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# Bits & Bytes

*An Initiative By*

## ITSA

*Department of Information Technology*

## #Satyavachan

"Do not Figure out big plans at first, but, begin slowly, feel your ground and proceed up and up."

- Swami Vivekananda

## Highlights

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# What is Lightweight Cryptography?

- Lightweight cryptography is a cryptographic algorithm or protocol for implementation in constrained environments including RFID tags, sensors, contactless smart cards, health- care devices.

- Lightweight cryptography does not exploit the trade-offs between security and efficiency.

- Security and privacy are considered as the main concern for a full-fledged IOT paradigm implementation.

- In the future, billions of heterogeneous light weight devices going to be connected with each other. It is important to secure entire system in order to ensure the trustworthiness.

**Example Blockcipher Techniques:**
- Present.
- GOST 28147-89.
- Clefia.
- KatanAdvantage.

**Example Streamcipher Techniques:**
- Grain v1.
- Trivium.
- Bean.
- Hummingbird.

**Advantages:**
- Less power consumption.
- Less memory utilization.
- Less processing is power.

**Disadvantages:**
- Difficult to implement with limited resources.

**Ref:** Online [Available]: https://www.ilovephd.com/what-is-lightweight-cryptography/

*- Mrs. Yogita Mane*

# Types of Plagiarism – Every Academic Writer Should Know

Plagiarism is the most common issue that every academic writer faces while writing their research paper or dissertation. The famous plagiarism checking tools such as Duplichecker and Turnitin are classifying the plagiarisms into 5 common types before generating the report. In this article, we are going to find out the 5 types of plagiarism that every academic writer should know to avoid it.

1. "Clone" – Plagiarism
Cloning plagiarism is also called identical copying. In Cloning, one person copies another work (word-for-word) without any change and claim as his own work.

2. "Remix" – Plagiarism
In the remix type of plagiarism, one person collects information from various sources and mix all together as a single document then claim the work as their own work.

3. "Ctrl+C" – Plagiarism
In the written document a significant portion of text copied from any single source without any alteration then it is called Ctrl+C kind of plagiarism.

4. "Hybrid" – Plagiarism
In the hybrid type of plagiarism, Perfectly cited source documents are copied and arranged as a new document without citation.

5. "Find-Replace" – Plagiarism
Changing the most common keywords and phrases in the copied content and not making any changes in the essential document is called "Find and Replace" – kind of plagiarism.

**Tips to Avoid Plagiarism:**
•Read and understand the original document several times before start explaining about it.
•Do not copy any word or sentence from the original document.
•Give proper citation to all the sources(Books, Journal, Website, Video, and so on).
•In case of citing online sources, Include the accessed date and appropriate URL in the reference.
•Common phrases and definition need to be quoted and cited without any modification.

Ref: online[Available] date: 1/4/2019: https://www.ilovephd.com/10-types-of-plagiarism-every-academic-writer-should-know/

## They're all Chemicals!!

The most common words I've heard among the people is that whey are chemically synthesized. But wait its not!!

***What is whey protein?***

Whey protein is the best quality of protein that is derived from the milk. It contains all the necessary Amino Acids required for the process of muscle building process also which the body can't absorb easily. They are the fast absorbing proteins.

***How is it made?***

Step 1 :- The milk is brought to plant for pasteurization. This process kills all the harmful bacteria in it.

Step 2 :- This milk is then transferred to the cheese making plant. There the process goes the same like making cottage cheese (paneer) at home by putting lemon in it. There the enzymes separate the milk in to whey and casein in which 90% of which is casein used for making cottage cheese (paneer) and 10% is the liquid whey similar to the yellowish liquid left at home after making paneer.

Step 3 :- The liquid whey is then sent for making whey protein. There high quality of filters are used for separation of actual whey. Very high amount of liquid whey is required for making small amount of actual whey which isn't possible at home.

Step 4 :- The separated whey is then dried by passing hot air in heating machine to remove moisture and then cooled down by passing cold air.

Major process of manufacturing ends here now all that remains is the taste and flavors.

Step 5 :- They are then added flavors like chocolate, vanilla etc. Which doesn't affect the whey. There are companies which do sell raw protein too i.e. no flavors. Its all up to the buyer. This is then packed in hygienic jars or packets of different quantities which may vary from Tubs of 8.8 lbs. to small packets or protein bars.

At last it just to make clear about whey protein that it is not artificial it is completely natural and no chemicals are used in it its an 100% product if milk.

**Ref:** https://mythonproteinsupplements.wordpress.com/2018/06/theyre-all-chemicals

*- Aash Jain (SE-IT)*

# Food Boosts Mood !!!

The ability of a person to do a task completely depends upon his mood. And mood depends upon many other materialistic things that we perform in our day to day life. At times people say that they don't have any mood to work or travel anywhere. So now we need to use a catalyst that would boost a person's mood. There are actually many ways in which a person's mood can get an uplift. Listening music, playing games, reading books, hanging out, long drives, clubbing, beaches and many more. But the most efficient, satisfying and best booster is FOOD. When none of the above works that time food does. It acts a "bramhastra" i.e. solution for all moods(stress buster).

As life has become a complete mess it has also ruined people's mood at times. Not necessary what a person thinks happens in his life. That leads to downfall of his mood. We don't need any major reason for our moods to fall off, even a minor one would work. Our moods change like 100 times in a day generally called as mood swings. Though these seem to be normal at the start but eventually it would depress you and make you feel lonely. And In such a scenario when a person eats food he fells that he's on cloud 9. The feeling of being high on food when you are actually in no mood is a sensible decision.

But seriously you might not know the power of food in your life. It can actually make a person's bad mood change to a good one within a fraction of second. There is no science behind it its just human psychology, as said 'empty vessels make the most noise' similarly 'empty stomach makes most noise'. I have personally experienced many arguments in between me and my friends or family. Those problems look very much huge but once you have something that is filling your tummy then automatically you get ways to tackle it no matter how big it is. When you're in a good mood, bring up the past. When you're in a bad mood, stick to the present. And when you're not feeling anything then just get yourself some food. Our happiness or our unhappiness depends far more on the way we meet the events of life than on the nature of those events themselves. #keepsharing #keepeating #foodiemoodie .

*- Agasti Rao (BE-IT)*

# SIH Winners (Newspaper Article)

Student of "Universal college of Engineering " from department of Information Technology participated in SIH (Smart India Hackathon)and the team "Tab Spaced Coders" received first prize of Rs 50,000 for the project – Tender Mitra , under the mentoring of Prof. Allan Lopes and Team Leader – Chintan Popat at Manipal Institute of Technology, Manipal, Karnataka from BEML (Bharat Earth Movers Limited). This news appeared in Newspapers.

## News Article from Maharashtra Times :



### हॅकेथॉनमध्ये वसई कॉलेज ठरले अव्वल

म. टा. वृत्तसेवा, वसई

सरकारतर्फे नुकत्याच झालेल्या 'स्मार्ट इंडिया हॅकेथॉन' स्पर्धेत वसई, कामण येथील युनिव्हर्सल कॉलेज ऑफ इंजिनिअरिंगच्या 'टॅब स्पेस कोडर' या टीमने स्पर्धेत सहभाग घेत बाजी मारली आहे. त्यामुळे त्यांचे सर्वत्र कौतुक होत आहे.

पुस्तकी ज्ञानाचा व्यवहारात वापर करण्याची संधी जेव्हा विद्यार्थ्यांना मिळते तेव्हा त्या शिक्षणाचा आणि विद्यार्थ्यांचा सर्वांगीण विकास होत असतो. अशा एक ना अनेक दैनंदिन समस्या तंत्रज्ञानाच्या माध्यमातून कशा सोडवता येतील व सामान्य जीवन कसे सुखकर करता येईल, यासाठी भारत सरकारतर्फे 'स्मार्ट इंडिया हॅकेथॉन' या स्पर्धेचे आयोजन करण्यात आले होते. या स्पर्धेत भारतातील नामांकित कंपन्यांनी २४० हून अधिक सादरीकरणे केली होती. एक लाख तांत्रिकी विद्यार्थ्यांचा आणि तीन हजार तांत्रिक संस्थांचा सहभाग असलेल्या या जगातील सर्वात मोठ्या सॉफ्टवेअर स्पर्धेची सुरुवात मानव संसाधन विकास मंत्री प्रकाश जावडेकर यांच्या उपस्थितीत झाली.

या स्पर्धेत समस्या विधानावर उत्तर शोधण्यासाठी ३६ तासांनी मर्यादा होती. मणिपाल इन्स्टिट्यूट ऑफ टेक्नॉलॉजी येथे झालेल्या सॉफ्टवेअर एडिशनच्या अंतिम फेरीत संपूर्ण भारतातून वसई, कामण येथील ' युनिव्हर्सल कॉलेज ऑफ इंजिनिअरिंग च्या ' टॅब स्पेस कोडर ' टीमने आपले उत्तर सादर करत स्पर्धेत बाजी मारली. ५० हजार रुपये आणि सन्मानचिन्ह असे बक्षिसाचे स्वरूप होते. या स्पर्धेसाठी महाविद्यालयाचे परिसर संचालक डॉ. जितेंद्र पाटील, माहिती तंत्रज्ञान विभाग प्रमुख प्रा. योगिता माने आणि टॅब स्पेस कोडर टीमचे सल्लागार प्रा ऑलन लोपीस यांचे मार्गदर्शन लाभले.

News Article from Lok Satta :



# लोकसत्ता [वसई-विरार]

## कॉलेजच्या कट्ट्यावर

## 'स्मार्ट इंडिया हॅकेथॉन' स्पर्धेत वसईतील महाविद्यालयाची बाजी

राज्य शासनातर्फे नुकताच झालेल्या 'स्मार्ट इंडिया हॅकेथॉन' स्पर्धेत वसईतील कामण येथील 'युनिव्हर्सल कॉलेज ऑफ इंजिनीअरिंग'च्या 'टॅब स्पेस कोडर' या पथकाने स्पर्धेत सहभाग घेत बाजी मारली आहे. त्यामुळे त्यांचे सर्वत्र कौतुक होत आहे. दैनंदिन समस्या तंत्रज्ञानाच्या माध्यमातून कशा सोडवता येतील आणि सामान्य जीवन कसे सुखकर करता येईल यासाठी भारत सरकारतर्फे 'स्मार्ट इंडिया हॅकेथॉन' या स्पर्धेचे आयोजन मार्च २०१९ मध्ये करण्यात आले होते. या स्पर्धेत भारतातील नामांकित कंपन्यांनी २४०हून अधिक समस्यांचे कसे निराकरण करता येईल हे दाखवून दिले. एक लाख विद्यार्थ्यांचा आणि तीन हजार

तांत्रिक संस्थांचा सहभाग असलेल्या या जगातील सर्वात मोठ्या सॉफ्टवेअर स्पर्धेची सुरुवात मनुष्यबळ विकासमंत्री प्रकाश जावडेकर यांच्या उपस्थितीत झाली. या स्पर्धेत समस्येवर उत्तर शोधण्यासाठी ३६ तासांची मर्यादा होती. मणिपाल इन्स्टिट्यूट ऑफ टेक्नॉलॉजी येथे पार पडलेल्या या स्पर्धेच्या अंतिम फेरीत 'युनिव्हर्सल कॉलेज ऑफ इंजिनीअरिंग'च्या पथकाने बाजी मारली. या स्पर्धेसाठी महाविद्यालयाचे परिसर संचालक डॉ. जितेंद्र पाटील, माहिती तंत्रज्ञान विभागप्रमुख प्रा. योगिता माने आणि टॅब स्पेस कोडर टीमचे सल्लागार प्रा. अॅलन लोपीस यांचे मार्गदर्शन लाभले.

# Industrial Visit at Silvassa 22ⁿᵈ and 23ʳᵈ March 2019



Universal College of Engineering had organized industrial visit at CMS Classic Marble Company and Alok Textile Solutions at Silvassa on 22ⁿᵈ and 23ʳᵈ March 2019. 149 students of all branches from second year to final year with 6 faculty members participated in this visit.



On First day 22ⁿᵈ March Students visited CMC Classic Marble Company. This company is a pioneering ideology in India's largest and foremost importer in the architectural world of stones. During this visit students got to know various types of stones and processing required generating final finished product. Company had also allowed students to visit the marble showroom.

On the second day 23rd March we visited Alok Innovative Textile Solutions. They are India's largest fully integrated textile company with a dominant presence in the Cotton and Polyester segments. They have focused on best-in-class technology, uncompromising quality standards and dynamic product innovation. Hence our students understood the entire process of raw cotton to different quality thread such as cotton, nylon, and polyester etc. yarn generation. Experts have explained in detail machine parts and their functioning. Students got benefitted to shop products designed by Alok Textile Industries.

# Placement Report – 2k19

This Year till the month of March  total 15 students from IT department were recruited by Various Companies through Campus.

### Company 1. Feat System

| | |
|---|---|
| 1. | Agasti Nikhil Rao |
| 2. | Baral Shrikant Kabuli |
| 3. | Ami Bharat Gosalia |
| 4. | Malde Raj Bharat |
| 5. | Mishra Shruti Sanjay Sandhya |
| 6. | Rahul Karekar |
| 7. | Vaibhav Vijay Oza |
| 8. | Pranav Mehta |

## Company 2.  Robokart

| | |
|---|---|
| 1. | Shweta Misri |
| 2. | Vaibhav Vijay Oza |
| 3. | Pranav Mehta |

## Other Companies:

| No. | Name of the Student | Company Name |
|---|---|---|
| 1. | Dhairya Raja | LTI |
| 2. | Meet Gandhi | TCS |
| 3. | Mishra Shruti Sanjay Sandhya | PEOL Solutions |
| 4. | Samir Wagh | Sutherlands |

# Alumni Placement Feedback

"It was a pleasure to conduct Campus Recruitment as an Alumni of this College. The placement officers were fantastic with all the arrangements done. We are happy to hire students from UCOE".

-Feat Systems Private Limited
https://www.featsystems.com

Total students hired were 15 from Computers and IT amongst them, 8 students were from IT.



**Shraddha Gupta** - Business Analyst



**Jigar Chauhan** - RPA Developer

## Up coming Events

### BE Farewell:

"Universal College of Engineering "is Organizing Farewell Party for BE students on 20th April 2019 and wishing them a Successful life ahead.

### Wishing All the Best for future Exams