

Fourth VICI-award for TU/e

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Dr. Kevin Williams at the Electrical Engineering faculty has been awarded a VICI research grant for his proposal to research ultrafast opto-electronic chips. Williams is now the fourth researcher at TU Eindhoven who is known to have received a Vici award and the second from the COBRA research institute.

Williams (UK, 1970) will develop the know-how to create ultrafast optoelectronic chips. In a broad range of computing and communications applications there is a growing need to process Terabit per second data streams (1 Terabit is one thousand Gigabits). Today's processors have a maximum speed of a few gigabits per second. Energy consumption and cost currently prevent faster operation.

The British researcher is looking to solve this using optical chips; chips that work using light signals rather than electrical signals. This makes energy efficiency possible at ultrahigh speed. However, to achieve this, two critical barriers need to be overcome. Light travels so fast that it becomes difficult to control. Additionally, there is no technology for 'optical wiring' inside complex optical chips. Williams will address both of these challenges in his research. His work will ultimately lead to two prototypes to show that his solutions really work.

COBRA is the interuniversity research school for Communication Technologies Basic Research and Applications. Last week it was announced that prof.dr. Erik Bakkers, also with COBRA, has received a VICI-award.

The official announcement for all the Vici award winners is on 1 February 2011. The maximum financial subsidy attached to a VICI award is one and a half million Euros. VICIs are targetted to support senior researchers who have successfully shown that they can develop an innovative new line of research and coach young researchers. The award offers senior researchers the opportunity to build their own research group.