

# KPIT Cummins Embarks on Virtual Platform

India-based KPIT Cummins Infosystems Ltd is now moving to a newer area of virtualization – with a virtual platform which enables its customers to see the proof of concept more clearly, so that it can be committed to silicon with more confidence.

“We are now working with customers on developing a new virtual platform where validation and verification is being done. By doing so and creating a virtual model system for chip development, we provide them with a much more solid stand for their projects this that they can be sure the money they invest in manufacturing does not go to waste,” said Praveen Acharya, VP, Semiconductor Solutions, KPIT Cummins Infosystems.



Acharya

Last year a large part of the company’s efforts were in the design space, primarily in the analog and mixed-signal domain, where it had taken up IP development as a derivative of microcontroller development and delivered about 35 to 40 projects to its customers. The company partners with fabs including TSMC, Chartered, UMC and IBM.

It also partners with electronic design automation (EDA) vendors such as Cadence, Synopsys, Mentor Graphics, Magma and others.

“This is proving to be very beneficial to our customers in terms of the consumer electronics and automotive industries, where the drivers are very different for each segment,” explained Acharya.

## Variety of Development Work

The company partners with semiconductor companies to quickly build chip specifications from features, to design and develop the architecture, to develop the low level device drivers, and to test and validate the silicon, and finally to prepare the chip for production. Its industry-class processes help semiconductor companies build complete support while its analog expertise spans the entire spectrum right

from design to GDSII (Graphic Data System) and physical validation.

“We have launched a specialized group for motor controls which develops applications for automotive to be used in products such as speedometers, dashboards, etc. Cost effective ICs are needed and we are doing a significant amount of development in the motor control domain for industrial automation, robotics and medical applications,” Acharya added.

“We have expanded into new business lines in microcontroller development for next-generation applications and will soon be making some announcements.”

The company’s two centers – one in Pune, which is largely IT-centric (automotive), the other in Bangalore, which is more engineering-centric – have a combined workforce of 4,800 engineers.

## Operating in Many Markets

Japan, a leading market in the automotive and semiconductor space, is also becoming an exciting market for KPIT. “We have been present in Japan for more than eight years and are actively engaged with leading Japanese corporations in the areas of engineering and R&D. Although the share of Japan is relatively less compared to US and European markets, the position is likely to change in the next 3 to 5 years, because of increasing openness in Japanese corporations to globalize their R&D and IT footprint,” Acharya said.

Although the company has been actively present in India for several years, it has been servicing companies in China and Brazil as part of its global relationships. “Recently we started establishing our presence in these markets as they are the growth drivers for our focus on verticals like automotive. The technology and market challenges are different; hence, there are opportunities for a lot of technology innovation and out-of-the-box solutions to meet the price-performance equation in the emerging markets.” ■

by *Sufia Tippu*, Bangalore