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Did You Know

ISRAEL21c brings together some of the biggest achievements that have come out of Israel.

Technology

Weizmann Institute of Science researcher Ehud Shapiro and his team developed the world's smallest DNA computing machine system, according to the Guinness Book of Records.

All pet Syrian hamsters are descendants of a family brought to Jerusalem 86 years ago by Israel's first Hebrew zoologist.

Guess Who? (Hasbro), Play-On-WordZ (Hasbro), Number Rumba (Mattel), Quips (Ravensburger), One Too Many (Waddington's) and Last Mouse Lost (Foxmind) are among more than 155 different concepts thought up by Tel Aviv-based game designers Theora Design.

Osem produces one million bags daily of Bamba -- Israel's top-selling snack. Surveys show that a whopping 90 percent of families buy it on a regular basis.

Israel's most beloved chocolate pudding -- Milky -- is the most successful dairy product in the local market since its debut in 1979. The pudding has a secret whipped cream topping and only five people are said to know the recipe.

Beersheva is the city multinational players like IBM, Cisco, Lockheed Martin RSA and Deutsche Telekom are looking toward to find cybersecurity solutions for defending critical infrastructures.

Fashion-designer Danit Peleg created the first-ever ready-to-wear clothing line made at home on 3D printers. She then caught the world's attention when US snowboarder Amy Purdy danced a samba at the Opening Ceremony of the Paralympics in Rio while wearing a Peleg-designed 3D dress.

Tel Aviv claims to have the highest per-capita ratio of dogs to people in the world.

An Israeli architect designed the world's scariest bridge across the Zhangjiajie Grand Canyon in China.

The world's oldest oceanic crust still in place can be found in the Mediterranean Sea.

Israeli matzah factories send kosher-for-Passover matzah products to over 50 countries around the world.

In March 2016, the Guinness World Records confirmed that Israel Kristal of Haifa is the world's oldest living man.

Good Deeds Day was started by Israeli businesswoman and philanthropist, Shari Arison. Since its launch in 2007, Good Deeds Day is marked in over 50 countries including the US, Mexico, Panama, Chile, Argentina, France, Germany, Switzerland, Britain, Denmark, Finland, Portugal, Hungary, Ukraine, South Africa and Singapore.

Microsoft founder and philanthropist Bill Gates put an Israeli author's 400-page history of the human race on his 2016 list of best reads.

A unique grassroots organization that offers emergency medical treatment in Israel is now training teams of volunteers to save lives across North and South America, Europe and India.

An Israeli company has created a rechargeable wearable device called Livia, which can relieve menstrual cramps.

A Jerusalem startup, Glide, has developed the first camera for Apple Watch, bringing game-changing functionality to wearables.

A small Israeli-Arab village in the Lower Galilee has one of the highest numbers of doctors per capita in the world.

Intel's new game-changing processor, Skylake, which experts believe will significantly advance the computing industry, was developed at the multinational corporations offices in Haifa.

Amazon's Kindle device was largely developed in the heart of Israel's high-tech center in Herzliya.

Two Arab-Israeli engineers have developed a 2x2x2-inch computer, which is the smallest in the world. The CuBox-i, sells for just \$55 and is made by Israeli company, SolidRun.

Developers of Israel's missile defense system, Iron Dome, which became the hero of the 2014 conflict in Gaza, used some components from a toy car bought at Toys R Us to make the first prototype.

An Israeli startup, StoreDot, has developed a technology that can charge a mobile phone in just 30 seconds.

Trucks will be a lot safer and greener thanks to an Israeli company, Neomatix, which has developed a device to check tire pressure remotely, when trucks park for the night. Improperly inflated tires waste energy, wear down tire treads, and are a safety hazard.

Israel has designed the first flight system to protect passenger and freighter aircraft against missile attack.

Israel produces more scientific papers per capita than any other nation by a large margin – 109 per 10,000 people – as well as one of the highest per capita rates of patents filed.

In proportion to its population, Israel has the largest number of startup companies in the world. In absolute terms, Israel has the largest number of startup companies than any other country in the world, except the US (3,500 companies mostly in hi-tech).

Israel is ranked #2 in the world for venture capital funds right behind the US.

According to industry officials, Israel designed the airline industry's most impenetrable flight security. U.S. officials now look to Israel for advice on how to handle airborne security threats.

Israel has the highest percentage in the world of home computers per capita.

Israel leads the world in the number of scientists and technicians in the workforce, with 145 per 10,000, as opposed to 85 in the U.S., over 70 in Japan, and less than 60 in Germany. With over 25% of its work force employed in technical professions. Israel places first in this category as well.

The first PC anti-virus software was developed in Israel in 1979.

AirTrain JFK –; the 8.1-mile light rail labyrinth that connects JFK Airport to New York City's mass transit – is protected by the Israeli-developed Nextiva surveillance system.

An Israeli company M-Systems was the first to patent and introduce the disk on key.

A team of Israeli and US researchers has designed a watermelon-picking robot endowed with artificial vision to do the job of harvesting.

A small Israel company called Lenslet has developed a revolutionary electro-optic processor which operates one thousand times faster than any known Digital Signal Processor.

An Israeli-developed algorithm enabled NASA to transmit images from Mars.

Israel hosts IBM's largest R&D facilities outside the United States.

Israeli researchers have developed an engineless, nano-RPV (remote piloted vehicle).

The U.S. Marines in Iraq are using an Israel-developed hand-held computer for communication purposes.

Israel engineers are behind the development of the largest communications router in the world, launched by Cisco.

Israeli air force pilot technology is being used to train American college basketball and hockey players.

Millions of American youngsters will soon be able to surf safely in Internet chat rooms thanks to Israeli technology.

Jerusalem-based SnapKeys is bringing smartphone users a whole new way to type with an invisible keyboard.

A new Israeli iPhone and iPad app called GroupShot flawlessly cobbles together the best images from a variety of group shots where somebody's blinking, yawning or clowning.

A winning proposal by Israel's Technion Institute of Technology and Cornell University will form the basis of the future NY Techinstitute in the Big Apple.

An Israeli smartphone app already in use worldwide enables drivers to avoid jams, and navigate their way through crowded city streets, using data from their phone's GPS.

The new American state-of-the-art F-35 Joint Strike Fighter aircraft will be equipped with Israeli-developed mounted display systems in their helmets which incorporate and display all vital flight data.

Israeli mini-unmanned aerial vehicles are being used by US forces in Iraq and Afghanistan.

Intel has sold more than \$5 billion worth of the Israeli-developed Centrino chipsets since they were introduced in March 2003.

An Israeli company has developed the world's first video ringtones for cell phones – the Vringo.

Voice over internet protocol (VoIP) technology was pioneered in Israel.

Bill Gates called Israel a major player in the high tech world.

Intel's new multi-core processor was completely developed at its facilities in Israel.

Motorola has its largest R&D center outside of the US in Israel.

Most of the Windows NT operating system was developed by Microsoft-Israel.

The Pentium MMX Chip technology was designed in Israel at Intel.

Voice mail technology was developed in Israel.

Both Microsoft and Cisco built their only R&D facilities outside the US in Israel.

The technology for AOL Instant Messenger was developed in 1996 by four young Israelis.

With more than 3,000 high-tech companies and start-ups, Israel has the highest concentration of high-tech companies in the world (apart from the Silicon Valley).

Prof. Robert Aumann is the fourth Israeli in the last four years to win a Nobel Prize.

Israeli technology is behind the successful testing of in-flight cell phone use.

New Yorkers are finding parking in their city a great deal easier with a new Israeli app called Pango that lets users locate, book and pay for parking spots via their smartphone. Other US cities in Arizona and Pennsylvania are also using the system.

Israeli company Project RAY has developed the world's first smartphone for people with visual disabilities, opening up the benefits of digital access to a population excluded up to now. Already in use in Israel, the smartphone is now launching in the US.

Life is about to get a lot quieter thanks to an Israeli company, Silentium, that has developed an award-winning noise cancelling technology that can be applied to almost everything – from home appliances to airplane seats.

Health

The world's smallest video camera – with a 0.99 mm diameter -- is designed by an Israeli medical device company to fit in a tiny endoscope.

In a significant breast cancer breakthrough, Israeli scientists have been able to stop the spread of breast cancer in mice.

An Israeli company has developed a smart bracelet to be worn by staff workers in hospital to make sure they wash their hands after contact with patients. Currently about 100,000 people a year in the US die of infections they contract in hospitals and clean hands can eliminate most of these infections.

Israeli diagnostic company Novamed has developed a home diagnostics product that can detect a heart attack even before it takes place.

An Israeli company Myndlifit has developed an app that can improve attention disorders without negative side effects.

An Israeli company has developed a revolutionary new tool that could allow surgeons to close wounds without stitches or staples minimalizing scarring and risk of infection.

Israeli researchers believe they may have found a way to preserve the fertility of young female cancer patients undergoing chemotherapy.

Israeli researchers have discovered that bursts of gentle electricity may slow down the progression of Alzheimer's.

Israeli scientists developed the first fully computerized, no-radiation, diagnostic instrumentation for breast cancer.

An Israeli company developed a computerized system for ensuring proper administration of medications, thus removing human error from medical treatment.

Israel's Given Imaging developed the first ingestible video camera, so small it fits inside a pill.

Researchers in Israel developed a new device that directly helps the heart pump blood, an innovation with the potential to save lives among those with congestive heart failure. The new device is synchronized with the heart's mechanical operations through a sophisticated system of sensors.

A new acne treatment developed in Israel, the ClearLight device, produces a high-intensity, ultraviolet-light-free, narrow-band blue light that causes acne bacteria to self-destruct – all without damaging surrounding skin or tissue.

Christopher Reeve called Israel the “world center” for research on paralysis treatment.

Israeli research has shown that dancers display consistent differences from the general population in two key genes.

Israeli researchers are playing an important role in identifying a defective gene that causes a rare and usually fatal disease in Arab infants.

An Israeli company has been given a U.S. grant to develop an anti-smallpox first aid treatment kit.

Israeli microbiologists have developed the first passive vaccine against the mosquito-borne West Nile virus.

Israeli researchers are using video games to investigate future treatments for memory disorders such as Alzheimer's disease.

An Israeli company has developed sensors that pick up signs of stress in plants.

Israeli medical researchers have shown that lycopene – the red pigment found in tomatoes – lowers blood pressure.

An Israeli company has developed a device that could enable millions of American diabetics to painlessly inject themselves with insulin.

Scientists in Israel have used strands of DNA to create tiny transistors that can literally build themselves.

Israeli research shows that a tonsillectomy could be the key to solving sleep apnea in children.

An Israeli company has developed a new device for monitoring coronary disease that will be integrated into future generations of cellphones.

An Israeli has invented a 'bone glue' that will reduce the need for bone transplants and heal bone defects caused by cancer.

Israeli researchers have found a connection between sleep apnea and impotence.

The founder of the Cancer Prevention and Wellness Program at New York's prestigious Memorial Sloan-Kettering Cancer Center is Israeli.

An Israeli company is the world's leading sleep disorder sensors manufacturer.

Israeli scientists have created a DNA nano-computer that not only detects cancer, but also releases drugs to treat the disease.

A newly developed Israeli cooking oil is capable of breaking up blood fats such as cholesterol.

Israeli scientists have alleviated Parkinson's-like symptoms in rats.

Israeli scientists are developing a nose drop that will provide a five-year flu vaccine.

Israeli researchers are successfully using magnets to treat post-traumatic stress disorder.

An Israeli vaccine for West Nile virus is being tested in the U.S.

Israeli scientists have discovered how to turn mismatched cells into cancer fighters.

An Israeli-developed device can painlessly administer medications through microscopic pores in the skin.

Israeli researchers have shown that a daily dosage of Vitamin E is effective in helping to regain hearing loss.

Environment

An Israeli conservationist has managed to jail more than 1,300 major wildlife traffickers in Africa through his wildlife conservation organization, the Last Great Ape Organization.

Israeli scientists have produced a clean energy alternative from spinach.

An Israeli company has developed reusable plastic trays to collect dew from the air, reducing the water needed by crops or trees by up to 50 percent.

Israel's Gigawatt Global is to build a 7.5-megawatt solar PV field to produce enough electricity for 60,000 households in Burundi's Gitega region. Today only 4% of the population in Burundi have access to electricity.

In the heart of urban Jerusalem lies a nature park with a herd of gazelles.

Drought-stricken California is turning to Israel for innovative technologies to help the state combat its worst-ever drought.

Israeli company HomeBioGas has developed anaerobic bio-digesters that can turn food scraps and animal manure into clean biogas for cooking, heating and lighting.

An Israeli inventor has developed the world's first cardboard bicycle from recycled materials. The bike is resistant to rain and sun, and costs around \$9 each.

Israel has the largest raptor migration in the world, with hundreds of thousands of African birds of prey crossing as they fan out into Asia.

Israeli engineers and agriculturalists developed a revolutionary drip irrigation system to minimize the amount of water used to grow crops.

An Israeli company was the first to develop and install a large-scale solar-powered and fully functional electricity generating plant, in southern California's Mojave Desert.

Some 500 million birds representing 300 species migrate across Israel's skies twice a year in the autumn and spring along the Great Valley Rift.

Israeli biologists have successfully managed, for the first time, to prepare the flowering of the "Madonna Lily" – a rare white Easter lily – in time for Easter.

An Israeli company has developed the world's first jellyfish repellent.

An Israeli two-flush system is saving Americans billions of gallons of water a year.

Drinking water for visitors to India's Taj Mahal has just got a great deal safer thanks to Israel's Aqwise, which will be purifying 150,000 cubes of water daily from the city's nearby Yamuna River.

A new IBM-Israel partnership is helping toward a goal of reducing California water usage by 20 percent by the year 2020.

Israel's Univerve is breeding a strain of algae to fuel your car.

Israel's Etenegy can get 40 percent more power from the sun with lightweight solar energy trackers based on the principles of kite surfing.

For many years, conservationists believed Israel's Hula painted frog was extinct after its swampy habitat was drained in the 1950s. Now, the frog has been found alive and jumping in the Hula valley after massive conservation efforts.

Israel is one of the leading countries in providing ornamental fish to aquariums around the world.

NASA is interested in knowing what Israeli researchers can learn about conditions on Mars by studying the Negev desert.

Israel is the only country in the world that entered the 21st century with a net gain in its number of trees.