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Monday, October 05, 2009

UT-ECE's Professors Sanjay Banerjee, Frank Register, and Emanuel Tutuc along with Prof. Allan MacDonald, UT Physics Department, and ECE graduate student Dharmendar Reddy designed a novel graphene-based BiSFET device that could revolutionize the chip design industry. This device is discussed in more detail in a recent IEEE Spectrum article.

The BiSFET, described by Sanjay Banerjee and Leonard Franklin Register and their colleagues at UT Austin, is in the earliest research phase but offers tremendous potential. The BiSFET could substitute for a MOSFET transistor in logic and memory applications. Like a MOSFET transistor, it can switch and it can amplify. Where the BiSFET stands alone, however, is in its phenomenal power parsimony: It needs only one-hundredth to one-thousandth the power of a standard MOSFET, mainly because it would switch at much lower voltages than a MOSFET.



Source URL: <http://www.mrc.utexas.edu/news/novel-graphene-device-could-revolutionize-chip-design-industry>

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