The Editorial Board
–Beckoning Creati'wit'y

TIRESIA

Varsity's own Harbinger

"Good, better, best. Never let it rest until your good is better and your better is best."

St. Jerome

Tête-à-tête
with
Asst. Prof. Anupam Sahu

Message from The Editorial Board

'By all lovely tokens September days are here, with summer's best of weather and autumn's best of cheer.'
- Helen Hunt Jackson

August began with the unparalleled excitement for the Rio Olympics that kept the sports fanatics glued to their television sets for updates. Women athletes left the entire world awestruck by their stunning performances, exhibiting the ne-plus ultra of their power, yet again.

The month ended with the successful conduction of events like **Abhipreran** and **Malaviyan Ace** for the varied Malaviyan fraternity.

As September arrives in all its glory and charm, we clebrate September 14 as Hindi Diwas. Let us take pride in our mother tongue and take a moment to understand that being ashamed of using it would be tantamount to insulting a tradition as old as our civilisation itself.

Also, the students roll up their sleeves for the University's techno-management festival, **TechSRIJAN 2016**. So keep a check on your ammunition, gear up and participate with zeal in the events to come, thus breaking the monotony of curricula.

With this message and the best of wishes, The Editorial Board puts forth the September issue of **Tiresia.**

Faculty Advisor

Shri M.K. Srivastava

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FROM THE VICE CHANCELLOR'S DESK.. 🖋

It is heartening to know that the Literary Sub Council of Council of Student Activities of the University is coming out with the second issue of University's monthly newsletter titled **Tiresia** for the academic session 2016-17 in September 2016.

After commencement of the third academic session since inception of this University, the student strength in the campus has risen significantly. This capacity enhancement had put forward challenges on all fronts. I am pleased to note that the proactive approach of the committed team of University comprising of administrative officials, faculty & staff members has been successful in negotiating these challenges satisfactorily as is evident from the strict adherence to the academic calendar and congenial ambience around in the campus. Initial troubles faced by the University community due to deficient & old infrastructure and shortfall in human resource are being looked into vigorously in the given constraints.

I wish to take this opportunity to call upon all the stakeholders to actively contribute in strengthening the teaching and learning activities and enrichment of extracurricular activities for achieving the requisite professional competence along with a good character formation in the students of the University.

I congratulate the members of **The Editorial Board** and believe that this news letter will help in meeting its' objective of being a potential communicator with students and other stakeholders for overall growth of the University as a hub for excellent technical education.

–Prof. Onkar Singh

Tête-à-tête
WITH
Asst. Prof. Anupam Sahu Sir

Mr. Anupam Sahu, the Assistant Professor in Electronics and Communication Engineering Department in MMMUT marks for this edition's special talk at his benevolence. **The Editorial Board** got a chance to talk to him about his experiences in Malaviya and elsewhere. Here is an excerpt of what he had to say.

1. Sir, you've been in the University for 3 months now. Please describe your life here at Malaviya.

Ans. Life at Malviya has been fantastic for me. In the early weeks of my joining, I faced some difficulties regarding the logding and fooding, but thanks to some faculties and staff for their much needed help. My journey has recently started and I have a lot more to go but what I have experienced till now has been sheer pleasure.

2. Please tell us about your Journey in Academia and what inspired you for it?

Ans. I have done my B. Tech in the discipline of Electronics and Communication Engineering from CAET, Etawah. Following that, I completed my M.Tech in Optical Communication from Banaras Hindu University - Institute of Technology. I have garnered teaching experience as an Assistant Professor at Indraprastha Engineering College, Ghaziabad. Talking in context of MMMUT, it is irrefutably a huge campus with well equipped facilities. The whole campus is yet to be explored. To be precise, this is just the beginning of a long road that is yet to be travelled.

3. Some endearing memories about your college life. How do you find it different from that at Malaviya?

Ans. In my graduation days, faculties were not interested in taking classes. Sometime we use spend the entire semester without even attending a single class. The situation is quite different here at Malaviya. In this University, classes are held regularly by pro-active faculty members and a conspicuous hunger for learning gleams in the eyes of the students which is quite commendable.

4. Sir, how would you like to describe your relations with fellow Malaviyans and expectations from them?

Ans. The faculties and staff members of Malaviya always extend a helping hand and are quite benevolent. They helped me familiarise and amalgamate with the situation and aroma of the University in my early days. Now I am a proud member of the eminent Malaviyan team and expect them to work hand in hand to elevate the Malaviyan spirit prevalent.

5. What are your passions other than education?

Ans. Apart from education, I have a keen interest in sports. Since my childhood, I love to watch and play cricket. But from the past few years, I have developed an interest in badminton.

6. What changes do you wish to see whilst you're here?

Ans. It's an enormously huge and lush green campus. Also, since it's undergoing through metamorphosis from being a college to a technical university, I would like to see it grow with refurbished infrastructure in the forthcoming years with the students availing all sorts of sought after facilities in sports apart from the curricula, watch the students achieve formidable results and come up with flying colours, bringing laurels to their **alma mater**, to themselves and their families.

Campus Buzz

- **The Entrepreneurship Development Cell** organised a workshop on **Solar LEDs and Bulbs** under the guidance of Shri Ram Bilas Prasad, from August 20-24, 2016.
- **The Social Engineers' Board** organised **Abhipreran**, a career counselling programme for the freshmen of the University on August 28, 2016.
- **Malaviyan Ace**, the annual online test series was conducted by **The Editorial Board** on August 28 and September 4, 2016.
- A seminar for the sophomores was organized by the collegiate clubs of IEEE and SAE - India under the guidance of **Engineers' Success**.
- **Electronics and Communication Engineering Society** conducted classes for the sophomore ECE students on **VLSI designing through VHDL and Verilog languages** from September 1, 2016.
- Robotics Classes were started for the freshmen from September 1, 2016.
- A three-day long **Intra-University Futsal Tournament** was conducted by the **Council of Student Activities Sports Sub-council** from September 3, 2016, which concluded with a ceremonial match for the University's Faculty on September 5 to commemorate Teachers' Day.
- The University conducted its **first Convocation** successfully on September 11, 2016 in the presence of His Excellency the Governer and Hon'ble Chancellor of Madan Mohan Malaviya University of Technology, Gorakhpur - Shri Ram Naik. AICTE Chairman Mr. Anil Dattatraya Sahastrabudhe was the Chief Guest at the event.
- A cultural event was conducted according to the guidelines of University Grants Commission on September 15, 2016 on **Engineers' Day**.
- Soft Ball Cricket tournament for the students was organised by the Sports Sub Council of Council of Student Activities from September 17, 2016.

Tech inSIGHTS

Here are the questions for this month's competition.
Mail the answers at literaryedb@mmmut.ac.in

- ## CHEMICAL ENGINEERING:

Heat is generated at a steady rate of 100 W due to resistance eating in a long wire (length = 5 m, diameter = 2 mm). This wire is wrapped with an insulation of thickness 1 mm that has a thermal conductivity of 0.1 W/mK. The insulated wire is exposed to air at 30°C. The convective heat transfer between the wire and surrounding air is characterized by a heat transfer coefficient of 10 W/m^2 K. Find the temperature (in °C) at the interface between the wire and the insulation.

- ## CIVIL ENGINEERING:

An infinitely long slope is made up of a c-φ soil having the properties: cohesion (c) = 20 kPa, and dry unit weight (γ_d) = 16kN / m3 . The angle of inclination and critical height of the slope are 40° and 5 m respectively. To maintain the limiting equilibrium, what is the angle of internal friction of the soil (in degrees)?

- ## COMPUTER SCIENCE & ENGINEERING:

Let a be an array containing n integers in increasing order. The following algorithm determines whether there are two distinct numbers in the array whose difference is a specified number S > 0.
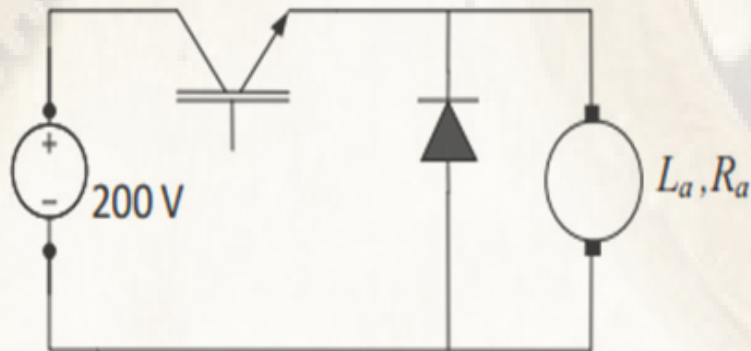
```
i = 0;
j = 1;
while (j < n )
  {
    if (E)
        j++;
    else if (a[j] - a[i] == S)
        break;
    else
        i++;
  }
if (j < n)
    printf("yes");
else
    printf ("no");
```
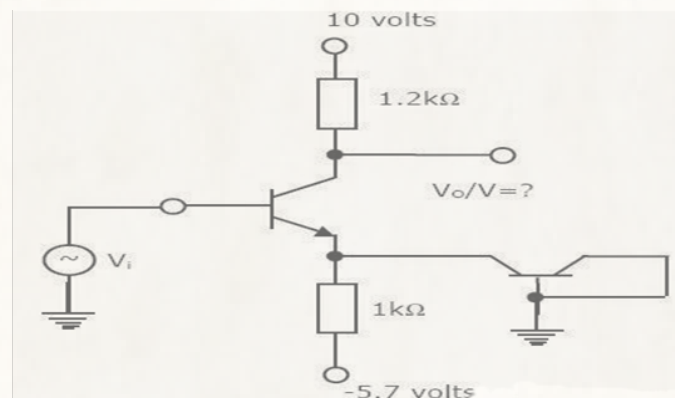
What is the correct expression for E ?

- ## **ELECTRICAL ENGINEERING:**

The separately excited dc motor in the figure below has a rated armature current of 20 A and a rated armature voltage of 150 V. An ideal chopper switching at 5 kHz is used to control the armature voltage. If La= 0.1 mH, Ra= 1 Ω, neglecting armature reaction, calculate the duty ratio of the chopper to obtain 50% of the rated torque at the rated speed and the rated field current.

- ## **ELECTRONICS & COMMUNICATION ENGINEERING:**

In the figure below, both the transistors are identical and have a high value of ß. Take the DC base emitter voltage drop as 0.7 volts and KT/q = 25 mV. What is the value of the small signal low frequency voltage gain (V_0 / V_i)?

- ## **MECHANICAL ENGINEERING:**

In order to form a stream of bubbles, air is introduced through a nozzle into a tank of water at 20°C. If the process requires 3.0 mm diameter bubbles to be formed, by how much the air pressure at the nozzle must exceed that of the surrounding water? What would be the absolute pressure inside the bubble if the surrounding water is at 100.3 kN/m² (σ = 0.0735 N/m)?

Winners of last edition:
Computer Science & Engineering: Prabhat Gupta, Final year.
Chemical Engineering: Satwik Singh, First year.
No satisfactory answers were received from the remaining branches.

VoLTE
Voice over
Long Term Evolution

The recent announcement of VoLTE has already created enough ripples in the tech world. With so many advancements taking place every day, companies have come up with VoLTE which is a technology based on the LTE or Long Term Evolution technique, a variant of 4G mobile networks. VoLTE basically allows you to place calls over a high-speed data connection itself while allowing you to keep your current data connection active simultaneously. It has the ability to use more bandwidth to make phone calls with higher quality audio travelling both ways. Simply put, VoLTE is a way to route voice traffic over the 4G LTE network carriers to transmit data.
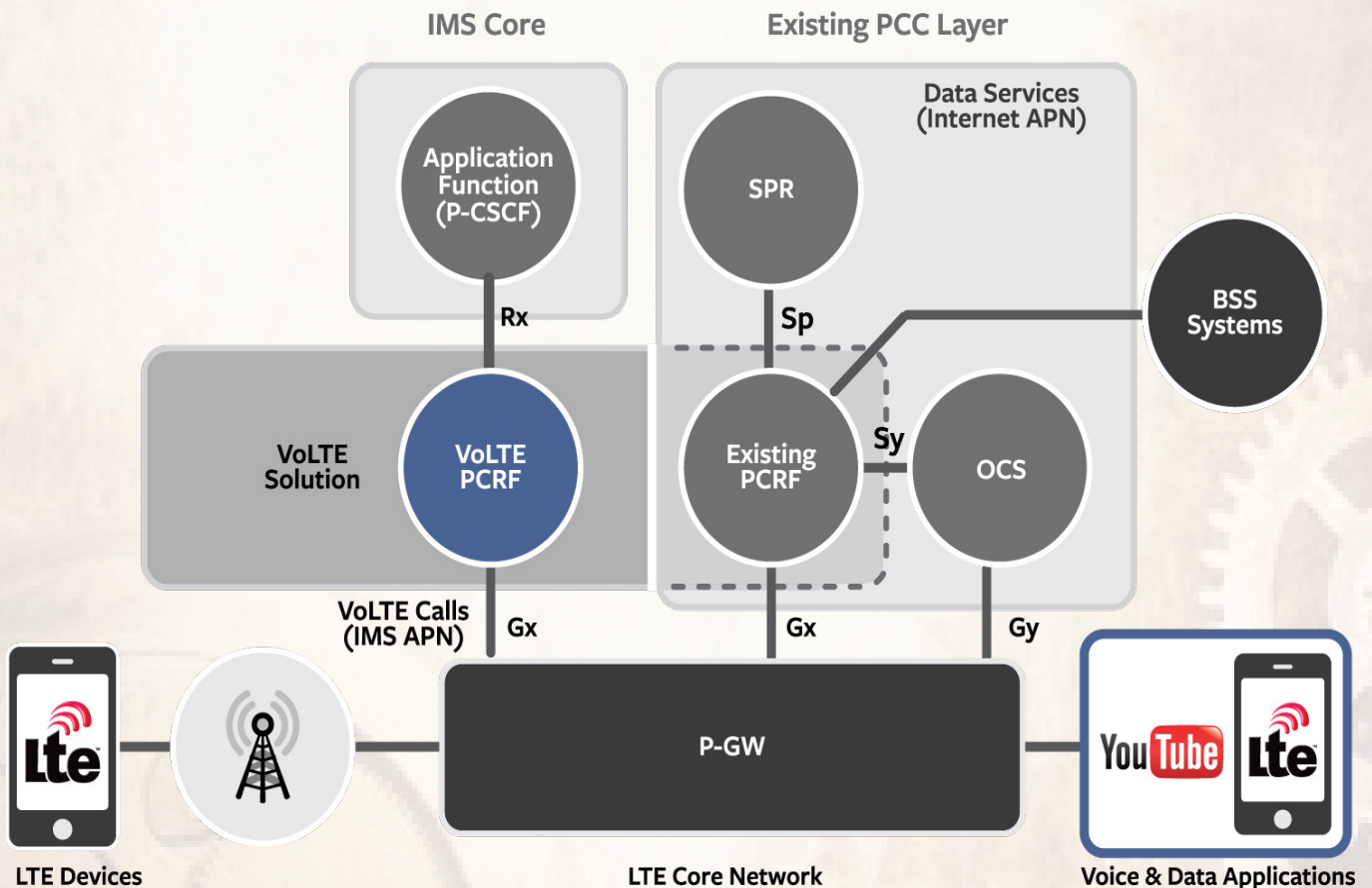
With increasing data consumption, the subscribers demanded more services for less money. At the same time, it was important for the operators to protect their profitability by reducing delivery costs along with seeking a standardized system for transferring traffic for voice over LTE and so they decided to eliminate the need for separate voice and data networks, thus coming up with VoLTE.

VoLTE primarily works on IP-based networks and only supports packet switching. The data received from a circuit-switched network such as the Global System for Mobile Communications(GSM) or a Code Division Multiple Access(CDMA) network gets converted into network packets before being broadcasted. VoLTE uses IP multimedia subsystem (IMS) based networks to offer these services. It does not work on networks that are not compatible with or that do not have integrated IMS within their core architecture. The services that can be provisioned using VoLTE include video calling, voice calling, multimedia streaming and sharing services.
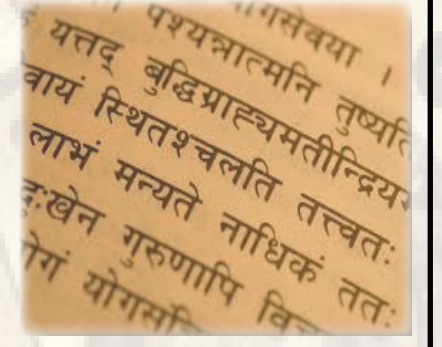
However even with all the breakthroughs this technology is making, there is a lot of skepticism regarding the same. While VoLTE is a relatively new emerging technology - a richer multimedia voice and video call service, the question is: is it a MUST for communications service providers? This question requires thoughtful reconsideration because, if they are not going to take it on board, they are about to lose their lucrative and long-lasting, but currently declining traditional voice revenue. Also this would lead to fragmentation and incompatibility, as it would not allow all phones to communicate with each other, thereby reducing voice traffic. One of the many problems associated with VoLTE requires accurate measurement of data usage to ensure that those on tight budgets do not get into trouble regarding their budget. Most of the operators have come up with monitoring tools

at their end to ensure that the customer is charged against the time spent over the call rather than the amount of data but the confusion still prevails. VoLTE also potentially requires both participants on the call to have 4G coverage. As that's not yet as widespread as 2G and 3G it means that VoLTE calls won't always be available and if someone moves out of 4G coverage during the call there's a chance that the call will be dropped. Among other arguments, it is seen as far too expensive and burdensome to introduce and maintain.

Although VoLTE is still in its early days, but this change was much needed. In the upcoming years, we can expect a lot of progress and competition, eventually leading to VoLTE becoming the standard for voice calls over cellular networks. Most of the telecom giants throughout the world have shown keen interest in this technology, with Reliance Jio leading the pack in India. For them the entire package which includes better quality voice calls, the ability to use voice and data simultaneously and more network efficiency seems to be a fine opportunity to show their ability to stay bold and shake up the industry while aiming at providing better services.

संस्कृत का लौटता गौरव

संस्कृत भारत की शास्त्रीय भाषा है जिसे हम देववाणी भी कहते हैं। यह सभी भाषाओं की जननी है। विश्व की ९७% भाषाएँ इसी के गर्भ से उद्भूत हुई है | यह एक संस्कारिक भाषा है | संस्कृत भाषा का लालित्य, व्याकरण, छंद, सौंदर्य एवं अलंकार अद्भुत एवं आश्चर्यजनक है | यह भाषा अपनी दिव्य एवं दैवीय विशेषताओं के कारण आज भी उतनी ही प्रासंगिक एवं जीवंत है जितनी देवकाल में हुआ करती थी |

संस्कृत का तात्पर्य पूर्ण एवं अलंकृत है | यह भाषा सभी विशेषताओं से पूर्ण है | इसमें भाषागत् त्रुटियाँ नहीं मिलती हैं जबकि अन्य भाषाओं के साथ ऐसा नहीं है | अरबी भाषा को कंठ से बोलते हैं, अंग्रेजी भाषा को होठों से बोलते हैं किन्तु संस्कृत भाषा के प्रत्येक वर्णमाला की विशेष प्रकार की ध्वनि है | अतः संस्कृत को पूर्ण भाषा का दर्जा दिया गया है |

संस्कृत भाषा दो वचन में है, एवं सभी भाषाएँ एकवचन में हैं | यही विशेषता इस भाषा को अन्य सभी भाषाओं से अलग बनाती है | संस्कृत भाषा के निरंतर अभ्यास से जिह्वा साफ़ होती है एवं स्मरण शक्ति प्रबल होती है, महज संस्कृत शब्दों के उच्चारण से विभिन्न प्रकार के रोगों में कुशलता से लड़ने में मदद मिलती है |

संगणक (कंप्यूटर) सॉफ्टवेयर प्रोग्रामिंग के लिए संस्कृत सर्वाधिक सुविधाजनक भाषा है | आधुनिक विश्व में हम विभिन्न प्रकार के कार्यों के लिए संगणक पर निर्भर हैं | संस्कृत को संगणक की डिजिटल भाषा में प्रयोग करने की तकनीक यदि खोजी जा सके तो भाषा जगत के साथ-साथ इस क्षेत्र में भी अभूतपूर्व परिवर्तन देखने को मिलेंगे | नासा का मानना है कि ६ वें एवं ७ वें पीढ़ी के सुपर कंप्यूटर संस्कृत भाषा पर आधारित होंगे जिनका प्रयोग लम्बे अवधि के लिए किया जा सकेगा | संस्कृत भाषा के प्रत्येक शब्द २५ रूप में हैं - इसी वजह से नासा के वैज्ञानिक अन्तरिक्ष में सूचना संस्कृत भाषा में भेजते हैं क्योंकि अन्य भाषा में भेजने से सूचना उलट जाती थी जबकि संस्कृत में सूचना उलट जाने के बाद भी अपना अर्थ नहीं बदलती |

देवभाषा संस्कृत की गूंज कुछ वर्ष बाद अंतरिक्ष में भी सुनाई दे सकती है | इसके वैज्ञानिक पहलू का मुरीद हुआ अमेरिका इसे नासा की भाषा बनाने के प्रयास में अग्रसर है | अंतरिक्ष में नाना प्रकार के उपग्रहों से निकलने वाली तरंगें भी संस्कृत भाषा के स्वर से उत्सर्जित हैं | आने वाला युग संस्कृत भाषा से परिपूर्ण होगा, आज समूचा तकनीकी जगत भी इस सत्य से सहमत है | संस्कृत भाषा के अनावरण से संचार माध्यम में नयी क्रांति देखने को मिलेगी | आने वाले वक्त में संस्कृत भाषा अनुसंधान में उपयोगी साबित होगी |

संक्षेप में संस्कृत भाषा के बिना अन्य भाषाओं का तथा मानव समाज के तकनीकी उत्थान की कल्पना करना कठिन है | हजारों वर्षों की चिरंतन साधना का सर्वोत्तम सार इसी भाषा में संचित है | संस्कृत निस्संदेह संसार की महिमाशालिनी भाषा है | भारत आज जगतगुरू बनने को अग्रसर है, आइए हम सभी संस्कृत भाषा के उत्थान में अपना परस्पर सहयोग दें |

Cluster Of medals?
A Feasibility check

With depart of the tough phase for India in Olympics 2016, there comes a sudden jerk in the condition of sports prevailing. It is a matter of great concern that with population of billions we are landing with just 2 medals. Isn't it a question over prestige of the country that with talents so diverse, we are still facing a crucial struggle in terms of resources, facilities, ending up with trivial performances? And how many times would the players be decried? Should we now not realise that somewhere or the other, we are being misled deliberately? Not blaming the system entirely, something needs to be done at the root-most level.

With the reasons familiar and trending to the issue, an approach is to perceive efficient ways regarding upheaval in sports. Let's not deny the fact that sports isn't close to the worth of the academics voice in the country. It is not just the liability of parents but also the lack of exposure to the child in his learning phase. We come across variety of games in Olympics but how many of us do really know about them? Imagine how many of us in our childhood ever decided to pursue a sport which involves 50 kilometres of walking - perhaps none. There are certain sports which don't involve enough investments, sponsorships, risks but still provide a global platform to compete. There should be at least a basic knowledge of sports as mandatory inclusion in academics to ensure that children have the exposure to various games involved. It would then be a gradual build up of interest with apt knowledge in sports for a student. Being quick learners, with games so diverse, the child would ultimately find himself eager towards vast horizon of sports.

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

All are aware of talent hunting schemes like NTSE and KVPY. These are among the exams which provide the deserving ones with the opportunity to learn in more efficient environment, covering major expenses as well. Similar to this, what if there comes a talent scheme exclusively for sports also? Imagine players qualifying talent rounds to avail these schemes, to learn and grow in most conducive environment with optimum resources sufficient to uplift their performances. With the charm of qualifying exams like these, more players would come up, realising the true worth of their talents. As the facilities furnished under these schemes for players would benefit them, on the other side they would be having opportunities to be trained among the exceptionally skilled players, ultimately giving off better play. Taking queue among these, famous names could be generously made to visit stadiums and institutes of country, providing the encouragement and boost to eager ones. Be it then professionals like Usain Bolt or remarkable coaches of best plays, it would be an entirely different zeal our newbies would aspire. We ultimately have to improvise the sports to make it feasible for India to contribute significantly in coming Olympics.

It takes time but with efforts and commitment they do cast the reality. Contributions are to be made at this side since India hasn't lost its image as the land weighed in talents. Players are the prestige bearers of the country and unfair politics is an injustice to them, to 1.2 billion population living as well! The need of the hour is not to be desperate enough to see India outshine only in Olympics, rather what each talent aspires for is the devotional guidance to live upto one's dreams and bring laurels to the nation.

Jai Hind!

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 become a Google search maestro:

Have a query or simply want to satiate curiosity? Just "Google" your doubt to find the solutions, just a click away. So in this edition of **Tiresia** we present some tips to search efficiently through the Google web portal.

🚍 ""Quotation Marks:** Type your search string in quotes to search for exact word or a set of words. This is very useful for searching quotes or song lyrics. For example: typing **"You can be the best"** displays links to the song "Hall of Fame" by The Script.

🚍 **-Dash:** Put a dash before the word you want to exclude for your search to get precise results. For example: searching for **spear–britney** gives results which excludes the webpages on Britney Spears.

🚍 **~Tilde:** Use a tilde key symbol in front of the term whose synomyms is to be included in the search result. For example: **Diwali~lights** displays hyperlinks related to lights used in Diwali.

🚍 **site:query:** Use the site: keyword and type the website's address in the query part to search within that particular site. For example: **site:mmmut.ac.in** shows all the link within this site.

🚍 **Image Search:** Type image.google.com to open Google Images and click on the camera symbol 📷 to initiate image search, that is we upload an image from the device or copy its URL (Uniform Resource Locator) to find hyperlinks related to the image.

🚍 **Filetype:** To search for a specific filetype for query string type the search string followed by filetype: keyword and the the filetype extension required. For example: to find pdf (Portable Document Format) file related to Margaret Mitchell's Gone with the Wind, type **Gone with the Wind filetype:pdf.**

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