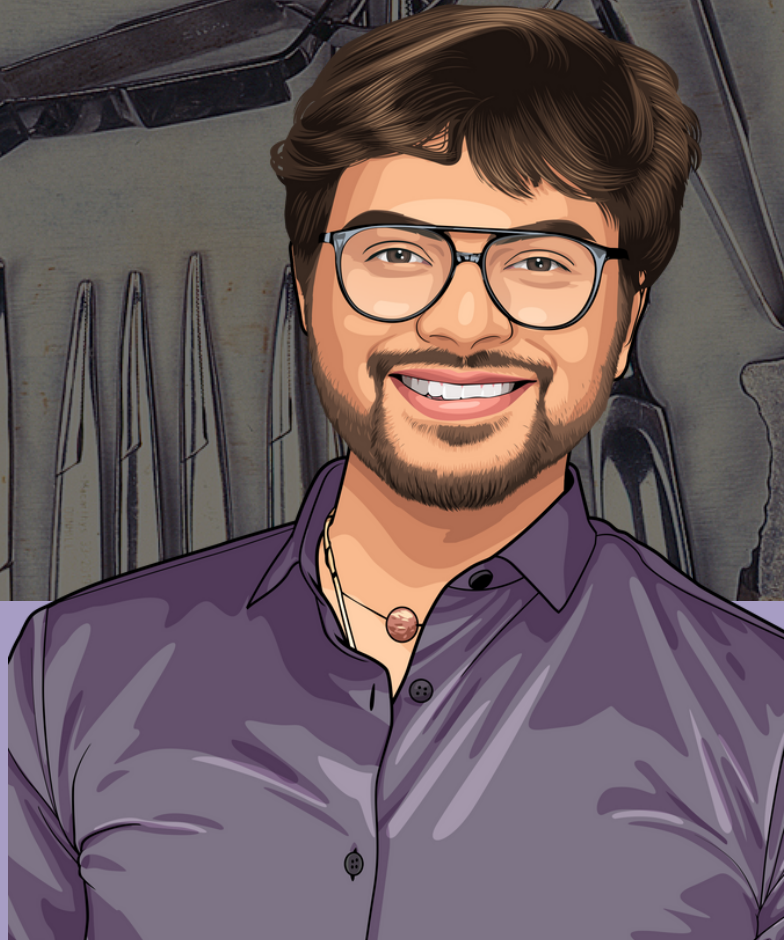


EFFICIENCY BOOST: HOW AI IMPROVES SPD WORKFLOWS



ARTIFICIAL INTELLIGENCE EXPERT

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Yeshwanth Pulijala, PhD
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Beyond Clean Artificial Intelligence Expert™:

Efficiency Boost: How AI Improves SPD Workflows

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We all know Sterile Processing Department (SPD) staff work tirelessly to prepare instruments for surgeries. They must ensure that every instrument is properly cleaned, sterilized, and identified before it is used in a procedure. However, with increasing operations and a shortage of trained personnel, these teams have an additional responsibility of repeat checks to help to keep up with the quality in the face of increasing demand. Further, inefficiencies in the current workflows mean longer waiting times and added losses to the system.

This is where AI can play a crucial role in optimizing the workflow of the sterile processing department. For example, advanced Computer Vision technology allows for efficient and accurate identification of instruments. Using a camera and image recognition software, the system can identify instruments as they are being cleaned and sterilized, reducing the risk of human error and streamlining the process. Using machine learning algorithms, the system can analyze images of instruments and identify usage and any defects or wear-and-tear that may require attention. A detailed analysis on instruments also helps teams to ensure that instruments are always in good condition and ready for use. Machine learning-led analytics supports staff to proactively address issues before they become more serious, reducing downtime and ensuring that surgeries can continue without delay.

AI has the potential to revolutionize the sterile processing industry by creating leaner workflows, reducing inefficient processes, and creating new opportunities. By using computer vision to identify instruments, predicting maintenance needs, and optimizing the sterilization process, AI can help to ensure that surgeries are performed safely and efficiently.

Have more questions for this expert? Contact Yesh at: yesh@scalpel.ai

Beyond Clean Artificial Intelligence Expert™ Biography:

Yeshwanth Pulijala, PhD

Founding Director & CEO

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Dr. Yeshwanth Pulijala (Yesh) is the founder and CEO of Scalpel. In this role he leads a highly motivated team building AI tools to enhance patient safety across the peri-operative pathway. Scalpel provides a clinically validated surgical intelligence platform that uses computer vision to provide real-time insights into clinical workflows - starting with managing surgical instruments. Trained as a dentist, Yesh has over nine years of interdisciplinary experience in healthcare and technology (Virtual Reality, Augmented Reality, and Computer Vision). In his doctoral research, he has designed and evaluated one of the first immersive virtual reality training tools for Oral and Maxillofacial Surgery.

Pulijala has spent thousands of hours in operating rooms where he has first-hand experienced several surgeries going wrong - of which, to his surprise, nearly 50% were preventable. That significantly impacted him - sparking his mission to improve current surgical processes and prioritize patient safety. In 2017, he founded Scalpel to make surgery safer.

In the last few years, Scalpel has been on an incredible journey to engage healthcare institutions globally to align with their mission to improve patient safety in surgery. They have partnered with some of the most innovative healthcare providers and manufacturers. Today, Scalpel is shaping the future of surgery by connecting surgical data science with clinical performance, not only inside the operating rooms but across the perioperative pathway.

Stay tuned to his Expert Series so you can learn more about how to use AI in your Sterile Processing unit and streamline your operations to make surgery safer.

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