**Title**

**How UVC LEDs Can Help Combat the Spread of Healthcare-Associated Infections (HAIs)**

**Abstract**

For the past 70 years, antibiotics have been successfully used to treat patients with infectious diseases. However, over time many pathogens have adapted to these treatments, making the products less effective while contributing to the skyrocketing costs associated with HAIs. As the pharmaceutical industry continues its research into effective new methods to prevent the spread of these life-threatening “superbugs,” healthcare OEMs are turning focus to disinfection as a key differentiator to further improve clinician safety and safeguard patient outcomes both within the care setting and after returning home.

To that end, medical device OEMs are quickly beginning to adopt UVC LEDs, an emerging technology in the space, to maintain a competitive advantage among other healthcare devices. This presentation will cover how R&D departments and product engineers can satisfy specific target log reductions by understanding dosage as it relates to exposure time and UVC intensity. We will also cover the use of LEDs in terms of power and lifetime for the LEDs.

**Speaker Bios**

**Dr. Rajul Randive, Director of Applications Engineering, Crystal IS**

*At Crystal IS, Rajul Randive, PhD is responsible for designing, building and testing various prototype applications that use UVC LEDs. He works closely with customers to develop applications and maps those to engineering requirements that result in a market-ready product, while ensuring test protocols meet customer specifications. With more than 20 years’ experience with UV application development, Rajul is a frequent industry author and presenter. He is also a voting member on the*[*ASHRAE*](https://www.ashrae.org/)*Committee for “Guidelines for the application of ultraviolet germicidal devices to control the transmission of airborne pathogens.”*