USA (CIE-USA) and friends to Albuquerque, New Mexico for the eleventh AAEOY Award ceremony.

Since it was established in the year 2002, the AAEOY Award ceremony has been hosted by CIE-USA every year to recognize outstanding Asian American professionals in science and engineering for their technical achievements and public services. In the last ten years, 181 Asian American Scientists and Engineers have been recognized by their sponsoring organizations, and 27 Distinguished Awardees have been selected by the local hosting chapters of CIE-USA. This year, it is our great honor to present the Distinguished Lifetime Achievement Award to Dr. Alice Huang, Senior Faculty Associate in Biology at the California Institute of Technology and the Distinguished Science and Technology Award to Dr. Venky Narayanamurti, a Benjamin Peirce Professor of Technology and Public Policy at Harvard University.

I would like to express my heartfelt appreciation to all the sponsors and supporters of the 2012 AAEOY, including Lockheed Martin, Sandia National Laboratories, Boeing, Intel, IBM, Northrop Grumman, Texas Instruments, NASA Glenn Research Center, Lovelace Respiratory Research Institute, Corning Incorporated, Emcore, and National Auto Parts USA. Without their sponsorship in both funding and people resources, we would not be able to have such a great event today. I would also like to give my special thanks to all members of the 2012 AAEOY Executive Committee for their dedication and persistent hard work to make the 2012 AAEOY Award ceremony tonight a reality.

Finally, I would like to congratulate the 2012 AAEOY Award recipients. This event is not only a measure of your outstanding accomplishments, but also of your hard work and diligence for the Asian American community. I applaud you for your continued work in strengthening Asian American leadership and achievement in engineering, science, and technology. My best wishes to all of you for continued success.

Sincerely,



Eliot Fang, Ph.D.
Chair of the 2012 AAEOY Executive Committee

Congratulatory Letter

Susana Martinez

Governor of New Mexico

State of New Mexico

Susana Martinez
Governor

A MESSAGE FROM GOVERNOR SUSANA MARTINEZ

It is a privilege to welcome all the participants of the Asian American Engineering of the Year Award Program to the great state of New Mexico. I would like to extend my warmest welcome on behalf of the people of the Land of Enchantment during your inaugural visit to our state.

As a professional society dedicated to the promotion of science, technology, engineering and mathematics, the Chinese Institute of Engineers-USA understands the importance of the advancement of education in these fields. These areas of discipline are especially important in New Mexico through our two national laboratories and institutions of higher learning.

I would like to congratulate all the award recipients at this year's event. Your contributions to the scientific community serve as an inspiration to your families, friends and colleagues and continue to make our world a better place to live in.

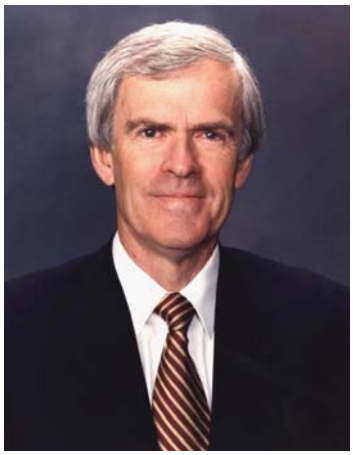
Again, congratulations and welcome to New Mexico.

Sincerely,

Susana Martinez
Governor of New Mexico

State Capitol • Room 400 • Santa Fe, New Mexico 87501 • 505-476-2200 • fax: 505-476-2226

AAEOY 2012



Congratulatory Letter

Jeff Bingaman

United States Senator – New Mexico

JEFF BINGAMAN
NEW MEXICO

703 HART SENATE OFFICE BUILDING
WASHINGTON, DC 20510
(202) 224-5521
IN NEW MEXICO – 1-800-443-8658
TDD (202) 224-1792
senator_bingaman@bingaman.senate.gov

United States Senate

January 30, 2012

Chinese Institute of Engineers-USA
Asian American Engineer of the Year Award
National Engineers Week 2012
Albuquerque, New Mexico

I would like to send my warmest welcome to the engineers and scientists participating in this year's National Engineers Week activities hosted by the New Mexico chapter of the Chinese Institute of Engineers –USA.

I would also like to congratulate the recipient of the 2012 Asian American Engineer of the Year Award and those recognized as distinguished awardees. Each should be justly proud of their achievements and contributions to their respective professions.

New Mexico has a proud history of being the birthplace of innumerable scientific and engineering achievements. I commend CIE-USA and its members for their commitment to furthering advances in science and engineering and fostering a collaborative spirit. Working together, you will continue to lead the world in the development of game-changing technologies.

As Chairman of the Senate Energy and Natural Resources Committee, I especially applaud the collaborations that have led to the development of alternative sources of energy and the more efficient use of our existing sources of energy. Progress in these areas will further our nation's economic and national security. We will continue to rely on the valuable work of the CIE-USA in this important area of research and development.

Once again congratulations to all of the award recipients. I applaud your efforts and I am inspired by your achievements.

Sincerely,

Jeff Bingaman
United States Senator

PLEASE REPLY TO:

☐ 625 SILVER AVENUE, SW, SUITE 130
ALBUQUERQUE, NM 87102
(505) 346-6601

☐ 106-B WEST MAIN
FARMINGTON, NM 87401
(505) 325-5030

☐ 148 LORETTO TOWNE CENTRE
505 SOUTH MAIN, SUITE 148
LAS CRUCES, NM 88001
(575) 523-6561

☐ 200 EAST 4TH STREET, SUITE 300
ROSWELL, NM 88201
(575) 622-7113

☐ 119 EAST MARCY, SUITE 101
SANTA FE, NM 87501
(505) 988-6647

Congratulatory Letter

Tom Udall

United States Senator – New Mexico

TOM UDALL
NEW MEXICO

110 HART SENATE OFFICE BUILDING
WASHINGTON, DC 20510
(202) 224-6621
(202) 228-3261 FAX
http://tomudall.senate.gov

United States Senate
WASHINGTON, DC 20510

COMMITTEES:
COMMERCE, SCIENCE, AND TRANSPORTATION
ENVIRONMENT AND PUBLIC WORKS
INDIAN AFFAIRS
RULES AND ADMINISTRATION

Dear AAEOY Conference Attendees:

I am pleased to extend a warm welcome to all participants of the 2012 Asian American Engineer of the Year Program, being held this year in our beautiful Land of Enchantment. I also want to personally thank the New Mexico Chapter of the Chinese Institute of Engineers (CIE-USA) for all of your work on behalf of the Asian American engineers and scientists in our great state, as well as the role that you play in the Asian American engineer community nationwide.

I would like to congratulate all of the distinguished award recipients for your outstanding contributions to advanced technology on both a national and global stage. The work that you do is of vital importance. From issues of economic growth to homeland security, you are part of the solution. You are making a difference in the challenges that we face in the twenty-first century.

To Asian American engineers here in attendance and world-wide, you represent an honorable and strong community. I want you to know that I appreciate your work and the profound impact that you have on the rapid growth of science and technology in the United States and around the world. As a people and as a culture you continue to be mentors and role models to engineers and future engineers everywhere.

Once again, welcome to New Mexico and may you have a most enjoyable Award Banquet. I hope that you have the opportunity to try some authentic New Mexican cuisine as well as experience our southwest hospitality.

Sincerely,

Tom Udall
U.S. Senator

STATE OFFICES:

ALBUQUERQUE:
219 CENTRAL AVENUE NW, SUITE 210
ALBUQUERQUE, NM 87102
505-346-6791

CARLSBAD:
102 W HAGERMAN, SUITE A
CARLSBAD, NM 88220
575-234-0366

LAS CRUCES:
LORETTO TOWN CENTER
505 SOUTH MAIN, SUITE 118
LAS CRUCES, NM 88001
575-526-5475

SANTA FE:
120 SOUTH FEDERAL PLACE,
SUITE 302
SANTA FE, NM 87501
505-988-6511

AAEOY 2012

Congratulatory Letter

Dan Inouye

United States Senator – Hawaii

DANIEL K. INOUYE
HAWAII

COMMITTEE ON APPROPRIATIONS, CHAIRMAN
SUBCOMMITTEE ON DEFENSE, CHAIRMAN
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION
COMMITTEE ON INDIAN AFFAIRS
DEMOCRATIC STEERING AND COORDINATION COMMITTEE
COMMITTEE ON RULES AND ADMINISTRATION

United States Senate
SUITE 722, HART SENATE OFFICE BUILDING
WASHINGTON, DC 20510–1102
(202) 224–3934
FAX (202) 224–6747

PRINCE KUHIO FEDERAL BUILDING
ROOM 7–212, 300 ALA MOANA BOULEVARD
HONOLULU, HI 96850–4975
(808) 541–2542
FAX (808) 541–2549

101 AUPUNI STREET, NO. 205
HILO, HI 96720–4221
(808) 935–0844
FAX (808) 961–5163

March 2, 2012

Asian American of the Year Award Program
Chinese Institute of Engineers – USA
Marriott Uptown
Albuquerque, New Mexico

Dear Friends:

It is a pleasure to welcome all those, who have gathered in celebration of the Asian American Engineer of the Year Award (AAEOY) program sponsored by the Chinese Institute of Engineers – USA (CIE-USA). I regret my schedule prevents me from joining you. However, please know that my thoughts are with you on such a special occasion.

Since its inception in 1917, the CIE-USA has been at the forefront of promoting diversity and sharing information amongst engineers and scientists to foster technological advancement for a stronger future. Science, technology, engineering, and mathematics are integral to the development of our nation and offers opportunities limited only by our efforts. I commend this year's honorees for their diligent work and commitment to better their fields of study. Each has contributed to the academic world and has no doubt improved our communities. I extend my appreciation to them and the hosts of this event.

You have my best wishes for an enjoyable gathering.

Aloha,

DANIEL K. INOUYE
United States Senator

DKI:mb

Congratulatory Letter

Steven Chu

The Secretary of Energy

The Secretary of Energy
Washington, DC 20585

March 2012

Greetings to Friends at the 2012 Asian American Engineers of the Year Award Banquet:

My congratulations to the Chinese Institute of Engineers-USA for another year of outstanding service and commitment to the field of engineering. Our Nation appreciates your significant contributions over the years and looks forward to your achievements in the areas of alternative energy sources and conservation.

I am very pleased to extend congratulations to Dr. Alice Huang as the recipient of the Distinguished Lifetime Achievement Award and Dr. Venkatesh Narayanamurti for the Distinguished Science and Technology Award. It is a tribute and mark of respect to be recognized by one's peers with this award.

While I will not be able to attend this year, please accept my best wishes for a successful and joyful celebration.

Sincerely,

Steven Chu

Printed with soy ink on recycled paper

AAEOY 2012

Congratulatory Letter

Martin Heinrich

United States Congressman – New Mexico

MARTIN HEINRICH
FIRST DISTRICT, NEW MEXICO

THE CAPITOL
336 CANNON HOUSE OFFICE BUILDING
WASHINGTON, D.C. 20515
(202) 225-6316

DOWNTOWN ALBUQUERQUE
505 MARQUETTE AVENUE NW, SUITE 1605
ALBUQUERQUE, NM 87102
(505) 346-6781

SOUTH VALLEY
3211 COORS BOULEVARD SW, SUITE B3
ALBUQUERQUE, NM 87121
(505) 877-4069

Congress of the United States
House of Representatives

COMMITTEE ON ARMED SERVICES
SUBCOMMITTEE ON STRATEGIC FORCES
SUBCOMMITTEE ON TACTICAL AIR AND LAND FORCES

COMMITTEE ON NATURAL RESOURCES
SUBCOMMITTEE ON ENERGY AND MINERAL RESOURCES
SUBCOMMITTEE ON NATIONAL PARKS, FORESTS AND PUBLIC LANDS

HEINRICH.HOUSE.GOV

March 3, 2012

2012 Asian American Engineer of the Year Award Banquet
c/o Dr. Eliot Fang and Dr. Yung Sung Cheng, Co-Chairs
Chinese Institute of Engineers-USA
P.O. Box 51507
Albuquerque, NM 87181

Dear Participants in the AAEOY Award Banquet:

Thank you for your contribution to this important event and for your role in advancing our nation's leadership in innovation. As one of the few members of Congress with a background in science and engineering, I have a deep appreciation for the role of innovation in addressing our nation's greatest challenges, including our economic recovery, energy independence, national defense, and health technology.

Thanks to leaders like the Chinese Institute of Engineers-USA, we are able to achieve many world class engineering advancements right here in New Mexico. The recipients of the Asian American Engineer of the Year award are a testament to our state's prominent role in helping our nation to compete in the 21st Century. I also appreciate your invaluable efforts to mentor future generations of world-class engineers through your work in Science Technology Engineering and Math programs in our state.

On behalf of the constituents of New Mexico's First Congressional District, I congratulate tonight's honorees and I thank you for your vital service to our nation. Please don't hesitate to let me know how I can be of service to you or the Chinese Institute of Engineers – USA. It would be an honor to do so.

Sincerely,

MARTIN HEINRICH
Member of Congress

MH/jrb

PRINTED ON RECYCLED PAPER

Congratulatory Letter

Judy Chu, Ph.D

United States Congresswoman – California

Congress of the United States
Washington, DC 20515

March 3, 2012

Asian American Engineer of the Year 2012
PO Box 51507
Albuquerque, NM 87181

Dear Friends,

It is with great enthusiasm that I extend a warm welcome to all those who have gathered at the 2012 Asian American Engineer of the Year (AAEOY) Award Program hosted by The New Mexico chapter of The Chinese Institute of Engineers-USA.

Since 2002, the AAEOY Award Program has brought together experts in corporate and government entities to recognize outstanding Asian American professionals in science and engineering for their technical achievements and public service. The winners of AAEOY Awards represent a shining light in the Asian American Engineering and Science community.

I would like to commend tonight's award recipients: Dr. Alice Huang, a Senior Faculty Associate in Biology at Caltech, for the Distinguished Lifetime Award and Dr. Venkatesh Narayanamurti, a Benjamin Peirce Professor of Technology and Public Policy at Harvard University, for the Distinguished Science and Technology Award. I commend both Dr. Huang and Dr. Narayanamurti for proudly representing the Asian American community with their contributions in their respective fields. Their achievements will have impact Asian American engineers and scientists for many generations to come.

On behalf of the House of Representatives, I extend my congratulations and best wishes for your continued success.

Sincerely,

Judy Chu

JUDY CHU, Ph.D.
Member of Congress

PRINTED ON RECYCLED PAPER

AAEOY 2012

Congratulatory Letter

Michael M. Honda

United States Congressman – California

MICHAEL M. HONDA
15TH DISTRICT, CALIFORNIA

March 2, 2012

Message from Congressman Mike Honda
Congratulating the Chinese Institute of Engineers-USA for the
2012 Asian American Engineer of the Year Award Program

Dear Friends,

It is with great pleasure that I extend my heartfelt congratulations to the Chinese Institute of Engineers-USA for the 2012 Asian American Engineer of the Year Award Program in Albuquerque, NM. I would like to recognize CIE-USA's dedication in promoting science, technology, engineering, and mathematics (STEM) within the Asian American Pacific Islander (AAPI) community.

As a former science teacher and STEM advocate in the United States Congress, I would especially like to honor the achievements of this year's distinguished awardees, for they truly serve as models for both engineers and scientists as well as the AAPI community as a whole. Through their professional achievements and public service, tonight's awardees are a testament of the progress that we have made over the years in advancing and uplifting the AAPI community in all sectors of society.

As Chair Emeritus of the Congressional Asian Pacific American Caucus, I congratulate CIE-USA's for all of its accomplishments and service to the AAPI community and nation in general. I wish you all the best as you celebrate another successful AAEOY Award Program.

Warm regards,

Michael M. Honda
MEMBER OF CONGRESS

NOT PRINTED AT GOVERNMENT EXPENSE

Congratulatory Letter

Doris O. Matsui

United States Congresswoman – California

HOUSE OF REPRESENTATIVES
WASHINGTON, D. C. 20515

DORIS O. MATSUI
5TH DISTRICT, CALIFORNIA

March 3, 2012

Dear Friends:

It is my pleasure to welcome you to the 2012 Asian American Engineer of the Year Awards.

Since 2002, the Chinese Institute of Engineers – USA has recognized 160 outstanding leaders in the field of engineering. The incredible technical and public service achievements demonstrated by previous recipients place this year's awardees in an impressive club of Nobel Laureates, academics, and community leaders. It is this drive to excellence that makes each of the honorees a role model and example to Asian American engineers and scientists across the country.

I extend my warmest and heartfelt congratulations to all of this year's awardees who have brought distinction to the fields of science and engineering. In particular, I would like to recognize Dr. Alice S. Huang, Ph.D. for being awarded the Distinguished Lifetime Achievement Award and Dr. Venkatesh Narayanamurti for being awarded the Distinguished Science and Technology Award.

Thank you for allowing me the opportunity to extend my greetings to the attendees of tonight's ceremony. Please accept my best wishes for what I am sure will be an exciting and inspirational night.

Sincerely,

Doris O. Matsui

DORIS O. MATSUI
Member of Congress

NOT PRINTED AT GOVERNMENT EXPENSE

AAEOY 2012

Congratulatory Letter

Steve Austria

United States Congressman – Ohio

HOUSE OF REPRESENTATIVES
WASHINGTON, DC 20515

STEVE AUSTRIA
SEVENTH DISTRICT, OHIO

AAEOY 2012
PO Box 51507
Albuquerque, NM 87181

Dear Sir or Madame,

On behalf of Ohio's Seventh Congressional District, I would like to take this opportunity to personally congratulate the Chinese Institute of Engineers for hosting the 2012 Asian American Engineer of the Year Awards. For the last eleven years, the Chinese Institute of Engineers have honored the achievements of almost two-hundred Asian American engineers from leading U.S. technology corporations and prominent research institutions by hosting this prestigious event.

I would also like to congratulate the special guests and attendees that are being honored at this year's banquet. The contribution that all of you have made to our society is unmatched, and this award ceremony is an opportunity for others to recognize the outstanding accomplishments of Asian American engineers. I hope that you continue to remain a source of inspiration for Asian Americans and a role model to engineers and scientists throughout the country.

The people of Ohio's Seventh Congressional District and I extend our best wishes for your ongoing success.

Sincerely,

Steve Austria

Steve Austria
Member of Congress

Congratulatory Letter

Richard J. Berry

Mayor of Albuquerque

CITY OF ALBUQUERQUE

March 3, 2012

To The Celebrants of the 2012 AAEOY Awards

Greetings:

On behalf of the people and the City of Albuquerque, I extend my warmest welcome to the awardees and guests of the 2012 Asian American Engineer of the Year Award ceremony and banquet.

The event is the culmination of the efforts of the New Mexico Chapter of the Chinese Institute of Engineers – USA, sponsors, volunteers and community organizations, all working together to recognize the significant contributions of Asian American engineers and scientists to the nation and to the world. The goal of this effort is to inspire the next generation of innovators.

Please enjoy your time in Albuquerque and the Land of Enchantment during this Centennial Celebration of the Statehood of New Mexico.

Again, congratulations and welcome to Albuquerque.

Best Regards,

Richard J. Berry
Mayor

RJB:dl

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Albuquerque - Making History 1706-2006

AAEOY 2012

2012 Award Program

4:00 PM	VIP Reception	Chui Fan Cheng
5:15 PM	Banquet Seating	
5:50 PM	Emcee's Welcome	Anita Wong and Cliff Ho
	Color Guards	
	National Anthem	Linda Hao
6:00 PM	AAEOY Chair's Remarks	Eliot Fang
	Congratulatory Letters	
	Dinner	
7:00 PM	Keynote Speech	Paul Hommert
7:15 PM	Award Presentation-Part I	
8:00 PM	Distinguished Awards	
	Lifetime Achievement	Dr. Alice Huang
	Science & Technology	Dr. Venkatesh Narayanamurti
8:40 PM	Award Presentation-Part II	
9:25 PM	Closing Remarks	Yung Sung Cheng
	2013 AAEOY Announcement	
9:30 PM	Farewell	

2012 AAEOY Awardees

Distinguished Lifetime Achievement Award
Dr. Alice S. Huang

Distinguished Science & Technology Award
Dr. Venkatesh Narayanamurti

Lockheed Martin
Iris Fujiura Bombelyn - Executive of the Year
Dilip S. Gokhale - Engineer of the Year
Tommy Lam - Engineer of the Year

United States Navy
Allen G. Lim - Engineer of the Year
Jae-Yoo Ko - Engineer of the Year

IBM
Chung-Lung Kevin Shum - Engineer of the Year

NASA Glenn Research Center
Dr. Dongming Zhu - Engineer of the Year

Texas Instruments
Dr. Wai Lee - Engineer of the Year

Boeing
Liem W. Vu - Executive of the Year
Dr. Tony Y. Torng - Engineer of the Year
Dr. Parthasarathy Ramanujam - Engineer of the Year

United States Army
Dr. Ruth C. Cheng - Engineer of the Year
Dr. Linda M. Hihara-Endo - Engineer of the Year

Northrop Grumman
Kathy Moon - Engineer of the Year

Sandia National Laboratories
Dr. Hongyou Fan - Engineer of the Year
Dr. Ming Lau - Engineer of the Year
Dr. Rekha Rao - Engineer of the Year

AAEOY 2012

Keynote Speaker

Dr. Paul Hommert

President and Laboratories Director
Sandia National Laboratories

Dr. Paul Hommert is the director of Sandia National Laboratories and president of Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, which operates Sandia for the U.S. Department of Energy's National Nuclear Security Administration. Sandia has principal sites in Albuquerque, New Mexico, and Livermore, California, an annual budget of $2.4 billion, and approximately 9,100 employees.

Dr. Hommert began his career with Sandia in 1976 and progressed from being technical staff to holding positions of increased responsibility in a broad range of programs and management assignments. He initially led programs supporting energy research, and from the mid-to late-1990s, he was director of engineering sciences.

From 2000 to 2003, Dr. Hommert was the director of Research and Applied Science at the Atomic Weapons Establishment in the United Kingdom, where he led the science and engineering organization responsible for the United Kingdom's nuclear deterrent.

From 2003 to 2006, Dr. Hommert led the Applied Physics Division at Los Alamos National Laboratory. The division was responsible for nuclear weapon design and assessment, weapon performance code development, and weapon science support.

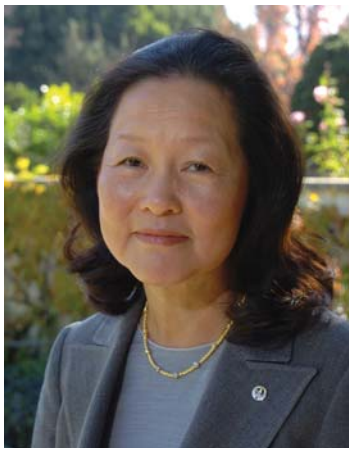
In 2006, Dr. Hommert returned to Sandia to become vice president of Sandia's California site, a position he held until 2009. In 2009, Dr. Hommert returned to Sandia's main site in Albuquerque, where he became executive vice president and deputy Laboratories director for the Nuclear Weapons Program.

Dr. Hommert earned a B.S. degree cum laude in mechanical engineering from Rensselaer Polytechnic Institute and M.S. and Ph.D. degrees in mechanical engineering from Purdue University. He received an Outstanding Alumnus Award for Professional Excellence in 2003 from Purdue's School of Mechanical Engineering and a Distinguished Engineering Alumni Award in 2010 from Purdue's College of Engineering.

Distinguished Lifetime Achievement Award

Dr. Alice S. Huang

Senior Faculty Associate in Biology
California Institute of Technology



Citation of Accomplishment

> ***For original discoveries in virology; prominent leadership in medicine, science & technology policy, education and professional societies, the advocacy for women and minorities in science and the practice of science diplomacy as a force in international collaboration and for excellence in the practice of science.***

Dr. Huang was one of the pioneering researchers in animal virology in the 1960s. She introduced vesicular stomatitis virus as an experimental system and was the first to separate from the standard virus a class of defective interfering (DI) particles. She demonstrated the ability of DI particles to inhibit viral spread, suggesting novel approaches to the prevention of viral transmission and virulence. She carried out many of the initial investigations of viral replication and macromolecular synthesis. Her work on the virion-associated ribonucleic acid dependent (RNA) polymerase with Baltimore led to the discovery of other virion-associated polymerases such as the reverse transcriptase. Her studies on pseudotypes, especially between RNA and deoxyribonucleic acid viruses, demonstrated the spread of viruses to new host cells; as well it provided important tools for genetic engineering.

As an administrator, Dr. Huang was instrumental in providing the vision and obtaining the support for beginning what is now known as "silicon alley" around the NYU neighborhood. She had national responsibility as the elected president of both the American Society of Microbiology and the American Association for the Advancement of Science, two of the largest scientific societies in the world. She also dedicated 18 years to shepherding the nascent Institute of Molecular Cell Biology, together with Brenner and Tan, into a successful center of research in what is now known as the Biopolis in Singapore. She continues to consult with research institutions and governments, sharing her expertise and practicing science diplomacy.

Throughout her career she has advocated for women in science. She encourages thoughtful approaches to reforms in teaching to attract students with diverse backgrounds and interests to become interested and committed to careers in science. She is a prominent model for later generations.

AAEOY 2012

Distinguished Science and Technology Award

Dr. Venkatesh (Venky) Narayanamurti

Director
Science Technology and Public Policy Program
Harvard Kennedy School

Citation of Accomplishment

For developing and advancing the field of phonon optics, the manipulation of monoenergetic acoustic beams at terahertz frequencies, and work in semiconductor nanostructures, as well as his visionary leadership, mentoring and entrepreneurial spirit in science & technology which resulted in numerous interdisciplinary initiatives and collaboration.

Venkatesh "Venky" Narayanamurti was born in Bangalore, India in 1939. He earned his bachelor's and master's degrees in physics in 1958 and 1960, respectively, from St. Stephen's College, Delhi University. Narayanamurti earned his Ph.D. in physics from Cornell University in 1965.

From 1968 to 1987, he worked at AT&T Bell Laboratories. In 1976, he became head of the Semiconductor Electronics Research Department and from 1981 to 1987 served as Director of the Solid State Electronics Research Laboratory. On assignment from Bell Labs, he then became vice president of research and exploratory technology at Sandia National Laboratories, serving in that role from 1987 to 1992. In 1992 he became a Richard A. Auhll Professor and Dean of the College of Engineering at the University of California, Santa Barbara, where he served from 1992 to 1998.

Narayanamurti then was appointed as dean of engineering and applied sciences at Harvard. During his 10-year term, he directed the renewal and expansion of Harvard's engineering and applied sciences programs and their eventual transition to a School.

He is credited with developing the field of phonon optics, the manipulation of monoenergetic acoustic beams at terahertz frequencies, and he is currently active in the field of semiconductor nanostructures.

Narayanamurti is currently the Director of the Science, Technology and Public Policy Program at the Harvard Kennedy School. He is also the Benjamin Peirce Professor of Technology and Public Policy and a Professor of Physics at Harvard.

He is an elected member of the National Academy of Engineering, the Royal Swedish Academy of Engineering Sciences, and the American Academy of Arts and Sciences. He is a fellow of the American Physical Society, the American Association for the Advancement of Science, the Institute of Electrical and Electronics Engineers, and the Indian Academy of Sciences.

Narayanamurti is married and is the father of three children. His recreational loves are running, squash, and his home on Cape Cod, where he relaxes or finds *shanti* by reading, catching up on research, and listening to music.

Asian American Executive of the Year

Iris Fujiura Bombelyn

Vice President
Manufacturing Space Systems
Lockheed Martin Corporation

Citation of Accomplishment

> ***Sustained executive leadership in the manufacturing of critical hardware and components in the field of satellite and space craft production.***

Iris Fujiura Bombelyn's parents encouraged her to "be the best person you can be." As a result, Iris excelled in school, was president of her high school Honor Society, and became the first in her family to graduate from college. When the time came to choose a major, Iris considered English, journalism or engineering. In response to her father's suggestion, "Well kid … engineers eat," Iris earned her engineering degree from Washington State University.

Since 2010, Iris has served as the Vice President of Manufacturing for Lockheed Martin Space Systems Company where she is responsible for the flawless build and operation of all Lockheed Martin satellites. This position is a culmination of a twenty-seven year career in aerospace where Iris has achieved positions of greater breadth and responsibility.

Throughout her career, Iris made a commitment to advising and sharing lessons learned to early career engineers and new leaders. In addition to serving as a mentor to several Lockheed Martin employees, Iris mentors college students through MentorNet, an e-mail mentoring network to encourage diversity in engineering and science. Belle Koven, a Harvard University engineering student said, "I have a supportive family, but my relationship with Iris is like having an aunt who understands where I want to go and what I want to do." Raina Simons, an Associate Manager in Manufacturing Engineering adds, "My experience with her has helped me to know that I am only limited by those people and situations . . . that try to impose those limitations on me."

Iris holds a MBA from the Massachusetts Institute of Technology Sloan Fellows Program. She has completed Lockheed Martin's Senior Leadership Development, Management Strategies, and Leadership Executive Assessment and Development programs. Iris is a member of the Institute of Electrical & Electronics Engineers (IEEE), MentorNet, and MIT Sloan Fellows.

AAEOY 2012

Asian American Engineer of the Year

Dilip S. Gokhale

Lockheed Martin Fellow
Information Systems and Global Solutions
Lockheed Martin Corporation

Citation of Accomplishment

Dilip Gokhale is a well-recognized and sought-after expert in the field of networks and communications, with a focus on SATCOM and satellite systems, always leading his domain with numerous original patents and publications, as well as active participation in professional and industry societies and conferences.

Lockheed Martin Fellow, Dilip Gokhale, has 20 plus years of experience in the area of satellite and wireless communications and networking systems and products. He currently serves as the Chief Domain Technologist for Communications and Networking within IS&GS Defense, where he provides technical leadership in support of pursuits, programs, and internal research and development activities.

His previous positions include co-founder of the ALTIGY, providing key leadership on projects, such as development of technologies for future commercial broadband and mobile satellite systems and Director of the Network and Protocol Development Group. As Chief Engineer on the Astrolink program, he led the overall design and implementation of the core networking elements, earning him the Lockheed Martin NOVA award for technical excellence. He worked for COMSAT Laboratories, starting first as a Member of Technical Staff, serving as Director of Network Technology, then progressing to Vice President, Network Technology. He helped establish a software development subsidiary and served as the Payload Software Lead on the Iridium NEXT concept definition phase. He successfully led the Iridium NEXT Application Software program and met tight customer deadlines. In each position, he played pivotal roles as a leader and as a technical expert.

Mr. Gokhale is known throughout industry for his communications network expertise. Throughout his career, he has provided key leadership on numerous programs and products and has served on industry boards creating standards, publishing papers, and obtaining patents. He is able to translate his technology expertise into new business strategies, clearly communicating them to management.

Since 1986, he has mentored over 150 employees, from entry-level to senior level. He was born in India. He became a naturalized U.S. citizen in 1999. He is married with two college-age children. His outside interests are listening to music, reading books, and traveling.

Asian American Engineer of the Year

Tommy Lam

Qualified Architect and Senior Staff Engineer
Electronic Systems
Lockheed Martin Corporation

Citation of Accomplishment

Sustained vision, leadership, architecture, technical contributions, and mentoring in the antenna, radome, and RF communications fields.

Born in Hong Kong and moved to the U.S to pursue his American dream at age 18, Tommy Lam became a U.S. citizen at 24. Recognized in the defense industry as a leading authority on antennas and radomes, Lam is a Qualified Architect in Lockheed Martin Mission Systems and Sensors (MS2). Serving as a group leader in the Antenna and Radome department for nearly a decade, he has over 25 years of experience in complex antenna system design and development. He has held many leadership roles, served as Principal Investigator for numerous critical Internal Research and Development (IRAD) antenna projects, and pioneered the use of innovative antenna solutions and co-site interference mitigation for complex mission designs. Lam has directly contributed to successful MS2 Electronic Product Line programs, and has been instrumental in major capital projects, including world-class Direction Finding Calibration and Compact Range facilities in MS2 Owego, New York.

A finalist in the Lockheed Martin *Innovate The Future Contest* and recipient of an Innovative IRAD Award, Lam has five patents awarded, three pending, and has published seven papers on antenna and radome-related topics.

An IEEE senior member and participant in several antenna-related societies, Lam frequently serves as a speaker at conferences and expositions. For over 10 years, he has been an advocate for encouraging students to pursue a career in engineering and technology areas. He has overseen senior design projects for the State University of New York (SUNY) Watson Engineering School, mentored over 60 high school students considering an engineering degree, and presented at several educational conferences. He has shared his experience as an Asian American to help young professionals successfully navigate the business world.

Lam holds a B.S.E.E from SUNY Buffalo, is enrolled in the M.S.E.E degree program at NYU/Polytechnic Institute of New York, and is a registered New York state Professional Engineer.

AAEOY 2012

Asian American Engineer of the Year

Allen G. Lim

Principal Assistant Program Manager
Naval Sea Systems Command
Department of the Navy

Citation of Accomplishment

Masterful employment of rigorous system and test and evaluation engineering principles to provide the nation's warfighter with cutting edge undersea systems.

Mr. Lim was born in Manila, Philippines, and arrived in the U.S. at the age of 7 and became a naturalized U.S. citizen at 12 years old. He received his degree in Mechanical Engineering from the University of Maryland, College Park in 1984.

Mr. Lim has over 24 years of experience in the submarine acquisition community. He began his career as an acoustic analyst for the Naval Surface Warfare Center, Carderock Division. He was responsible for the conduct of full-scale submarine acoustic testing for newly delivered submarines.

Mr. Lim joined Naval Sea Systems Command in 1989 where he served as the Submarine Acoustic Trials Program Manager. He was responsible for the O&S of the Southeast Alaska Acoustic Measurement Facility located in Ketchikan, Alaska. Additionally, he was responsible for the conduct of acoustic trials for all U.S. submarines and the acoustic engineering and analysis associated with improving and maintaining submarine acoustic stealth.

In 2001, Mr. Lim joined the SSGN Program Office where he served as the Test & Evaluation (T&E) Manager. He was responsible for the generation and approval of the T&E Master Plan and other critical documents contributing to a successful single Milestone C decision for the program.

In 2003, Mr. Lim joined the SEAWOLF Program Office. He was responsible for T&E aspects associated with the successful delivery of SSN 23 and the successful testing and delivery of the platform's R&D systems.

He currently serves as the Principal Assistant Program Manager for Mission Systems with the Advanced Undersea Systems Program Office. He is responsible for the acquisition and life cycle management of classified submarine R&D systems.

He is very active in his community and church. He enjoys coaching youth sports and serving as a Youth leader in the Boys Stockade of Christian Service Brigade.

Asian American Engineer of the Year

Jae-Yoo Ko

Deputy Assistant Program Manager for Construction
Naval Sea Systems Command
Department of the Navy

Citation of Accomplishment

Sustained leadership and programmatic contributions in the design, development, and delivery of superior warfighting capabilities into the U.S nuclear attack submarine force of the future.

Mr. Jae-Yoo Ko is the Deputy Assistant Program Manager responsible for delivery and Navy acceptance of VIRGINIA Class submarines in the Program Executive Office, Submarines in the Naval Sea Systems Command. Mr. Ko is considered a subject matter expert in the test, certification, and construction of U.S. Navy nuclear submarines.

His career accomplishments include the development and advancement of many technology augmented submarine design and construction initiatives intended to extensively enhance platform capability. He is a certified Submarine Safety Auditor with detailed technical acumen in the application of Special Operations Forces mobility integral to the VIRGINIA Class mission profile. His foresight, exceptional planning ability, in-depth expertise of submarine operations and extensive knowledge of ship system design and acceptance processes were major contributions in the initial fielding of the first fully submarine capable Fly By Wire ship control system for submerged operations. Previously, Mr. Ko was designated as the Lead Engineer for design and application of various ship auxiliary systems spanning numerous submarine classes.

Mr. Ko's programmatic and technical contributions to the 2004 delivery of the USS VIRGINIA (SSN 774) were exceedingly valuable in enabling the U.S. Navy to take acceptance of the lead ship of the first submarine class authorized for construction in over a decade. This accomplishment earned Mr. Ko and the entire VIRGINIA Class Program Office the David Packard Excellence in Acquisition award.

In 2009 Mr. Ko was recognized with both the Team Submarine and the Naval Sea Systems Command Individual Excellence awards for his leadership in the delivery of USS MISSOURI (SSN 780) 9 months ahead of schedule and significantly below the negotiated contract cost.

Mr. Ko is community minded, active with his family in many civic outreach programs including local community centers, schools and Habitat for Humanity. He is a longtime platelet donor with 150 donations.

Mr. Ko received his Bachelor of Science degree from Worcester Polytechnic Institute in Mechanical Engineering in 1982. He received his Master's in Science from Yale University in Applied Sciences in 1987.

AAEOY 2012

Asian American Engineer of the Year

Chung-Lung Kevin Shum

Senior Technical Staff Member
IBM Corp

Citation of Accomplishment

Sustained leadership and innovation in commercial high-performance microprocessor microarchitecture and cache subsystems.

Chung-Lung Kevin Shum is a Senior Technical Staff Member in the IBM Poughkeepsie System and Technology Group. Kevin was born in Hong Kong and grew up there until entering college. He received his B.S. degree in electrical engineering from Columbia University, New York in 1987 with distinction, and then his M.S. degree in electrical engineering from the same school in 1988.

He has been with IBM since graduation, working in the development of various IBM System z's microprocessors. From 1988 till 1997, he worked on different functional units inside the processor team assuming various duties in parallel from logic to timing to physical design and verification. Later, from 1997 to 2002, Kevin became the lead architect and design lead for processor cache units on the IBM z900 and z990 processors. After 2002, Kevin became the chief processor architect and was the design lead for the System z10 processor core.

Through the various projects, he was instrumental in driving the processor design forward with many of his innovations. Kevin holds over 30 patents and has been an IBM Master Inventor since 2009. He has many more patents filed and in pending state, and even more patents in the pipeline to be filed. He is well-known to all who worked with him to be very approachable and knowledgeable.

Kevin is a proactive mentor. He works closely with new designers and coaches them along on both technical and career aspects of their jobs. His mentees include designers both in the IBM Poughkeepsie lab as well as overseas in the IBM Germany lab. Externally, he is also active in participating engineering week activities by visiting local elementary schools to promote interests in Science and Engineering as well as technical judging in local schools.

Asian American Engineer of the Year

Dr. Dongming Zhu

Materials Research Engineer
NASA Glenn Research Center

Citation of Accomplishment

> ***Sustained significant contributions and innovation in ceramic coating development for aircraft engine hot section materials.***

Dr. Dongming Zhu is a senior materials research engineer at NASA Glenn Research Center.

He is an internationally recognized leader in the area of turbine engine coating technology with over 15 years of professional experience. He has led the development of new environmental barrier coatings for future generations of turbine engines, and he has also led the development of advanced laboratory test techniques for evaluating performance of advanced turbine engine coatings.

Dr. Zhu holds five patents on thermal and environmental barrier coating development. He has authored 51 journal papers, 88 conference papers and reports, and 14 edited books on topics of coatings development, ceramic fatigue and fracture, high-temperature oxidation, and erosion and wear. He is Chair of the Engineering Ceramics Division of the American Ceramic Society. He has served as a Symposium Chair/Organizer for the International Conference on Advanced Ceramics and Composites since 2001, and he served as Program Chair in 2007. He has served as an associate editor for the American Ceramic Society's International Journal of Applied Ceramic Technology, a guest editor for the Journal of Thermal Spray Technology, and editor of the Ceramic Engineering and Science Proceedings.

He is a Fellow of the American Ceramic Society. He was recognized in 2007 with an R&D 100 Award as part of a team that developed coatings for silicon-based ceramic turbine engine components. In 2009, he was a recipient of the NASA Exceptional Technology Achievement Medal recognizing his substantial contributions to turbine engine-coating development and technology transfer.

He has served as a mentor to undergraduate student interns and supported high school student shadowing at NASA. He is an active volunteer for the Cleveland Ice Skating Club and the Cleveland Chinese Church, supporting Bible study groups and charity activities.

He received his B.S. and M.S. degrees in Materials Science and Engineering from Hefei University of Technology, Hefei, China. He received his Ph.D. in Chemical Engineering and Materials Science from the University of Minnesota.

AAEOY 2012

Asian American Engineer of the Year

Dr. Wai Lee

Chief Technologist and TI Fellow
Texas Instruments

Citation of Accomplishment

Sustained technical contribution and leadership in the development of integrated circuits for mobile phones, high-speed internet infrastructure, and energy-efficient home entertainment systems.

Dr. Wai Lee is a TI Fellow at Texas Instruments and the Chief Technologist for the company's Audio, Imaging, and Sensor Products business.

Over the last 25 years, Wai has made significant contributions to the semiconductor industry in several areas: high-frequency hetero-junction bipolar transistors in SiGe and InGaAs material systems, low-power digital signal processing for wireless communication, high-speed integrated CMOS SERDES (SERializer-DESerializer) for networking applications, and high energy-efficient audio power amplifiers.

These contributions have helped the development of mobile phones, high-speed internet, and energy-efficient home entertainment systems. These technologies have had a lasting impact on modern society and the ways of life of the human kind.

Wai has readily shared his knowledge and experience with other engineers through numerous journal publications and conference presentations. He has authored and co-authored about 40 journal publications in IEEE and APS journals. He has given over 20 conference presentations at various IEEE conferences as well as given invited talks at leading universities around the world, including MIT and Tsinghua University.

Wai has also served on technical program committees for a number of premium international conferences, including International Solid-State Circuit Conference (ISSCC) and VLSI Circuit Symposium.

Wai earned his S.B., S.M., and Ph.D. in Electrical Engineering from the Massachusetts Institute of Technology. His doctoral dissertation was on "The Fabrication and Characterization of InGaAs/InAlAs Heterojunction Bipolar Transistors."

In the community, Wai has served as a mentor to many young engineers, especially engineers of Asian descent. He participates in and contributes to fund-raising events for charitable organizations, including the United Way and Make-a-Wish Foundation. He also serves as an assistant ride leader for the Plano Bicycle Association, which promotes safe cycling in Plano, TX and builds/donates bicycles for disadvantaged children in the community.

Asian American Executive of the Year

Liem W. Vu

Senior Manager
Boeing Defense, Space & Security
The Boeing Company

Citation of Accomplishment

> ***Liem Vu has demonstrated sustained leadership and engineering contributions in the development of avionics, software, weapons systems, test facilities and training simulators in support of military aircraft programs and combat systems.***

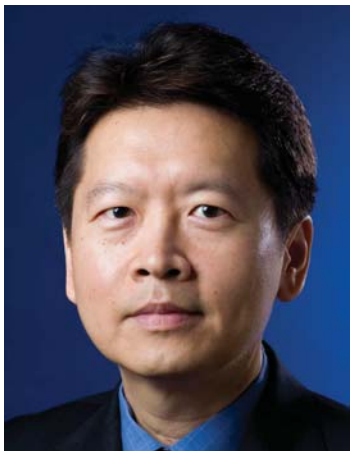
Liem Vu is a senior manager with the C-130 AMP – Mission System Integrated Product Team (IPT) within Boeing Defense, Space & Security. He currently manages the software, avionics and system integration facility IPTs, which together comprise a majority of the engineering development team for the C-130AMP (Avionics Modernization Program). His team recently completed flight testing and delivered two aircraft to the U.S. Air Force. Under Vu's leadership, the program is exceeding customer expectations by demonstrating system reliability two to three times better than specified by the contract. Vu also is leading his team through a challenging relocation process to Oklahoma City, Oklahoma. The first phase – moving test lab hardware – was completed per plan.

Vu's career spans more than 30 years at Boeing and McDonnell Douglas. He led development of simulator systems and simulation software for numerous programs, greatly contributing to the success of the C-17, Future Combat Systems and C-130AMP programs.

Vu was born in Viet Nam and came to the United States as a refugee with very limited English. He finished high school in California and went on to study at the University of California, Irvine, earning bachelor's and master's degrees in electrical engineering. In 2009, he completed PMT-401 program manager studies at Defense Acquisition University, part of the Defense Systems Management College in Virginia.

Vu and his wife have three children. He enjoys playing tennis, practicing martial arts, and playing guitar.

AAEOY 2012



Asian American Engineer of the Year

Dr. Tony Y. Torng

Technical Fellow/System Engineer
Boeing Defense, Space & Security
The Boeing Company

Citation of Accomplishment

Dr. Tony Torng, a Technical Fellow for Boeing Defense, Space & Security, is a nationally recognized technical expert and team leader in Probabilistic Reliability-related technologies whose unique thinking leads to innovative solutions for technical challenges.

Dr. Tony Torng is a Technical Fellow and System Engineer in the Network & Tactical Systems group of Boeing Defense, Space & Security. He directs and manages numerous technology contracts and research and development projects, and oversees the Probabilistic Analysis and Design (PAD) team for the Boeing enterprise.

Dr. Torng is a nationally recognized technical expert in Probabilistic Reliability-related technologies with in-depth knowledge in Probabilistic Analysis and Design, Reliability and Maintainability, Probabilistic Risk Assessment, System Health and Engineering Mechanics.

His experience and expertise in developing computational engineering tools have made him a nationwide expert frequently called upon to solve technical challenges. He has demonstrated unique thinking which leads to innovative solutions. His ability to write, present, and converse at various technical levels, both inside and outside the company, have been important factors in his many success.

Torng received a bachelor's degree in Naval Architecture from National Taiwan University in Taipei. He also earned a master's degree and Ph.D. in Mechanical Engineering from the University of Arizona. Torng has one patent, three patent disclosures, and has written more than 90 technical papers.

Torng enjoys sharing his technical knowledge with peers, mentoring young engineers and volunteering in his local community. Torng is a founding member and current president of the Southern California chapter of the Chinese Institute of Engineers and a past president of the Society of Chinese American Aerospace Engineers. Torng has developed and taught an eight-session short course on Probabilistic Analysis and Design.

In his community, Torng promotes literacy through Friends of Diamond Bar Library, and has served on the city's planning and transportation commissions. He has received two community volunteer-of-the year awards. Torng is well-traveled and enjoys exploring the world with his wife and two sons.

Asian American Engineer of the Year

Dr. Parthasarathy Ramanujam

Senior Technical Fellow
Boeing Defense, Space & Security
The Boeing Company

Citation of Accomplishment

> ***Dr. Parthasarathy Ramanujam has made pioneering contributions to communication satellite antenna systems by introducing, improvising and developing shaped reflector technology and authoring the original radio frequency design software, leading to worldwide application of this technology.***

Dr. Parthasarathy Ramanujam is a Senior Technical Fellow with the Antenna and Payload Products organization of Boeing Defense, Space & Security. He is an antenna system architect on many successful business proposals, a key contributor on enterprise electromagnetics projects as well as a recent Sea-based X-band radar antenna analysis, and mentors young engineers in antenna technologies and software.

Ramanujam developed the shaped reflector technology which transformed satellite antennas in the world. He has two dozen patents for his work with antenna systems. He has made significant contributions to communication satellite antenna systems by introducing and developing shaped reflector technology at Boeing and authoring much of the associated original radio frequency design software. This allowed Boeing to be the world leader in this technology in the early 1990s. The more important projects for which Ramanujam has served as key antenna architect include the DIRECTV high def satellites, the 702MP spacecraft product line, Intelsat and Inmarsat 5 satellites, and the 601HP satellites.

Ramanujam received a bachelor's degree in electronics and communication engineering from the University of Madras in India. He also earned a master's degree in microwave and radar engineering and his Ph.D. in electrical engineering from the Indian Institute of Technology. From 1983 to 1987 he was a Postdoctoral Fellow at Queen Mary College in London.

He and his wife have one son, Bharat, who was diagnosed at age 2 with the metabolic disorder HCU (homocystinuria). Bharat has a passion for endangered animals and developed a website on the topic. The family enjoys traveling to national parks, zoos and American history site, including several Civil War sites just this past summer. They have been to more than 30 zoos in the United States and all the American Presidential museums, except two. He and his family are also involved in serving the PKU and Allied Disorders community.

AAEOY 2012

Asian American Engineer of the Year

Dr. Ruth C. Cheng

Research Computer Scientist
Engineer Research and Development Center
U.S. Army Corps of Engineers

Citation of Accomplishment

Transformational impact on the application of computational engineering practice to scientific applications of significant national interest.

Dr. Ruth C. Cheng is an internationally recognized scientist known for her work in coupled models of subsurface, watershed, and coastal flow and transport. Dr. Cheng holds dual doctorates in Civil Engineering (1995) and Computer Science and Engineering (2002) both from Pennsylvania State University. Her reputation and practice are, therefore, based on expertise in both the physics and computational aspects of water resources research.

Dr. Cheng was recruited to the Engineer Research and Development Center (ERDC) in 2002 for the specific purpose of leading and developing the capability for conducting large-scale simulations of coupled flow phenomena. She has largely realized this purpose in a short time, by executing a number of high-profile projects and training a set of scientists and developers.

Dr. Cheng's many projects and assignments result from her pursuit of research and development opportunities and from customer recognition of her expertise. She is frequently sought after as a technical leader for investigations of coupled phenomena and has complete freedom in determining the appropriate technical course of action, as appropriate for a senior principal investigator with a significant research portfolio. Her recommendations and decisions are regarded as authoritative alike by customers, collaborators, and ERDC management.

One of Dr. Cheng's most significant contributions has been the coupling of two previously separated codes to produce accurate modeling of inland flooding due to storm surge. When she first came to ERDC, no one predicted the far-reaching impact of Hurricane Katrina, but there was an understanding that she represented the ability to model a new class of problems involving coupled flow processes. Her ability to couple surface and subsurface flows led quickly and naturally to the coupling of coastal and overland (watershed) flows, which is a new and unique crucially important capability. Her approach is to leave the physics of different codes in place, to understand the physics of the interface, and to develop the software coupling between them. As a testament to the wisdom of her approach, she is well-positioned to lead ERDC into the future study of climate change effects on coastal watersheds.

Asian American Engineer of the Year

Dr. Linda M. Hihara-Endo

Senior Planner/Civil Engineer
Civil Works Integration Division
US Army Corps of Engineers

Citation of Accomplishment

> ***Dr. Hihara-Endo's sustained engineering and planning expertise and leadership in the development of water resources projects throughout the U.S. Pacific Ocean region have significantly contributed in meeting our Nation's water resources priorities by improving the economy, infrastructure, environmental stewardship, and quality of life. Her selfless service reflects great credit upon her, the U.S. Army Corps of Engineers, and the Nation.***

Dr. Linda Hihara-Endo is currently the senior engineer and leader of the U.S. Army Corps of Engineers Planning and Policy team providing water resources engineering and planning expertise to address navigation, flooding, aquatic ecosystem restoration, and water supply needs in the Pacific region. She was an Assistant Professor of Civil Engineering at the University of Hawaii, and has held leadership positions overseeing the U.S. Army Regulatory Program and the Environmental Program at Headquarters, U.S. Army, Pacific.

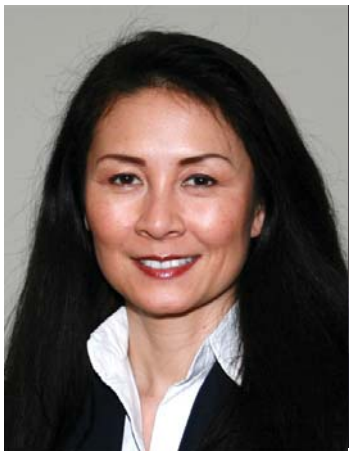
Dr. Hihara-Endo's major accomplishments include receiving the Federally Employed Women's Department of Defense Distinguished Leadership Award, the Institute of Water Resources Team of the Year Award in recognition of her work on the national Planning Model Improvement Taskforce, and the Team Planning Achievement Award for the DeLong Mountain Terminal Vertical Review Team.

Dr. Hihara-Endo was honored to deliver a Spring Convocation Address to the University of Hawaii, College of Engineering graduates and served many years on the University of Hawaii Department of Civil Engineering Industrial Advisory Committee for Accreditation Board for Engineering and Technology (ABET) accreditation. She served as chairperson of the Corps Partnering-in-Education Program and continues participation in outreach and Special Emphasis Program Committee activities to ensure others are afforded opportunities to succeed.

Dr. Hihara-Endo was born and raised in Pearl City, Hawaii, and graduated from the University of Hawaii with a Bachelor of Science degree in Civil Engineering in 1978. She received her Master of Science and Doctor of Philosophy degrees in Civil Engineering from the University of California, Berkeley, in 1979 and 1984, respectively, and is a registered professional engineer in the state of Hawaii.

Dr. Hihara-Endo is married to Dr. Howard Endo, President of SEY Engineers, Inc., and they have three daughters: Ashley (Johns Hopkins University), Nicole (Santa Clara University) and Sara (Iolani School). When not working, she enjoys fishing, hiking, and many outdoor activities.

AAEOY 2012



Asian American Engineer of the Year

Kathy Moon

Chief Architect
Strategic Planning and Enterprise Standards
Northrop Grumman

Citation of Accomplishment

> ***Kathy has established herself as a leader at Northrop Grumman. She coordinated the development of her sector's long-range strategic plan and annual operating plan and works to reduce IT cost and complexity across the corporation.***

Kathy is a highly respected, results-driven leader with over 25 years of diverse experience in high-technology start-up, turnaround, and high-growth companies. She has extensive experience in Systems Engineering, Project Management, Business Development and Business Management. Kathy is a team player with a successful track record of leading cross-functional teams to superior technical and business performances.

Kathy has established herself as a leader within the Enterprise Shared Services (ESS) organization as she coordinated the development of the ESS Long Range Strategic Plan (LRSP) and Annual Operating Plan (AOP), pioneered the approved products process and procedure to reduce the number of information technology (IT) applications within the Northrop Grumman environment, and to leverage license agreements reducing overall cost.

As a Chief Technologist, Kathy supported a sector with a $240M IT budget in providing overall leadership in IT strategic and tactical planning, and technology introduction and integration. She also facilitated the IT organization and sector business partner cross-functional teams to address the use of information technology for business advantage.

As a systems engineer, Kathy led software product development defining and specifying the open system architecture, interface, and definition for the vehicle/system health management software for space vehicles

As a systems architect, Kathy supported managers and Integrated Product Team leads in architecture definition and requirements development for flight software development for the Crew Exploration Vehicle.

Kathy has broad international experience serving as the vice president of business development for companies in Canada, Belgium, and Korea. She has lead mergers and acquisitions for U.S. companies in the rapidly growing field of telecommunications.

Kathy received her B.A. in Mathematics from Occidental College and her M.S. in Computer Science from the University of Southern California. In addition, she has completed executive management programs from Northwestern University Kellogg Graduate School of Management and Stanford University.

Asian American Engineer of the Year

Dr. Hongyou Fan

Principal Member of Technical Staff
Sandia National Laboratories

Citation of Accomplishment

> ***Pioneering contributions to the development of novel synthesis methods and self-assembly processes to fabricate multifunctional nanomaterials for applications in sensing, energy storage, and nanoelectronic applications; for his inspiration and mentoring of next generation of US engineers; and for his continuing community service to K-12 education.***

Dr. Hongyou Fan is a Principal Member of Technical Staff at Sandia National Laboratories where he has worked since 2000. His research focuses on soft self/directed-assembly and engineering of nanostructured materials and elucidation of their structure/property relationship for device integration. Through his research and expertise, he developed innovative cutting-edge technologies in support of Department of Energy (DOE)/Sandia long-term missions and goals and resolved key technical challenges from customers. His work has been recognized by many prestigious internal and external international awards, including the Sandia Laboratory Directed Research and Development Award for Excellence, R&D Magazine R&D 100 Award for technically significant products, the Federal Laboratory Consortium Outstanding Technology Development Award, and a University of New Mexico Mentor Award.

Dr. Fan has authored or co-authored approximately 60 scientific papers, including seven papers for the prestigious journals, *Nature* and *Science,* and six articles that appeared on journal covers. He has over 4,000 total citations and over 20 patents and patent applications. Dr. Fan has delivered many invited lectures at major technical conferences and universities. He has served on the organizing committees and as section chair for many national and international conferences. He is a research-proposal reviewer for major government funding agencies and a technical referee for a list of peer-reviewed journals.

Dr. Fan is actively involved and leads many community service activities with a focus on K-12 education and providing inspiration for the next generation of U.S. scientists and engineers. He managed the Albuquerque Institute of Math and Science High School Intern Program (2009- 2011), which connects high school students with Sandia mentors. For many years, he has served as a mentor and host for students and teachers from the National Science Foundation Research Experiences for Undergraduates program, the NASA Summer High School Apprenticeship Research Program, the DOE Academies Creating Teacher Scientists K-12 Teacher Research Program, and the Sandia STAR High School Intern Program.

Dr. Fan received his B.S. in Chemistry from Jilin University in 1990, M.S. in Polymer Chemistry and Physics from the Chinese Academy of Sciences in 1995, and Ph.D. in Chemical Engineering from the University of New Mexico in 2000.

AAEOY 2012

Asian American Engineer of the Year

Dr. Ming Lau

Senior Manager
Sandia National Laboratories

Citation of Accomplishment

Sustained contributions to stewardship of nuclear weapon systems in the U.S. stockpile.

Dr. Ming Lau first joined Sandia National Laboratories in 1981. He has worked on terrain-aided navigation systems, missile guidance, controls and modeling of complex electro-mechanical systems, and performance analysis of nuclear weapon fuzing systems. Dr. Lau has been a technical manager since 1997, designing components for nuclear weapons and delivering high-precision positioning and pointing systems for commercial and military applications. He was deputy to the Sandia/California vice president and had system engineering responsibilities for one of the nuclear weapon systems in the U.S. stockpile. As a senior manager for 3 years at Sandia/California, he oversees three nuclear weapon system engineering departments and one engineering services department.

Dr. Lau was a member of a 3-year study group, which received the 2005 Leo Szilard Award for Physics in the Public Interest from the American Physical Society. The group was recognized for "work on Boost-Phase Interceptor Systems for National Missile Defense in producing a report that adds physics insight to the public debate." This work received national recognition.

An active parent, Dr. Lau volunteers with local public schools. He organized the gifted and after-school math programs for the Windemere Ranch Middle School. He formed the first Math Olympiad team and taught after school math classes. He was team parent for the cross-country and track teams for 3 years at the Dougherty Valley High School. He set up and ran the timing system at track meets, took and collected photographs to create slide shows for end-of-season banquets, submitted photos for school sports brochures each season, coordinated team fundraising events, and assisted the head coach. He also served on the Dougherty Valley High School advisory board for 1 year.

Dr. Lau received his B.S. from the University of Missouri–Rolla and M.S. and Ph.D. from Stanford University. He received degrees in Electrical Engineering from both schools.

Asian American Engineer of the Year

Dr. Rekha S. Rao

Principal Member of Technical Staff
Sandia National Laboratories

Citation of Accomplishment

Original and sustained contribution to the development of numerical models for improving manufacturing processes while supporting future scientists and public education.

Dr. Rekha S. Rao is a Principal Member of Technical Staff at Sandia National Laboratories where she has worked since graduating from the University of Washington with a Ph.D. in Chemical Engineering in 1990. Dr. Rao received her B.S. degree with honors in chemical engineering from the University of California at Berkeley.

Dr. Rao is a finite-element software developer and analyst for computational fluid dynamics and multiphysics applications, including free- and moving-boundary problems and non-Newtonian fluid mechanics. She has developed and implemented numerical methods for mixed hyperbolic/elliptical systems of equations using discontinuous Galerkin and other specialty methods. She has worked on a variety of projects during her 20+ years at Sandia, including low-level radioactive waste disposal, flow-through porous media, viscoelastic flows, coating flows, polymerizing suspensions for encapsulation, fluid-solid interactions, injection loading of green ceramics, foam process models for encapsulation, mold filling for manufacturing, thermal batteries, and nuclear waste reprocessing. Dr. Rao's work is core to the Sandia mission and has been recognized by many Sandia awards.

Dr. Rao has authored or co-authored over 60 peer-reviewed scientific papers and reports and is one of the principal developers of the GOMA multiphysics code, an award-winning software product that is used at Sandia and many universities and companies. She has given many invited lectures at other government labs and universities. She has a history of service to technical societies such as the Polymer Processing Society, Society of Rheology, and U.S. Association of Computational Mechanics, where she has helped organize meetings and mini-symposia. She serves as a reviewer for several journals and recently served as a guest editor for the International Journal of Numerical Methods in Fluids.

Dr. Rao is active in science education outreach to Albuquerque public schools through the CrossLinks Program, where she does hands-on science teaching to elementary school children. She is an active member and leader at the Siddha Yoga Dham Affiliate of Albuquerque where she has served on the Board of Directors as well as in various other capacities.

AAEOY 2012

2012 AAEOY Executive Committee would like to express its sincere appreciation to the following companies, agencies, institutes, and community organizations for their sponsorship, commitment and support.

Title Sponsors
Boeing
Intel
Lockheed Martin
Sandia National Laboratories

Gold Sponsors
IBM

Silver Sponsors
NASA Glenn Research Center
Northrop Grumman
Texas Instruments

Supporters
Corning Incorporated
Emcore
Lovelace Respiratory Research Institute
National Auto Parts USA

Community Partners
Albuquerque Lodge of the Chinese American Citizens Alliance
Asian American Association of New Mexico
Chinese Culture Center
Explora Science Center and Children Museum of Albuquerque
National Museum of Nuclear Science and History
New Mexico Academy of Science
New Mexico Chinese Association
New Mexico Chinese School of Languages and Arts
New Mexico Museum of Natural History and Science

2012 AAEOY Executive Committee

Chair
Eliot Fang

Co-Chair
Yung Sung Cheng

Secretary
I-Ming Chen

Treasurer
Simwing Gohard

Logistic Committee
Margaret Chu, Theresa Jaw

Nomination Committee
Tze Yao Chu, David Hsi, Cliff Ho, Tammy Sun Strickland

Publicity Committee
David Hsi, John Chow, Margaret Chu, Tze Yao Chu, Tammy Peter

Publication Committee
Yung Sung Cheng, Chui Fan Cheng, Tze Yao Chu, Dahwey Chu, Kechang Yu

Hospitality Committee
Tammy Sun Strickland, Margaret Chu, Shivonne Haniff, Tian Ma, Pin Yang, Jieru Yu

Fundraising Committee
Chui Fan Cheng, David Hsi, Sylvia Saltzstein, Anita Wong, Jin Wu

IT/Registration Committee
Lin Ye, Dexin Li, Jin Wu, Ye Yang, Yi Yang, Wei Zhou

Program Committee
Leo Jaw, Tze Yao Chu, James Chen, Han-Min Chang

Technical Tour
Tammy Sun Strickland, Pin Yang

Production
Gary Shepherd, Robert McInteer

Seminar
Yifeng Wang, Pengchu Zhang

Cultural Tour
Anita Wong, Mei Cheng

Information Booth
Beiling Liu

Command Center
Yue Zhou

AAEOY 2012

About CIE-USA

Chinese Institute of Engineers-USA is a professional non-profit and non-political organization founded in 1917 in New York by a group of talented and forward-looking Chinese engineers who graduated from U.S. colleges and worked in the railroad and other industries. On July 15, 1953, the United States chapter was reinstated as the independent entity known as CIE-USA and its activities engaged members from all parts of the U.S.

Chinese American engineers in the United States have played a significant role in the growth of science and technology throughout the U.S. To coordinate the professional activities and organizations in the major metropolitan regions of the US, the National Council of CIE-USA was formed in November 1986. The Council consists of seven chapters and they are Great New York, San Francisco Bay Area, Seattle, Dallas-Fort Worth, New Mexico, OCEESA (Oversea Chinese Environmental Engineers and Scientists Association) and Southern California. More information is available at ***http://www.cie-usa.org*** website.

2012 National Council

National Council Officers

Chair - *Yung Sung Cheng*

Vice Chair - *David Kao*

Treasurer - *Su-Syin Chou*

Exec Secretary - *Lin Ye*

National Council Representatives

Dallas-Fort Worth: *Grace Tyler, David Kao, Thomas Wu, J. C. Chiao, Julius Chiang, Qing Zhao*

New York: *Rong N. Chang, Shu-Ping Chang, Allen C. Chen, Jun-Min Liu, Lurng-Kuo Liu, Zon-Yin Shae*

New Mexico: *Lin Ye, Chui Fan Cheng, Yung Sung Cheng*

OCEESA: *Charles Cheng, David Shaw, Jeff Kuo*

San Francisco: *John Xie, Richard Yau, Wen C. Wang, David Fong, Barry Lin, Larry Wang*

Seattle: *Kai Wang, H.F. Huang, Michael Li, James Lee, Wen Lee, Jiin Chen*

Southern California: *Tony Torng, Gordon Wei, John Qiang Zhou*

National Council Advisors

Y. C. Yang, David Fong, Wen Lin, John C. P. Huang, Yung Sung Cheng, James Lee, Thomas Wu, Jiin Chen

2011 AAEOY Seattle

2011 AAEOY Canadian Senator Vivian Po and NC Chair Jiin Chen

2011 AAEOY keynote speaker Jim Baugh

2011 AAEOY Seattle

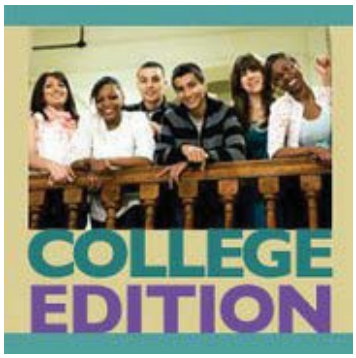
2011 AAEOY Distinguished Science and Technology Awardee and Nobel Laureate, Dr. Ei-ichi Negishi

2011 AAEOY all Awardees

EWeek – National Future City Competition CIE-USA Sponsors "The Best Residential Zone Award" (2002-2012)

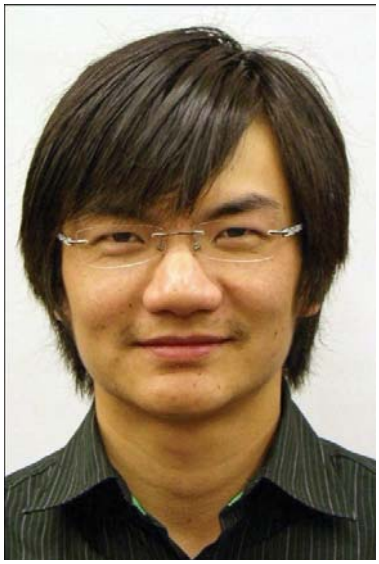
The National Engineers Week (EWeek) Future City Competition is the only engineering program of its kind for 7th and 8th graders and their teachers. Future City students design and build creative, hand-on solutions to real-world issues in urban, rural and suburban communities. Students and educators team with engineer-mentors to create computer and 3D models. They are able to compete in regional and national contests.

Dr. Jun-Min Liu of CIE-USA (back row) presented the Best Residential Zone Award to the winner team - Southern Nevada Middle School.



National Engineers Week 2012

New Face of Engineering- College Edition

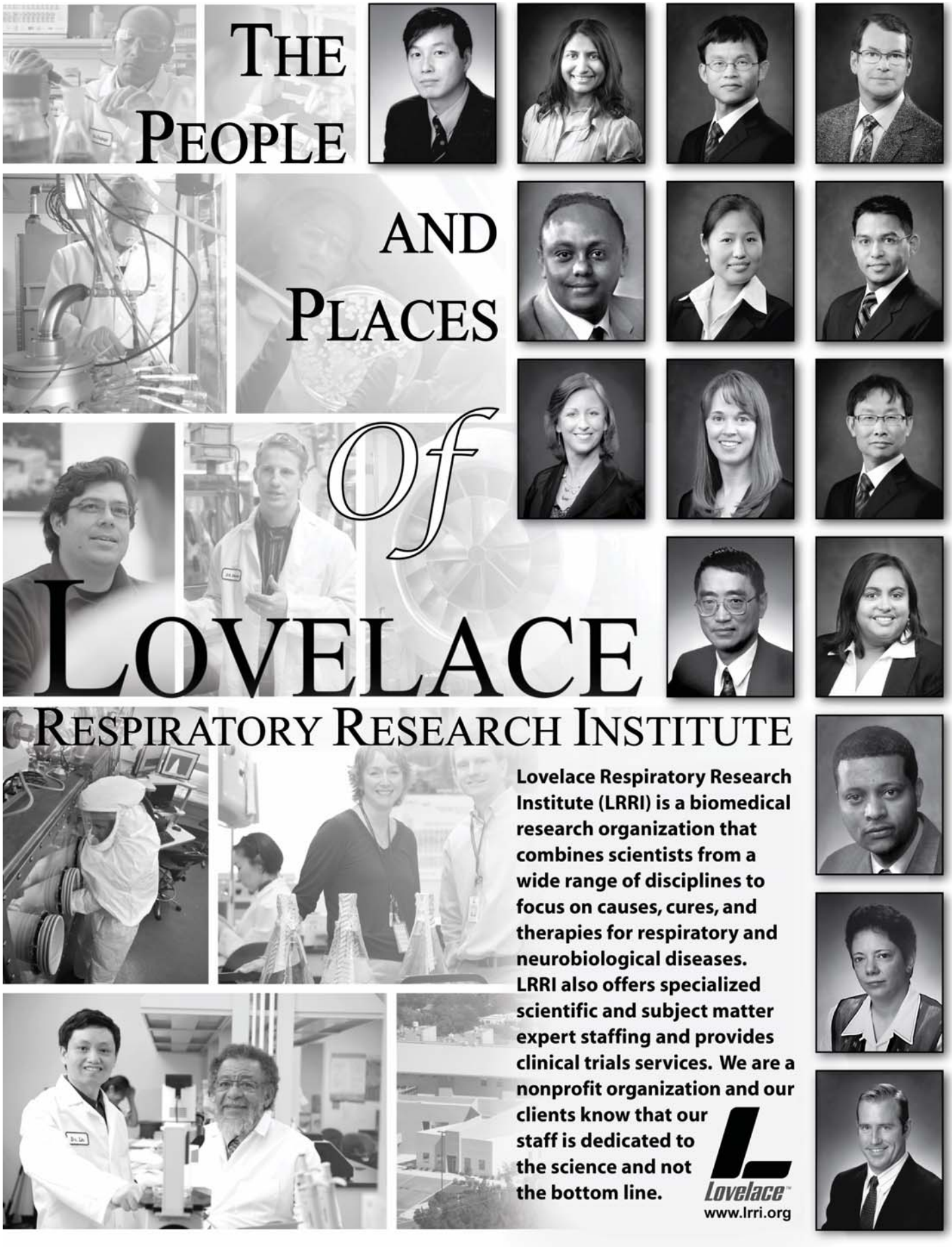


Charles Y. Shi

Ph.D. student
Materials Science and Engineering
UC Berkeley

Young Chinese Institute of Engineers
Co-founder and President

Charles is interested in the entrepreneurial side of engineering - transforming concepts into tangible products that change lives.


THE PEOPLE AND PLACES Of LOVELACE
RESPIRATORY RESEARCH INSTITUTE
Lovelace Respiratory Research Institute (LRRI) is a biomedical research organization that combines scientists from a wide range of disciplines to focus on causes, cures, and therapies for respiratory and neurobiological diseases. LRRI also offers specialized scientific and subject matter expert staffing and provides clinical trials services. We are a nonprofit organization and our clients know that our staff is dedicated to the science and not the bottom line.
Lovelace
www.lrri.org

Let's build a Smarter Planet.

On a Smarter Planet, almost anything can be instrumented, interconnected and infused with intelligence. For over 100 years, we've strived to provide all our clients with innovative solutions for their business needs, through our deep industry expertise, business insights and proven technology leadership. Because as we move towards a globally integrated economy and society, we find ourselves at a moment of enormous challenge – and of great opportunity.

Let's build a Smarter Planet.

ibm.com/smarterplanet

P26561

AAEOY 2013

A tribute to the most distinguished Asian American engineers
Hosted by CIE/USA – Dallas/Fort Worth Chapter
http://www.cie-dfw.org/

Asian American Engineer of the Year Award, 2013 - Dallas, TX

When was the last time you invented the latest technology?
For U.S. Department of Defense military personnel and civilian employees, it's a regular affair.

The issues affecting our national defense today are tied closely to STEM-related fields!

From the latest radar systems and ship designs to satellites and cyberwarfare, fields related to Science, Technology, Engineering and Math (STEM) are at the forefront of the today's Department.

Demand for high-quality talent is only growing.

NOW HIRING!

Nearly 250,000 military and civilian positions in STEM

For more information on civilian DoD jobs : www.godefense.com

Or for military jobs, visit our military sites:

ARMY
http://www.goarmy.com/careers-and-jobs.html
NAVY
http://www.navy.com/careers/
MARINE CORPS
http://www.marines.com/#default
AIR FORCE
http://www.airforce.com/careers/#

Office of Diversity Management and Equal Opportunity (ODMEO), U.S. Department of Defense (DoD)
odmeo.osd.mil

HONORING ACHIEVEMENT
IS ALWAYS AN HONOR.

Iris Fujiura Bombelyn
Vice President, Manufacturing
Asian American Executive of the Year

Asian American Engineer of the Year Awardees

Hongyou Fan, PhD
Principal Member, Technical Staff

Dilip Gokhale
Lockheed Martin Fellow

Tommy Lam
Qualified Architect
Senior Staff Engineer

Ming Lau, PhD
Senior Manager

Rekha Rao, PhD
Principal Member, Technical Staff

lockheedmartin.com/how

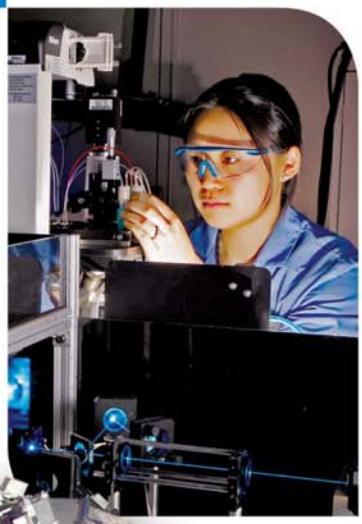
THIS IS HOW

Lockheed Martin's 66,000 engineers and scientists are driven to deliver solutions to the toughest problems. We congratulate six of them for being recognized as Asian American Engineers of the Year.

The men and women of Lockheed Martin commend you for your achievements, and thank you for your dedication to excellence and innovation.

LOCKHEED MARTIN

World-changing technologies.
Life-changing careers.



It's our people who impact lives through technology.

Sandia is a center for innovation and creativity, a place where science, technology, and national security intersect, where the nation's best engineers, innovators, and educators partner to solve problems and train the next generation of scientists and engineers.

Imagine your career here.

Our fundamental commitment is to provide innovative, science-based systems, engineering solutions to the most challenging problems that threaten peace and freedom for our nation and the globe.

Sandia National Laboratories, working with the best and the brightest to embrace an enduring commitment to excellence and mission success.

Learn more ≫
www.sandia.gov/careers

Sandia National Laboratories

Operated By

LOCKHEED MARTIN

Sandia is an equal opportunity employer. We maintain a drug-free workplace.