

TECHNOLOGY INNOVATION WINNERS 2008

GOLD

Vidacare, U.S.

■ The EZ-IO device, a high-speed drill that uses a specially designed needle to bore into bones and deliver medication or other fluids.

SILVER

Audience, U.S.

■ Technology designed to block background noise in mobile-phone calls.

BRONZE

Lawrence Berkeley National Laboratory, U.S.

■ The PhylloChip, a microchip that, by analyzing DNA, can identify different varieties of bacteria that might be present in air, water, soil, blood or tissue samples.

COMPUTING SYSTEMS

Salesforce.com, U.S.

■ Force.com, a suite of tools that a company can use to build its own customized business applications online.

CONSUMER ELECTRONICS

Spot, U.S.

■ The Spot Satellite Messenger, a hand-held device that can send messages via satellite along with users' location, even if they're too remote for cellphone coverage.

ENERGY

Applied Materials, U.S.

■ The SunFab production line, which can manufacture large solar panels more quickly and cheaply than traditional production methods.

ENVIRONMENT

Lawrence Berkeley National Laboratory, U.S.

■ The PhylloChip, a microchip that, by analyzing DNA, can identify different varieties of bacteria that might be present in air, water, soil, blood or tissue samples.

Runners-up

Xerox, U.S.

■ A new type of paper, called Xerox High Yield Business Paper, that's produced using half as many trees as conventional paper.

Biolytix Water, Australia

■ A sewage-treatment system that recycles sewage into irrigation water for the garden.

Advanced Cleanup Technologies, U.S.

■ Devices used to capture and treat harmful emissions from the exhaust stacks of oceangoing vessels and railroad locomotives.

Kaichang Li, associate professor in the Department of Wood Science and Engineering at Oregon State University, U.S.

■ An adhesive system for making wood composite panels that does not contain formaldehyde.

HEALTH-CARE IT

GlaxoSmithKline, U.K.

■ Molecular Clinical Safety Intelligence, software that helps researchers screen potential drugs for possibly adverse medical reactions while the drugs are still in the earliest stages of development.

Runner-up

The Smile Train, U.S.

■ Training videos that enable doctors in poor, remote areas to learn advanced cleft surgical techniques from the world's foremost experts in the field. The DVDs are available in English, Spanish and Mandarin.

MATERIALS AND OTHER BASE TECHNOLOGIES

Nanocomp Technologies, U.S.

■ Process to create large sheets of fabric and lengths of yarn using carbon nanotubes. The technology can be used to make lightweight yarns for wiring and cables.

Runner-up

Xerox, U.S.

■ Technology that uses ordinary office paper and toners to create ultraviolet and infrared printing, making documents and other printed materials more secure and readily authenticated.

MEDICAL DEVICES

Vidacare, U.S.

■ The EZ-IO device, a high-speed drill that uses a specially designed needle to bore into bones and deliver medication or other fluids.

Runners-up

Mauna Kea Technologies, France

■ The Cellvizio, a miniature microscope that provides a view of living tissue during endoscopy, potentially eliminating unnecessary biopsies and speeding up gastrointestinal and lung-cancer diagnosis.

Sanarus Medical, U.S.

■ The Visica 2 Treatment System, a nonsurgical, minimally invasive tool for the management and treatment of benign breast tumors.

Siemens Medical Solutions, U.S.

■ The Acuson P10, a pocket-size ultrasound device intended for initial diagnostic assessment in emergency medicine, cardiology and obstetrics.

OptiMedica, U.S.

■ The Pascal Photocoagulator, a device that permits ophthalmologists to treat eye diseases far more quickly than traditional laser systems, reducing discomfort and improving patient outcomes.

MEDICAL/BIOTECH

Rosetta Genomics, Israel

■ Diagnostic tests that use short strands of genetic material to help physicians identify the type of cancer a patient has, so that they can prescribe therapies more accurately.

NETWORK/INTERNET TECHNOLOGIES

Xsigo Systems, U.S.

■ Technology that can be used to replace the physical cables in a data center with "virtual" connectors.

NETWORK SECURITY

Veracode, U.S.

■ Software that tests for security holes in the binary code of new applications.

Runner-up

Palo Alto Networks, U.S.

■ The PA-4000 Series Firewall, which identifies and controls applications used on computer networks.

PHYSICAL SECURITY

Vumii, U.S.

■ Discoverii, night-vision camera technology that uses a near-infrared laser to illuminate an area.

SEMICONDUCTORS

Audience, U.S.

■ Technology designed to block background noise in mobile-phone calls.

Runner-up

Luxtera, U.S.

■ Technology that combines lasers and silicon circuitry for high-speed data communications in a single chip.

SOFTWARE

Cleversafe, U.S.

■ Dispersed Storage software, which promises a more secure and reliable way to store sensitive computer files.

TECHNOLOGY DESIGN

Telefon AB L.M. Ericsson, Sweden

■ The Tower Tube, a new way to construct cellphone towers that are faster to build, cheaper to operate and more aesthetically pleasing than typical cellular towers.

TRANSPORTATION

Tata Motors, India

■ The Nano, a tiny, fuel-efficient, four-seat car priced at \$2,500. It's designed to appeal to millions of poor families in India who otherwise rely on motorbikes or other two-wheeled transportation.

Runner-up

OnStar, U.S.

■ Stolen Vehicle Slowdown, which allows OnStar advisers to send a signal to a subscriber's stolen vehicle to reduce engine power, slowing the vehicle down gradually.

WIRELESS

Tata Consultancy Services, India

■ The mKrishi service, which delivers crop advice to farmers in rural India by cellphone.