Volume 8. Issue 1 August 2016

The Editorial Board

-Beckoning Creati'wit'y

TIRESIA

"If you only read the books that everyone else is reading, you can only think what everyone else is thinking".

-Haruki Murakami

Tête-à-tête WITH
MR. BRAHMANANDA SRIVASTAVA
DIRECTOR,BORDER ROADS
(MINISTRY OF DEFENCE)

Faculty Advisor

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Message from The Editorial Board

From being warm and comfortable, cocooned in our own sweet world during the vacations, it is now time to pull up our socks as we stand on the threshold of a new session. With hopes of an even more amazing and rewarding year ahead, **The Editorial Board** extends a most heartfelt welcome to all of you.

Elated with the humongous success of the University's event of last semester-**UDGAAR'16**, we look forward to a mélange of uber-exciting events. This *tour de force* has already set the bars rather high for the upcoming programmes of the University.

Each of us has a reservoir of positive energy and extraordinary talents, often latent. Instead of letting your inadequacies render you helpless, you have got to work like a Trojan and not let the weeds of life smother you. Do not let your ingrained fears and apprehension shake your Utopian ideals or mar the beauty of new beginnings. Awaken the invincible in you and let the most potent of your spirits soar higher than ever, unabated. Given a modicum of luck, you shall reach the acme of your greatness.

Carpe diem!

FROM VICE CHANCELLOR'S DESK

I am pleased to note that the first issue of the University's monthly newsletter titled **Tiresia** in academic session 2016-17 is being released in August 2016 by the Literary Sub Council of Council of Student Activities of the University.

You are aware that since the inception of Madan Mohan Malaviya University of Technology in December 2013, continuous efforts are being made for strengthening its academic system, human resource and infrastructure for meeting the present and future requirements for delivering good quality higher technical education. Today the number of regular teachers is more than double as compared to the starting point of the University. It is really a matter of satisfaction to see that the commitment and dedication of all the teachers, staff and students is leading to realization of all academic and extra-curricular activities as per prescribed academic calendar. The University will be holding its '**First Convocation'** on **11th September 2016** for M. Tech. and M.B.A. students admitted in 2014 and graduating in 2016.

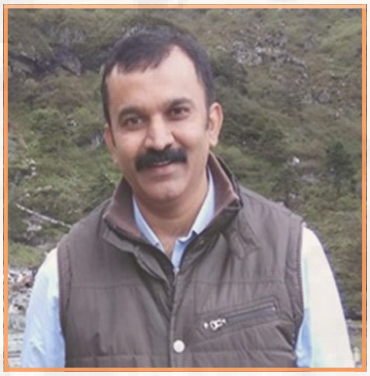
I wish this monthly newsletter to act as a reporter for the University activities, achievements and other endeavors for providing quality technical education, placement and accomplishments of the students, teachers & staff while providing opportunities to the students and teachers to exhibit their literary skills on a monthly basis.

At the commencement of new academic session 2016-17, I extend my best wishes to all the members of **The Editorial Board** with the hope that the regular publication of newsletter – **Tiresia** will be fulfilling the objective of being a potential communicator with all inside and outside the University

-Prof. Onkar Singh

Tête-à-Tête

WITH



Mr. Brahmananda Srivastava

Mr. Brahmananda Srivastava of 1994 batch, an alumnus of Electrical Engineering Department in MMMEC, marks for this edition's special talk at his benevolence. After completing his B.E., he served as an Executive Assistant Engineer in ONGC. Later, he joined the Bharat Sanchar Nigam Limited in 2002. Through his hard work and dedication towards the firm, he got promoted to the position of Deputy General Manager. In 2015, he was appointed as the Director of Border Roads under Ministry of Defence. The Editorial Board got an opportunity to have an insight of his life.

1.) Sir, please describe your career till date in brief.

My career never went as per plan, till accidentally I landed into the job which is somewhat fulfilling my aspirations.

The motive always was to join Indian Civil Services for the prestige and comforts it offered. In the year 1999, I joined ONGC. I had secured 19th and 5th ranks in ESE (formerly IES) in 1996 and 1997 respectively but couldn't join due to lack of colour perception. In ONGC, I was posted in an offshore rig and it was purely an Electrical Engineer's job there.

Later, a junior from Malaviya came to me seeking guidance in his preparation for Engineering Services Examinations. In the course of helping him out, I realised that I could clear ESE from electronics as well and coincidentally, there was a top service which didn't require colour perception.

Eventually, I succeeded and embarked upon my career which led me to work at a lot of prestigious positions. Presently, I am working as the Director of Border Roads under Ministry of Defence.

2.) How would you describe your college life?

The college days were undoubtedly the best four years of life by a margin. I made a lot of friends who stood by me in thick and thin, learnt a bit of engineering and participated in some extracurricular activities as well.

3.) Please share any memorable moment from your Malaviyan times.

It was a daily celebration so instead of sharing any particular moment, I

would share what made Malaviya special. Malaviya was special because as students, we owned the college. The programme and the examination schedules were decided by us. We decided what sports and cultural events were to take place and how. We decided our menu in the mess. The college authorities and teachers were like guiding parents who only helped us gently and lovingly in the right direction. But it were we students who were the drivers. That sense of ownership is unique and unforgettable.

4.) Sir, please describe your life post Malaviya.
In the days of struggle before settling down and now that I have settled in life, at every turn, there was and there is always a Malaviyan hand to hold. That's the biggest take away from Malaviya.

5.) What is the secret of your success?
I tell you, this whole concept of success is flawed. To be happy is the ultimate goal of life. What gives you happiness is what success is. Generally, happiness is in making contributions to the best of your ability. It's in achieving your full potential for a cause.

6.) What message would you like to convey to the budding engineers of the Malaviyan Family?
Be yourself. Be good. Make a lot of friends, genuine friends. Become a genuine friend yourself. Enjoy life, every second of it, deeply. Be grateful for what you have and then work on your ambitions. College days are your best days, don't let it go in vain, make the best use of it.

Campus Buzz

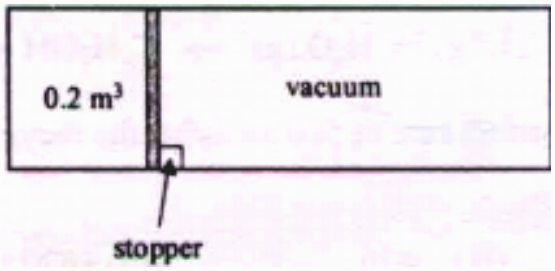
- A 3–day FDP workshop on **Linear Integrated Circuits** and **Embedded System Design: using TIVA** was conducted under Texas Instruments Centre of Excellence held between June 6-12, 2016.
- A new canteen for the students was inaugurated named as Coffee Day Beverages on July 1, 2016.
- A short term course on "**Advances in Design and Manufacturing"** was conducted by **TEQIP phase-2** from July 4-10, 2016.
- The admission procedure wrapped up successfully for the session 2016-17 with the registrations held on July 13-15, 2016.
- The Freshmen were welcomed to the Malaviyan family with an Orientation Programme held on July 15, 2016 along with the University's first batch in Chemical Engineering Department.
- A new lecture hall complex has been constructed and is fully operational.
- Set-up of Solar Panels has been initiated.
- Three conference halls have been inaugurated namely Homi J. Bhabha Hall, Shanti Swaroop Bhatnagar Hall and Aryabhatta Hall along with the establishment of seminar halls in each department.
- Announcement for the **First Convocation** of the University was made on the University website and is scheduled on September 11, 2016.

TECH INSIGHTS

Here are the questions for this month's competition.
Mail the answers at literaryedb@gmail.com

- ## CHEMICAL ENGINEERING

A perfectly insulated cylinder of volume 0.6 m^3 is initially divided into two parts by a thin, frictionless piston, as shown in the figure. The smaller part of volume 0.2 m^3 has ideal gas at 6 bar pressure and 100° C. The other part is evacuated.
At certain instant of time t, the stopper is removed and the piston moves out freely to the other end. Calculate the final temperature.

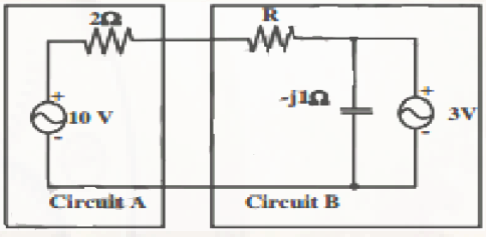


- ## CIVIL ENGINEERING

A hydraulic turbine has a discharge of 5 m^3/s, when operating under a head of 20 m with a speed of 500 rpm. If it is to operate under a head of 15 m, what will be the approximate rotational speed in rpm?

- ## ELECTRICAL ENGINEERING

Assuming both the voltage sources are in phase, find the value of R for which maximum power is transferred from circuit A to circuit B.



- **COMPUTER SCIENCE ENGINEERING**

Consider the following program.

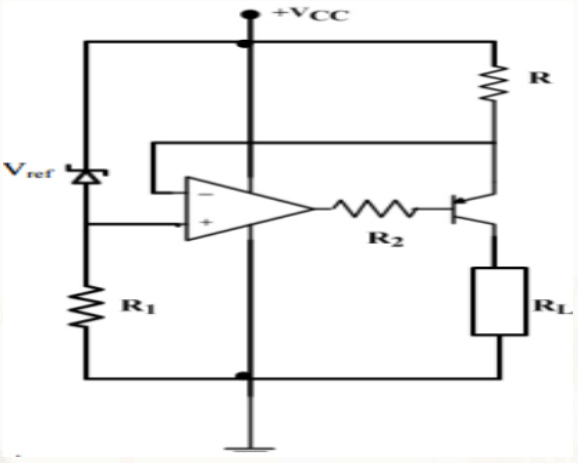
```
#include<stdio.h>
main()
{ int x,y,m,n;
  scanf("%d%d",&x,&y);
  //Assume x>0 and y>0
  m=x;
  n=y;
  while(m!=n)
{ if(m>n)
  m=m-n;
  else
  n=n-m;
}printf("%d",n);

}
```

What does the program compute?

- **ELECTRONICS AND COMMUNICATION ENGINEERING**

Consider the constant current source shown in the figure below. Here ß is the current gain of the transformer. The load current I_0 through R_L is:



- **MECHANICAL ENGINEERING**

The simply suspended beam 'A' of length L carries a central point load W. Another beam 'B' is loaded with a uniformly distributed load such that the total load on the beam is W. Calculate the ratio of maximum deflections between beams A and B.

Hyperloop

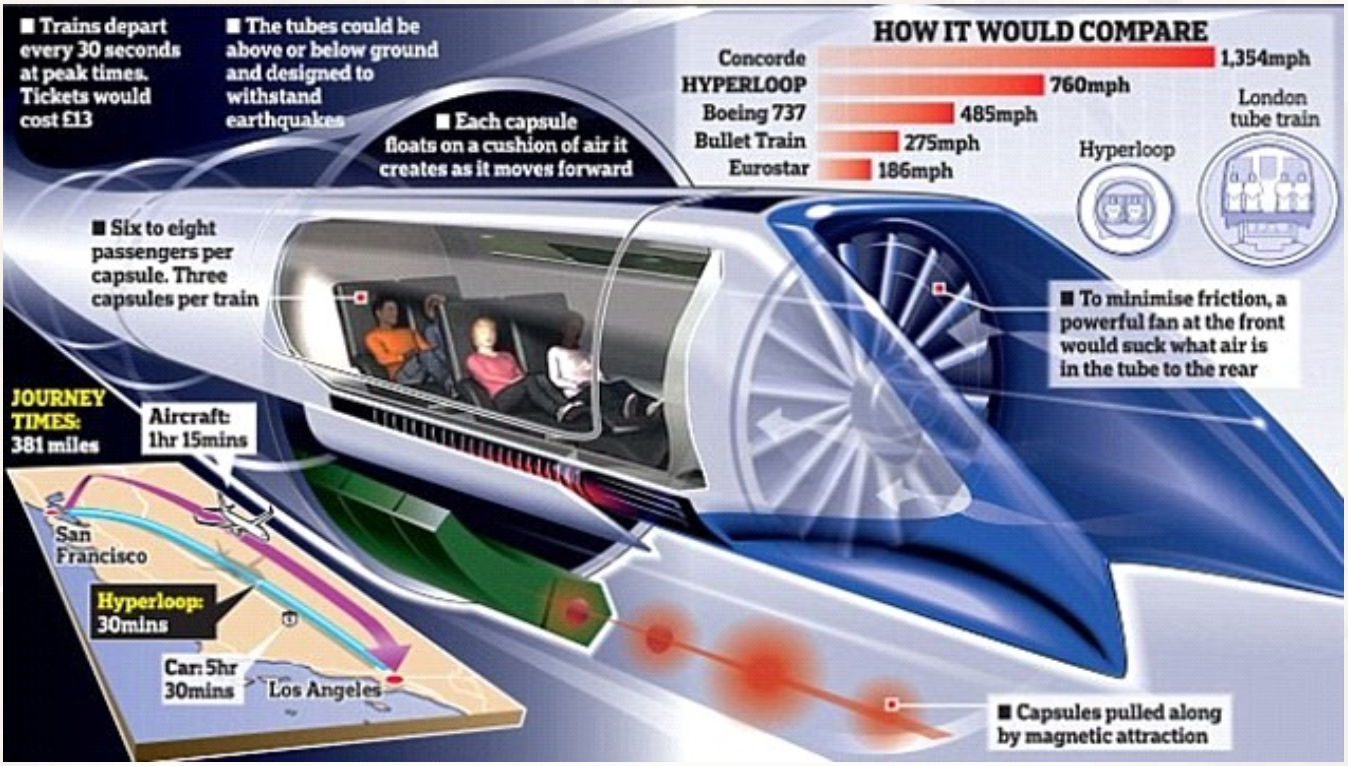
Ushering into a new Era of Transportation

It has been truly said that time is money. We humans keep on trying to come forth with faster and better ways of transportation, which has now become imperative to our lives. Our desire for comfortable journeys and to reach far off places in time has given birth to "**Hyperloop**", the next step in high speed transportation for passengers and cargo.

Hyperloop transportation technologies, one of the industries constructing the superfast transportation system thought up by billionaire entrepreneur **Elon Musk**, has discovered the magnetic technology that will allow the pods to levitate and move. It works by transporting a group of passengers in capsules that would be launched by magnets at a speed of 760 miles per hour. It proposes to catch you from Los Angeles to San Francisco in 30 minutes.

Science behind Hyperloop

The tube is out back, 11 feet in diameter, 60 feet long, the unfinished end meandering into wide ribbons of steel like a gigantic Pillsbury dough container with its seams broad open. Behind the tube is a big blue tent known as the robot school, where autonomous welders wheel or crawl along, making the tubes impenetrable. The goal is to put tracks and electromagnets inside the tube and vacuum the air out. Passengers may exit and enter **Hyperloop** at stations located either at the ends of the tube, or branches along the tube length. Linear motors spaced every 70 miles give the capsule its initial push, thus providing a periodic acceleration boost, and are used to cease the vehicle at the end of the trip. The combined length of the motors is about 1% of the tube length, so for most of the course, the capsule is coasting. Solar panels installed on the top of the tubes provide power for the linear motors.



This revolutionary technology has many advantages for the upcoming generations. It is much faster than bullet train. People taking the **Hyperloop** from Los Angeles to San Francisco will only need to pay $30, bringing a round-trip ticket to $60, thus being more economical. This technology aims to protect from the earthquake by the use of pylons.

The Future of Travel

John Favreau, director of "Iron Man," has referred to Musk as a present day "Renaissance Man" Musk told him that his goal was to be "involved in things that are going to be of significant difference to the future of humanity".

Meanwhile, another start-up that has picked up the **Hyperloop** gauntlet announced that its design is assimilating passive magnetic levitation originally conceived by a team at **Lawrence Livermore National Laboratory.**

Therefore, **Hyperloop** is an asset that would dramatically change the perceived picture of transportation. It cannot be denied that this prodigious technology would usher a new epoch in the field of transportation and would substantially decrement the effect of distance that holds places and countries apart.

Brexit

Will the United Kingdom fall prey to its own Divide-and-Rule policy of the past?

It was only recently when the sensational exit of Britain from the European Union had baffled people throughout the world. Brexit is an abbreviation of "British exit", which refers to the June 23, 2016 referendum by British voters to exit the European Union. Amidst the heated arguments for and against this historic move and several speculations by financial and political experts throughout the world, these were the two predominant questions: **"What is the European Union and what will happen now that Britain has left the European Union"?** The European Union certainly means something different now that one of its most powerful and largest members has decided to leave.

The European Union- often known as the EU- is an economic and political partnership involving 28 European countries. It began after World War II to foster economic co-operation, with the idea that countries which trade together are more likely to avoid going to war with each other. It has since grown to become a "single market" allowing goods and people to move around.

Britain's ambassador to the United Nations says the United Kingdom will remain "a world power" and "a diplomatic power" despite the vote to leave the European Union. British Prime Minister Theresa May and the Cabinet need to decide the time of process of withdrawing from the European Union, and will get two years to negotiate its withdrawal.

- FINAL YEAR MEMBERS

Abhishek Singh
Abhishek Yadav
Ankita Jaiswal
Antra Saxena
Deeksha Sharma
Dhawal N. Asthana
Lisha
Prerna Arya
Ravikant
Ritvik Verma
Shubham Chand
Siddharth Sagar
Srijan
Vishal Tiwari

Amongst the several arguments put forth by the United Kingdom in support of its exit, the prime most were the threat the European Union posed to the British sovereignty and the way it was strangling the economic growth of Britain. Their view is also driven by the fact that terrorists could easily migrate as refugees from war-fed nations and create chaos.

The impact of Brexit on India will be "very limited". Reserve Bank of India (RBI) Governor Raghuram Rajan said that the panic over Brexit was a bit exaggerated and it would not impact the Rupee as much as being feared widely. Also the United Kingdom's role in promoting India-European Union relations will no longer exist, as noted by experts.

The outcome of the referendum has no immediate legal implications. The referendum was advisory only and has no legal effect. As the famous proverb goes, "When elephants fight, the grass suffers" so would the world in this dance of economies. This move by Britain would further encourage other European countries to break away from the European Union, thereby weakening and disintegrating it.

To put it simply, a vote for remain was expected to be a vote for the United Kingdom being governed by Brussels in the interests of other European Union nations, i.e. everyone except the United Kingdom. A vote for exit was for the United Kingdom to be governed by its own democratically elected parliament in the interest of its people.

Such strong steps taken by the powerful countries clearly reflect the growing hunger for individuality amongst them. The entire world is waiting to see how Britain focuses on promoting steady growth, while reducing the vulnerabilities and volatility that would now try to dominate and see how **The Union Jack** rises above this crisis.

- THIRD YEAR MEMBERS

Abhijeet Singh
Abhilasha Gupta
Divyany Pandey
Harsh Vardhan Tripathi
Hemant Singh
Himani Raj
Ishita Shahi
Rajan Kumar Soni
Rajat Srivastava
Shivangi Srivastava
Shrishti Verma
Shwetank Srivastava
Srijan Singh

"How To"

- **How to charge your mobile device with your laptop when it is in sleep mode:**

Ever wondered what to do when you are not working on your laptop but you need to charge your electronic device like smartphone, portable charger etc.? Usually you can't charge them with your laptop in sleep mode, but by changing some settings you can charge your gizmos easily.

Note: This article is for laptops operating on Windows Operating System only.

- First of all open Device Manager by pressing **windows key** immediately followed by "**x**" key or by pressing **"Win+R"** simultaneously and typing the run command devmgmt.msc in the run dialog box that appears.
- Double-click the "Universal Serial Bus Controllers" then select the last option named "USB Root Hub". Right click it and select "Properties".
- Select the "Power Management" tab from the dialog box that appears.
- Untick "Allow the computer to turn off this device to save power" checkbox and it's done.

Enabling this feature is also very useful if you are out and about and don't have access to a wall socket to charge your device.

- SECOND YEAR MEMBERS

Aaruni Khare
Abhishek Verma
Anurag Dhar Dubey
Archish Jaiswal
Arushi
Kaanad Wanchoo
Krati Tiwari
Manisha Mishra
Narendra Mishra
Pragya Pandey
Shreya Mishra
Shreyansh Srivastava
Shubham Pathak
Somiya Bhandari
Tanmay Kumar