

Looking for loopholes in microchip security

September 20 2010, by Miranda Marquit



Avishai Wool at Tel Aviv University

(PhysOrg.com) -- When it comes to making sure our information is secure, sometimes researchers have to think like hackers. This is true of Avishai Wool, a professor at Tel Aviv University. Along with Ph.D. student Yossi Oren, Wool has come up with a way to extract information from microchips that are thought to be secure. Wool and Oren created a special computer program that is designed to reduce the noise that limits hackers from identifying information on chips through the use of power source tracing.

[American Friends of Tel Aviv University](#) offers this on the new method:

When applied to information gathered from a [power source](#), a [computer program](#) like the one Prof. Wool and Oren have created can sort through

this "noise" to deliver a more accurate analysis of a chip's secret contents. Their program is based in "constraint programming" — the same computer programming approach used for complex scheduling programs like those used in the travel industry.

If hackers were to figure out how to reduce the background noise, it would be another tool in their arsenals. However, Wool insists that figuring these methods out first can help make microchips more secure. Now that researchers have this new way of extracting information from chips, it should be possible to create a defense. While there is no way to completely secure a chip's information, it is possible to stay ahead of hackers -- as long as researchers are willing to think like them.

More information: "How Safe Is Your Swipe?", American Friends of Tel Aviv University (September 20, 2010). Available online: www.aftau.org/site/News2?page=NewsArticle&id=12970 .

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Citation: Looking for loopholes in microchip security (2010, September 20) retrieved 24 April 2024 from <https://phys.org/news/2010-09-loopholes-microchip.html>

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