

YOUSSEF EL-MANSY

When Youssef El-Mansy retired from Intel in 2004, leaving work that he loved, he had a plan for his retirement that ended up working out to be even better than he thought it would be.

COPY EXACTLY
СОБЫ ЕХАСТЛЯ

By Cheryl Pruss and Victoria Valens

In 2004, Youssef retired from Intel after 25 years. During that period, he led the development of ten generations of technology spanning feature sizes ranging from 1.5 microns down to 100 nanometers. Born in Egypt, raised on a farm 50 miles outside of Alexandria, he was encouraged by his father to continue his education. Youssef received his engineering education in Alexandria, traveled to North America for his graduate work, and received his Ph.D. in electronics from Carleton University in Ottawa, Ontario, Canada. He started at Intel in 1979 in Oregon and led DRAM and Microprocessor Technology Development at Intel for 24 years.

Early in Youssef's Intel career the Japanese had entered the market and began to take over the memory business. These were some very tough years for Intel. In 1980 Youssef was asked to

lead the 64K DRAM development project after he had completed an analysis of Intel's 64K DRAM vs. other companies in the industry (Motorola, Hitachi, Toshiba, NEC, Texas Instruments) and found the Intel 64K DRAM to be *uncompetitive*. Youssef had been with Intel just one year at that time and this was an important project for Intel. Intel had introduced the 1103 DRAM (in the early 70's) which had usurped core memory as the industry-standard for computer memory and DRAMS were a major revenue generator for the company by the mid/late 70's. In just one year Youssef's team developed a leading edge product. The technology utilized in this new product was acquired by IBM and played an important role in IBM's 12% investment in Intel during 1982. A joint development team between Intel and IBM, to develop a 1 Meg DRAM was put in place with Youssef leading the effort.



By 1985 Intel made the painful decision to exit the DRAM business as the Japanese had ramped capacity and were driving profit margins to very low levels. Within Technology Development, Intel would go from three sites to two, eliminating Livermore as a Development site and consolidating Microprocessor Development in Oregon under Youssef's leadership.

At the time Youssef took over the Microprocessor Technology Development group, Intel was lagging in its microprocessor technology when compared to its leading edge peers. But by the time Youssef retired 20 years later, Intel's Microprocessor technology was one generation ahead of its leading edge peers. Youssef conceived and implemented the "COPY EXACTLY" methodology which facilitated the transfer of advanced technology into volume manufacturing both expeditiously and predictably with high yields. This methodology was also a major influence on propelling Intel to the leadership of integrated process technology with unprecedented yields and reliability.

When Youssef retired from Intel in 2004, leaving work that he loved, he had a plan for his retirement that ended up working out to be even better than he thought it would be. Youssef wanted to spend more time with his family – including traveling with them – and he wanted to play more tennis and improve his game as well as stay engaged with the industry through serving on the Board of Directors of high tech companies.

In retirement he continued a tradition that he had started a few years before leaving Intel. Each spring break he and his wife, Samia, would take his three grown children and their families - including nine grandchildren - to Honolulu, Hawaii to a special spot for a family vacation together. Youssef also continues to visit Egypt with his family to stay in touch with his roots and to introduce his children and grandchildren to the local culture where he grew up. This was another tradition that began when Youssef was working for Intel.

Having picked up tennis in his 30's Youssef wanted to improve his game by playing several times a week early in his retirement. He was so successful in this endeavor that he continues to play "good, competitive" singles matches twice a week at the age of 70. Youssef also enjoys reading and relaxing, and continues to play tennis on his Hawaiian family vacations.

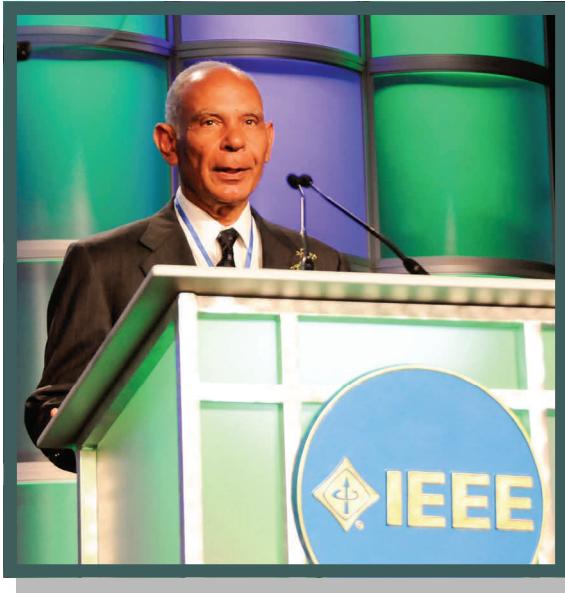
Youssef has been able to remain engaged with the industry through serving on the Boards of Directors of several companies, beginning in his early retirement, to date.

Youssef enjoys working with smart people who have had jobs with vast responsibilities like he had at Intel. He encounters other retired executives and CEOs while assisting these Boards with their businesses. Youssef considers this service as an extension of his Intel career, a fitting next step in retirement.

While Youssef misses the Intel environment of discipline and results orientation, he sees significant strengths in other companies with which he works. "You have to have an open mind and ask yourself what you can learn. There are differences in how other companies behave and there is always a lot to learn." Youssef's plan was to add involvement in Boards of Directors in his post Intel life to keep things interesting and this plan is delivering!



Children and Grandchildren in Hawaii - 2014



IEEE Noyce Medal - 2013

Youssef is a Fellow of IEEE, Institute of Electrical and Electronics Engineers, and has served on several committees in addition to publishing over 30 papers. Just prior to Youssef's retirement in 2004 he was the recipient of the *2004 IEEE Frederick Philips* award for leadership in developing state-of-the-art logic technologies for high performance/high volume general purpose microprocessors. Nine years later, the IEEE awarded Youssef the *Robert Noyce Medal* "for establishing highly effective research-development-manufacturing technology that led to industry leadership in logic technology for advanced microprocessor products."

When Youssef thinks back on his years at Intel and what he misses most, he says it really is the people. The Oregon group that he started back in the early 80's, basically stayed together with a very low turnover of employees for 25 years. Youssef became friends with

many of those people and those friendships continue today, as evidenced by the lunch meeting planned for the week after our interview, with Youssef and those he worked closely with for years.

Youssef has some wisdom to share with employees that he learned through many observations of those around him, "balance of work and family is the most critical success factor. When things get out of balance, problems occur. Focus on results in the time you spend at work."

Youssef recommends that employees considering retirement and new retirees think about what you enjoy doing and make plans for your retirement time that include what you enjoy. "It's important not to retire and wake up daily not knowing what to do," he said.

Planning for retirement came easy for Youssef. He wanted to have more family time and to improve his tennis game while continuing to find intellectual and social stimulation from his involvement in being on boards of other companies. He is living that life in retirement as well as continuing to be recognized for the incredible accomplishment of leading microprocessor technology development at Intel.

If you'd like to reconnect with Youssef, you can contact him at: elmansy@comcast.net



70th Birthday with Family