BioSpectrum the business of Bio & Health Sciences

'Huge potential for ANSYS tools in APAC market'

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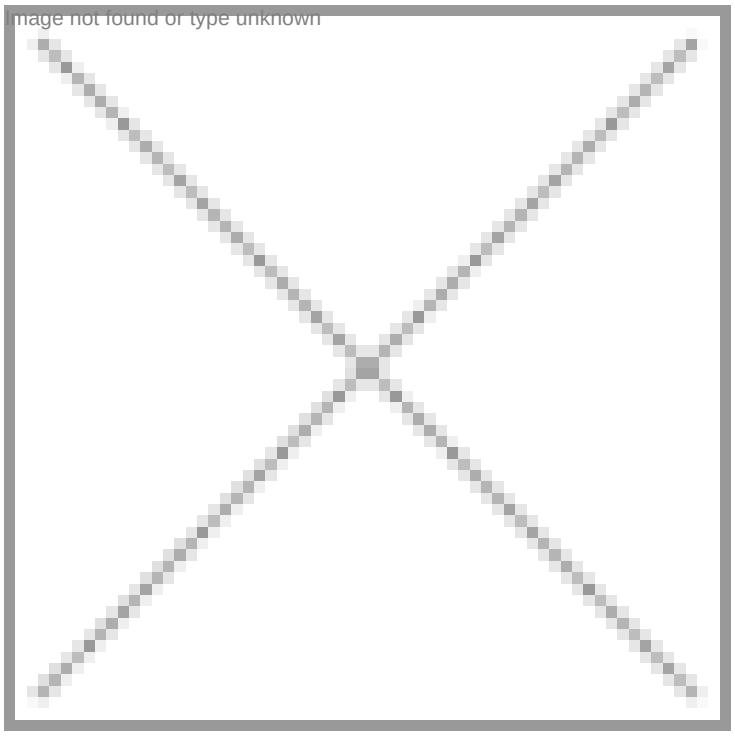

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Mr Gautam Dutta,
Country manager, ANSYS India

ANSYS is a global innovator of simulation software and technologies designed to optimize product development processesin the US. ANSYS acquired the Electronic Design Automation (EDA) software with the acquisition of Ansoft in March 2008, and was in the spotlight recently when the Federal Communications Commission (FCC), an independent agency that regulates inter-state and international communications of the US, approved its finite element method for biomedical transmitters. ANSYS has devised simulation testing to assist and reduce costly in vivo and in vitro testing.

In an exclusive interview with BioSpectrum, Mr Gautam Dutta, country manager of ANSYS India, elaborates on the company's activities in the field of healthcare and the significance of HFSS software, originally developed by Ansoft, in the medical equipment sector.

Q Can you elaborate on ANSYS's ventures into healthcare sciences?

ANSYS simulation tools have been used for a number of years in the healthcare sciences. Structural simulation has been used to design prosthetic limbs and help doctors in planning hip replacement surgeries. Fluid simulation provides insight into the design of intravascular stents helping to minimize the risk of neointimal hyperplasia. For electromagnetics, HFSS has been utilized in MRI coil design and simulation of specific absorption rate for cellular and mobile devices.

Q How important are the FCC standards for medical devices companies? How does ANSYS fit into this loop?

The FCC standards are extremely important. A device that does not pass these standards is not allowed to go to the market in the US. ANSYS tools and HFSS in particular are valuable in this area for understanding the radiated emissions from

implantable electronic devices. In addition, the designer can use simulations from HFSS to understand the susceptibility of devices with respect to external sources of radiated electromagnetic fields.

Q How useful and significant is HFSS to the medical equipment sector? Who are the potential buyers of this software?

The ability of HFSS to provide automated and accurate solutions to any electromagnetic phenomenon makes it an invaluable tool for electronic design. Any wireless medical device, such as the latest pacemakers or hearing aids, can be designed using this software, reducing design cycle time and time-to-market. In addition, the insight provided by simulation allows the designer to understand the robustness of their design in greater detail, which is vitally important for surgically implanted devices.

Potential buyers are companies designing wireless medical devices, magnetic resonance imaging (MRI) equipment or electronic equipment that have to pass FCC emission standard. And the issue of passing FCC emission and susceptibility standards is not restricted to surgically implantable devices as covered by the recent FCC ruling but also to any electronic equipment used in the healthcare industry.

Q Will this enhance public reach and provide easy access to medical devices? What kind of medical devices will benefit from this software?

Reducing the design cycle and time-to-market through simulation brings down the overall cost of design allowing for lower device cost and increased availability. As mentioned previously, any electronic equipment has to pass emission and susceptibility standards, and electromagnetic simulation from HFSS allows deeper insight into this phenomenon.

Romi R in Bangalore