



THE GENESIS

2 MARCH, 2022

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The Official eNewsletter of GGITS



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INDIGENOUS 5G TECH

THE OFFICIAL NEWSLETTER OF GGITS

IIT Hyderabad, WiSig Networks develop first indigenous 5G tech

As the 5G wireless technology is coming as the future of mobile networking, IIT Hyderabad and WiSig have developed the 5G wireless broadband technologies indigenously for the first time. These institutions have announced a maiden 5G data call using the indigenously developed 5G ORAN technology.

The Multiple-Input Multiple-Output (MIMO) capable base station supporting 100MHz bandwidth in the 3.3-3.5 GHz frequency band was used to make this call.

"WiSig announces a range of ORAN compliant 5G infra solutions including small cells, massive MIMO macro cell Distribution Unit (DU) option 7.2x, integrated access backhaul (IAB) unit that support mm-wave and sub 6 GHz frequency bands. These solutions and products are available for Indian wireless equipment manufacturers on licensing basis," said Dr Sai Dhiraj, Principal Scientist at WiSig.

WiSig is a growing startup based out of IITH Research Park. 5G Telecommunication & Solutions for the same is WiSig's primary focus. A group of researchers and inventors incubated WiSig together in the year 2016. They intend to commercialize and further develop 5G technology indigenously.

DID YOU KNOW-

According to intel's 2018 report, 5G mobile gaming revenue by 2028 is expected to reach \$100B

WRITTEN BY-
UDYAN SAXENA
CSE-03

REFERENCE FROM -
Hans India

AI'S NUCLEAR FUSION CONTROL

DEEPMIND HAS TRAINED AN AI TO CONTROL NUCLEAR FUSION

Inside a tokamak, which is a doughnut-shaped tank used to contain a nuclear fusion event, there is a unique form of pandemonium. At unfathomably high temperatures, hydrogen atoms collide, forming a spinning, churning plasma that's hotter than the sun's surface. The key to unlocking the potential of nuclear fusion, which has been touted as the clean energy source of the future for decades, will be to figure out how to manage and confine that plasma. The science behind fusion appears to be sound at this stage, thus the engineering difficulty remains. "We need to be able to heat this matter up and keep it together long enough to extract energy from it," says Ambrogio Fasoli, director of the Swiss Plasma Center at the University of Zurich.

This is where DeepMind enters the picture. The artificial intelligence business, which is sponsored by Google parent company Alphabet, has previously worked on video games and protein folding, and has been collaborating with the Swiss Plasma Center on a joint research project to develop an AI for regulating a nuclear fusion process. However, every time researchers want to change the plasma's configuration and try out other forms to see if they can get more power or a cleaner plasma, they have to do a lot of engineering and design work.

DeepMind has created an artificial intelligence (AI) that can control plasma on its own. Researchers from the two groups taught a deep reinforcement learning system to control the 19 magnetic coils inside TCV, the variable-configuration tokamak at the Swiss Plasma Center, which is used to conduct research that will inform the design of larger fusion reactors in the future, according to a paper published in the journal Nature.

Written by-
Faiz Ansari
CS-IOT

Refrence
and stats
from
"The
Wired"

"Anonymous" Cyber War against Russia!

CYBER
SPACE



Cyberattacks are one of the vectors used in modern warfare, and they can be dangerous and have the capacity to bring a country's industrial infrastructure down. When the Russian armed forces are preparing a large-scale bombing operation in the capital of Ukraine. The hacking group "Anonymous" has declared a "cyberwar against Vladimir Putin's government after he planted a full-scale invasion of Ukraine. The hacking collective's goal is to deactivate several Russian government websites. They had already taken down several websites of Russian propaganda channels. The Russian government's websites, the Kremlin, the Duma, and the Ministry of Defense were all hit by the hacker collective's cyberattack. Russia could also be subjected to some systematic hacking attempts in the coming days.

Previously Russia attacked Ukraine with malware called "The Wiper" which can destroy all the data stored in the system as well as make it impossible to recover it.

What is anonymous and why it is so dangerous?

Anonymous is an international group of hacktivists or Hackers. The group has been involved in various cyber-attacks across the globe and it is not the first time it had made it into headlines.

The hacktivist group's ideology isn't compellingly laid out, however, has, largely, hinged on promoting freedom of speech, freedom of information, and the freedom to protest.

The group has previously attacked government agencies of several countries including the USA, Israel, Turkey, and others.

WRITTEN
BY-
NANDAN
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REFERENCE
FROM-
"DECCAN
HERALD"

The Russian Invasion Touches Outer Space

International space station may fall on India & China, Russia's warning on US sanctions

ROSCOSMOS (state corporation of Russian Federation responsible for space flights, cosmonautics programs, and aerospace research) Director Dmitry Rogozin on 25 February, 2022 tweeted that ISS (International Space Station) orbit and location in space are controlled by Russian engines, and it could also deorbit and fall into US or Europe.

The US has announced tough sanctions on RUSSIA after it invaded UKRAINE . These sanctions target the Russian space program and aim to degrade it . Now, the Russian space chief has hit back at Joe Biden and warned the US .

ROSCOSMOS chief Dmitry Rogozin took to twitter to explain to Washington the possible impact on the ISS program . “ *If ISS De-orbits and falls , it will endanger the safety of other nations . ‘ If you block cooperation with us, who will save the space station from an uncontrolled deorbit ? The ISS can fall into the United States or Europe. **There is also the option of dropping a 500-tonne structure to India or China.** Do you want to threaten them with such a prospect ? The ISS doesn’t fly over Russia, so all the risks are yours “ : **DIMITRY ROGOZIN, RUSSIAN SPACE AGENCY CHIEF** .*

However, NASA has clarified that new sanctions won't affect the ties of Russia and U.S in space cooperation. NASA'S ASSURANCE TO ROSCOSMOS : “NASA continues working with all our international partners including ROSCOSMOS committed to ongoing safe operations of the International Space Station. New sanctions will allow US-RUSSIA civil space cooperation. No changes are planned to the agency's support for ongoing in orbit and ground station operations”.

DID YOU KNOW -

After the moon, the ISS is the second brightest object in our night sky - you don't even need a telescope to see it.

WRITTEN BY-
PALAK JAISWAL
AIML-I

REFERENCED FROM -
(Hindustan Times ,
ThePrint)

Budget 2022 announcements affect your earnings from crypto investments

STOCK N'
CRYPTO



Union Budget 2022-23: India introduces 'crypto tax' of 30% on all digital assets

The new proposals, finance minister Nirmala Sitharaman said, are an initial step on taxing their continuing trade and a more detailed framework could be developed. Gains from trading in cryptocurrencies and related assets like non-fungible tokens (NFTs) will be taxed at a flat 30% and 1% of tax will be deducted at source (TDS) when any such transactions take place. Bitcoin rose more than 2% from the day's low following the taxation announcement. So far, India doesn't have any law regulating trading in virtual coins, though it had proposed a ban early last year. That didn't stop millions of Indians from jumping on to the wave of global demand for digital assets. The local market surged 641% in the year through June 2021, according to an October report from Chainalysis, an industry research firm. India took a step closer to adopting cryptocurrencies after years of wavering on its stance, as the country seeks to keep up with the global move toward digital assets. Bitcoin gained. The Reserve Bank of India will launch its digital currency in the year starting April 1, Finance Minister Nirmala Sitharaman said in her budget speech. Cash-dependent India joins countries including China in pushing forward with digital versions of their currencies as they look to harness new technologies to make transactions more efficient. At the same time, the steep tax rate on crypto could dissuade trades that have been soaring in India despite the central bank's warnings about the risks of money laundering, terrorist financing and price volatility.



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REFERENCED
FROM:-
HINDUSTAN TIMES
THE TIMES OF INDIA



LAUNCH

HOW TO START A START-UP

* Things needed
for this startup

<https://youtu.be/AUdi3xR-OnQ>

Watched this video and
We also recommend this
Video so do mention it

Here's the link for the quiz

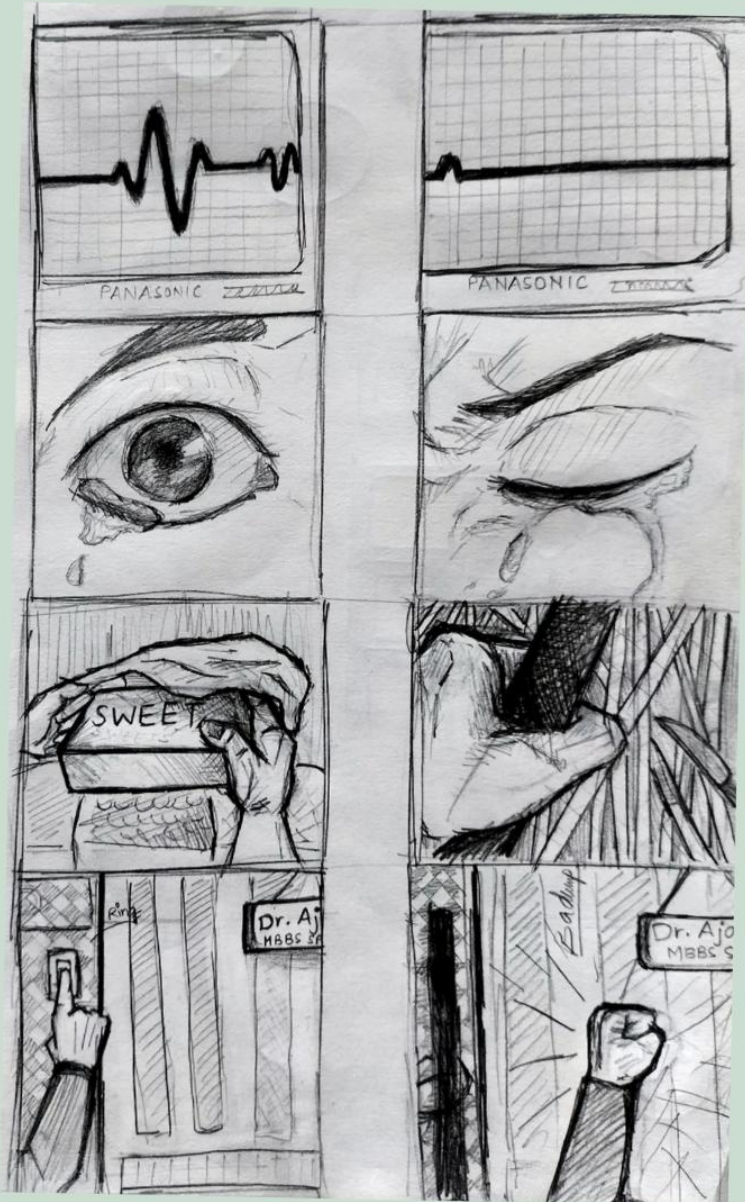
<https://forms.gle/XAf8wDAY3gGhk3VK7>

- * Pitched the Idea
- * Prepared PPT
- * Prepared the Flowchart(initially) didn't know that we had to prepare the ppt
- * Things necessary for ppt:-
 - Problem Statement
 - Solution & USP
 - Business and Revenue Model
 - Marketing strategy
 - Competitions and barriers to entry
- * As a first year student we didn't know anything and had to explore everything by ourselves. We discussed the Idea for one night before the Pitching.
- * Had to brainstorm each and every aspect of being a part of Startup. What are the challenges of being in a startup
- * We were nervous but not scared.
- * Pitched the idea somehow and they liked the idea
- * Had to do research on how to maintain the startup.
- * We met new people and made connection, People at JIC are really good, and the environment is good too, You can ask for help and they'll be there to help you. Other startups are also present whose members are very helpful
- * Getting the Exposure is really important
- * It helped us standing out of the group/in our class
- Also It Kind of motivated us as being a Youtuber
- You need to have connection and people who'll support you.

BOUNDLESS CREATIONS



**“DOCTORS AND AN ENDLESS CYCLE OF
FATE, BLAME & GRATITUDE“**



BY UDYAN SAXENA

 [kenpachi_udyan](#)



BY NANDAN PATKAR

 [crafty_nandan](#)



जो सज्जन धर्म का चश्मा पहनकर इस दुनिया के हर रंग को भूल जाना चाहते हैं, जो लफ्ज़ों के मानी समझने से पहले उसे धर्म के तराजू में तौलना चाहते हैं, जो अपनी ही तरह दो हाथ दो पैर दो आँखें दो कान एक जबान और सबसे जरूरी एक धड़कता दिल अपने सीने में छुपाए व्यक्ति को सिर्फ एक टीका या टोपी पहनने के चलते खुदसे मुख्तलिफ समझते हैं और उसके वजूद को नफरत तले रौंद देना चाहते हैं, उन्हें एक बार अपनी सोच का चेहरा मोड़कर सरहदों की ओर भी देखना चाहिए, जहाँ अल्लाह के बंदे भी हैं और राम के वंशज भी, सिक्खों की तलवार की धार भी है और मराठों का जुनून भी, जहाँ किसी जर्जर मकान का मजबूत कंधा खड़ा है और बूढ़ी मां की नजरों की चमक है जहां।

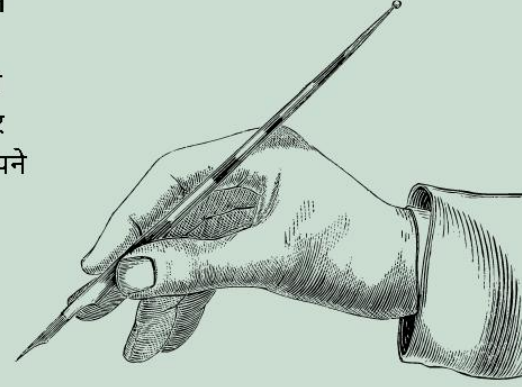
वो सरहद, जहां देश के कोने कोने से अलग अलग धर्म, जाति, बोली, संस्कृति और अलग अलग वर्ग के लोग सिर्फ एक तिरंगे की पहचान लिए खड़े हैं, जिनकी बंदूकें दुश्मनों के हर मनसूबों को छलनी करने के काबिल हैं, जो इस मजबूत भारत की सुरक्षा का सारा बोझ अपने कंधों पर उठाए खड़े हैं और मर मिटने को तैयार हैं।

पता है वे कौन हैं?

भारतीय! सिर्फ और सिर्फ भारतीय..

-अमन श्रीवास्तव

 amanshrivastavats



P.C - KHUSHI VISHWAKARMA

 _khushivishwakarma_





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