REUTERS, Geneva

China and the United States are ahead of the global competition to dominate artificial intelligence (AI), according to a study by the UN World Intellectual Property Organization (WIPO) published yesterday.

The study found US tech giant IBM had by far the biggest AI patent portfolio, with 8,920 patents, ahead of Microsoft with 5,930 and a group of mainly Japanese tech conglomerates.

China accounted for 17 of the top 20 academic institutions involved in patenting AI and was particularly strong in the fast growing area of "deep learning" - a machine-learning technique that includes speech recognition systems.

"The US and China obviously have stolen a lead. They're out in front in this area, in terms of numbers of applications, and in scientific publications," WIPO Director-General Francis Gurry told a news conference.

US President Donald Trump has accused China of stealing American innovations and technology and has slapped trade tariffs on \$234 billion of Chinese goods to punish Beijing.

China said in December it resolutely opposed "slanderous" accusations from the United States and other allies criticising China for economic espionage and stealing intellectual property and company secrets. Gurry acknowledged there

were accusations about China's behaviour but there was no doubt it had embraced the global intellectual property system, with the world's largest patent office and the largest number of domestic patent applications.

"They are serious players in the field of intellectual property," he said.

The WIPO study analysed international patent filings, scientific publications, litigation filings and acquisition activity, and found there had been as many patent applications for AI since 2013 as in the half century since the term was coined in the

Much of that growth came from deep learning, which overtook robotics as it ballooned from 118 patent applications in 2013 to 2,399 in 2016.



Cold kills 29 children fleeing Syria fighting

AFP, Beirut

The cold has killed close to 30 children in two months among the civilians who have been fleeing the last jihadist pocket in eastern Syria, the United Nations said yesterday.

The World Health Organization said it was extremely concerned by the conditions for those who make it to Al-Hol, where lies the main camp for people displaced by the fighting against the Islamic State group. "At least 29 children and newborns are reported

to have died over the past eight weeks, mainly from hypothermia, while travelling to the camp or shortly after arrival," the WHO said in a statement. It said about "23,000 people, mainly women and

children fleeing hostilities in rural areas of neighbouring Deir Ezzor," had reached the camp over that period.

Kurdish and local Arab tribes backed by a US-led coalition are battling the last shreds of the IS "caliphate" near the town of Hajin in the Euphrates River valley.

"Many of them have walked or travelled in open trucks for several days and nights in the bitterly cold winter weather," the WHO said.

It explained the displaced were often delayed for hours in the open countryside while SDF forces screened them to look for jihadists trying to blend in.

The UN's health agency said the situation in Al-Hol required urgent and unhindered humanitarian access.

"The situation in the camp is now critical. Its population has tripled in size (from 10,000 to almost 33,000 people) in less than two months," it said.

Deep freeze grips US Midwest

REUTERS, Chicago

A blast of icy polar air brought dangerously low temperatures to the US Midwest on Wednesday, causing at least three more deaths while halting mail delivery and forcing residents who pride themselves on their winter hardiness to huddle indoors. Classes were canceled for Wednesday and Thursday for

students across the Midwest, including Chicago, home of

the nation's third-largest school system, and police warned of the heightened risk of accidents on icy highways. Michigan said all state offices would remain closed through Thursday. At least a dozen deaths related to

extreme cold weather have been reported since Saturday in Michigan, Iowa, Indiana, Illinois, Wisconsin and Minnesota, according to officials and media reports. Streets in Chicago were nearly empty, with few people

hovered around 18 degrees below zero Fahrenheit (minus 28 Celsius). In Minneapolis, chilled to minus 14 F (minus 26 C) Brian Pierce ventured out to "embrace the elements" and

found himself watching cars slipping on the roads.

walking outside in the painfully cold air as temperatures

"The roads sound really weird, it seems there's a lack of grip," he said. "And my teeth hurt." Wind-chill temperatures in parts of the Northern Plains

and Great Lakes plunged as low as minus 42 F (minus 41 C) in Park Rapids, Minnesota, and to 31 degrees below zero F (minus 35 C) in Fargo, North Dakota, according to the National Weather Service (NWS). The frigid winds began to blow into the US East Coast later on Wednesday, sending temperatures plunging there.

More than a thousand flights, close to two-thirds of those scheduled, were canceled on Wednesday into or out of Chicago O'Hare and Chicago Midway international airports, according to the flight tracking site FlightAware. The Amtrak passenger rail service

canceled all trains in and out of Chicago on Wednesday. The bitter cold was caused by a

displacement of the polar vortex, a stream of air that normally spins around the stratosphere over the North Pole but whose current was disrupted and

Officials opened warming centers across the Midwest, and in Chicago, police stations were open to anyone seeking refuge. Five city buses were also deployed to serve as mobile warming centers for homeless people, while city police handed out hats, jackets and blankets.

was now pushing south.

EUROPE'S BID TO SAVE IRAN NUKE DEAL

Near minus 40 degrees temperature blamed for 12 deaths Trade mechanism launched to by-pass US sanctions

REUTERS, Paris/berlin

France, Germany and Britain have set up a mechanism for non-dollar trade with Iran to avert US sanctions, although diplomats acknowledge it is unlikely to free up the big transactions that Tehran says it needs to keep a nuclear deal afloat.

Washington's major European allies opposed last year's decision by US President Donald Trump to abandon the 2015 deal, under which international sanctions on Iran were lifted in return for Tehran accepting curbs on its nuclear programme. Iran has threatened to pull out of the deal

unless the European powers enable it to receive economic benefits. The Europeans have promised to help companies do business with Iran as long as it abides by the

Washington says that, although Iran has met the terms, the accord was too generous, failing to rein in Iran's ballistic missile programme or curb its regional meddling.

New US sanctions have largely succeeded in persuading European companies to abandon plans to invest in Iran. The European trade vehicle was con-

ceived as a way to help match Iranian oil and gas exports against purchases of EU goods. However, those ambitions have been toned down, with diplomats saying that, realistically, it will be used only for smaller trade, for example of humanitarian products or "It won't change things dramatically, but

it's an important political message to Iran to show that we are determined to save the JCPOA (Iran deal) and also to the United States to show we defend our interests despite their extraterritorial sanctions," one European diplomat said.

The EU has spent months preparing the system and it will take several months more to become operational.

Iranian Deputy Foreign Minister Abbas Araqchi said the mechanism was a good first step.

UK to formulate

Irish border

a few days"

BBC radio yesterday.

REUTERS, London

proposals "in

Britain will take a few days to

formulate proposals to put to the

European Union in an attempt to

resolve the issue of Irish border

arrangements after Brexit, for-

eign minister Jeremy Hunt told

instructed Prime Minister

Theresa May to reopen her Brexit

treaty with the EU to replace a

controversial Irish border

British lawmakers on Tuesday

S Arabia's anti-graft drive ends; \$106b recovered

REUTERS, Riyadh

Saudi Arabia has ended a sweeping crackdown on corruption ordered by Crown Prince Mohammed bin Salman that it said had recovered more than \$106 billion through settlements with scores of senior princes, ministers and top businessmen.

A royal court said in a statement on Wednesday authorities had sum-

moned 381 people, some as witnesses, under the campaign launched in November 2017, but it provided no names. It said 87 people confessed to

charges against them and reached settlements that included the forfeiture of real estate, companies, cash and other assets. The campaign ended as abruptly as it

began, despite speculation in the business community that a new round of arrests was imminent. The public prosecutor refused to settle

the cases of 56 people due to existing crimi-

nal charges against them. Eight more who

declined settlement offers stand accused of

corruption, the court said.

Detainees who were not indicted were freed, but it was unclear when travel bans, bank freezes and electronic monitoring of at least some of those released earlier would end. For the first three months of the cam-

paign, many members of the kingdom's economic and political elite were held in Riyadh's Ritz-Carlton Hotel, with

some later moved to a prison. Some detainees were reportedly tortured, which the authorities

have denied Critics called it a shakedown and power play by Prince Mohammed. It unsettled some foreign investors that he is courting to diversify the

economy away from oil. The figures released on Wednesday were little different from those the government announced in its last update, exactly one year earlier.

Only a month ago, the finance minister told Reuters the authorities had collected some \$13 billion from settlements in 2018 and expected a similar amount this year.



Venezuelan opposition leader and self-proclaimed interim president Juan Guaido takes part in a protest against Venezuelan President Nicolas Maduro's government in Caracas, Venezuela on Wednesday. PHOTO: REUTERS

CITIES SHOULD GROW VERTICALLY TO SURVIVE

THOMSON REUTERS FOUNDATION, Washington

Urban areas are expected to grow by 80 percent by the end of the next decade, and unless they grow up rather than out, they could be in trouble, according to a new report from the World Resources Institute and Yale University.

But poor land records, rampant speculation and weak or corrupt implementation of regulations means that cities are using land inefficiently, increasing inequity and environ-

mental risk as new residents take matters into their own hands, coauthor Anjali Mahendra told the Thomson Reuters Foundation.

"We talk about flooding in Jakarta and Indian cities, but people don't tie any of this back to land use. But now there's enough evidence that all of this is occurring because of overdevelopment where services aren't available," said Mahendra,

director of research at the institute's Ross Center for

guided by policy, she said, the result is development at the periphery. That eats into agricultural or forest lands, and expands into areas that are far from jobs and largely unconnected to municipal services like water and public transit.

Sustainable Cities. When cities grow at the behest of developers rather than

Access to services drops "sharply" just 5 kilometers (3

miles) from many city centres, according to the report.

For the study, the researchers used a first-ever technique to combine satellite images tracking how 499 of the largest cities in the developing world have expanded outward with radar data of how those cities have also grown upward.

The results show that among developing countries, vertical growth is almost completely confined to Chinese cities, while urban areas in Africa and South Asia are seeing

> very little. That's a concern because some 90 percent of urbanization through 2030 is expected to take place in Africa and Asia, according to the report.

The international community has started to discuss these issues at the highest levels, and some cities do offer strong models for responding to these trends, particularly in Latin America, said Mahendra.

She pointed to moves by Mexico City and Johannesburg to offer development incentives only within certain predefined areas within the city, and Thailand's law allowing new development to occur only where city services exist.

"But that's very, very rare in the Global South, where it's still very much private developer-led, outside of the purview of land regulations - if they even exist," Mahendra said, noting that any sense of urgency "really hasn't sunk in yet with lawmakers."

POWER STRUGGLE IN VENEZUELA

EU parliament recognises Guaido as interim president

AGENCIES

The European Parliament recognised Venezuela's self-declared interim president Juan Guaido as de facto head of state yesterday, heightening international pressure on the OPEC member's socialist President Nicolas Maduro.

EU lawmakers voted 429 in favour to 104 against, with 88 abstentions, at a special session in Brussels to recognise Venezuelan congress head Guaido as interim leader.

In a statement with the non-binding vote, the parliament urged the bloc's 28 governments to follow suit and consider Guaido "the only legitimate interim president" until there were "new free, transparent and credible presidential elections".

The United States and most Latin American nations have recognised Guaido.

Britain, France, Germany and Spain said on Saturday, however, that they would recognise Guaido unless Maduro called

elections within eight days. But the EU has a whole has not set a time limit in its call for a new presidential vote.

Maduro has dismissed the demands as an unacceptable ultimatum from the corrupt elite of spent colonial powers.

Yesterday, the Brussels-based International Federation of Journalists said seven foreign journalists were detained in Venezuela, including French and Spanish reporters. EU foreign policy chief Federica Mogherini called for their release.

British Foreign Secretary Jeremy Hunt, who spoke to Guaido by telephone on Wednesday, said the bloc should consider more asset freezes and travel bans on Venezuelan officials, but not the whole country.

Earlier, Trump reiterated strong US support for Venezuela's opposition.

"Large protests all across Venezuela today against Maduro. The fight for freedom has begun!" Trump tweeted.

arrangement - the backstop - but promptly received a rejection from Brussels. "We will put those proposals together. It is going to take a few days to do that," Hunt said. "I happen to believe there is

potential along all the different

routes that have been discussed. But we need to put those together, make sure they meet the concerns the EU has expressed and then I think ... we will have a proper discussion,' he said. Hunt said it was too early to

say if an extension to the Brexit process would be required Britain is due to leave on March

"I think it is true that if we ended up approving a deal in the days before March 29 then we might need some extra time to pass critical legislation," said

"But if we are able to make progress sooner then that might not be necessary."

The leader of the House of Commons, Andrea Leadsom, told lawmakers yesterday that parliament's planned February recess would be cancelled so it could make progress on "key business". The government has also said it is looking at extending the hours during which parliament sits.

ments, May's spokesman said: "The prime minister's position on this is unchanged: we will be leaving on March 29. "We are determined to have

Asked about Hunt's com-

everything in place in order for us to leave on March 29," he added. "The fact that recess won't be taking place and Members of Parliament will be sitting shows you that we are taking all available steps to make sure that March 29 is our exit date."