



The Editorial Board

-Beckoning Creati'wit'y



TIREZIA

VARSIY'S OWN HARBINGER

"Once you learn to read, you will be forever free."

- Frederick Douglass



*Tête-à-tête
WITH*

Dr. Brijesh Kumar
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Electronics and Communication
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Message from The Editorial Board

“Life starts all over again, when it gets crisp in the fall.”

-F. Scott Fitzgerald

All hail! November arrives with the winter season and its amber aesthetics. With the major examinations around the corner, it is time to harvest the crops and contemplate and integrate the lessons learnt so far.

The entire world witnessed economical surge on terror funding and stashed black money with the denominations of ₹1000 and ₹500 being rendered illegal tender which is undoubtedly a bold step taken by honourable Prime Minister of India. **The Editorial Board** welcomes all such initiatives taken up for the national upliftment.

Fortified by the corking event ‘**Aagman 2016**’ and the mega-event ‘**TechSRIJAN’16**’, the peppy Malaviyans also enjoyed and soothed themselves with the coveted event ‘**Arunoday’16**’.

Rolling out the welcome mat for the season’s cozy vibes and breezes and wishing Malaviyans success in the major examinations, **The Editorial Board** brings forth the November issue of **Tiresia**.

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FROM VICE CHANCELLOR'S DESK

I am delighted to note that the Literary Sub Council of Council of Student Activities of the University is successfully releasing the third issue of University's monthly newsletter titled **Tiresia** for academic session 2016-2017 and the teaching-learning activities are carried forward for timely completion of prescribed syllabus. There is a whole hearted involvement of students in academic activities in the University.

It is also worth noting that at the end of this month the University will be completing three years of its meaningful service of technical education. It is high time for all stakeholders to make assessment of the achievements and initiatives taken by this technological University of state of Uttar Pradesh and also identify future growth opportunities.

Through this newsletter, I wish to reiterate the mission of University to create every student in the campus as a holistic professional and a good human being. The proactive participation of students in all academic activities for their own development will significantly help in achieving the goal set by us.

At the end of this brief message, I extend my best wishes to all the readers and congratulate members of **The Editorial Board** for this edition.

Jai hind.

-Prof. Onkar Singh

FROM CHIEF EDITOR'S PEN

I feel extremely delighted to share with the readers the release of the third issue of monthly newsletter in November 2016, at our University portal under the shade of an experienced, dynamic, visionary and scholarly Vice-Chancellor Prof. Onkar Singh. Of course, we have been bringing out the same under the aegis of erstwhile M.M.M. Engineering College, Gorakhpur dating back to April 2010, yet the speciality of the present issue is that besides providing the readers with the details of activities in and around the University, it speaks a volume about the destiny of the University. The student members of **The Editorial Board** deserve appreciation in carrying on “the old order changes yielding place to new” with doubly increased energy and enthusiasm. In nature, every beautiful creation is intended to maintain the consistency of a cycle to which Almighty is the supreme. The sun embraces its magnificence on every uncharted corner of earth and encourages us to step out and explore our hidden talents. Streams gush through the glaciers, flow with an inexhaustible speed and inspire us to be unmoved, stay focussed in accomplishing a task.

Rise each time you fall and accept every challenge in your life gracefully. Some day by your spell binding efforts you might leave the world wonderstruck.

All the best!

-Dr. D.K. Dwivedi

Tête-à-Tête

WITH

Dr. BRIJESH KUMAR



Dr. Brijesh Kumar, Associate Professor & Secretary, IEEE-EDS UP Chapter Department of Electronics and Communication Engineering 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 4 months now. Please describe your life here at Malaviya?

Answer: MMMUT Campus is a very lush green campus. Till now, my life at the Malaviya Campus has been very good and I hope for the same in future. In the early days of my joining, I faced some difficulties regarding boarding facility, but now it has become quite smooth. My colleagues are quite supportive in all possible ways. I have a lot more to do with the development of my own, department, university, state and the nation. However, what I have experienced till now has been absolutely filled with pleasure.

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

Answer: I received my B.Tech. degree in Electronics Engineering in 1999 from Bundelkhand Institute of Engineering and Technology (B.I.E.T.), Jhansi, India, M.Tech. in VLSI Design in 2007 from UP Technical University, Lucknow, India and the Ph.D. Degree from Indian Institute of Technology Roorkee (IIT Roorkee), India. I have more than sixty international and national publications and a book, titled: "Organic Thin-Film Transistor Applications: Materials to Circuits" by CRC Press Taylor Francis, UK.

I served at the Department of Electronics Engineering, BIT, M. Nagar (UP), for seven years and later I joined the Department of Electronics and Communication Engineering, Graphic Era University, Dehradun, Uttarakhand, and served there for more than ten years. Presently, my research work focuses mainly on Novel structures of OTFTs, Organic Solar Cells and OLEDs based displays. Currently, I am guiding **3 Ph.D.** candidates, **3 M.Tech. (Digital System) Theses**. Apart from this, I have already guided more than **fifteen M.Tech.** theses. Talking in context of MMMUT, it is certainly a great campus with almost all facilities. There is a lot more yet to be explored. This is just the beginning of a long journey ahead.

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

Answer: In my graduation days, we were interested in attending the classes and our knowledge was limited to the books and lectures. Now, the students are not dependent solely on teachers for learning. However, I found that the classes are held regularly by faculty members in MMMUT, Gorakhpur. In fact, I observed a keen interest among the faculties to arrange special learning sessions, group discussions, student development programmes, short-term programs, conferences, seminars, workshops and knowledgeable lectures through experts from IITs, IIITs, NITs and other premier institutes and research centres of the country as well as representatives from industry from time to time. Moreover, a noticeable enthusiasm for learning can be seen in the eyes of the students which is praiseworthy.

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

Answer: The faculty and staff members of all the departments of the University are quite supportive. They helped me familiarise with the University in my initial days. Now, I am a gratified member of the distinguished Malaviyan team and always expect us to work in uplifting the Malaviyan essence.

5. Sir, please share the experiences of TechSRIJAN'16 as the faculty advisor of IEEE.

Answer: It has been a delightful experience, working as IEEE Faculty Advisor and Faculty Coordinator of **TechSRIJAN'16**. It is an honour to get associated with Major G. S. Tripathi Sir and other faculty members along with such zealous students to organize such a grand event. Cooperation and dedication of the student body made my experience even more exuberant.

6. What are your passions other than education?

Answer: Apart from education, I have a keen interest in research activities, technical contest and an active involvement in games and sports. Since my school days, I have loved to watch and play different sports and games. I was also a long racer. I am an NCC 'C' certificate holder and attended many NCC camps during my NCC cadetship at BIET, Jhansi. But from past few years, I have been totally involved in research & academic activities. Recently, I also found my interest in social work.

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

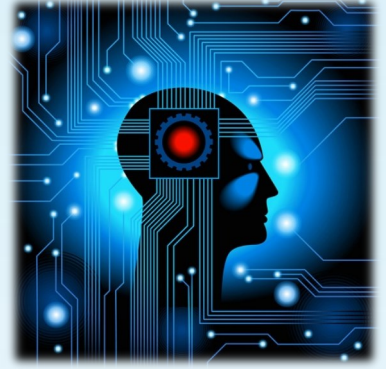
Answer: MMMUT has transformed from college to a technical university at a great pace. I would like to see its continuous progress and in the coming years, it will certainly be among the top universities with eminence in the infrastructure and quality education and research. Here, I would like to see the students availing all sorts of facilities in academics, research, sports and their overall personality development. I wish to see the students bringing laurels to their own family, the University and at large for the nation.

Campus Buzz

- MoU was signed between our University and the Italian National Agency for New Technologies, Energy and Sustainable development on September 28, 2016 for scientific cooperation.
- **Alumni Meet** was successfully organised on September 30 and October 1, 2016.
- Annual techno-management fest **TechSRIJAN'16** was successfully conducted from September 30 to October 2, 2016.
- A short term course on **Emerging trends in Civil Engineering** was conducted by Civil Engineering department from October 2 to October 7, 2016.
- An inaugural cricket match of the **Soft Ball Cricket Tournament** was played between the teams **STUDENTS XI** and **VC XI** on October 5, 2016.
- **Placement drive** was carried out on the campus by **TCS** and **Wipro Ltd.** on October 4 and October 13, 2016 respectively.
- **Health check up camp** was organised by the **Rotary Club** in Narendra Karmarkar Hall for the faculty, staff members and the students on October 16, 2016.
- **The Social Engineers' Board** conducted an online campaign on social issues as the final round of **Aagman'16**.
- **Arunoday'16** was organised on November 4 & 5, 2016 by **The Editorial Board**.
- **National Level Kabaddi Tournament (NLKT)** was organised on November 9 & 10, 2016 among eleven teams in the playground near MPH.
- National Board of Accreditation (NBA) visited the university for inspection on November 11, 12 & 13, 2016 for plausibility for accreditation.
- **Innovation Cell** organised **InnoWIZION 2k16** on November 11 & 12, 2016.



TECH INSIGHTS



Here are the questions for this month's competition.

Mail the answers at literaryedb@mmmut.ac.in.

♦ CHEMICAL ENGINEERING

Carbon Monoxide (CO) is burnt in presence of 200% excess pure oxygen and the flame temperature achieved is 2298 K. The inlet streams are at 25° C. The standard heat of formation (at 25° C) of CO and CO₂ are -110 kJ mol⁻¹ and -390 kJ mol⁻¹, respectively. The heat capacities (in J mol⁻¹ K⁻¹) of the components are

$$C_{P(O_2)} = 25 + 14 \times 10^{-3} T$$

$C_{P(CO_2)} = 25 + 42 \times 10^{-3} T$, where T is the temperature in K. What is the heat loss (in kJ) per mole of CO burnt?

♦ CIVIL ENGINEERING

A thin walled long cylindrical tank of inside radius r is subjected simultaneously to internal gas pressure p and axial compressive force F at its ends. In order to produce 'pure shear' state of stress in the wall of the cylinder, what should be the value of F?

♦ COMPUTER SCIENCE AND ENGINEERING

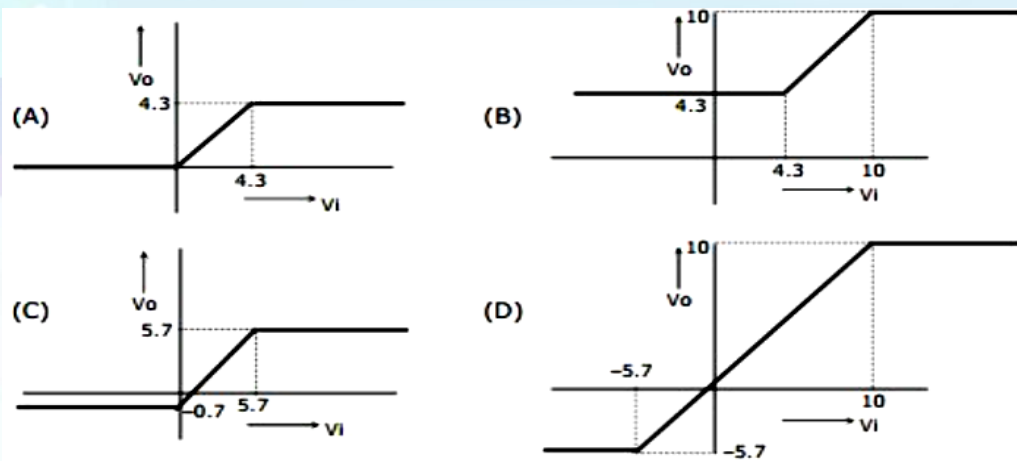
Consider the following code segment.

```
x= u-t; y= x*v; x= y+w; y= t-z; y= x*y;
```

What is the minimum number of total variables required to convert the above code segment to static single assignment form?

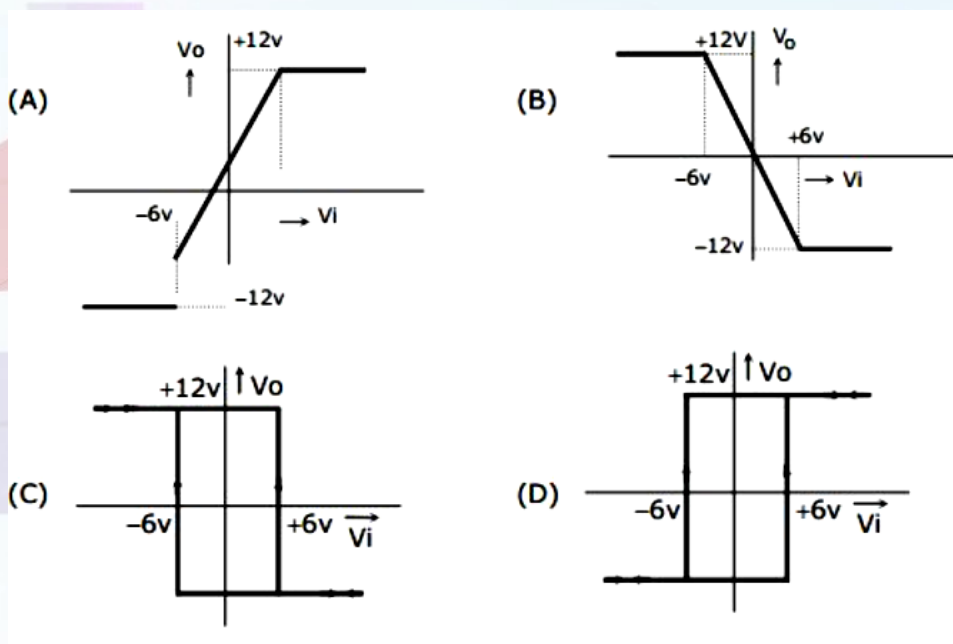
♦ ELECTRICAL ENGINEERING

Assuming forward voltage drops of the diodes to be 0.7 V, the input-output transfer characteristics of the circuit is:



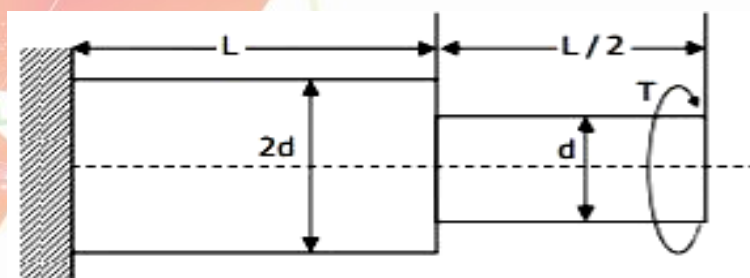
♦ **ELECTRONICS AND COMMUNICATION ENGINEERING**

What is the correct transfer characteristic?



♦ **MECHANICAL ENGINEERING**

A torque T is applied at the free end of a stepped rod of circular cross-sections as shown. The shear modulus of the material of the rod is G . What is the expression for d to produce an angular twist θ at the free end?



Winners of last edition:

No satisfactory answers were received from any of the branches.

AUGMENTED REALITY



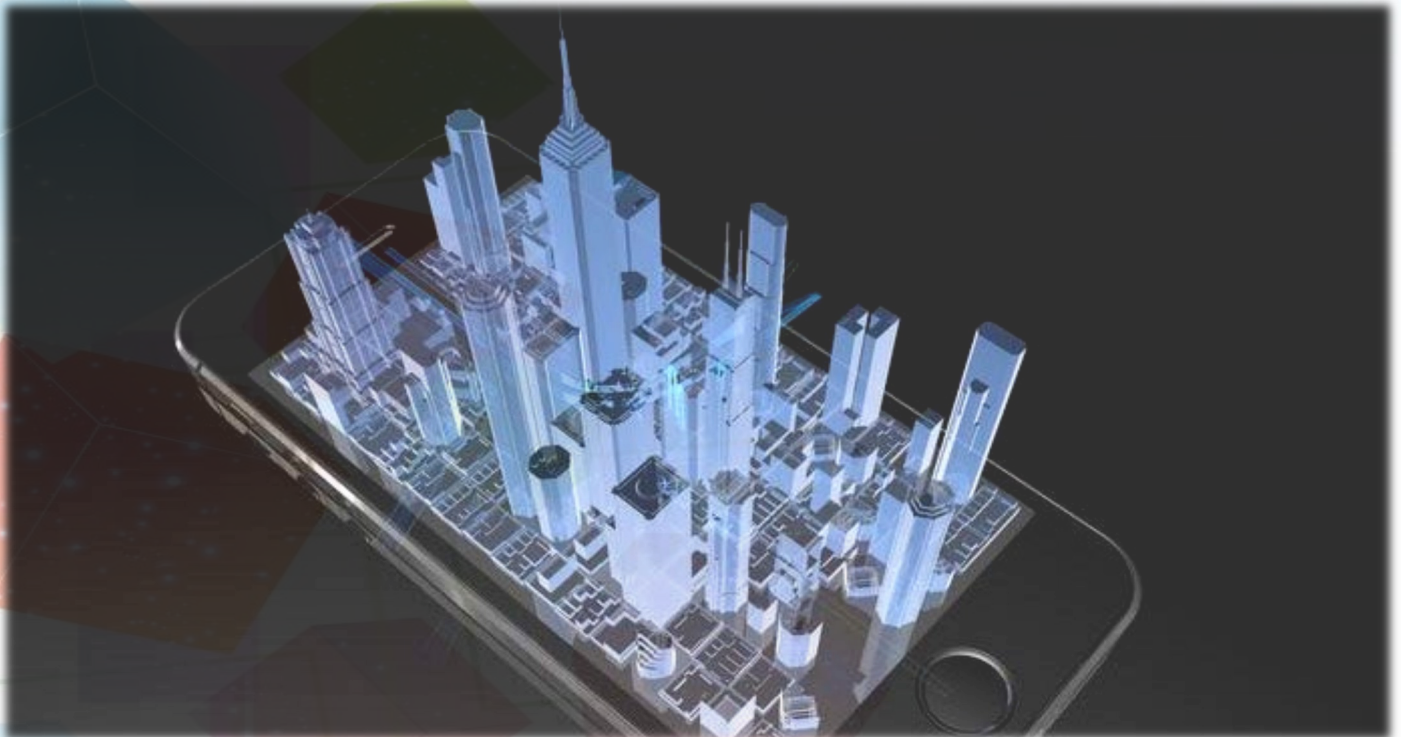
As the technology is embraced in our era, here the developers are with one such technological revolution, the Augmented Reality. Augmented Reality (AR) is a live direct or indirect view of a physical, real-world environment whose parameters are augmented (or supplemented) by computer-generated sensory input such as sound, video, graphics or GPS data. It is associated to a more general concept called mediated reality, in which a view of reality is changed to a better perception (potentially even diminished rather than increased) by a computer system. It is the blend of virtual reality and real life, where we can create images within applications that give a real world environment. As a result, the technology functions by enhancing one's current modification of reality. In contrast to virtual reality, augmented reality has paved a way to the real world out of digital components.

With the help of these advanced AR technologies (e.g. adding computer vision and object recognition) the information about the surrounding real world of the user becomes more interactive and digitally susceptible. The information about the environment and its elements overlay on the real world. Such information can be virtual or real, e.g. seeing other real sensed or measured information such as electromagnetic radio waves overlaid in exact alignment where they actually are in space. Basically, augmented reality brings forth the components of the digital world into our perceived real world which can be sensed more accurately. Darqi is a company that works on AR products. The best example of AR is their new AR Helmet, displaying essential information about the construction sites to help the workers. The applications of augmented reality can complement a standard curriculum. Text, graphics, video and audio can be superimposed into a student's real time environment.

Textbooks, flashcards and other such educational reading material can contain embedded "markers" that, when scanned by an AR device, generate supplementary

information to the student decoded in a multimedia format. Students can participate interactively with computer modified simulations of historical events, exploring and learning details of each significant event. On higher education, there are some applications that can be used. For instance, Construct3D, a studierstube system, allows students to learn mechanical engineering concepts, math or geometry. AR can help students in understanding chemistry by allowing them to visualize and analyze the spatial arrangement of a molecule or atom and interact with a virtual model of it that appears, in a camera image, positioned at a marker held in their hand. Beyond this, apps have been designed to generate a highly engaging environment and bring a transformation in the learning experience. Such apps that leverage augmented reality to improvise learning include Sky View for studying astronomy and AR Circuits for building simple electric circuits.

Imagining the future possibilities, we may be able to learn things about the city we have lived in for years just by pointing our AR-enabled phone at a nearby park or building. If you work at a construction site, you can save on materials by using virtual markers to locate where a beam should go or which structural support to scrutinize. Paleontologists working in shifts to assemble a dinosaur skeleton should leave virtual “notes” to team members on the bones themselves, artists could produce virtual graffiti and doctors could overlay a digital image of a patient’s X-rays onto a mannequin for added realism. The future is still bright and there is much more to be explored on AR.





**निज भाषा उन्नति अहे, सब उन्नति को भूल ।
बिन निज भाषा ज्ञान के, मिटत ना उर के शूल ॥ ।
-भारतेंदु हरिश्चन्द्र**

राष्ट्रीय संचेतना की आधार-शिला एवं कालजयी भाषा हिन्दी के प्रति उपयुक्त भाव वैश्विक फलक पर उसके महात्म्य का दिग्दर्शन कराता है ।

भारत, भारतीयता तथा भारतीय संस्कृति की अस्मिता को संपूर्णता से अभिमंडित करने हेतु अगर किसी भाषा की सत्ता एवं महत्ता निर्विवाद है तो वह है पूरे विश्व को एक सूत्र में पिरोने की क्षमता रखने वाली हम सबकी भाषा हिन्दी ।

विदेशों में हिन्दी के प्रति अनुराग बढ़ता जा रहा है । जर्मनी, इटली, फ्रांस जैसे देशों में हिन्दी में महत्वपूर्ण कार्य किए जा रहे हैं । अत्यंत दुःखद सत्य यह है कि हमारे यहाँ अँग्रेज़ी के प्रति प्रेम बढ़ता ही जा रहा है । उच्चतर अध्ययन में आज हिन्दी की स्थिति और भी नाज़ुक हो गयी है । आज हिन्दी प्रतिभाहीनों की विवश विकल्प बन गयी है । हिन्दी की स्थिति तो आज भगवान राम की तरह हो गयी है कि अयोध्या के राजा बनने की घोषणा हो गयी किंतु अभिषेक के पूर्व ही वनवास मिल गया ।

आज उच्चतर शिक्षा में हिन्दी की स्थिति उन दीन की भाँति हो गयी है जो सबका कल्याण करती है, अपनी सरलता, सहजता, स्पष्टता, मधुरता तथा संवेदनशीलता के द्वारा सभी की भावनाओं को अभिव्यक्त करते हैं किंतु उसकी ओर मंगलमय निगाहों से देखने वाला कोई नहीं है ।

कोई भाषा चाहे अँग्रेज़ी हो या तमिल हो- हमें बैर नहीं है, सभी के माध्यम से मानवीय भाव एवं विचार व्यक्त किए जाते हैं किंतु अपनी माँ के ममत्व को बेच कर किसी भाषा के अस्तित्व को स्वीकार नहीं किया जा सकता ।

संपूर्ण राष्ट्र को एकता के सूत्र में बाँधने वाली तथा हमारे अस्तित्व को महिमा मंडित करने वाली राष्ट्रभाषा अभी भी हमारे पास नहीं है ।

यह अत्यंत ही चिंतनीय विषय है कि आखिर कौन सा कारण है यदि अँग्रेज़ी से कोई एम.ए. कर रहा है तो उसे सम्मान की दृष्टि से देखते हैं और अगर हिन्दी से एम.ए. बताया तो उसे हेय की दृष्टि से देखते हैं ।

कोई भाषा भावना से नहीं पनपती है, उसके विकास की संभावना बेहतर शिक्षा-व्यवस्था, विश्व पटल पर सक्रियता से होती है । प्रत्येक राष्ट्र की पहचान उसके राष्ट्र-ध्वज, राष्ट्र-गीत एवं राष्ट्र-भाषा से होती है । अत्यंत ही हर्ष एवं गौरव की अनुभूति हो रही है कि स्वाभिमान का प्रतीक तिरंगा ध्वज हमारे राष्ट्र की पहचान बन चुका है । राष्ट्र-प्रेम की भावना से ओतप्रोत मानवीय चेतना को झंकृत करने वाला राष्ट्र-गीत भी हमारे पास है, किन्तु संपूर्ण राष्ट्र को एकता के सूत्र में पिरोने वाली राष्ट्र भाषा आज भी हमारे पास नहीं है ।

आज वह समय आया है जब हम संकल्प लें कि स्वयं के हस्ताक्षर, आमंत्रण पत्र, परिचय पत्र तथा नाम-पट्ट आदि कार्य हिन्दी में संपादित करें । हमें हिन्दी के देवनागरी करण का अभियान भी चलाना होगा क्योंकि हिन्दी लिपि से ही भाषा के प्राणों की रक्षा हो सकती है । हमें दुनिया को यह एहसास कराना होगा कि हिन्दी हम सबका दिल है । सबके दिल में यदि हिन्दी के प्रति धड़कन पैदा हो सके तो यही एक कालजयी भाषा के प्रति वास्तविक निष्ठा होगी ।

TechSRIJAN'16



TechSRIJAN'16, the annual techno-management fest of the university organized by the collegiate chapters of IEEE and SAE was held from September 30 to October 2, 2016. It not only furnished the students of the University and beyond with an opportunity to flaunt their technical prowess but also provided them with an umpteen number of events and competitions for showcasing their endowments. **TechSRIJAN'16** witnessed massive participation from within the University as well as from different institutions, establishing it further as a major inter college techno-management festival.

The making of a robot was altogether a new experience for the freshmen; watching their robots emerge from little pieces of diodes and integrated circuits did give them a taste of what their engineering career might offer them.

Robotics remained the essence of the fest having both wired and wireless robots made by the freshmen, however there was a welcome change in the set format of robotics by the introduction of the game of soccer being played by the robots. It kept the audience glued to the robotics arena and high on adrenaline; the public was as thrilled as the participants themselves were. The loud noises of applaud and excitement presented the much needed boost of sprightliness to everyone beaten down by scorching heat.

Furthermore, there was a series of breathtaking events for the sophomores of the University as well viz. Junkyard Wars tested the dexterity of the tyros by giving them a chance to try their hands at crafting vehicles made out of trash and junk. El-tiro was a new addition to the plethora of events constituting **TechSRIJAN'16**; participants came in with mechanisms based on various techniques and principles trying to come up with the most efficient firing machine.

The different skills of the students were tested in the making of Rube Goldberg machine as well as in the construction of the strongest bridges. To provide the technocrats with a much needed respite, there was the informal arena with their fun and exuberant games and competitions.

TechSRIJAN'16 not only tested the skills of the students but also provided them with an opportunity to enhance it further by organizing many workshops which gave the novices an insight in the industrial realm pushing them a step further in attaining practical knowledge.

TechSRIJAN'16 also consisted of the much awaited fest night where SONALI BAHUGUNA was invited to put up an amazing show for the students and the fraternity of the university. Listening to the their dynamic music tracks everybody was forced to shake a leg; adding a pristine vivacity to the campus.

TechSRIJAN'16 was also paralleled by the **annual alumni meet** organized to felicitate the **silver (1991) and golden (1966) jubilee** batches. It gave the young technocrats an opportunity to interact with their reverend and much experienced seniors and benefit from their facile guidance. The alumni were welcomed by the freshmen on behalf of the entire University as they presented mesmerizing performances on the cultural night.

The three day extravaganza was a huge success and left us waiting for more. However it has also landed a great responsibility on our shoulders to live up to the standards that has been created by **TechSRIJAN'16**. Though this success has filled us with sanguinity, we need to avert ourselves from turning complacent and strive to make **TechSRIJAN'17** even greater a triumph.



• 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

“How To?”



How to become a Microsoft word expert:

Microsoft Office is one of the most popular office suites used today. It's available for both PC and Mac and word around the internet grapevine is that it'll eventually be made available for some distributions of Linux. Even though it is used extensively, most people do not use MS word to its full potential. In this edition of **Tiresia** we present a few **Microsoft Word** tips that will make our work experience hassle free and help us in achieving greater output in a shorter span of time.

- * **The Extended Clipboard-** Word has a useful “Spike” feature that you can use cut (move) text and images from multiple locations in a document and paste them all at once to a different location. To use Spike, select some text, images or other objects in your document and press *CTRL+F3* to move that selection to the Spike. Now press *Ctrl+Shift+F3* to paste the content of the Spike anywhere in the document.
- * **Move Around Faster-** If you are working on a lengthy Word document; you can press the *Shift+F5* keyboard shortcut to cycle through the spots that you have edited most recently. Also, when you open an existing document inside Word, the same *Shift+F5* shortcut will take you to the location that you were working on when the document was last closed.
- * **Change the Sentence CASE-** Select some text in Word and press *Shift+F3* to quickly change the case of the selection. It toggles between UPPERCASE, lowercase and Camel Case (first letter in capital) and should come handy if you've accidentally left the CAPS LOCK key on while typing.
- * **Word's Hidden Calculator-** Every copy of Microsoft Word has a hidden calculator that can handle all the common arithmetic operations. You can write the Maths expression in your document, highlight it and press the Calculator button – the results of the calculation will be displayed in the status bar. Go to Word Options —> Quick Access Toolbar, switch to All Commands and add the Calculate Command to your Quick Access Toolbar.

• THIRD YEAR MEMBERS

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

* **Remove All Red and Green Underlines from Word Document**-We can always take a right click on a word (or a phrase) and select “*Ignore*” or “*Ignore All*” from popup menu to do away with the underline. But if such errors are large in number and we want to hide them in one go —then we can use the following method:

* Open the document and go to **File > Options**. A box will appear. Select “**Proofing**” from the options given. In the “**Exceptions for**” section, select the document in which you don’t want to see spell mistakes. Click OK.



• **SECOND YEAR MEMBERS**

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