IEEE President-Elect Howard Michel (left) and IEEE President Roberto de Marca (right) pose with 2014 IEEE Medal of Honor Recipient B. Jayant Baliga.

AWARDING EXCELLENCE
IEEE contributions were recognized by a broad range of institutions and associations around the world. As IEEE does every year, IEEE also recognized the 2014 accomplishments of our members with prestigious awards of our own.

**B. Jayant Baliga Receives 2014 IEEE Medal of Honor**
IEEE Life Fellow B. Jayant Baliga was awarded the 2014 IEEE Medal of Honor for his many contributions to the field of power semiconductors. The medal, sponsored by the IEEE Foundation, recognizes Baliga for the invention, implementation, and commercialization of power semiconductor devices with widespread benefits to society. While working at General Electric® he created the insulated-gate bipolar transistor (IGBT), which today is found in household appliances, fluorescent lights, televisions, electric cars, solar inverters, and compact defibrillators—anywhere modestly high voltages need to be switched on and off quickly.

Billions of people around the world are benefitting from the power semiconductors Baliga pioneered. Energy-efficiency improvements derived from IGBTs are estimated to have saved consumers more than US$15 trillion, while reducing carbon dioxide emissions by more than 78 trillion pounds.

**IEEE Honors Wozniak with Hoover Medal**
IEEE President Roberto de Marca presented the 66th Hoover Medal to Apple® co-founder Steve Wozniak in Los Angeles in February (right). The medal is awarded to an engineer whose professional achievements and personal endeavors have advanced the well-being of humankind. The award is administered by a board representing five engineering organizations: the American Society of Mechanical Engineers, the American Society of Civil Engineers, the American Institute of Chemical Engineers, the American Institute of Mining, Metallurgical, and Petroleum Engineers, and IEEE.

**IEEE Electrification Magazine Wins 2014 APEX Award for Publication Excellence**
"IEEE Electrification Magazine", published by the IEEE Power & Energy Society (PES), received an APEX Award for excellence in the "New Magazines, Journals and Tabloids" category. The APEX Awards are an annual competition for publishers, editors, writers, and designers who create print, web, electronic, and social media.

Established in 2013, IEEE PES’s "IEEE Electrification Magazine" provides news, analysis, and insight on electric vehicles and other forms of transportation. Readers have access to comprehensive and in-depth technical analysis from engineers in the field of advanced electrification. The publication also provides perspectives on non-technical areas including business, environmental, and social concerns.
IEEE CELEBRATES 30 YEARS OF MILESTONES PROGRAM

Each year, the IEEE Milestones in Electrical Engineering and Computing program recognizes exceptional technical achievements that occurred at least 25 years ago. In past years, they have acknowledged the work of leading inventors like Benjamin Franklin, Alexander Graham Bell, and Thomas Edison. 2014 marked the 30th anniversary of the IEEE Milestones program with 15 IEEE Milestones being dedicated, including the 150th Milestone overall.

Among the IEEE Milestones recognized in 2014 were:

First Generation and Experimental Proof of Electromagnetic Waves, 1886-1888, Karlsruhe, Germany

The landmark 150th IEEE Milestone honored the first generation and experimental proof of electromagnetic waves, conducted in 1886-1888 in Karlsruhe, Germany, when Heinrich Hertz verified James Clerk Maxwell’s theory against the then-prevailing views of electromagnetic phenomena. This opened the door for Guglielmo Marconi to explore the new world of radio and wireless services.

Bell Telephone Laboratories, Inc., 1925-1983, Murray Hill, New Jersey

Bell Labs transformed the way people communicate at work and home through the invention and development of many technical innovations that were necessary for modern telecommunication systems and other advanced technologies. From its founding in 1925, Bell Labs made numerous significant contributions to telecommunications and related fields that led to the information age and the digital era. Some of these contributions include: the first U.S. cellular wireless system, the first electronic speech synthesizer, the first binary digital computer, the first long-distance television transmission, wide area telephone 800 service, and the first U.S. commercial fiber-optic system.
First Breaking of the Enigma Code by Polish Cipher Bureau, 1932-1939, Warsaw, Poland
The German Enigma cipher machine codes were first broken by Polish Cipher Bureau mathematicians Marian Rejewski, Jerzy Rozycki, and Henryk Zygalski. Working with engineers from the AVA Radio Manufacturing Company, they built the “bomba,” the first cryptanalytic machine to break Enigma codes. Their work formed the foundation of British code-breaking efforts that, with American assistance, helped end World War II.

First Transpacific Cable System, 1964, Tokyo, Japan
The first transpacific undersea coaxial telephone cable linking Japan, Hawaii, and the U.S. mainland was completed in 1964. U.S. President Lyndon B. Johnson and Japanese Prime Minister Hayato Ikeda inaugurated this communications link on 19 June 1964. This joint project involving American Telephone and Telegraph, Hawaiian Telephone Company, and Kokusai Denshin Denwa improved global communication and contributed to deep-water submarine cable technologies. Photo courtesy of AT&T Archives and History Center (above).

Other milestones recognized in 2014:
- Birth and Growth of Battery Industries in Japan, 1893
- Rheinfelden Hydroelectric Power Plant, 1898 – 2010
- First Blind Takeoff, Flight, and Landing, 1929, Garden City, New York
- Single-element Unidirectional Microphone, 1939
- The CP/M Microcomputer Operating System, 1974
- Line Spectrum Pair for high-compression speech coding, 1975
- Gapless Metal Oxide Surge Arrester for electric power systems, 1975
- First Digitally Processed Image from a Spaceborne Synthetic Aperture Radar, 1978
- 20-inch Diameter Photomultiplier Tubes, 1979 – 1987
- High-Temperature Superconductivity, 1987
- Thin-Film-Transistor Liquid-Crystal Display for TV, 1988