



Science & Technology News from Japan, November 2011

ETH Zurich Awards Honorary Doctor To Toyota Hybrid Car Developer

Kazuo Okamoto was awarded the ETH honorary doctor for his efforts to create a hybrid car. In his laudatory speech at the ETH Day 2011, Prof. Poulikakos stressed Mr. Okamoto's enthusiasm for the creation of a car that satisfies high standards of safety and environmental compatibility. In 1997 when Toyota's Prius was developed, the company was working on the world's first mass-produced hybrid car. Mr. Okamoto and his team were responsible for the reduction of the vehicle's weight and the increase of the driver's safety – crucial steps in the creation of a green car. Toyota's Prius is a milestone in the history of the automobile. Further laureates include Eduard Rikli for promoting industry-academia collaboration and Gerhard Wegner for his achievements in polymer science.



Scientific Collaboration On Fusion For Clean Energy

The Broader Approach Agreement between the EU, Switzerland and Japan aims at supporting the ITER project and an early realization of fusion as a clean and sustainable source of energy for peaceful purposes. The Broader Approach Agreement is now in its Fifth year and has become a model for effective scientific collaboration between the EU and Japan, strengthening cooperation in delivering fusion as an energy source for the future. Representatives of the EU and Japan met at the EPFL in Switzerland, confirmed the sustained progress achieved despite the difficulties created by the Great East Japan Earthquake.



ETH Zurich Infomarkt With Focus on Japan

An Infomarkt to inform students about possibilities to study abroad was held at ETH Zurich on October 27 and November 2. The focus this year was on Japan. Study advisors gave presentations on various study programs as well as exchange programs. Specific information was provided on Japan, the US and Canada. In a joint-effort, the Swiss Embassy in Tokyo and the Japanese Embassy in Bern gave direct counseling to interested students. As a result, several students came to the booth after the presentations to receive more detailed information on the possibilities of studying in Japan. Such effort has become especially important after the March 11 earthquake, as the number of foreign students in Japan has dropped since then.



Cube House In Switzerland By Japanese Architects

Japanese architects Makoto Takei and Chie Nabeshima, owner of TNA Architects, designed a house named the Cube House in Engadin, Switzerland. The house is located in the small village of S-chanf with about 100 households, a 30-minute drive from St. Moritz. The owner of the house planned to renovate the main building into a gallery and add a small guest house for visitors in the garden. The wish was to respect the traditional architecture of the mountain village. The architects proposed a design intended to bring the inside and the outside closer so the guests could enjoy the beautiful Swiss mountain scenery surrounding the house without leaving it.



1. Science and Technology Policy in Japan

- Start Of Winter Power-Saving Period
- Nuclear Policy Review
- Energy Policy After March 11
- Nuclear Accident Panel
- Government Backed Standard On Subsidized Smart Meters
- Experts Predict Chance For Rebirth After March 11
- New Land Regulations For Giant Solar Farms



- Relaxed Rules For Private Power Generation
- New Climate Forum Proposition
- Nuclear Export Ambitions While Reducing Atomic Power
- Uncertain Future Of Monju Reactor

2. Education

- English Science Presentation Contest
- Invitation For Disaster-Zone Students By Canada And Australia
- Okinawa Institute Of Science & Technology Inaugurated

3. Life Science / Health Care

- New Drugs
- High-Precision Radiotherapy Equipment
- New Breast Cancer Screening Method
- Faster Development Of Biosimilars
- Reorganization Of Global Drug Production
- Research On The Secret Of Superlongevity

4. Nano / Micro Technology / Material Science

- Strong, Light Jet Materials
- Rare Metals Recovery From Waste Liquids With Bacteria Capsule
- New Method For PET Bottle Recycling
- Superfine Laser-Cutting Tool
- World's Fastest Silicon Wafer Cleaning System

5. Information & Communications Technology

- Supercomputer For Shogi Chess
- New Gadget For Gamers
- First Supercomputer To Exceed 10 Petaflop Limit
- Low-Cost Supercomputers
- Virtual Life Merges With Reality
- New Supercomputer Using 'K' Technology
- Cyber-Attack In Nine Prefectures
- Mobile Wallet Service Goes Abroad
- New Touch Screen With High Durability
- The University Of Tokyo Buys Supercomputer
- Increasing Volume Of Smartphone Data
- E-Money Evolving
- Smartphone Geiger Counter
- Future Car's Connectivity
- Review Of Supercomputer Budget
- 'Smart' Household Appliances
- Tiny Chip For High-Speed Wireless Data Communication
- Smartphone Payment System In Global Competition
- Breakthrough Towards Low-Cost, Large-Screen OEL Panels



6. Energy / Environment

- Winter Power Shortage
- High-Tech Farm Produce
- Deep Sea Probe At Low Cost
- Summer 2012 Energy Action Plan
- Bioethanol Equipment Production Boost
- Smart-City Planning
- Japanese Woodlands Getting Marketable
- Geothermal Equipment For Kenya
- Smart Grid For Tokyo
- Japan-U.S. Joint Smart Grid Test
- Chemical Waste Recycling
- Agribusiness Along Railway Lines
- Fast And Cheap Wood Chips Drying Method
- Lithium-Ion Cells With 1.3 Times More Electric Capacity
- Small Generator Motors For Wind And Hydropower
- Solar Power Plant Rules To Be Eased
- New Cooperation In Quake And Tsunami Research
- Entering Japan's Solar Power Market
- Ocean Current Power Generation Smart Grid Project Hawaii
- Promotion Of Electric Vehicle Power Charging Stations
- Nanometer-Size Oxygene Bubbles As Lake Purifiers
- Drastic Review Of Energy Conservation Law
- Energy-Saving And Environmental Tie-Ups With China
- 40% Potential For Renewable Energy
- Hightech Vessels To Drill Deeper Than Ever Attempted

7. Space Development

- New Fish Tank For Studies In Space
- Space-Based Solar Power And Energy Beam Transmission
- Astronaut Sets Japanese Record With 5½-Month ISS Stay

8. Engineering / Robotics

- Robots For Aging Population
- Remotely Controlled Floodgates
- Four New Nursing Robots
- AA Battery Robot
- Hydrogen Fuel-Cell Cars
- Improved Asimo Robot
- Hybrid And Fuel-Efficient Cars
- Next-Generation Electromotive Concept Models
- Beyond Simple Humanoid Robots
- Remote-Control Unit For Robots
- Tokyo Sky Tree World's Tallest Tower
- New Solder For 50% Lighter Aluminum-Steel Car Composites
- Eco-Friendly Spotlight At Tokyo Motor Show
- Green Car Of The Year
- Japan's Most Fuel-Efficient Gasoline Powered Car
- Futuristic Cockpit Simulator



- Rescue Robots And Insect Cyborgs
- Parallel-Link Robot For Small Factories
- Low-Maintenance, Puncture-Free Airless Tire
- Rare Earth Reduced Magnets For Ecofriendly Cars

9. Nuclear Development

- 8 Nuclear Plant's Safety Standards Re-Evaluation
- Japanese Embassy In Ukraine Reinforced With Nuclear Experts
- Plans For Nuclear Waste Storage Facility
- Export of Nuclear Power Plants To Vietnam
- Global Atomic Power Demand On The Rise
- Future Nuclear Emergency Zones
- Japan And Turkey Resume Nuclear Cooperation Negotiations
- Uncertain Radiation Effects Below 100 Milisieverts
- Call For Radiation Exposure Survey
- Genkai Reactor Restarted
- No Chain Reaction In Fukushima Reactor
- Transparency On Stress Tests
- Decontamination Initiatives
- New Roadmap For Fukushima PlantMedia Visit At Fukushima
- Nuclear Plant Decommissioning
- Monju Lab To Be Used
- IAEA Report On Fukushima's Radioactive Waste
- Low Utilization Rate Of Nuclear Reactors
- Study On Possible Link Between Reactor Age And Accident
- Study On Radioactive Fallout
- Fukushima Radiation Dose Limit
- Cattle Research In No-Go Zone
- Protection Of Nuclear Plants From Terrorism
- New Nuclear Clean-Up Research Center In Fukushima
- Shipment Ban Of Cesium Tainted Rice
- Storage Facility For Radioactive Waste
- Feasible Fukushima Nuclear Plant Cold Shutdown
- No-Entry Zone Cleanup Begins
- Radioactive-Soil Disposal Device
- Council To Oversee New Nuclear Safety Agency
- Monju Reactor Program Under Review
- Stress Tests Of Nuclear Fuel Reprocessing And Storage Facilities
- Toshiba Delivers Nuclear Reactors For U.S.
- Cesium Tainted Fukushima Rice Detected
- Tsunami Risk Study Underestimated
- Stricter Safety Checks For Aging Reactors
- Melted Nuclear Fuel Eroded Reactor Container

10. Physics

- Recent Research Into Neutrinos



11. Intellectual Property Rights / Technology Transfer / Alliances

- Ranking Of Patent Asset In Japan
- Cyber Attack On Intellectual Property
- LCD Deal

12. General Interest

- Salvaged Disaster-Zone Photos
- Survey On New University Graduates Salary In 2011
- Foreign Brand Names Dictionary
- Product Ranking 2012
- Imperial Status After Marriage
- Record Number Of Single Men Without Girlfriend

Upcoming Science and Technology Related Events in Japan

- > **Valerio Olgiati Architecture Exhibition**, November 2011 – January 15, 2012
Jointly organized by the National Museum of Modern Art Tokyo MOMAT, ETH Zurich and the Accademia di Architettura in Mendrisio
http://www.momat.go.jp/english/artmuseum/Valerio_Olgiati.html
- > **SWISS Pavilion @ nano tech 2012** [Nanotechnology], February 15 - 17, 2012
Organized by Inno-x GmbH, www.swissnanotech.net
- > **Swiss Solar Pavilion @ PV EXPO 2012** [Photovoltaics], February 29 - March 2, 2012
Organized by the Science & Technology Office Tokyo, Embassy of Switzerland
➔ If you wish to receive more information, please contact felix.moesner@eda.admin.ch
- >> More events on the Japan Science and Technology Office homepage:
<http://tinyurl.com/News-Events-in-Japan>

Information Contact

If you wish to receive more detailed information or would like to introduce new readers, please feel free to contact the Science & Technology Office Tokyo. Email: tok.science@eda.admin.ch
Thank you for your interest!