

Technology Innovation Winners 2004

OVERALL WINNERS

GOLD WINNER:

Sun Microsystems Laboratories (U.S.) - New method for chips to transmit data inside a computer up to 100 times faster than today's top speed.

SILVER WINNER:

Given Imaging Ltd. (Israel) - Pill-shaped video camera screens the esophagus for disorders.

BRONZE WINNER:

InSightec Image Guided Treatment Ltd. (Israel) - Device destroys tumors using ultrasound waves together with magnetic resonance imaging.

HONORABLE MENTION:

Flarion Technologies Inc. (U.S.) - New approach to mobile broadband networks, based on Internet protocol.

HONORABLE MENTION:

Witten Technologies Inc. (U.S.) - Technology that creates detailed images of conditions underground.

BIOTECH-MEDICAL

WINNER:

Given Imaging Ltd. (Israel) - Pill-shaped video camera screens the esophagus for disorders.

RUNNERS-UP:

- InSightec Image Guided Treatment Ltd. (Israel) - Device destroys tumors using ultrasound waves together with magnetic resonance imaging.
- Menssana Research Inc. (U.S.) - A breath test for detection of disease.
- Advanced Imaging Technologies Inc. (U.S.) - Applies acoustical holography to soft-tissue imaging for early detection of breast cancer.
- Restore Medical Inc. (U.S.) - Procedure to treat obstructive sleep apnea.
- Ogenix Corp. (U.S.) - Small portable device that delivers pure oxygen to treat chronic wounds.
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E-COMMERCE

WINNER:

Galp Energia SGPS SA (Portugal) - Gas stations use biometric payment system, where customers press thumb against glass pad.

ENVIRONMENT

WINNER:

Ferrate Treatment Technologies LLC (U.S.) - Wastewater and industrial effluence treatment without toxic byproducts.

RUNNERS-UP:

- Runner-Up - Electric Power Research Institute (U.S.) - Process reduces mercury emissions from coal-fired power plants.

- Runner-Up - Regenesis (U.S.) - Metals Remediation Compound removes toxic metal contaminants from groundwater.
- Runner-Up - Nutech 03 Inc. (U.S.) - Treatment to remove aquatic nuisance species from ballast water.

MATERIALS AND OTHER BASE TECHNOLOGIES

WINNER:

Startech Environmental Corp. (U.S.) - Recycling system that destroys wastes by subjecting them to superheated, ionized gases.

RUNNERS-UP:

- Xerox Corp. (Canada/U.S.) - Plastic integrated circuits, which could be produced at much lower cost than their silicon counterparts.
- Inion Oy (Finland) - Polymers from which a range of biodegradable medical implants can be developed.
- Sage Electrochromics Inc. (U.S.) - Windows that can be electronically tinted to control incoming sunlight and heat.

MULTIMEDIA

WINNER:

International Business Machines Corp. (U.S.) - System for searching multimedia content using technology that analyzes audio, visual and text components.

RUNNER-UP:

Microsoft Research, Cambridge (U.K.) - SenseCam, a small black-box recorder of the human body, recognizes changes in light, heat and movement.

NETWORK AND INTERNET TECHNOLOGIES

WINNER:

Flarion Technologies Inc. (U.S.) - New approach to mobile broadband networks, based on Internet protocol.

RUNNER-UP:

International Business Machines Corp. (U.S.) - "Chung-Kwei," a system for analysis of e-mail messages and automatic identification of spam.

SECURITY (FACILITIES)

WINNER:

Nomadics Inc. (U.S.) - Hand-held portable explosives detector.

RUNNER-UP:

Pyramid Vision Technologies Inc. (U.S.) - Video surveillance system that replaces banks of multiple monitors with a single screen.

SECURITY (NETWORK)

WINNER:

Sana Security Inc. (U.S.) - Antihacker products based on the ways that the human body repels invaders.

RUNNER-UP:

International Business Machines Corp. (U.S.) - Method of authenticating identities based on analysis of the voice.

SEMICONDUCTORS AND ELECTRONICS

WINNER:

Sun Microsystems Laboratories (U.S.) - New method for chips to transmit data inside a computer up to 100 times faster than today's top speed.

RUNNER-UP:

Philips Research (Netherlands) - Miniature capacitors designed to boost performance and minimize size of circuits in mobile phones.

SOFTWARE

WINNER:

Witten Technologies Inc. (U.S.) - Technology that creates detailed images of conditions underground.

RUNNERS-UP:

- VMWare Inc. (U.S.) - Software that allows computers to run multiple operating systems.
- Nanyang Polytechnic (Singapore) - Software system for managing manpower requirements using genetic algorithms.
- International Business Machines Corp. (Japan) - Disability simulator that helps Web designers ensure their pages are accessible by people with visual impairments. The head researcher, Chieko Asakawa, is blind.
- Los Alamos National Laboratory (U.S.) - Software suite for managing and operating cluster-based supercomputers.

TRANSPORTATION

WINNER:

Toyota Motor Corp. (Japan) - Hybrid Synergy Drive, the newest version of the gasoline-electric hybrid powertrain used in Toyota's Prius model.

WIRELESS

WINNER:

Mesh Networks Inc. (U.S.) - Command system enabling real-time tracking of firefighters and other emergency personnel in buildings, tunnels, etc.

RUNNERS-UP:

- Vanu Inc. (U.S.) - System allowing wireless carriers to run multiple standards simultaneously.
- Microvision Inc. (U.S.) - Wearable computers and head-worn displays, enabling mobile technicians to work hands-free.
- Tropos Networks Inc. (U.S.) - Technology that allows economical, citywide deployment of Wi-Fi.