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**IBM T.J. Watson Research Center,
Key Developer of Speech Recognition Technology
to Receive 2009 IEEE Corporate Innovation Recognition**

*Pioneering Techniques and Continued Innovations Have Made Speech Recognition Applications
an Indispensable Part of Everyday Life*

PISCATAWAY, N.J. – 22 June 2009 – The IBM T.J. Watson Research Center, at the heart of the greatest advances in speech recognition technology for over 30 years, is being honored by IEEE with the 2009 IEEE Corporate Innovation Recognition. IEEE is the world’s largest technical professional association.

The award, sponsored by IEEE, recognizes the IBM T.J. Watson Research Center for long-term commitment to pioneering research, innovative development and commercialization of speech recognition. The award will be presented on 25 June 2009 at the IEEE Honors Ceremony in Los Angeles, Calif. For the first time, the IEEE Honors Ceremony will be broadcast live on the Web through IEEE.tv (www.ieee.tv).

The IBM T.J. Watson Research Center has pioneered much of the basics of speech recognition technology and continues to be influential in setting the directions in which the technology moves today. The benefits of speech recognition technology can be “heard” in many aspects of everyday life. When using voice commands in the car to initiate a phone call or to change the music playing on the audio system, or when speaking a menu choice while calling for customer service, it is speech recognition technology that “understands” what is being said. Also benefitting from speech recognition technology are those who are not able to physically type on a keyboard and can instead enter data by speaking words into the computer as well those with hearing impairments, whom can now have audio content automatically captioned.

IBM pioneered statistical modeling for speech recognition in the 1970s, borrowing concepts from information theory to model the key knowledge sources of speech, which was in contrast to the standard approach of using human-derived expert knowledge to build speech recognizers. IBM developed algorithms that used large amounts of data to train the models and incorporated additional concepts from information theory to enable the models to actually recognize speech. Although, at the time, this process required large amounts of computation and data, it proved to be highly efficient, with a five-fold reduction in word error rates, leading to real-time vocabulary recognition prototypes built in the 1980s. Essentially all speech recognition systems of today incorporate the basic technologies developed by IBM.

IBM commercialized their technology in the 1990s with products such as Simply Speaking and ViaVoice, allowing PC-based dictation of words by speaking into a microphone and enabling the user to create letters or reports without typing. The embedded version of ViaVoice provides fully integrated, automatic speech recognition for small mobile devices including hands-free mobile phones. IBM’s speech translation applications are finding important use in the U.S. military, as troops

can more easily communicate with the native population using portable computers for translation.

IBM has augmented speech recognition using video information of lip movement to enhance recognition performance in noisy environments, and it continues to research discriminative training concepts, statistical language model estimation and discriminative feature extraction for improved performance.

The IBM T.J. Watson Research Center was established in 1961 and has its main laboratory in Yorktown Heights, N.Y., and buildings in Hawthorne, N.Y., and Cambridge, Mass. Research performed at the facility ranges from exploratory work in the physical sciences, to semiconductors and systems technology, to software for security, programming, mathematics and speech technologies, with a focus on applying the research to transform businesses in a wide range of industries.

About IEEE

IEEE, the world's largest technical professional association, is commemorating its 125th anniversary in 2009 by Celebrating 125 Years of Engineering the Future around the globe. Through its more than 375,000 members in 160 countries, IEEE is a leading authority on a wide variety of areas ranging from aerospace systems, computers and telecommunications to biomedical engineering, electric power and consumer electronics. Dedicated to the advancement of technology, IEEE publishes 30 percent of the world's literature in the electrical and electronics engineering and computer science fields, and has developed nearly 900 active industry standards. The organization annually sponsors more than 900 conferences worldwide. Additional information about IEEE can be found at <http://www.ieee.org>.