

## **Professor B. Jayant Baliga:**

Dr. Baliga is an internationally renowned scientist, prolific author of 19 books and over 550 publications, and an established educator in the field of power semiconductor devices with 120 U.S. Patents to his name. Among his inventions, the most widely commercialized device is the **Insulated Gate Bipolar Transistor (IGBT)** extensively used around the globe for compact fluorescent lamps, air-conditioning, home appliance controls, robotics, electric-cars/bullet-trains and compact defibrillators projected by the AMA to save 100,000 lives a year. The energy efficiency improvements derived from IGBTs have saved world-wide consumers more than \$ 24 Trillion while reducing carbon dioxide emissions by more than 100 Trillion pounds.

The University of North Carolina system selected him for the 1998 *O. Max Gardner Award*, which recognizes the faculty member among the 16 constituent universities who has made the greatest contribution to the welfare of the human race. In 2011, North Carolina State University conferred up on him the *Alexander Quarles Holladay Medal of Excellence*, the highest award given to a faculty member. At the age of 45, he was elected to the prestigious *National Academy of Engineering*, the highest honor in the engineering profession. Dr. Baliga is also a serial entrepreneur having founded four successful companies in North Carolina with venture capital financing.

President Obama presented the *National Medal of Technology and Innovation*, the highest honor conferred by the United States Government to an Engineer, to Dr. Baliga on October 21, 2011 at a ceremony in the White House. He received the *North Carolina Award for Science*, the highest honor given by the state to a civilian, from Governor Purdue in October 2012. In 2015, he received the *Global Energy Prize* in Saint Petersburg, Russian Federation, for the invention, development, and commercialization of the Insulated Gate Bipolar Transistor. He will be inducted into the *National Inventors Hall of Fame* for his invention of the Insulated Gate bipolar Transistor in 2016.

Prof. Baliga is a Life Fellow of the IEEE. His numerous IEEE awards include the 1991 *Newell Award*, the highest recognition given by the IEEE Power Electronics Society; the 1993 *Morris E. Liebman Award* for his contributions to the emerging *Smart Power Technology*, the 1998 *J.J. Ebers Award*, the highest recognition given by the IEEE Electron Devices Society; the 1999 *Lamme Medal* given by the IEEE Board of Governors at Whitehall Palace in London; and the highest IEEE award, the *IEEE Medal of Honor* sponsored by the IEEE Foundation, in Amsterdam NL on August 24, 2014.