THE GENESIS

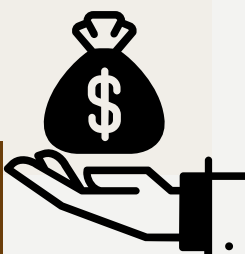# Advanced Cryptographic Technologies in Blockchain

Cryptography is a method of developing techniques and protocols to prevent a third party from accessing and gaining knowledge of the data from private messages during a communication process.

Use of Cryptography in Blockchain

Blockchains make use of two types of cryptographic algorithms, asymmetric-key algorithms, and hash functions. Hash functions are used to provide the functionality of a single view of blockchain to every participant. Blockchains generally use the SHA-256 hashing algorithm as their hash function.

Hash Functions- This type of encryption doesn't make use of keys. It uses a cipher to generate a hash value of a fixed length from the plaintext. It is nearly impossible for the contents of plain text to be recovered from the ciphertext.

Asymmetric-Key Cryptography- This encryption method uses a pair of keys, an encryption key, and a decryption key, named public key and private key respectively. The key pair generated by this algorithm consists of a private key and a unique public key that is generated using the same algorithm.

Written by- Shashank Shekhar Pandey(CSE)

CLOUD CERTIFICATION

Cloud certification can enhance the attractiveness of Cloud Services for Businesses

Having employees with "cloud certification" means a commitment to knowledge efficiency and a deeper understanding of cloud offerings. Getting a Higher Certificate is Important for You and Your Company.
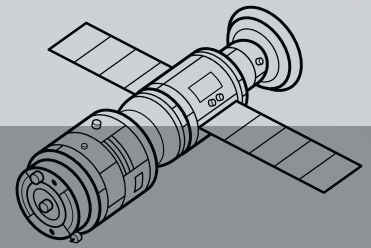
With the advent of cloud technology, employees who receive cloud certifications are in high demand. AWS, GCP and Microsoft Azure certificates enhance your knowledge and skills in current cloud data centers, applications, and solutions. Certifications can help you become more employable by validating your skills and expertise. Cloud certification can go a long way in increasing your IT earnings.

For individuals, the motive for getting cloud certifications is clear: demonstrating competence and gaining a competitive edge in the job market. The issuance of cloud certificates can help businesses reduce the risk of cloud migration. Having a certificate reflects basic knowledge and shows that a person has a clear level of skills.

Is it worth it?

Written by :-
Danish Ali(AIML

supercharged new rocket fuel

Well aware of the advantages biology has to offer, a group of biofuel experts led by Lawrence Berkeley National Laboratory (Berkeley Lab) took inspiration from an extraordinary antifungal molecule made by Streptomyces bacteria to develop a totally new type of fuel that has projected energy density greater than the most advanced heavy-duty fuels used today, including the rocket fuels used by NASA.

"As these fuels would be produced from bacteria fed with plant matter -- which is made from carbon dioxide pulled from the atmosphere -- burning them in engines will significantly reduce the amount of added greenhouse gas relative to any fuel generated from petroleum", said project leader Jay Keasling, a synthetic biology pioneer and CEO of the Department of Energy's Joint BioEnergy Institute (JBEI).

The incredible energy potential of these fuel candidate molecules, called POP-FAMEs (for polycylcopropanated fatty acid methyl esters), comes from the fundamental chemistry of their structures. In addition, these structures enable fuel molecules to pack tightly together in a small volume, increasing the mass -- and therefore the total energy -- of fuel that fits in any given tank.
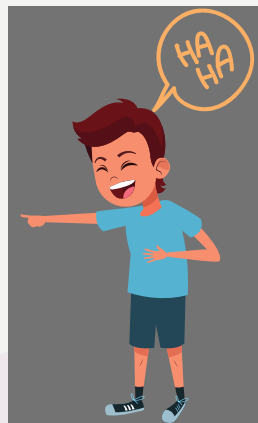
Written by- Khushi Vishwakarma(AIML)
Source- Sciencedaily

Schwit1 shares a report from Task & Purpose:

A fan of the popular mechanized combat simulator 'War Thunder' shared the specs of China's Type 99 Main Battle Tank online in order to win an argument over the game.

The latest incident, first reported by the OSINTtechnical Twitter account, involves information in Mandarin on the penetrator section of a Chinese tank round along with a technical diagram. While many of the original images have been taken down, they were essentially the schematics for a Chinese tank munition, presumably revealed to the world so a video game could more accurately depict what would happen if a Chinese tank and an American tank or British, French, Russian, German or Israeli tank met in combat. And this isn't the first time these forums have become an outlet for technical leaks.

The most recent leak, the latest leak, from someone with access to the latest technical manuals from China's People's Liberation Army, occurred because a user wanted the game's Chinese battle tanks to have better in-game stats. While most of the information about the Chinese tank round was already known, it was still apparently more important for one gamer to prove another gamer wrong on a message board than it was to consider the implications of publishing the technical details of military munitions online.

Written by:-
Mohd. Faiz Ansari(CSIOT)

Boundless Creations

पिता vs जिंदगी थम जा जरा जिंदगी, वो भी एक इंसान है।

तू दुख देती है वो सह लेता है, तू सुख देती है वो बांट देता है,

तू गम देती है वो रख लेता है, यही सोचकर की तू उसकी दिक्कते कब लेती है ,परेशान है ।

तू दुख की शुरुआत है, वो उसका अंत है। तू दो पल खुशी के, वो खुशी का एकमात्र मंत्र है।

तू आंखो में आया आंसु है दुख का, वो समंदर है सुख का। अब मत ले इम्तिहान उसका, वो भी तो एक अकेली जान है।

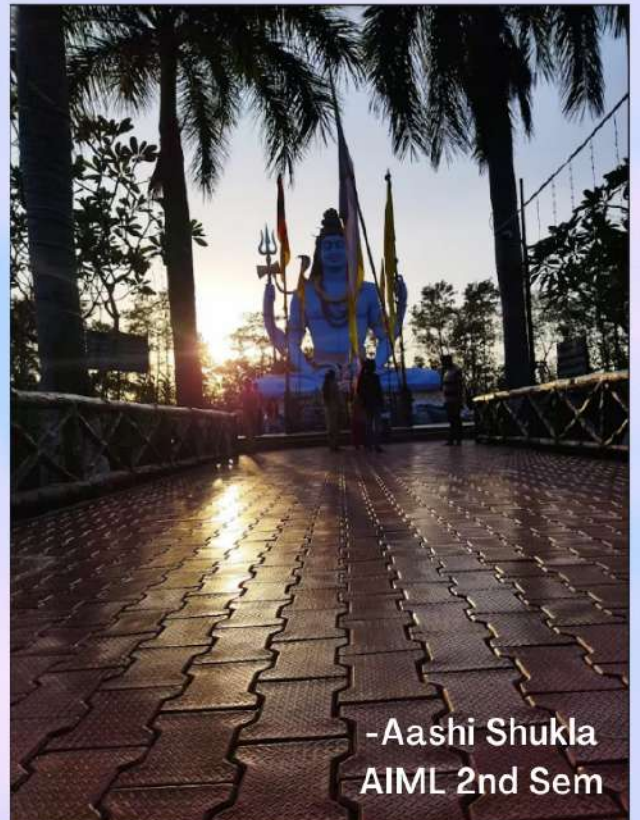तू कब देगी खुशी उसे, वो यही सोचकर हैरान है। अब थम जा जरा जिंदगी, वो भी एक इंसान है।

- Saurabh Patel
  CS03 2nd Sem

-Aakriti Gupta
CS01 2nd Sem

-Nandan Patkar
AIML 2nd Sem

-Aashi Shukla
AIML 2nd Sem

Boundless Creations

-Harsh Kumar
CSBS 2nd Sem

Either take or loose me
It's totally up to you

Keep me on your side or push me aside
It's totally up to you

Loving you, is what I want
Seeing you smile is the only thing I wish for
Making you happy is why I try
Just to be yours is what I strive

Keep me as a friend or enemy
It's totally up to you

Being mine or going far away
It's totally up to you

Keeping you safe is my duty
To keep a check on you is my responsibility

While standing behind you, I realized that you're
the shade that I want when the sun shines
bright.

     - Aditya Mishra
     AIML 4th Sem

-Pariyul Jain
AIML 2nd Sem

OPEN DAY

18th June, 2022

PHOTO GALLERY

THANK YOU

Mentor:- Prof. Prakriti Kapoor

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