

FEATURE

The 2015 AAEOY Awards

An annual event sponsored by the Chinese Institute of Engineers/USA

By Roger Dong



AAEOY (Asian American Engineer of the Year) (www.aaeoy.org) convenes an annual celebration which is part of our national annual National Engineers Week, to recognize and honor the most outstanding Asian American professionals for their leadership, technical achievements and outstanding public service.

On February 28, 2015 the Chinese Institute of Engineers/USA (founded in 1917) held its annual banquet to honor the major contributions to America by Asian American engineers and scientists throughout the nation. The CIE has held its annual AAEOY banquet (which originated in 2002), joined by many guests (this year there were over 600 guests) representing the private sector and the Federal government, to recognize the best of the best among the thousands of Asian American engineers and scientists who have been selected by peers and supervisors.

Asian Americans, who represent around 6% of the national population, have contributed more than their fair share to our nation's engineering and scientific prowess.

And, much of our success in attracting the best and brightest from around the world is due to our past immigration policies. Among the total of sixteen (16) awardees honored this year for their contributions, eleven (11) were immigrants from India, China, Japan, or Taiwan. In 2014, CIE/USA honored 22 Asian American engineers and scientists and 15 of the honorees were 1st generation immigrants. Historically in America, 60% of all inventions and discoveries have been produced by 1st and 2nd generation immigrants.

Congress and our Immigration authorities should make and enforce our immigration policies that will encourage and authorize more of the best and brightest to come to America to study, or reside, and contribute their brainpower. When you review the contributions our honored professionals have achieved to earn their awards, their contributions have not been for just improving the mousetrap, their novel and significant contributions have been in advanced medicine, macro-energy efficiency, and national defense.

This year Dr. Shuji Nakamura, University of California, San Barbara's invention of the LED impacts the life of every living creature on this planet. The whole world has been benefiting from the power of LED lighting that provides much more brightness for less energy (and less cost). Everything from our cell phone screens to brilliant screen displays on road signs, and in our homes are LED technology. This is a sterling example of how the creativity of one human being has impacted the lives



of not just all of mankind, but high efficient lighting reduces the need for previously planned polluting power plants, and nuclear power plants, thus benefiting all life on earth.

The evening's program warranting extended applause and appreciation was the result of months of devoted volunteer work by Ms. Scarlett Kwong, the Committee Chair of this year's event, Dr. Jason Wen, Chairman, CIE/USA National Council, and many volunteers from the CEI/USA Southern California chapter.

The Southern California Chapter also involved dozens of young volunteers including Abby Zhu, Allson Yang, Andy Liang, Ben Chu, Brian Wu, Candy Fan, Chinpei Tang, Chuching Wang, Chung Chen, Chung Xiao, Connie Young, Daphne Ng, David Fong, David K Lee, Ed Miao, Eric Wu, Frank Shen, Hongfang Xia, Hongjia Xu, Jason Xu, Jeng Lee, Jerry Torng, Jie Fan, Jia Pan, Jijun Ni, John Tzeng, Jonathan Jiang, Linda Wen, Liping Yan, Lyla Yang, Martin Mason, Ming Hou, Peter Gao, Peter Zhang, Ramesh Jain, Rebecca Chu, Ross Mishima, Ryan Yang, Sean Li, Shen He Huang, Simon Li, ShooYuh Chang, Stacy Yuan, Stephanie Alvarez, Tao Li, Taylor Kalinowski, Tony Pan, Wei Li, Xiaojie Yan, Xinxin Wu, Xiya Lin, Yang Yang, Yu Wang, Yue Yang, Yuting Hong, Zhe Zhang, Xhixuan Duan, and Zhongbo Li.

The following is CIE/USA's list of this year's best Asian American scientists and their extraordinary accomplishments.

1. Dr. Shuji Nakamura was presented the **2015**



Distinguished Science and Technology Award. Dr. Nakamura, a naturalized US citizen from Japan, is the inventor of the blue LED and was the recipient of the 2014 Nobel Prize winner in Physics “for the invention

of efficient blue light-emitting diodes, which has enabled bright and energy saving white light sources. He holds more than 200 US patents and over 300 patents in Japan. This technology

initially impacted the brightness of cell phone screens and the bright daylight displays we all view at ball parks and on road side signs.

2. Dr. Victor J. Dzau was presented the **2015**



Distinguished Lifetime Achievement Award. Dr. Dzau, born in Shanghai, China is the President of the Institute of Medicine, National Academy of Science and was previously Chair and Faculty member

at the medical schools at both Harvard University and Stanford University. His research discoveries have had very significant impact on cardiovascular medicine and genetics, and he is also a leader and pioneer on health care practices. His distinguished contributions have been recognized by the Swedish Royal College of Medicine, the Max Planck Institute, the Ludwick Maximillian University of Munich, the Medical Research Council of South Africa, the European Academy of Science, the American Heart Association and other many other prestigious medical institutions for his research discoveries in cardiovascular biology and medicine.

3. Dr. Naveed M. Hussain was presented the



Asian American Executive of the Year Award. Dr. Hussain, Vice President Aeromechanics and Leader of the Research and Technology Center, the Boeing Company, who has been responsible for

innovative technologies that improve cycle time, quality and performance for both the civilian and military systems divisions of the Boeing Company.

4. Dr. Anne Kao was presented the **Asian American Engineer of the Year Award**. Dr. Kao is a Senior Technical Fellow at the Boeing Company is an internationally recognized expert in text analytic technologies and holds many patents for software tools needed to analyze exceptionally large data volumes to implement aircraft safety, maintenance , manufacturing and information security processes.



5. Dr. Philip T. Chiu was presented the **Asian American Most Promising Engineer of the Year Award**. Dr. Chiu is a Program Manager at the Boeing Company and is a principal investigator for next-generation space and terrestrial solar cells. Chiu pioneered significant contributions to solar cell technology, including four world records on cell efficiency and producing cell testers five times faster than previous devices.



6. Mr. SanJive Agarwala was presented the **Asian American Engineer of the Year Award**. Mr. Agarwala is a Senior Director at Texas Instruments who pioneered the company's leading edge Systeme-on-Chip (SOC) used in communications. These products provide high performance using low power to achieve results in the automobile industry and telecommunications.



7. Dr. Yu-Dong Yao was presented the **Asian American Engineer of the Year Award**. Dr Yao is a Professor and Department Director at the Stevens Institute of Technology and conducts research for the National Science Foundation, the Defense Advanced Research Projects Agency (DARPA), the US Army and the Office of Naval Research. Dr. Yao holds thirteen patents and his engineering designs have been implemented in Global Star, Sprint and Verizon networks.



8. Ms. Katherine Pendergraph was presented the **Asian American Most Promising Engineer of the Year Award**. Ms. Pendergraph is a Project Engineer for Northrop Grumman Corporation and is responsible for all software verification and validation for Northrop Grumman's operational software and new software development.



9. Mr. Mahesh Kalva was presented the **Asian American Executive of the Year Award**. Mr. Kalva is Director, Health and Life Sciences, Lockheed Martin Corporation. Kalva is the Chief Technologist in the civilian division of Lockheed Martin who manages over 1,000 engineers and technicians. He specializes in solutions in data analytics, Cloud Computing, Customer Relations, and Cyber security in the corporation.



10. Dr. Y. C. Yiu was presented the **Asian American Engineer of the Year Award**. Dr. Yiu is a Lockheed Martin Fellow and is in the Space Systems Company, who is a recognized expert in designing complex systems that operate dependably in extreme environments. Yiu's expertise in shock, vibration and space dynamics have been a prime contribution to projects including the International Space Station, the Lunar Prospector and military communications systems such as Iridium and Milstar.



11. Ms. Tina Lim was presented the **Asian American Most Promising Engineer of the Year Award**. Ms. Lim is an Electronics Engineer Associate Manager at Lockheed Martin Space Systems Company, who has made major engineering contributions in several Lockheed Martin companies. Her accomplishments were realized in Advanced Extremely High Frequency communications satellite program, the spaced based analysis of solar flares, and critical components used by the US Navy in the Ballistic Missiles Program.



12. Dr. Guozhu Long was presented the **Asian American Engineer of the Year Award**. Dr. Guo is a Huawei Fellow, Network Broadband Access at Huawei Technologies, and has been involved in the development of advanced copper broadband access technology. His research work has been focused on innovated techniques for digital communications.



13. Dr. Somuri V Prasad was presented the **Asian American Engineer of the Year Award**. Dr. Prasad is a Principal Scientist and Engineer with our Sandia National Laboratories and is an internationally recognized expert in Materials Science which impacts nuclear weapons safety, space mechanisms and energy. He previously worked at the Air Force Research Laboratory where he worked on complex, mission critical engineering projects.



14. Dr. Patrick L. Feng was presented the **2015 Asian American Most Promising Engineer of the Year Award**. Dr. Feng is a Principal Scientist and Engineer at Sandia National Laboratories who works on several projects imbedded in Homeland Security. His expertise area is on luminescent sensing materials, flourogenic tamper evident seals, and nanoporous chemical detection media. He has developed a very sensitive radiation detector.



15. Commander George C. S. Chan was presented the **2015 Asian American Engineer of the Year Award**. Chan, born in Hong Kong serves in dual capacities, one role is Project Manager with the US Army Corps of Engineers responsible for the \$10.7 billion reorganization of US Army facilities in South Korea and as a Navy Commander successfully completed many projects while deployed to Afghanistan, managed a \$5.5 billion infrastructure construction project.



16. Dr. Paul Shang, was presented the **2015**



Asian American Executive of the Year Award. Shang is the Director for Ship Signatures at the US Naval Surface Warfare Center. This senior Navy Program Director is responsible for more than

525 scientists, engineers and staff who are conducting multidisciplinary research on all electronic emissions and related technologies, for protecting all current and future ships and submarines of our Navy Fleet.

From the brief summary information noted above, it is very obvious that the contributions of our Asian American engineers and scientists are a very critical part of the overall scientific and engineering accomplishments of America. We are all very proud of their achievements.

We heartily congratulate the 16 accomplished engineers and scientists who were honored at the 2015 AAEOY banquet and wish them continued success and rewarding careers.

Next year's AAEOY celebration will sponsored by the CIE/USA New York City chapter on Saturday, March 12, 2016 in the Big Apple. Let's be there to cheer and honor the engineers and scientists who will have made the most recent major contributions to keep America great!

I will be there again, to salute them all.

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