



TECHNICAL NEWS

Department of Computer Applications

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Microsoft has launched this free app for users

San Francisco: Replacing the currently existing "MyOffice" app on Windows 10, Microsoft is rolling out a new free pre-installed "Office" app for users without an Office 365 subscription requirement.

"MyOffice" app allows users to access and use their Office 365 -- Microsoft's subscription services with programmes including Word, PowerPoint, Excel and OneNote -- from one spot.

The new "Office" app would facilitate quick access to common Office apps and services, finding a full list of apps and services available along with tutorials and getting documents from any application in one place, the software giant wrote in a blog-post on Wednesday.

Keeping organisations in mind, Microsoft has added several capabilities that would be useful for IT administrators.

"With 'Office', people would be able to customize their user experience with branding from the organisation, access third party apps, activate Microsoft Search to find documents and people across the organisation in addition to their own apps and documents in one click," the post said.

The new app would become available to Windows 10 users on a rolling basis over the next few weeks and would be installed automatically as an update to the "MyOffice" app.

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PM Modi inaugurates supercomputer 'param shivay' at IIT-BHU

Prime Minister Narendra Modi today inaugurated 'Param Shivay' Supercomputer of 833-teraflop capacity built at the cost of Rs 32.5 crore under the National Super Computing Mission at the Indian Institute of Technology (IIT), Banaras Hindu University (BHU). A postal stamp and postal stamp album were also released by the PM on the centenary year of the institute. Scientists, teachers and research students, government research laboratories in adjacent engineering colleges to IIT-BHU can avail benefits of the projects. About 40 per cent computer power will be used by the students of Navodaya Vidyalaya.

The problems of common man related to relevant social issues such as irrigation schemes, traffic management, health, an affordable drug will also be taken care of with this supercomputer centre, claims the institute.

The 'Param Shivay' will include 1 peta byte secondary storage and appropriate open source system and application software suite using 223 processor nodes, 384 GB per node DDR4 RAM, parallel file system, including CPU and GPU.

India's first supercomputer called PARAM 8000 was launched in 1991. At present, Indian Institute of Tropical Meteorology has Pratyush, National Centre for Medium-Range Weather Forecasting has Mihir and IISc has SERC-Cray as supercomputers in India.

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The first walking robot that moves without GPS

Desert ants are extraordinary solitary navigators. Researchers were inspired by these ants as they designed AntBot, the first walking robot that can explore its environment randomly and go home automatically, without GPS or mapping. This work opens up new strategies for navigation in autonomous vehicles and robotics.

Human eyes are insensitive to polarized light and ultraviolet radiation, but that is not the case for ants, who use it to locate themselves in space. Cataglyphis desert ants in particular can cover several hundreds of meters in direct sunlight in the desert to find food, then return in a straight line to the nest, without getting lost. They cannot use pheromones: they come out when the temperature would burn the slightest drop. Their extraordinary navigation talent relies on two pieces of information: the heading measured using a sort of "celestial compass" to orient themselves using the sky's polarized light, and the distance covered, measured by simply counting steps and incorporating the rate of movement relative to the sun measured optically by their eyes. Distance and heading are the two fundamental pieces of information that, once combined, allow them to return smoothly to the nest.

AntBot, the brand-new robot designed by CNRS and Aix-Marseille University (AMU) researchers at ISM, copies the desert ants' exceptional navigation capacities. It is equipped with an optical compass used to determine its heading by

means of polarized light, and by an optical movement sensor directed to the sun to measure the distance covered. Armed with this information, AntBot has been shown to be able, like the desert ants, to explore its environment and to return on its own to its base, with precision of up to 1 cm after having covered a total distance of 14 meters. Weighing only 2.3 kg, this robot has six feet for increased mobility, allowing it to move in complex environments, precisely where deploying wheeled robots and drones can be complicated (disaster areas, rugged terrain, exploration of extraterrestrial soils, etc.).

The optical compass developed by the scientists is sensitive to the sky's polarized ultraviolet radiation. Using this "celestial compass," AntBot measures its heading with 0.4° precision by clear or cloudy weather. The navigation precision achieved with minimalist sensors proves that bio-inspired robotics has immense capacity for innovation. Here we have a trio of advances. A novel robot has been developed, new, innovative and unconventional optical sensors have been designed, and AntBot brings new understanding on how desert ants navigate, by testing several models that biologists have imagined to mimic this animal. Before exploring potential applications in aerial robotics or in the automobile industry, for example, progress must be made, for instance in how to operate this robot at night or over longer distances.

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Emurgo Academy to train 2500 blockchain developers in a year

Emurgo a global education institution and the commercial arm of Cardano-a third generation **blockchain** project, has launched its academy in India which will train **developers** in blockchain. The academy looks to set up offices in Hyderabad, Chennai, Mumbai, Delhi and Pune by 2020 and tie-up with 200 institutions by end of this year.

The academy aims to train 2500 developers in the next 12 months. The full-time program will be of 175-hours, the officials said. The training will begin from April this year.

The academy will look to train fresh talent as well as working professionals through a mix of online and offline classes. To add, the training will be provided by the **SMEs** along with other blockchain experts. The students will further be evaluated by CXOs who can mentor them with the tools required for particular architecture.

Largely the institution will try to fill the gap in the industry. As the blockchain industry is quite nascent, the ecosystem is undergoing a talent crunch. While corporates have started in-house training for their employees, **startups** and SMEs are majorly facing the heat. Further, depending on the project along with the added factor of whether it is an enterprise or startup, the framework differs which adds to the scarcity of the talent, said Sarang Bhoyar, blockchain leader, Infosys.

“Emurgo majorly looks to fill the gap in the SME and startup sector,” said E Venkatesan, Chief executive officer, Emurgo Academy. Currently, edtech firms like Udacity, Coursera, Edureka, Simplilearn also provides blockchain courses. Globally, there are around 10,000 skilled professionals in the nascent blockchain industry, suggest the experts. While the demand for the technology has been growing, supply has been a major hurdle in the industry so far. Blockchain talent is seeing increasing demand from IT services, BSFI, startups and government. A number of blockchain projects are now being implemented in use cases such as land registry, education and health records, and supply chain management.

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Microsoft details the country's readiness for AI in a whitepaper 'Age of Intelligence'

Envisioning the potential of AI for India, and continuing in its mission to empower India, Microsoft detailed the country's readiness for AI in a whitepaper titled 'Age of Intelligence'. Focusing on making India a digital economy, with modern mobile infrastructure, skilling up the workforce, and reduced data costs and cross-industry collaboration will make for an environment conducive to extend information connectivity and digital services to the underserved segments of the population, Microsoft said in a whitepaper on AI, unveiled at the NASSCOM Technology and Leadership Forum (NTLF) 2019. The whitepaper titled 'Age of Intelligence' outlines challenges and opportunities with respect to AI and how balanced and forward looking government policies, technological advancements including growing internet penetration and connectivity will help reap benefits of digital transformation in years to come. Furthermore, Microsoft calls for the technology industry to actively partner and engage to help realize India's global aspirations in AI, given that many of the initiatives outlined therein need technology as the backbone to achieve scale, efficiency and sustainability. Cloud infrastructure and rapid deployment of intelligent cloud services will play a key role in driving AI adoption and benefits in the country. Anant Maheshwari, President, Microsoft India said, "Our ambition is to enable a human-centered approach to AI. India is currently at an inflection point in the adoption of AI. Building on the

four foundational pillars – enabling digital transformation across industries, forging coalitions for innovation, building a future-ready workforce and creating sustained societal impact will unlock and accelerate the potential of AI. All of this should be done within an over-arching ethical framework for AI development and usage." In this paper, Microsoft presents an industry point of view on the 'Age of Intelligence' that this world is embarking upon, wherein intelligence will be experienced in every facet: in products and services, in the way individuals communicate, how organizations function and collaborate, and how society and countries evolve. Microsoft AI is a vision for empowerment – for every developer to innovate, every organization to redefine industries and every individual to transform societies. **Developers to innovate** Microsoft is democratizing AI and is making the technology used in building its own AI applications available on Azure to empower developers and institutions in solving their most difficult problems. For instance, a challenge in India relates to inclusion- given India's linguistic diversity and literacy. This results in a digital language barrier, with services not being easily accessible to all citizens. AI is playing a key role in removing this barrier, by enabling voice recognition, text to speech and translation for all key Indian languages. Once that is fully available, all services can be offered to all citizens, in the language of their choice. Microsoft is closely working with

developers to bring these services to all major Indian languages.

Public Sector

AI tools enable governments to connect with their citizens more effectively, eliminate waste, deliver public services, and protect sensitive information. Microsoft's Smart Cities – Intelligent technology and Citizen services tools are designed to tackle common challenges such as fee and toll management, traffic optimization, and sustainability as well as help provide citizens with easier access to consolidated government services through tracking, search, and conversational bots.

Education

Technology is creating unprecedented opportunities to connect students to the world around them and help them realize their full potential. Teachers, administrators, and technology innovators are collaborating to solve some of the most pressing challenges in education through AI. Microsoft's AI is helping in enhancing accessibility in the classrooms and providing school-wide AI insights into student success and risk across entire schools or school districts and help educators make informed decisions on how to improve students performance at scale. As India surges forward with its digital transformation, large and small organizations - both public and private - are waking up to the power of cloud computing, data analytics and intelligence. They are already beginning to use the transformative power of the cloud to improve their lives and businesses.

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This AI text generator is so good that researchers can't release it

California: Open AI, the non-profit AI research company, has built a new [text generator](#), which is nearly perfect. Yet, it is not being made available to the masses

. The new natural language model, GPT-2, has been trained to predict the next word in a sample of 40 gigabytes of internal text. The end result from this training was a system capable of generating text that adapts to the style and content of the conditioning text.

This means text that is so realistic and convincing that it is scary. According to TechCrunch, the researchers believe the near perfect system is vulnerable to potential abuse through bots which will become capable of better dialogue and [speech recognition](#), resulting in abusive or spam comments on social media.

Owing to the vulnerability of the system to potential abuse, [OpenAI](#) is releasing only a smaller version of the language tool.

The company will revisit the decision of releasing the tool in full in six months. In the meantime, OpenAI has called on governments to bring about guidelines for the diffusion of AI technologies.

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Telecom standards body, COAI spar over update of 5G norms

A dispute has broken out between India's telecom standards body and the private industry, including telecom operators, equipment vendors and chipmakers, over the development of local standards for [5G](#), which some fear could delay the roll-out of the next-generation technology.

Telecom industry body Cellular Operators Association of India ([COAI](#)) has blamed the Telecommunications Standards Development Society, India (TSDSI) for pushing modifications which don't add much value to the already approved local specifications of the global 5G standards. This is also being done without proper discussions with stakeholders, the association alleged. It added that the [TSDSI](#) had not even followed the protocol to take the matter with the [3GPP](#) — a global organisation for preparing specifications for mobile communications systems, including 5G technology — and had instead approached the UN telecom body, ITU Radiocommunication Sector (ITU-R).

The TSDSI — it comprises representatives of the Department of Telecom, research bodies, IITs, telecom operators and network vendors — said it was pushing for local modifications in the 5G standard to include a network capability called Large Cell Low Mobility (LMLC).

This, according to TSDSI, would enhance the signal transmission range of base stations and improve the battery life of mobile phones, which are both critical to Indian needs. The body alleged that the 3GPP didn't consider the suggested enhancements due to some geopolitical issues, thus forcing it, along with the telecom department, to take the matter to the ITU-R in Geneva.

The TSDSI said telcos like Reliance [Jio](#) Infocomm and [Bharti Airtel](#) NSE 0.29% were actively supporting it on these enhancements. The COAI, however, denied any support. Its director-general, Rajan Mathews, said the 3GPP had accepted the LMLC specification for 5G standards two years back. "However, suddenly now some IIT professors want

more enhancements, and didn't follow the protocol to reach out to the 3GPP, and decided to go to the ITU," he alleged. "If there is no proven improvement, then it is going to delay our ability to rollout 5G by two years. Our point if why do you want to take that risk," Mathews asked, adding that telcos and vendors needed to involve because they were the ones who would implement the technology and have to do network and device testing. Mathews added that the COAI would be meeting with the TSDSI and an IIT professor once they returned from Geneva, to figure out the superiority of the new enhancements. TSDSI officials and IIT professors though argued that Indiaspecific 5G standards with new LMLC enhancements would enable rural coverage through base stations that could cover larger areas, up to a 3-4 kms radius, besides providing financial advantages as fewer base stations would be required to provide connectivity.