

Chinese scientists plan wearable device that can listen, speak

Chinese scientists are researching the new material graphene to produce a smart wearable device to enable those with hearing and speaking disability to listen and speak normally.

Ren Tianling, a professor at the Institute of Microelectronics of Tsinghua University, is leading the team on the device, taking full advantage of graphene's special characteristics, such as excellent electric and thermal conductivity.

Graphene is a thin layer of pure carbon, a two-dimensional form of carbon in sheets just one atom thick, tougher than a diamond, yet lightweight and flexible, and it is a material with extremely strong electric and heat-conducting properties.

Ren's team has published a research paper on producing the wearable device made of graphene, in Nature Communications, an international science journal, the Xinhua News Agency reported.

The porous graphene material would make the device detect weak vibrations while it could produce sounds in a wide spectrum from 100Hz to 40kHz under the thermoacoustic effect.

Researchers would first record and encode the disabled people's sounds, such as coughs, whispers and screams, in different intensity and frequency into groups and then match each group with sounds of words, phrases or sentences.

When the device detects the sounds in groups, it will "speak" the words, phrases or sentences.

Tao Luqi, a doctoral student who took part in the research work, said the deaf-mute people need to compose the codes of their sounds in groups and remember them. It is something similar to typing the keys on a keyboard, and the device would respond to the codes by speaking the words back.

The device would also create the sentences in different tones as it would be capable of capturing even small differences such as high or low pitch.

Women hit six times harder this Budget

by government cuts

House of Commons analysis commissioned by Labour has revealed that as of the Chancellor's budget yesterday, women continue to be hit six times harder than men by government policies.

Sarah Champion MP, Labour's Shadow Secretary of State for Women and Equalities, said:

"Yesterday the Prime Minister and Chancellor talked up the significance of International Women's Day yet their warm words have amounted to nothing.

"Calls for a budget that works for women have been ignored.

"Women are still bearing the brunt of this Tory Government's failed austerity agenda – with the 86 per cent impact figure on women remaining unchanged since last year. Things are just as bad as ever for women under this Tory Government.

"Labour calls on the Government to urgently publish analysis of the true impact of their budgets and spending announcements on women and to explain how they intend to reverse this disproportionate impact.

Under a Labour Government, all economic policies will be gender audited to ensure that we have an economy that works for all."

China issues report on US human rights

China published a report on the United States' human rights situation on Thursday.

The report, titled "The Human Rights Record of the United States in 2016," was released by the Information Office of the State Council, China's cabinet, in response to "the Country Reports on Human Rights Practices for 2016" issued by the U.S. State Department on March 3 local time.

China's report says that the United States poses once again as "the judge of human rights".

"Wielding 'the baton of human rights,' it pointed fingers and cast blame on the human rights situation in many countries while paying no attention to its own terrible human rights problems," it says.

"With the gunshots lingering in people's ears behind the Statue of Liberty, worsening racial discrimination and the election farce dominated by money politics, the self-proclaimed human rights defender has exposed its human

rights 'myth' with its own deeds," it added.

Concrete facts show that the United States saw continued deterioration in some key aspects of its existent human rights issues last year, according to the report.

The United States had the second highest prisoner rate, with 693 prisoners per 100,000 of the national population, the report says.

Roughly 2.2 million people were incarcerated in the United States in 2014. And there had been 70 million Americans incarcerated – that's almost one in three adults – with some form of criminal record, the report cites media reports as saying.

Occurrence of gun-related crimes also sustained a high level, according to the report.

There were a total of 58,125 gun violence incidents, including 385 mass shootings, in the United States in 2016, leaving 15,039 killed and 30,589 injured, says the report, citing figures from a toll report by the Gun Violence Archive.

In 2016, the U.S. social polarization became more serious, with the proportion of adults who had full-time jobs hitting a new low since 1983, income gaps continuing to widen, the size of middle class reaching a turning point and beginning to shrink, and living conditions of the lower class deteriorating, the report says.

According to consulting firm Gallup, the percentage of Americans who said they were in the middle or upper-middle class had fallen by 10 percentage points, from an average of 61 percent between 2000 and 2008 to 51 percent in 2016.

"That drop meant 25 million people in the United States fared much worse in economic terms," it says.

Besides, one in seven Americans, or at least 45 million people, lived in poverty, the report quotes the Daily Mail as saying.

[4 grave robbers killed by poison](#)



The crime scene. [Photo/gywb.cn]

Four of 10 grave robbers who managed to break into a tomb built during the Song Dynasty (960-1297) died from the poisonous air wafting from below the graveyard in Xishui Town, Guizhou Province, on March 7, 2017.

The grave they attempted to loot has been preserved as a county-level cultural heritage relic.

Around 1:00 am last Monday, a man brought to a local hospital claimed he'd inhaled deadly gas while working underground in a mining area. However, when the doctors tried to rescue the man as he fell into coma, three of his friends outside the emergency room collapsed.

Realizing the complexities of the issue, the doctors called police.

Until the arrival of the police and local officials, the men who were still conscious admitted that they tried to break into an ancient tomb with the help of an old generator, the emission of which had made them feel uncomfortable. They rushed to the hospital after several fainted inside the grave.

According to the local government, three of the 10 men involved in the grave robbery died inside the mausoleum, while another died after being hospitalized. Four were in stable condition and two were arrested.

A cave going eight meters deep into the grave has been capped and restored. It is highly assumed that the robbers who tried to reach the mausoleum were obstructed by rocks, so they switched on the generator hoping to break their way through. But when attempting to mitigate the noise of the rumbling machine, they covered the entrance with quilts and caused the poisonous air

to condense.

[Americas region adopts 'historic' disaster risk reduction plan at UN-backed forum in Montreal](#)

9 March 2017 – Around 50 countries and territories of the Americas at a United Nations-supported conference in Montreal, Canada, agreed a Regional Action Plan today to better protect their citizens from the destruction caused by natural and man-made disasters.

The plan, which is the centerpiece of the Montreal Declaration outcome document, marks the end of three days of deliberation and discussion by close to 1,000 government delegations and officials; non-governmental organizations (NGOs), civil society and other representatives, under the umbrella of the UN-backed Fifth Regional Platform for Disaster Risk Reduction in the Americas.

The conference, supported by the UN Office for Disaster Risk Reduction (UNISDR), aimed to put into action the principles and priorities agreed by more than 180 countries across the world in the 2015 Sendai Framework on disaster risk reduction, named after the Japanese city in which it was adopted.

That enshrined the same priorities outlined by the Canadian Minister of Public Safety and Emergency Preparedness, Ralph Goodale, who chaired and hosted the Montreal Conference, when he summarized the thrust of Thursday's Regional Action Plan.

He said there were 16 specific actions arising, covering four key areas, namely understanding risk better; improving governance when it comes to dealing with disasters; improving on resilience at all levels regarding risk reduction efforts, and finally, better preparedness.

According to UNISDR, while disaster deaths have gradually fallen around the world expect in anomalous years marked by mega-disasters such as the 2004 Indian Ocean tsunami or the 2010 Haiti earthquake economic impacts have skyrocketed and are now estimated at \$500 billion a year.

Hurricane Matthew alone caused damage estimated at \$15 billion when it ripped across Haiti, Cuba, the Dominican Republic, the Bahamas, the United States and the Canadian Maritimes last October.

UNISDR chief Robert Glasser gave *UN News* more details of the 16-point action plan, saying "there are things like cooperating on science and technology

research; on developing early warning and building back better after disasters; on embedding risk in core economic planning, on building coherence between disaster risk, climate risk and sustainable development more broadly.”

Mr. Glasser said the Montreal Declaration was an “historic” moment for the Americas, and marked the first time that Member States in the region had come together and agreed a collective plan to make the Sendai Framework a reality.

“This is the number one an issue that effects both less developed and highly developed countries alike. It is an issue that results in huge loss of life each year and that is causing at least \$500 billion a year in economic losses that is all money that could be used to fight poverty, increase access to education or healthcare or promote economic development.”

“So this is not a hypothetical subject. It is a subject that is a matter of life and death and prosperity,” added Mr Glasser.

The Regional Action Plan now goes forward to the Global Platform on Disaster Risk Reduction, taking place in Cancun, Mexico, in May.