

## NEWS RELEASE

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### **Indian Institute of Technology Kharagpur Receives Charles Babbage Grant from Synopsys**

*First grant recipient in India and Synopsys plan to establish new lab  
dedicated to advanced CAD research*

**Kharagpur, India, September 9, 2009** -- Synopsys Inc., a world leader in software and IP for semiconductor design, verification and manufacturing, today announced that the Indian Institute of Technology Kharagpur (IITKGP) is the first institution of higher education in India to receive the Charles Babbage Grant from Synopsys. Through the grant, IITKGP receives licenses of Synopsys' comprehensive electronic design automation (EDA) software and intellectual property. The grant also enables the Institute to purchase hardware for the planned Synopsys CAD Laboratory at IITKGP, which would focus exclusively on core EDA and CAD research. Although details are yet to be finalized, additional funding provided by Synopsys is planned to assist with the operational costs of the lab as Synopsys and IITKGP faculty collaborate on joint research goals and establish milestones to further expand VLSI education at the Institute. Synopsys also intends to provide support and training to the students working at the Synopsys CAD Laboratory to help them maximize their research efforts.

IIT Kharagpur and Synopsys have had strong and enriching research collaborations, especially related to verification methodologies, for close to a decade and a half. The two organizations have taken leading steps in fostering state-of-the-art education and research in the domain of VLSI and EDA. Synopsys was a co-founder in the Advanced VLSI (AVLSI) Design Laboratory at IIT Kharagpur and subsequently in the AVLSI Consortium, both being the first of their kind in India. The establishment of the Synopsys CAD Laboratory at IIT Kharagpur would

further expand the collaboration between Synopsys and IIT Kharagpur, and extend the focus of their advanced and industry-relevant education and research beyond verification to other areas of core EDA.

“IIT Kharagpur and Synopsys have closely collaborated over the last decade to foster state-of-the-art research and education in the domains of VLSI and CAD,” said Dr. Partha P. Chakrabarti, professor in the Department of Computer Science & Engineering and Dean of the Sponsored Research & Industrial Consultancy at IIT Kharagpur. “We are further expanding this relationship by working to establish the Synopsys CAD Laboratory at IIT Kharagpur, which will be utilized for advanced, leading-edge research in the EDA space, including CAD. The Laboratory would not only serve as a platform for the creation of new methodologies and tools, but also allow students the opportunity to use the latest EDA technologies, thus helping to develop the next generation of industry leaders.” Dr. Chakrabarti continued, “At IIT Kharagpur, we greatly appreciate our time-tested, close collaboration with and support from Synopsys, and look forward to continuing to produce high-impact results with them.”

Access to industrial design tools for advanced research and microelectronic design is a common challenge facing universities today. Synopsys helps resolve this issue through initiatives like the Charles Babbage Grant and its Worldwide University Program, which provide select universities with design software for modern electronic design flows and leading IC fabrication processes. Previous grant recipients in the USA include Case Western Reserve University, North Carolina State University, Purdue University, San Jose State University, Southern Methodist University and Syracuse University. Other recipients include the Chinese Academy of Sciences in China, Moscow Institute of Electronic Technology in Russia and Southampton University in the United Kingdom.

Chi-Foon Chan, president and COO at Synopsys, will formally open the Synopsys CAD Laboratory during a September 8th ceremony at IIT Kharagpur and deliver an invited Institute Lecture to students and faculty.

“Many of the early EDA pioneering efforts in India were carried out by a handful of technologists, many of whom have their roots at IIT Kharagpur. Synopsys has been working very closely with IIT Kharagpur for longer than a decade on verification-related challenges,” commented Manoj Gandhi, senior vice president and general manager of the Verification Group at Synopsys. “Through the Charles Babbage Grant and our expanded scope of collaboration, Synopsys will help enable the university to further its reputation as a leading academic institution and give its students access to the latest EDA tools and equipment.”

“Synopsys India has been actively associated with IIT Kharagpur through the inception of the Advanced VLSI Laboratory, Advanced VLSI Consortium and now the Synopsys CAD Laboratory,” added Pradip Dutta, corporate vice president and managing director of Synopsys India. “We intend to use this grant to help carry out research in multiple areas of EDA tools and also enable IIT Kharagpur to enhance its reach in the field of VLSI education.”

### **About the Charles Babbage Grant**

The Charles Babbage Grant provides select universities worldwide with state-of-the-art EDA tools, training, support and technology. It enables institutions of higher education to enhance their expertise in microelectronics circuits and system design. Use of the Synopsys tools on modern, powerful computers from the grant helps universities to better prepare their graduates for the future by providing hands-on experience with current industry practices, modern design techniques, and actual design tools and hardware. This enhances their understanding of how learning applies to the real world of IC design. The grant is named after British mathematician and inventor Charles Babbage, who designed and built mechanical computing machines on principles that anticipated the modern electronic computers of today over 150 years ago. For more information about the Synopsys Worldwide University Program, visit us at <http://www.synopsys.com/Community/UniversityProgram/Pages/default.aspx>.

### **About Synopsys**

Synopsys, Inc. (Nasdaq: SNPS) is a world leader in electronic design automation (EDA), supplying the global electronics market with the software, intellectual property (IP) and services used in semiconductor design, verification and manufacturing. Synopsys’ comprehensive,

integrated portfolio of implementation, verification, IP, manufacturing and field-programmable gate array (FPGA) solutions helps address the key challenges designers and manufacturers face today, such as power and yield management, software-to-silicon verification and time to results. These technology leading solutions help give Synopsys customers a competitive edge in bringing the best products to market quickly while reducing costs and schedule risk. Synopsys is headquartered in Mountain View, California, and has more than 65 offices located throughout North America, Europe, Japan, Asia and India. Visit Synopsys online at <http://www.synopsys.com>.

### **About the Indian Institute of Technology Kharagpur**

Indian Institute of Technology Kharagpur was set up by an Act of Parliament and was formally inaugurated in the year 1951. As the oldest and most diversified among the IITs, this institute is synonymous with the world famous “IIT System.” Today, IIT Kharagpur has come a long way to its present position of pre-eminence with nineteen departments, seven centres, seven schools of excellence and several sophisticated laboratories and central facilities. The institute has the student strength of about 8,000, faculty strength of more than 500 and a large base of supporting staff. In the recent convocation the institute awarded more than 1,600 degrees including about 600 Bachelor’s degrees, 800 Master’s degrees and 228 Ph.D degrees. Recently it has ventured into intellectual property law and medical science and technology. It has carried out sponsored research worth more than Rs.171 crores in the last financial year.

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