Outside the box, inside the panel

Mason Nichols

Growing up, Venkatesh Seshappa knew he would pursue a career in engineering. A passion for the field runs in the family; Seshappa's father and brothers are also engineers. After attending the University of Mysore in India, he traveled to the United States, where he earned a master's degree in civil engineering at the University of Oklahoma in Norman.

Seshappa's first few professional positions introduced him to precast concrete via bridge beam design. While at an engineering firm in Iowa, he refined these skills when his company partnered with a local precaster. There, Seshappa performed stress calculations and provided shop drawings.

With his interest in precast concrete rising, Seshappa joined Thermomass (now Leviat), a company specializing in innovative concrete sandwich wall technology. This role also catalyzed his connection with PCI. In 2005, Seshappa began attending PCI meetings. He also joined the Precast Insulated Wall Panels Committee, which he later chaired for six years.

"Being involved with PCI, you meet so many titans in the industry," Seshappa says. "Talking with them significantly broadens your knowledge base. And if I need an opinion, I can quickly engage fellow engineers who are eager to help."

Currently, Seshappa also serves on PCI's Technical Activities Council, which reviews and makes recommendations to the PCI Board of Directors for actions pertaining to all technical activities of the institute. This role has further enhanced his precast, prestressed concrete knowledge and widened his network.

After a dozen years with Thermomass, Seshappa decided it was time for a shift in his career. He had partnered with Gate Precast on several projects and was excited about the work they had done together. This ultimately led him to securing an engineering manager position with the company in Kissimmee, Fla.

Looking back on his 40-year career, Seshappa notes a handful of projects of which he is most proud, including one that's still ongoing. The Braman Comprehensive Cancer Center at Mount Sinai Hospital in Miami Beach, Fla., features distinctive wave-shaped precast concrete spandrels in a fluid design that emulates the ocean. The facility is expected to open in 2026.

Other projects include the James A. Haley Veterans' Hospital in Tampa, Fla., which was constructed with precast concrete architectural panels designed for blast loads, and Opus Hall, a student dormitory at The Catholic University of America in Washington, D.C. Opus Hall features insulated precast concrete wall panels with no thermal bridging, a sustainable design approach that is a hallmark of Seshappa's work with Thermomass.

In the years ahead, Seshappa is excited about where the precast concrete industry is going, namely, what can be accomplished using ultra-high-performance concrete (UHPC).

"I think UHPC is the future," he says. "There are various forms and shapes you can achieve with it today, but I'm also eager to understand how we can come up with different finishes that will be useful for architectural wall panels."

Seshappa says that he expects the continued upward trend of the industry to rely heavily on the innovation that has brought it to where it stands today.

"Always think outside the box," he says. "As precasters, we like to build a mold and cast products repetitively, and while that's economical, we need to think differently. How can we make different shapes, forms, and finishes? We should be able to accomplish that using new materials, new technology, and whatever else is available."

Seshappa's ability to think outside the box—while thinking inside the panel—has resulted in countless benefits for the companies he has worked for, the communities where his projects are located, and those he has established relationships with while serving PCI.