

Inspirational Interview



Devaki Chandramouli

Bell Labs Fellow and the Head of North American Standardization at Nokia

Devaki is a Bell Labs Fellow and the Head of North American Standardization at Nokia. She is also a senior IEEE member and has authored books on “LTE for Public Safety” (Wiley, 2015), “5G for the Connected World” (Wiley, 2019). She also holds over 287 granted patents worldwide with many pending patents in wireless communications. She holds her B.E. degree from University of Madras, India, M.S. degree from The University of Texas at Arlington. She lives in Plano, TX with her husband, Kuttayan Annamalai (Partner at Deloitte) and her son, Shyam Annamalai (Freshman at UT Austin).



Annapoorani Vivek, Rochester Hills, MI (Interviewer)

Annapoorani Vivek is a senior project manager at FIS and a great volunteer of NSNA, Michigan Tamil Sangam, Michigan Tamil School and AIM for Seva. Volunteering is a significant part of her life. She is truly an inspiring sports person and encourages her friends to participate in sports activities and help them stay fit.

Background and family:

Devaki Chandramouli was born in Thanjavur to A.L. Chandramouli and Alamelu Alagappan. Both her parents worked in banks and had transferrable jobs, leading to frequent relocations. Therefore, for six years, Devaki and her sister resided in Kottaiyur with their Grandmother. During this time, she pursued her middle and high school education in Chidambaram Chettiar Higher Secondary school. She then continued her higher secondary and college education in Chennai.

Entering US and pursuing her education:

She came to the US after getting married to Kuttayan Annamalai, and then she did her Master’s in Computer Science at UT Arlington. There she learned under several eminent professors, who left a lasting impact on her career and her endeavors in the technology field.

Women role models in her life:

Devaki Chandramouli was profoundly influenced by the women in her life, particularly her mother, a working woman who instilled in her the significance of education, pursuing a career, and fostering independence. Another notable figure who inspired Devaki was Indra Nooyi, the former CEO of Pepsi. Indra Nooyi’s trailblazing journey as one of the first women CEOs at a top American company has broken numerous barriers. Her achievements

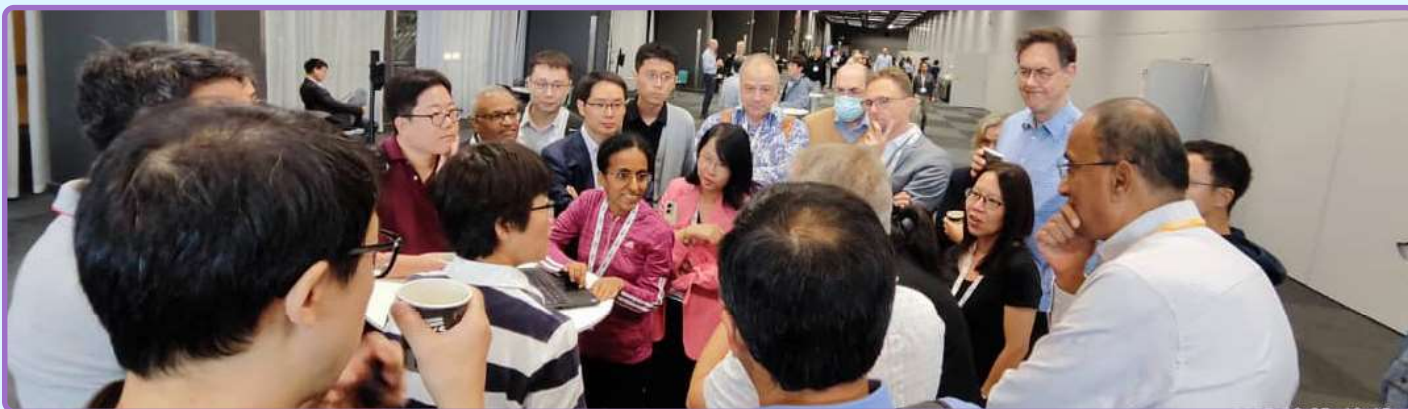
served as a powerful inspiration for individuals like Devaki, encouraging them to push boundaries and excel in their respective fields.

Journey from Nortel to Nokia:

During her Master’s program, Devaki seized the opportunity to collaborate on a project with a team in Nortel (once a telecom powerhouse). This collaboration ultimately led to her decision to join Nortel, taking the first step into her desired career field, working as a software designer focused on programming for embedded systems—a role that provided a high-demand and challenging experience, marking her first real foray into the professional world. After six years, she transitioned to research and standards development for wireless technologies in order to gain a broader understanding of the entire system. This trajectory continued as she pursued similar endeavors at Nokia and is presently a trailblazer in this field.

Experience as an author:

Devaki Chandramouli, an accomplished author, has been responsible for key contributions in the field of telecommunications. She and her co-authors leveraged their experience in technology development to author books on 4G and 5G. Believing in the obligation to disseminate the latest advancements, she endeavors to cater to diverse audiences ranging from technology developers to students aspiring to enter the field and individuals seeking a



Devaki at Standardization Meeting

general understanding. Recognizing the crucial aspect of timing in the ever-evolving tech landscape, her books focus on futuristic technologies with a keen eye on relevance. Her books were also adopted by some universities such as Illinois Institute of Technology (Chicago, Illinois) and Tampere University (Finland) as part of their curriculum for wireless communication courses. Her journey began with “**LTE for Public Safety**”, evolving into co-authoring two more books, including “**5G for the Connected World**”.

What is LTE, 5G, and the future of wireless communications:

The evolution of wireless technologies has significantly impacted our daily lives. The introduction of 4G LTE (Long Term Evolution) revolutionized the use of smartphones, creating a symbiotic relationship where LTE needed smartphones, and smartphones needed LTE for enhanced connectivity. Building on this foundation, 5G has taken always-on connectivity to new heights, capable of replacing traditional cable connections at home by literally replacing wires with wireless capabilities. It

extends its impact to smart manufacturing, allowing industries to replace bulky cables with efficient 5G wireless connectivity for seamless machine communication and operation. As we look ahead, the prospect of 6G technology, still in the research phase, holds promises of improved coverage capacity and speed. Additionally, it aims to leverage AI and machine learning, fostering synergy between these technologies for more sustainable solutions, reducing the energy consumed per bit transfer, and promoting digital inclusivity in areas with poor connectivity, globally addressing the challenge through satellite-based internet access.

Innovations and Patents:

Devaki strongly adheres to the philosophy that “**progress holds greater value than perfection**”. In her pursuit of innovation, she actively seeks both incremental improvements and groundbreaking ideas. Notably, she has secured an impressive 287 patents, showcasing her commitment to protecting and advancing novel solutions. Despite the challenges inherent in the patent filing process, Devaki recognizes its crucial role as a mechanism for safe-



Devaki's Tech Talk in Bangalore



guarding technological innovations. In the dynamic landscape of a developing field, her proactive approach to patenting reflects not only a dedication to progress but also a strategic effort to ensure the longevity and impact of her contributions.

Work-Life Balance:

Devaki Chandramouli emphasizes the importance of open communication and trust with colleagues and family members as key to achieving work-life balance. She acknowledges that achieving work-life balance on a day-to-day basis can be challenging, but one must find a way to realize a sense of equilibrium over a period of time. Given the substantial travel demands of both her job and her husband's, at times reaching almost 100 percent, careful planning became crucial, especially with their son in the picture. As they were raising their son, Devaki and her husband leaned on their parents, to provide the necessary support for maintaining a happy family while managing demanding jobs.

Giving back to the society:

Devaki is passionately involved in mentoring girls to pursue STEM careers, both online and face-to-face, with a specific focus on India. Her commitment extends to supporting those in college and coaching individuals entering similar fields. Emphasizing the importance of paying it forward, she actively participates in the **“Do Good”**, an initiative that unites like-minded individuals to raise funds for charity. In sustainability, her son initiated **“Water for Water”**, a project dedicated to conserving rainwater and using donations to contribute to

global water projects. Last year, Devaki, collaborated with Nagarathar Physicians of North America and sponsored an eye camp in Chettinad, where more than 350 people attended, and 50 individuals received free eye surgeries at the Aravind Eye Hospital. She values giving back to society and will do so for the foreseeable future.

Message to Youth:

“Dream big, embrace your uniqueness, and let your dream guide your journey and propel you forward. The world can then witness your extraordinary impact.”

Devaki has been honored with **“Inventor of the Year”** awards and was recently bestowed with the prestigious **Bell Labs Fellow recognition** for her outstanding contributions to the field of wireless communications. This truly is a testament to her hard work. May this recognition inspire others to continue reaching for the stars and making a lasting impact.



Akila Vivek, Rochester Hills, MI

Akila Vivek, a current high school senior at the International Academy OKMA Campus and will be pursuing her career towards Environmental Engineering.



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