



February 2016



# THE CYBER TIME



Sardar Patel University of Police, Security & Criminal Justice, Jodhpur

(Established by Government of Rajasthan)

# FACE OF THE EDITION



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Bernard Marr is a best-selling business author, keynote speaker and consultant in big data, analytics and enterprise performance. As the founder and CEO of the Advanced Performance Institute he is one of the world's most highly respected thought leaders anywhere when it comes to data in business. He regularly advises companies and government organizations on how to improve their performance and gain better insights from their data. Bernard is a frequent contributor to the World Economic Forum, writes for Forbes, is recognized by the CEO Journal as one of today's leading business brains and by LinkedIn as one of the World's top 50 business influencers.

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Companies he has advised include Accenture, Alliance Boots, Astra Zeneca, Bank of England, Bank of Ireland, Barclays, BP, DHL, Fujitsu, Gartner, HSBC, IBM, Mars, Ministry of Defense, Microsoft, Oracle, The Home Office, NHS, Orange, Tetley, T-Mobile, Toyota, Royal Air Force, SAP, Shell, and the UN, among many others.

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# The Cyber Time

*An initiation towards cyber security...*

**Feb. 2016, 7th Edition**

## EDITORIAL

A warm welcome folks.

We are glade to publish this newsletter “The Cyber Time” 7th Edition. The purpose of this newsletter is to disseminate in a convenient form news about the changes in technologies taking place round the globe.

In this edition readers will come to know about interesting and innovative technologies and facts related to them also the cyber events happening now days in your city, state, country and world.

The Newsletter Team is very thankful to Department of Computer Science and Engineering as well as University administration for supporting us. The team is also thankful to readers for their valuable feedback and well wishes.

Enjoy this edition, and please send your valuable feedback at [editors@policeuniversity.ac.in](mailto:editors@policeuniversity.ac.in)

**All the best, and keep on reading!**

### Inside this issue:

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### Special points of interest:

- Bit coin is an e-payment system
- Your laptop/desktop and smart phones could get compromised.
- Fixing Windows 10 overheating issue
- MySQL my personal diary.

# BIT COIN



Bit coin is an e-payment system invented by Satoshi Nakamoto. It is open-source software which is released in 2009. It is a first decentralized digital currency and users can transact money directly without an intermediate. The main purpose of Bit coin is it can send and receive money transactions. It is used to exchange different currencies, products, and services. A wallet is used to store information of a Bit coin which is used in a transaction. Public and private keys are used in a Bit coin. For shopping purpose website somethinggeeky.com is accept Bit coin. On the 29th January of 2016 one Bit coin equal to 25716.01 Indian Rupees.

Bit coin is based on a concept of Mining. Mining is a service which stored record of a block in a block chain. For Bit coin mining open new account on the website <https://bte-e.com/> which is freely available. In India we are also buying and sell Bit coin. Miners verifying the block in a transaction.

A Block chain is verified a transaction by network nodes. It is a database which is in distributed for use to record Bit coin transactions without we need any trusted central authority. It is performed on nodes which are communicated in a network running Bit coin software. A Bit coins owner can spend Bit coins on a specific unique address.

Security of a Bit coin payment system uses public-key cryptography in which two keys are used which are public and private. A cryptography SHA-256 algorithm is used to hash a previous block in a Block chain. Identity name is not provided to a Bit coin user, but transactions can be linked to individual's person and organizations. A sender (payer) digitally signs the transaction using his private key without private key the Bit coins cannot be spent. The network verifies the signature of sender using his public key.

Tarun Trivedi  
M.S Cyber Security (4th Sem)

# CYBER MURDER



Now these days we are very busy, have very less time to do anything. To fast work, we use electronic things. for fast, efficient and secure works use electronic devices. These devices works on every field like medical , offices, home ,school etc. these electronic devices are connected internet, for the security and efficiency purpose people make the smart house smart hospital etc. these are managed by wireless electronic gazettes. It makes our work easy but it is also risky.

The use of technology has made homes 'smart,' but thieves are using the same technology to 'outsmart' people who think latest security gadgets make their secure and safe. People now control home gadgets and communication devices with the help of smart phones and internet. This surely makes them feel secure, but research shows that every gadget that connects to another via the internet of things (IoT) is a potential target for cyber crooks. A report says that while the internet-enabled devices offer exciting possibilities for home automation, they also present serious security challenges. Internet-connected devices such as smart watches and smart TVs have become commonplace globally and have a high apparitional value in India as well. Consumers can buy connected versions of nearly every household appliance they can think of.

"Your laptop/desktop and smart phones could get compromised. Looking at the security measures of connected devices today, there is a high possibility of consumers being left exposed".

Smart devices and phones taking all control of medical equipment and devices, but medical devices represent only one early and obvious target of opportunity. Every automobile on the market today has scores of built-in computers, many of which can be accessed from outside the vehicle. Major power and telephone grids have long been controlled by computer networks, but now similar systems are embedded in such objects as electric meters, alarm clocks, home refrigerators and thermostats, video cameras and bathroom scales, and Christmas-tree lights-all of which are, or soon will be, accessible remotely . Not only our new homes are connected through the Internet also the appliances and equipment are too. "Start your tea or coffee machine with a text or a voice message!" a device created by former Gmail and iPhone employees, whose stated main goal is to "apply [Internet connection] with any electronic device in the world."

Even in this era children's toys have Internet address- for this, we can purchase an add-on Wi-Fi kit for your robot.

The spread area of networking technology into each and every aspect of life is sometimes called "Internet of Things."

One of the example is:

### **Murder**

Taking all controls of someone's car break or sounds like great and smart way of commuting the perfect murder, but there are more ominous methods and ways that a cyber-murderer could follow. For example, do you think that it's possible to hack into your heart and make it detonate or exploit? If you happen to be fitted with a pacemaker, that is.

This terrifying hack was due to be the subject which is used by the legendary hacker Barnaby Jack, who dead in San Francisco. Jack was scheduled to appears at this year's Black Hat for the experiment he demonstrates how he could attack heart by attack on his implant devices remotely. We don't know the exact ins and outs door of his hack, but Jack had developed software that allowed him to remotely send or transmitted an 830-volt electric shock to someone who wearing a pacemaker from some distance of approx. fifty feet, something that would be almost certainly result in very short time, instant death for the unfortunate victim. Jack also came up with a way to penetrate wireless insulin pumps in hospitals he maintain distance from 300 feet away, the exposure that would allow him to dish out more or less insulin as he craved or desired, sending patients in part of hypoglycemia for shock and again, almost certainly killing them.

The comprehend of a new technology by ordinary people leads inevitably to its embrace by people of maleficent or unkind intent. Up to now, the wager when it comes to Internet crime have been largely financial and reputational-online crook or we can say criminal steal money and identities but rarely can inflict physical harm. The new wave of embedded devices promises to make crime much more personal.

Neelima Bawa

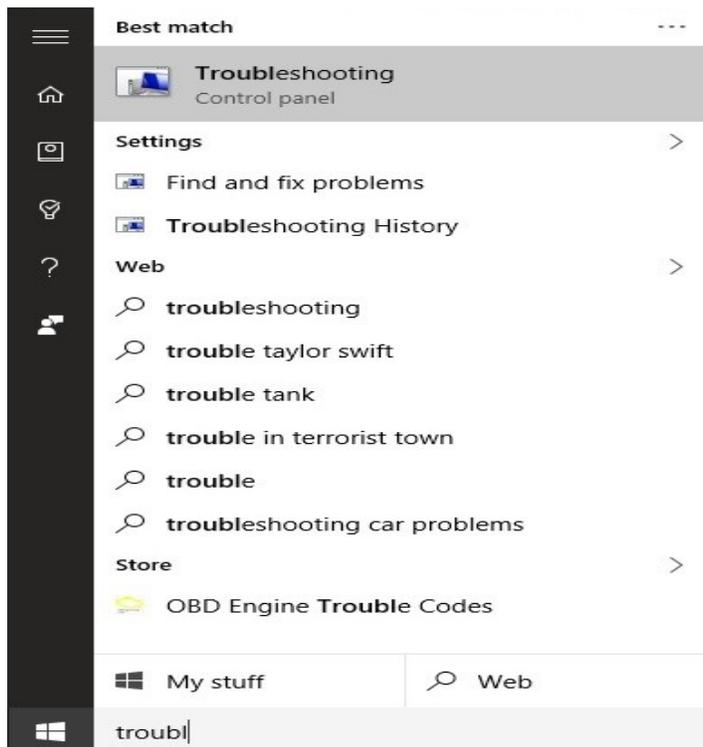
M.Tech. Cyber Security (2nd Sem)

# WINDOWS 10 OVERHEATING

To fix overheating issue, use various process steps-

Power-Troubleshooter and check for issues:

- ◆ First type troubleshooting in the Search bar
- ◆ Select Troubleshooting
- ◆ On the left-hand side select View
- ◆ Then click Power-Troubleshooter
- ◆ Just click next and follow the instructions



## Perform a Clean Boot

Booting up of Windows 10 with other installed software or applications cause high CPU usage as well as high temperature. So, we need to disable the unwanted applications and software that installed by default or automatically start.

Here, the steps on disabling unwanted apps to boot up along with Windows.

## Remove the Pre-installed And Suggested Apps In Windows 10

There are many pre-installed apps and suggested apps that consume the power and internet in the background and not needed. Remove these unwanted apps.

## Fix the High RAM and CPU Usage of Windows 10 System

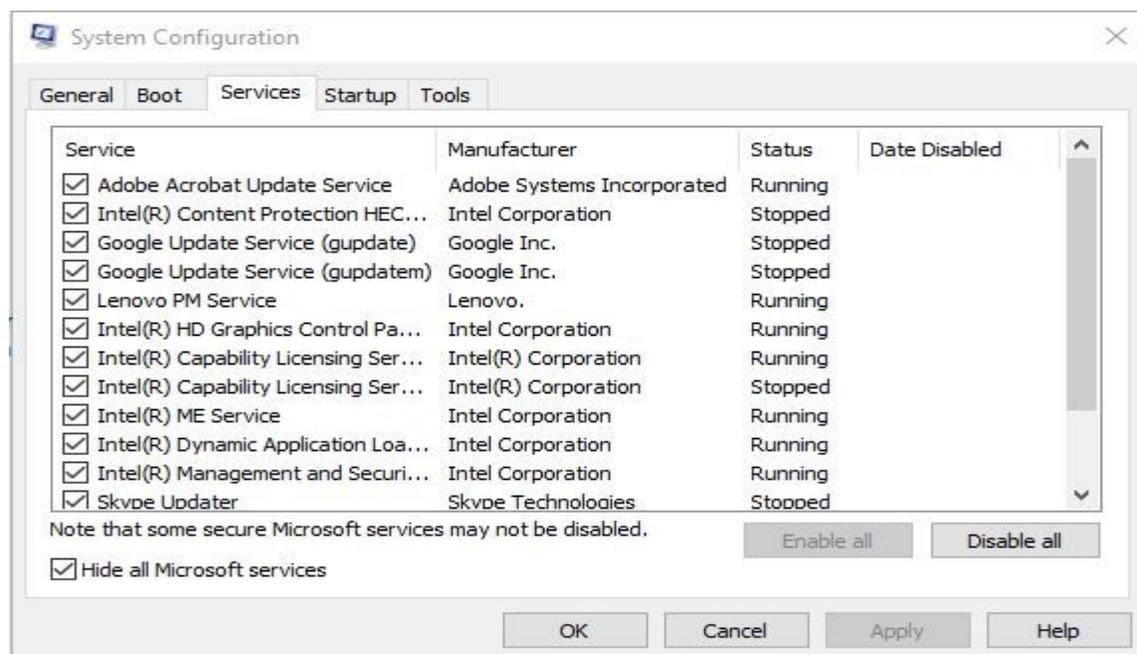
Windows 10 is getting heated up due to process of **ntoskrnl.exe**. Also high RAM and CPU usage cause the overheating problem.

## Disable the services at the Windows startup

- ◆ Press Windows + R key
- ◆ Type 'msconfig'
- ◆ When System Configuration window opens, click the Startup tab, & open Task Manager, Task Manager window will open up, and need to go over to the Startup tab
- ◆ Here we see a list of applications and process that startup with Windows 10, Select and disable the services which we do not want at the startup.
- ◆ Close the Task Manager and return to System Configuration window
- ◆ Click OK and restart your computer

## Hide all Microsoft services

- ◆ Press Windows + R key
- ◆ Type 'msconfig'
- ◆ When System Configuration window opens click on Services
- ◆ In Services tab check, Hide all Microsoft services at the bottom and click Disable all button.
- ◆ Then click on 'apply' and then 'Ok'.
- ◆ It will ask for restarting the computer.



## Clean your CPU fan or change it

Sometimes Windows 10 overheating problem is also caused by the dust that gets stuck in the fan, so you might need to clean it, or in some other cases, you might need to replace your CPU fan completely.

Amar Verma  
M.Tech. Cyber Security (2nd Sem)

# MySQL



Most of us keep diaries to store details like names, addresses, birthdays of our friends. Teachers keep marks registers to keep track of marks scored by their students. A shopkeeper keeps details of customers who frequently visit his /her shop in a register. These all are examples of paper-based databases. A database is an organized collection of related data. However, generally, when we use the term 'database' we think of a computerized database. In computerized database it is kept in relational form.

MySQL is an 'open-source computer language' as well as a query language, also known as 'MY-S-Q-L' mean 'My Structured Query Language'. Basically, it's an open-source relational database management system (RDBMS). This system software is owned by Oracle Corporation and released under an open-source license. It requires no cost or payment for its usage. It works with data i.e. information by creating database and manage it by defined functions and keywords. The database saved in this system software is in tabular/relational form. Which allow user to easily make a data directory and library to direct interface in application or webpages.

MySQL is an open and 'platform independent application' which is capable to work on any OS (operating system) such as Windows, Linux, Ubuntu etc. and also compactible with many computer languages such as Java, C, C++, PHP etc. It is also capable to handle large number of data sets. Anyone can download this software from specific location on Internet i.e. free of cost.

Installation file for MySQL of well-known OS platforms such as Windows, Ubuntu, Linux, may be downloaded from the link: [DOWNLOAD HERE](#)

Shubham Singh  
B.A (2nd Sem)



**JODHPUR:** *Cyber criminal arrested in Rajasthan*

Rajasthan police have arrested an alleged cyber criminal for cheating people by extracting debit card pin codes and using it for online shopping. Accused Shivam Sachan alias Ranu, a B.Sc. Computer Science graduate, was arrested from Kanpur in Uttar Pradesh recently, the official said. Shivam, an alleged kingpin of a cyber crime gang, used to obtain the ATM passwords of debit cards from the people by misguiding them on mobile calls and used the amount, worth thousands of rupees, for online shopping, he said. The accused has confessed that he has cheated 15 people so far in Jaisalmer district in the recent past, the police said.

**RAJASTHAN:** *Rajasthan third place in cyber pornography*

Cyber, porn and sexual perversion in the world in display cases throughout the country, Uttar Pradesh tops the list. Rajasthan is the second and third of South Karnataka. Cyber crimes, including the question of obscenity Maharashtra and Uttar Pradesh are ranked first and second. Fifth Rajasthan state, where most cyber crime cases were registered. National Crime Records Bureau statistics revealed that five years.

**INDIA:** *Revenue Website Hacked By Suspected Pak-Based Groups*

NEW DELHI: Suspected Pakistan-based groups have hacked the official web portal of the Indian Revenue Service (IRS) belonging to the Income Tax department. Officials said the website--<http://www.irsofficeronline.gov.in>-- was hacked early Saturday, month of February, 2016 and it has been rendered inaccessible since then. They said messages were posted on the link like "Pakistan Zindabad" and "we are team Pak cyber attacker".

**ASIA:** *North Korea planning cyber and terror attacks: Seoul's spy service*

Even as the joint military drills by South Korea and the United States are shifting to the offensive mode, South Korea's spy agency alerted ruling party officials that North Korean leader Kim Jong Un has recently ordered preparations for launching attacks on South Korea. One official from the Saenuri Party, who attended Thursday's closed-door briefing by the National Intelligence Service, says Kim's spy agency has begun work to implement his order to "actively muster capabilities" to launch cyber and other attacks on South Korea. North Korea has a history of attacks against South Korea, but it is impossible to independently confirm what is really happening in the secretive North.

The Saenuri official refused to say whether the briefing discussed how the information has been obtained. He requested anonymity because he was not authorized to speak to media on the briefing. The spy agency said the attacks could target anti-Pyongyang activists, defectors and government officials.

Sakshi Sharma  
M.Tech. Cyber Security (2nd Sem)

# CALL FOR ARTICLES

Students/Readers/Researchers are invited to get involved in the TechNewsletter activities by providing articles and other related materials. Suggestions and feedbacks for the improvement of the newsletter are most welcome and contributions are invited from the faculty and students of the department. Contributions can be from any of the whole gamut of activities in the department like any special achievement, an admirable project, a publication, and Cyber Crime case, Quiz, puzzles or even the fun section material like jokes, cartoons, interesting facts or poems. You can also report any interesting workshops or talks taking place in the department.

You can send your material on: - [editors@policeuniversity.ac.in](mailto:editors@policeuniversity.ac.in)

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Knowledge Is Power

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