

Science Days: Brain Research

Saturday & Sunday, February 11-12, 2012 / Ars Electronica Center

(Linz, February 9, 2012) The 2nd Science Days event at the Ars Electronica Center this coming weekend will be all about research on the brain. The venue, appropriately enough, is the in-house BrainLab, where visitors can steer robots and write words solely with their thoughts, and find out why certain optical illusions just fool adults and not kids.

Program overview:

A Look at Research Being Done by RISC (age 5+)

Saturday, 10:30 & 11:30 AM, 12:30, 1:30, 2:30 & 4:30 PM

For almost 10 years now, Hagenberg-based RISC Software GmbH has been applying leading-edge scientific methods from mathematics, computer science and biomechanics to solving medical problems. Thomas Kaltofen from the company's Medical Computing division will give a rundown on what's been happening at RISC Software GmbH.

SEE-KID vision game (age 5+)

Saturday, 11 AM-5 PM

SEE-KID is a one-of-a-kind computer program used to simulate eye abnormalities and their surgical correction. It also offers visitors a playful way to have their eye movements analyzed.

Steer a Hexapod with SSVEP (age 10+)

Saturday & Sunday, 11 AM, 2, 3 & 4 PM

Steady State Visually Evoked Potential is an experiment in which a person uses his/her thoughts to control a six-legged robot. How does it work? Each directional button on a remote-control unit blinks at a different speed (i.e. at different intervals). When we concentrate on one of the directions, the signals of our nerve cells "blink" in the same pattern as the light. The computer, in turn, recognizes which direction we want the robot to go in and executes the movement with the robot.

Brain-Computer Interface - P300 (age 10+)

Saturday & Sunday, 1, 3:30 & 5 PM

The brain computer interface is one of Graz-based company g.tec's most exciting research fields. They've come up with a way for a person to write words using only his/her thoughts, an electroencephalograph (EEG) to measure the brain's electrical activity and the so-called P300 wave.

Mind Reader (age 4+)

Saturday & Sunday, 10 AM-6 PM

Can our wishes be read from our eyes? The Tobii Eyetracking System recognizes which point in an image our eyes focus on and which segments of the picture attract the most attention.

With queries, please contact

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Optical Illusions - Can You Trust Your Eyes? (age 4+)

Saturday & Sunday, 10 AM-6 PM

Visitors will find out all kinds of fun stuff about optical illusions, see how the human brain influences perception, and learn why many optical illusions still cannot be fully explained.

A Journey through the Brain for Kids and Grown-Ups (age 4+)

Saturday & Sunday, 10 AM-6 PM

Games, tricky puzzles and optical illusions teach young and old about the human brain.

How Can We Contribute to Successfully Educating Our Children?

Saturday & Sunday, 10 AM-6 PM

In this film, brain researcher Gerald Hüther reveals astounding insights that don't completely comply with conventional wisdom in the field of pedagogy.

Ars Electronica Center: <http://www.aec.at/news/en/>

RISC Software GmbH: <http://www.risc-software.at/index.php?Itemid=1>

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