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Speaker & Affiliation	Dr. Claudio da Silva Distinguished Lecturer, IEEE Communications Society Technical Editor, IEEE 802.11bf (WLAN Sensing)	Date	**5/3/2024**
Topic	**Introduction To Wi-Fi Sensing and the IEEE802.11bf standards**		
Summary of the talk (at least 120 words)	In the talk "Introduction to Wi-Fi Sensing and the IEEE 802.11bf Standard," the presenter delved into the advancements and applications of Wi-Fi sensing technology. Starting with a general overview, he explained how Wi-Fi sensing enables devices to perceive their surroundings without the need for visual cues, utilizing instead the Wi-Fi signals to gather environmental data. This technology finds applications in various fields such as home security, user detection, and traffic management. The highlight of the talk was the introduction of the IEEE 802.11bf Task Group, which has been working on an amendment to enhance the Wi-Fi standard's sensing capabilities. He outlined the standard's potential to lower operational overhead, improve measurement consistency, and expand application areas through better interoperability among devices. And the key points included the task group's goals to enhance interoperability among various devices, streamline the measurement process, and extend the range of practical applications. Also, the presenter highlighted several commercial applications of Wi-Fi sensing that are already in place, such as gesture recognition in vehicles and sleep pattern detection in personal devices, showcasing the technology's broad appeal and versatility. The discussion of the IEEE 802.11bf standard revealed the complexities involved in creating a unified framework that supports diverse sensing tasks across different platforms and vendors.		
Your thoughts and comments for the talk (at least 150 words)	The presenter's lecture on Wi-Fi sensing was a revelation, painting a vivid picture of how our daily interactions with technology might evolve. The explanation of how devices can use Wi-Fi signals to "see" through walls and in dark conditions by detecting changes in signal patterns due to movement or the presence of objects was particularly striking. He features that it could revolutionize security systems and energy management within smart homes by allowing more nuanced environmental control without compromising privacy. And the use of Wi-Fi to gather detailed environmental and contextual information without compromising privacy is particularly appealing. I was impressed by the examples given, such as using Wi-Fi signals for sleep tracking and gesture control, which illustrate the seamless integration of this technology into everyday life. The discussion on the technical aspects, such as the role of Channel State Information in sensing applications, was quite informative. It helped clarify how movements and changes in the environment alter the propagation of Wi-Fi signals, which can then be interpreted to deduce motion and presence. However, I have found out about some questions on the widespread implementation of IEEE 802.11bf, especially concerning the adaptability of existing devices to support new sensing functionalities. The talk touched on various challenges, including the need for significant improvements in signal processing to enhance resolution and accuracy. Simply to say, I am curious about the computational demands and the required infrastructure modifications to support such advanced sensing capabilities. It will be interesting to see how future developments address these technical hurdles and whether the promise of Wi-Fi sensing can be fully realized in practical, everyday applications. But it opened up questions about the future challenges in enhancing the precision and efficiency of Wi-Fi based sensing solutions.		