



Electro-Energia

Edition 2 : 2017-18

INSIDE



Is students' union,
beneficial or not?

GATE or ESE ?

What should I opt for?



Hyperloop Train:
A NEW DEFINITION OF
TRAVELLING



JAMIA's own metro station

**In a battery, I strive to maximize electrical potential.
When mentoring, I strive to maximize human potential.**

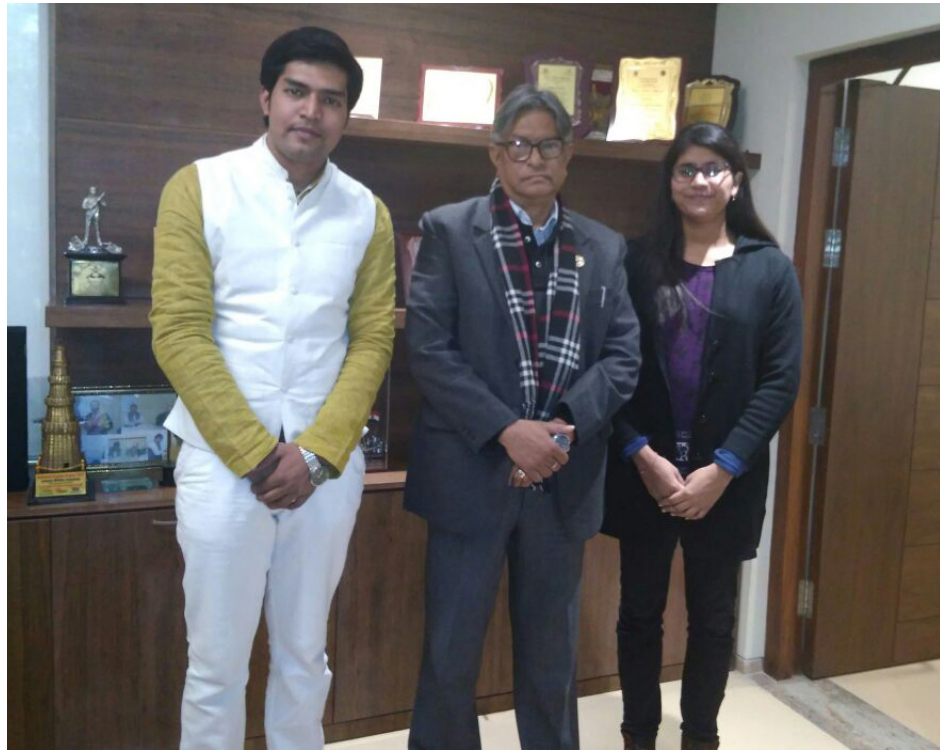
-- Donald Sadoway





CONTENT

Interview with Vice-Chancellor of Jamia Millia	4
Electrical Engineering Department	6
Head of Department	7
Message from our Head of Department	8
An Alumni's Verdict	10
The Known Power Loss	12
Hyperloop Train	14
Simplifying Complex Life Equations	18
Will laziness mark the end of mankind?	19
Enslavement	20
Fortifying the fraggileness in our lives	20
Say no to weapons	21
Jamia's Own Metro Station	22
The Ignored Truth	23
FIRST RANK IN e-Yantra 2017	24
FIRST RANK IN ROBO SOCCER	25
Industrial Visit at NTPC Dadri	28
GATE Seminar by T.I.M.E Institute	29



Interview with Vice-Chancellor of Jamia Millia

-by Zibran Ansari and Bhavana Vashisht

Vice-Chancellor of Jamia Millia Islamia, Dr. Talat Ahmad is an Indian Earth Scientist and Professor at the Department of Geology, University of Delhi. He was formally appointed as the 14th Vice-Chancellor of Jamia Millia Islamia on 29 April, 2014 by President Pranab Mukherjee, before that he was the Vice-Chancellor of the University of Kashmir. He has over 65 research publications to his credit. He has supervised several M.Phil. and Ph.D. research studies at the University of Delhi and the Research School of Earth Sciences, Australian National University, Canberra, Australia.

He has been working on various sponsored projects and bears memberships of prestigious Societies and a recipient of many prestigious honours. He has been awarded many times for his contribution in the field of geology like National Mineral Award from the Government of India in 1994 and J C Bose National Fellowship in 2011. Dr. Ahmad truly has the power to inspire millions of young minds who dream of achieving big goals in their lives.

Q) Congratulations to you Sir on the behalf of Electrical Engineering Department for receiving the title of "The Most Eminent Vice-Chancellor". Please share your journey with us.

A- I have tried my best to bring a transparent system to the university. Also, I have always taken problems of individual and group and solved them to the maximum extent, so that the university functions in a peaceful and balanced manner and it keeps growing. Efforts done to improve the academic conditions, research situations, maintaining a peaceful campus and many similar factors may have led to my nomination as the most eminent Vice-Chancellor.

Q) Please brief us about the challenges you have encountered as Vice Chancellor.

A- Our main focus has always been to keep the working of education system clear and transparent. We have taken the challenge as our motivation to improve academic conditions in the university and worked on proper teaching along with research. The number of courses is being increased every year to deal with the growing demands of the students around the globe. Earlier Jamia was considered North Indian university but now the vision has changed as more and more students are coming here from not only every corner of the nation but also from other countries.

Q) What are the major targets and visions you have in your mind for Jamia?

A- We have always focused on perfection in every field from academics, research to placements and new projects. We have already achieved many goals and are continuously moving towards excellence. More courses and projects for students and faculty are lined up to be started

soon for their benefits and overall university's growth. We believe in equality and have given equal opportunities to all.

Q) What are your views on Women empowerment and education?

A- We have always given priority and special attention to Women education. Dastarkhwan canteen in the campus has been successfully run by women. Self-help groups are present for women. Participation of women in LBI's beautician, cooking courses is highly appreciable and women are taking part in technical courses in good number. We have created a safe, comfortable and discrimination-free environment in the campus for women, where they are allowed to speak out their thoughts and express their views.

Q) How do you see students' union? Is it beneficial for the university or not?

A- We do not have any problem in bringing students' union in the campus for the benefit of students. The problem is to get advocated from the court. Many other universities are functioning well by having such unions and ours can too.

Q) What is your message for engineering students of Jamia?

A- For the Engineering students, I would say that they are already working hard and should continue doing so. Now that they are getting admission through JEE Mains, the quality of students and teaching is improving. We have been getting better campus placements and opportunities. Now, to take good benefits of this, students should work harder and innovate solutions to the problems of society. Our faculty and administration are always there to help them and support their new ideas.



Electrical Engineering Department

The Electrical Engineering Department's vision is to produce comprehensively trained, socially responsible, innovative electrical engineers and researchers of highest quality to contribute to the nation's imprint on the world stage. It has a mission towards Commitment to world class teaching, mentoring, intellectual stimulation, industry collaborations, outreach programs and state-of-the-art research.

The Department of Electrical Engineering at the Faculty of Engineering & Technology of Jamia Millia Islamia, New Delhi is one of the premier electrical engineering education and research departments of the Country and is also one of the SAP departments of UGC. Since its inception in 1985 along with the inception of Faculty of Engineering & Technology of Jamia Millia Islamia, New Delhi, it has grown leaps and bounds and continuously striving for excellence.

Apart from offering regular four-year undergraduate programs, i.e. B.Tech. in Electrical Engineering and B.E.(evening), the department has been serving to the specialized needs of the industry by running two regular M.Tech. Programs. One in Electrical Power Systems Management (EPSM) started in 2003-04 and another in Control and Instrumentation Systems (CIS) started in 2012. The Department of Electrical Engineering has been successfully achieving its research endeavors through its very well structured and disciplined Ph.D. programs in four major areas, i.e. Power Systems; Electrical Machines, Power Electronics and Drives; Electronics & Communication and Computer Technology; Control and Instrumentation Systems.

JAMIA@GLANCE

The faculty members at Department of Electrical Engineering lead by examples and are highly motivated to achieve excellence in research and development and publish their research in internationally peer reviewed journals, patenting their research findings, and bringing generous research grants from Govt. research funding agencies like AICTE, MHRD, MNRE, UGC, DRDO, DST, DOE etc. to upgrade the research facilities at the department and to provide innovative solutions to engineering problems. Many faculty members have received prestigious national and international awards for their contributions.



To augment the teaching, learning, and research, the department has very well established laboratories for graduate and post-graduate programs, where students can experiment and test the electrical engineering concepts. Department also has laboratories in some specialized areas like SCADA Systems, Substation Automation Systems, Power Systems and Sensors & Instrumentation etc. Besides these laboratories, there are many other state-of-the-art experimental set-ups/hardware and sophisticated software being used for teaching and research in the thrust areas related to electrical engineering. There exist loads of avenues, besides academics, for students to hone their creativity, cultural and entrepreneurial skills.

Head of Department



Dr. ZAINUL ABDIN JAFFERY

Dr. Zainul Abdin Jaffery received the B.Sc. and M.Sc. degrees in Electrical Engineering from the Aligarh Muslim University (AMU), Aligarh, India, in 1987 and 1989, respectively with 1st Division and Ph.D. in Development of algorithms using Neural networks for the estimation and equalization of communication channels from Jamia Millia Islamia in 2004.

He is presently Head of Department of Electrical Engineering and Honorary Director, Training, and Placement. Apart from that, he had been Honorary Director, Centre for Innovation and Entrepreneurship: Nov 2016- June 2017, Sr. Warden: Allama Iqbal Hostel, 2010- 2013, and coordinator, BE (Electrical) Program: 2010-2011.

He has a field of specializations in Digital Signal Processing, Digital Image Processing, Computer Vision, and Embedded System Design. He has a research project in Visual Inspection System for Rail road Tracks with grand allotted Rs 1435800.

The courses taught by him at Graduation and Post-Graduation Level comprises Digital Electronics, Microprocessor, Communication Engineering, Digital Signal Processing, Digital

communication, Telecommunication Networks and Switching Systems, Soft Computing Techniques, etc.

He is the Senior Member IEEE (USA), Life Member of Institution of Electronics and Telecommunication Engineers (India), Life Member of Indian Society for Technical Education (India), Member System Society of India and Life Member of Indian Society for Industrial and Applied Mathematics, India.

He has many papers published in journal and proceedings of International and National Conferences. He has also been awarded for many thesis some of which are “On some aspects of Wavelets and its Applications in Speech Analysis” (2011), “Wavelets and its Applications in Biomedical Signal Processing” (2011), “Quality assessment of soft computing based control of Inverters” (2014), “Design and Development of Visual Inspection Systems” (2014), “Automated Detection and Classification of Tumor from Medical Imaging” (2016).

Dr. Jaffery has inspired many students with his work and dedication towards his teaching and subject. His hard-working nature and willingness to help students has led to his popularity among students and staff members.

Message from our Head of Department

Creativity and innovation are the two key elements of a successful technical education, and a college magazine is the perfect amalgamation of both. It captures the creative energies of the academic community, and extracts the essence of their inspired imagination in the most brilliant way possible

I am delighted to know that the department of Electrical Engineering is bringing out the second issue of their technical magazine “Electro - Energia” of this academic year (2017-2018).

No doubt, this creative endeavour will bring out an array of artistic and scientific expressions with distinct individual signatures. I congratulate the editorial team for their successful completion of this tedious yet daunting task of putting together the myriad thoughts of our students and faculty into a meaningful magazine “Electro - Energia”



Prof. Z. A. Jaffery

वक़्त नहीं

- ज़ोया अख़्तर

हर खुशी है लोगो के मन में,
पर हँसी के लिए वक़्त नहीं ।

दिन रात दौड़ती दुनिया में,
ज़िन्दगी के लिए वक़्त नहीं ।

माँ की लोरी का एहसास तो है पर,
माँ कहने का वक़्त नहीं ।

सारे रिश्तो को तो हम मार चुके,
अब उन्हें दफ़नाने का वक़्त नहीं ।

सारे नाम मोबाइल में है पर,
दोस्ती के लिए वक़्त नहीं ।

गैरो की क्या बात करे,
जब अपनों के लिए वक़्त नहीं ।

आँखों में है नींद भरी पर,
सोने का भी वक़्त नहीं ।

दिल है गम से भरा हुआ पर,
रोने का भी वक़्त नहीं ।

पैसो की दौड़ में ऐसे दौड़े,
कि थकने का भी वक़्त नहीं ।

पराए एहसास की क्या कदर करे,
जब अपने सपनों के लिए वक़्त नहीं ।

तू ही बता ऐ ज़िन्दगी,
इस ज़िन्दगी का क्या होगा ।

हर पल मरने वालो को,
जीने के लिए वक़्त नहीं...

An Alumni's Verdict

Sarah Ansari, an undergraduate of Jamia Millia Islamia, Department of Electrical Engineering (batch 2013-2017), is pursuing Ph.D. in Electrical Design and System at the University of Arkansas at Little Rock. She also received admits from Arizona State University (Tempe Campus), University of Cincinnati, Oklahoma State University and University of Texas. In a short telephonic conversation with Mayank Jha, she shared her experiences about college education in America and how she reached there.



1. Why did you choose to pursue your higher studies abroad?

For higher studies, my focus was on quality education along with hi-tech infrastructure. Universities in the USA are leaders in the field of engineering; therefore the USA was the most attractive study destination.

2. When did you start preparing for MS?

I started attending coaching classes for GRE at the end of the fourth semester. I took GRE in sixth semester and TOEFL in the seventh semester.

3. How did you choose your college?

I started browsing about colleges from the fourth semester. Later, I hired a counselor to assist me in the admission process. He provided me with a list of 20 colleges based on my GRE and TOEFL score. By the end of the seventh semester, I had applied to 5 universities. Luckily, I was selected in all the five colleges. I was promised Graduate

Assistantship at the University of Arkansas under which my tuition fees were waived off and I would receive a monthly stipend. So I decided to take admission in the University of Arkansas.

4. What is the job of a teaching assistant?

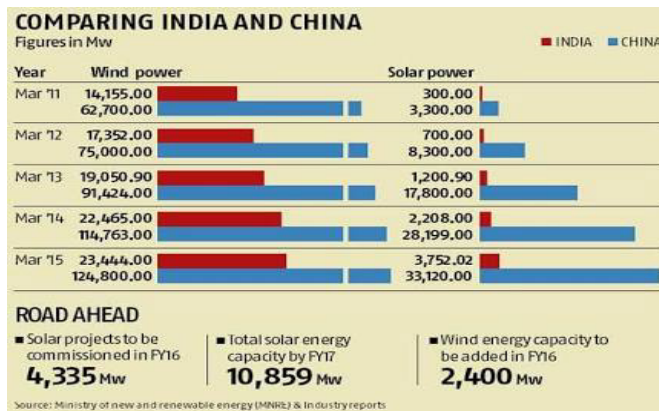
Presently, I guide a team of four undergraduates' of electrical engineering. They are working on a project for Arkansas Electric Cooperative Corporation (AECC). The project is to develop a protection system for transmission lines with integrated solar power. The company provides them with relays and associated manuals and they have to design the system and choose the relays accordingly. My job is to supervise the project and help them if they face difficulties.

5. What are the similarities and differences in college education system in India and America?

The theory /study material is same everywhere. Whatever I studied during my undergraduate, I can easily apply to solve problems there. The difference is in the manner in which skills are acquired and the exposure to students. The undergrad students, whom I guide, learned AUTOCAD and designing line diagrams themselves. At the undergraduate level, we lack practical knowledge. The difference also comes because of different education culture. In India, students complete their college and then step out to do jobs. In America, many people get a job experience and then choose their college studies which shall help them their career. Many of the undergraduates' students are above 25 years of ages and have a lot of job experience.

Renewable Energy

by Sudhansu Ranjan
B.Tech II Year



CO₂ emission of India in 2015 was 2,454,968 kilo tones on an average every Indian emits 1.7 metric² tones CO₂ every year as of 2013 which has increased 250% from 1980. temperature of our planet is increasing rapidly and we need to put a cap on it.

Looking at international picture we find that china tops the list in CO₂ emission by contributing 29.1% of total emission. China and US emits 7.5 and 19.2 metric tones respectively per person which shows that these two countries are biggest emitters of CO₂.

Total consumption at the 111 coal fired power plants in India was an estimated 500 million tones in 2011. the modelled PM_{2.5} concentration due to emission from these coal fired power plants resulted in an estimated 80,000 to 115,000 premature deaths. Thermal power plants use 70% of total coal in India energy sector emits about two third of total emitted Greenhouse gases and 80% of CO₂. In recent times India has shown a marvellous growth in producing power from renewable energy sources as per data of early 2017 energy produced from wind, solar, bio power and small hydro power plants. India targets to produce more than half of its power generation from renewable sources by 2027 which is highly appreciable. A recent study reveals that that by forestation in deforested areas of 10 -15 years can combat 25% of emitted greenhouse gases.

INNOVATE



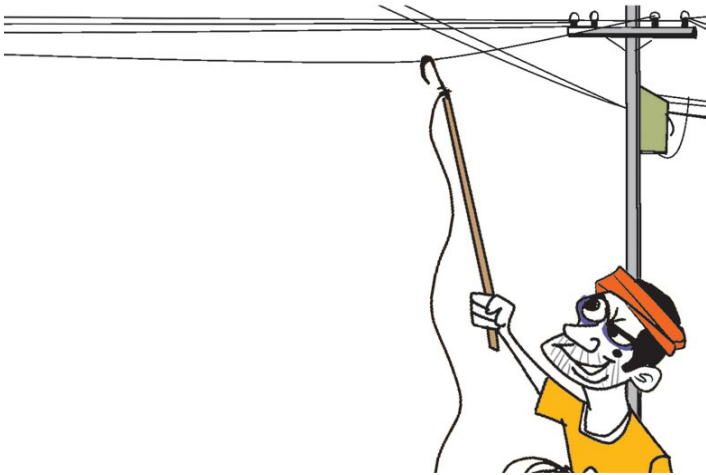
The Known Power Loss

by Zibran Ansari
B.Tech III Year

Let us begin with some lesser known facts:

·According to the annual emerging markets, the world losses US\$89.3 billion annually due to electricity theft. The highest losses were in India (\$16.2 billion), followed by Brazil (\$10.5 billion), and Russia (\$5.1 billion). The State Of Maharashtra, alone losses \$2.8 billion per year.

·India will spend 253 billion rupees to tackle the rampant theft of electricity by rolling out smart metering in cities and upgrading old distribution network, the power ministry said.



The non-technical losses which are caused by human being to access the power illegally or when power is supplied by distribution companies but they don't get paid for it is known as power thefting. Power thefting is a serious crime that affects millions of people every year and it is one of the major issues in power industry.

power consumers in the world, with one of the biggest power transmission networks, hence in India these days electrical power has priority for every individual and with the increasing dependency on electrical and electronic equipment, the demand of power is rapidly increasing. An increase in power demand to values greater than transformer rated power can result in different quality deviation like transformer overload, voltage unbalance and steady state voltage drop on the system bus. Power thefting is a major challenge for Indian government because as we know power sector is one of the most important sectors for the development of the country and the growth of this sector affects the overall economic condition of the nation and also it hampers the functioning of industries due to shortage and irregularity of power supply.

Ways of Power Thefting:

1. Direct Tapping of Power on Transmission Line
2. Energy Meter Tampering

Ways of Detection:

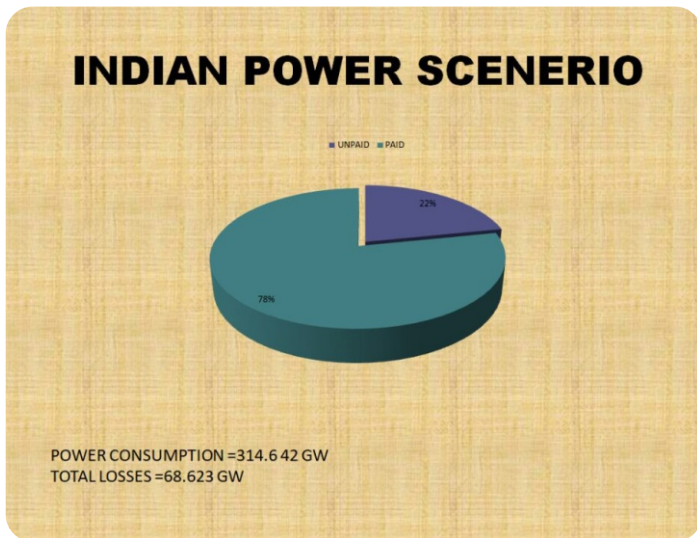
·Energy Meter tampering or meter bypassing can be detected by using a simple arrangement of an IR led and Photodiode.

·Power Tapping can be detected by comparing the power distributed to the lines and the power actually consumed by the load.

· Install Smart Energy Meter which is capable of detecting Meter Bypassing itself.

Power scenerio in India is at a critical stage as 22% of the total power remains unpaid, the total loss of power is as high as 68.62GW, while the

overall consumption of power being 314.64GW.



Smart Metering

Energy Meter is more reliable and efficient. It informs consumer how much electricity they are using at every hour of the day. It presents a great opportunity for utilities to change customer behavior with regard to their energy use. It promotes Solar Energy installation and its generation and it helps our country to achieve its solar energy target. Also, it helps the customer in saving energy and money which can help them to better manage their budget. Ultimately it decreases the chances of power theft.

Conclusion

Power theft in our country is responsible for the significant effects on economic growth of the country. It affects millions of people every year. Awareness of customers and quick administrative decisions against culprits will definitely minimize the theft actions and will be helpful in improving the financial condition of distribution sector in the country.



Z-tel

Digital Media

Digital Marketing has skyrocketed in the recent past and no one can deny the importance of Digital Marketing Agencies that they hold today!

Undoubtedly, your business can benefit with the services offered by a Digital Marketing Company, due to their expertise in the field. Some of the common benefits include brand recognition, attracting potential customers, and more.

For this reason the two Jamia students of Electrical Engineering Department going to start a Digital Marketing Company Z-tel whose service are as follows :

1. Election Campaigning
2. Advertisement
3. Bulk SMS
4. Bulk E-mail
5. Voice SMS etc.
6. Online Publicity

Contact us at - 9889143888

Email- info@z-tel.in



Hyperloop Train

A new definition of travelling

by Md Masood Ansari
B.Tech II Year

How you react when someone says that you that you are going to be in Agra from Delhi in just 9 minutes? That means you are going to cover around 180 kilometres in just 9 minutes, that's pretty awesome we all love to travel with this magical machine which is known as Hyperloop.

The concept of Hyperloop was first proposed by pioneer entrepreneur Elon Musk, CEO of Tesla Motors and SpaceX in 2013, this magical machine so called Hyperloop would transport passengers in floating pods inside low pressure tubes at speed more than 1200 kmh-1 (750 mph).

Travelling in a Tube

THE TECHNOLOGY
A capsule, with passengers, travels at speeds of more than **1200 KM/H** inside a vacuum tube
Vacuum tube has an area of **LOW PRESSURE INSIDE IT**

INDIA PLANS
Hyperloop can be built in India in **38 MONTHS**
Globally, **800 ENGINEERS** working on the Hyperloop, of which **25 ARE FROM INDIA**

It uses power from **RENEWABLE ENERGY** sources like solar energy, regenerative braking & wind power
These tubes stand on pylons that can **WITHSTAND** quakes & crashes

The key idea behind this is that the passenger's pods will travel inside tubes under partial vacuum, and will be accelerated to super speed using magnets. A set of fans attached to the pods will allow the train to rest on cushion of air and the most amazing and remarkable thing is that the system would be powered by the renewable source of energy, the solar panels would be placed along the length of the tube.

The Hyperloop would only use magnets for propulsion, relying on compressed air for lift. The Hyperloop train could travel with very high speed because they wouldn't have to overcome friction between the wheels and track or the air resistance that is experience at high speed in normal environment.

The Hyperloop programme is being developed in many parts of the world for its commercial use and India has also showed her interest in this project. The Tesla has been offered land free of cost near some ports by the Indian Government for its futuristic high speed train, The Hyperloop. Recently, the Indian Government offered that they can take an experiment between Mumbai and Pune as a pilot programme.



In coming years, this technology will be available for commercial use and then the people can travel wherever they want without waiting for long holidays, one can be with their love ones all the time, there will be no boundaries of distance and there will no boring days because whenever, wherever you have chill just go with the speed of The Hyperloop.

My Romance with Jamia

by Mohd Shariq
B.Tech III Year

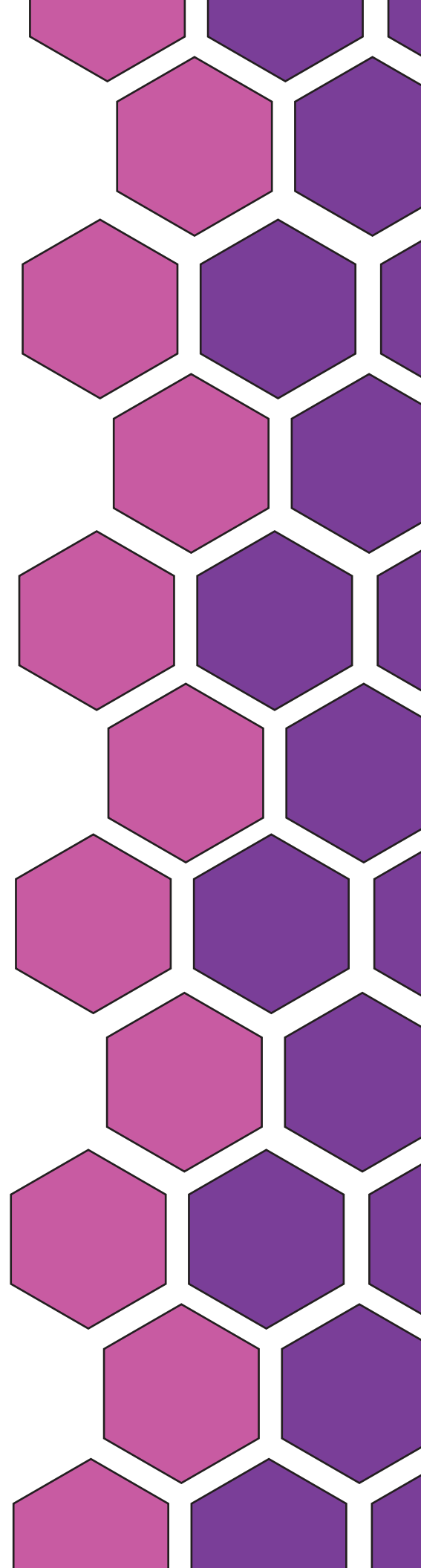
College makes for the best days of one's life although people don't realize that until much later. I remember the nervousness of my first day in Jamia, mid-2015. I was very happy with my previous education at Aligarh Muslim University, whose father hadn't even conceived such big universities, attending college was a big deal. My existence has been transformed by the peace and the assiduous teachers around me. My world transcends the heavens, wherein I fly without limits, and my horizon is bigger than I had ever imagined it to be. Most importantly, Jamia has taught me to be a good human being. In empowering someone like me and making me worthy of service to my family, community, country, and humanity, Jamia has been a definite success.

I remember how my teachers had appreciated me on my first day at Jamia. I had become a center of attention amongst my classmates because I battled my shyness and left my burning desire shine through. With my easy going and generally happy disposition, I managed to stay out of trouble. I am very happy with all the memories gathered during my study in the engineering field. If I had to go back in time, I'd do it all over again without thinking for a second.

Life at Hostel

Getting hold of a room in Jamia's hostel is a gamble, but I luckily got one. It was Kellat hostel during my 1st semester. The building is systematically built, there is pin-drop silence in study halls. The aromatic mess, tight security, relaxing common room, the gym for beauty and fitness and our warden, food caretaker, Dean of students, all of them made my life more beautiful. Jamia has given me education, self-knowledge, inspiration, guidance and loving & talented friend from across India. These years have been great and I have lived my college life to the fullest.

COLLEGE-DIARIES



Some memories of EE Dept.

I feel blessed to have hardworking reputed and God-fearing teachers, who are my role models and inspirations. In my first semester of B.Tech, it was Mr. Waqar Sir who inspired us all and he was also my choice at first sight as a guide. In the second year, Mr. Hamid sir, an unconventional person with great personality and innocence, made him my lifetime favourite teacher. Mr. Majid Jamil has always respected student's views and helped the poor students for scholarship in GATE coaching. He has been widely respected among all students. I really find my department vibrant, honest, our seniors and research scholars very talented, supportive and helpful in nature. I am proud to be a student of Department of Electrical Engineering.

At the end of 'My romance with Jamia', I would like to say- "Jamia does matter to me and I would always like to matter to Jamia."

Simplifying Complex Life Equations

by Iman Shakeel
B.Tech II Year

Life is a ceaseless change. The only certainty is today. Why mar the beauty of living today by trying to solve the problems of a future that is shrouded in ceaseless change and uncertainty-a future that no one can possibly foretell? I have two words for it. Carpe diem. "Enjoy the day." Or, "Seize the day." Yes, seize the day, and make the most of it. Shut down the iron doors in the past and the future.

Every student of physics knows that "nature loathes a vacuum". The nearest thing to a vacuum that you and I will probably ever see is the inside of an incandescent electric-light bulb. Break that bulb and nature forces air in to fill the theoretically empty space. Similarly, nature also

rushes in to fill the vacant mind. With what? Usually with emotions. Why? Because emotions of worry, fear, hate, jealousy, and envy are driven by the inherent vigour and the dynamic energy of the jungle germinating

in our wandering minds. Such emotions are so violent that they tend to drive out of our minds all peaceful, dandy thoughts and emotions. Obviously, circumstances alone do not make us happy or unhappy. It is the way we react to circumstances that determine our feelings. The ancient thinkers said that the kingdom of heaven is within you. I believe that is where the



kingdom of hell resides too.

According to the saga of origination, the Creator gave man dominion over the whole wide earth. A mighty big present. But I am not interested in any such super-royal entitlements. All I desire is dominion over myself-dominion over my thoughts; dominion over my fears, my mind and over my spirit. And the wonderful thing is that I know that I can attain this dominion to an astonishing degree, anytime I want to, by merely controlling my actions-which, in turn, control my reactions.

Praying simplifies life. I pray to my Lord, grant me the serenity to accept the things I cannot change; the courage to change the things I can and the wisdom to know the difference. My Lord, make me an instrument of your Peace. Where there is hatred, let me sow love; where there is injury, pardon; where there is doubt, faith; where there is despair, hope; where there is darkness, light; where there is sadness, joy.

You are something new in this world. Be glad of it. Make the most of what nature gave you. In the last analysis, all art is autobiographical. You can sing only what you are. You can paint only what you perceive. You must be what your experiences, your environment, and your heredity have made you. For better or for worse, you must cultivate your own little garden, play your own little instrument in the orchestra of life. If you can't be the sun, be a star; it isn't by the size that you win or you fail. Be the best of whatever you are!

$$Life = \int_{\text{birth}}^{\text{time forgotten}} \frac{\text{happiness}}{\text{time}} \Delta \text{time}$$

© 2011 Rebecca Dias

Will laziness mark the end of mankind?

by Amir Ashraf
Class VIII

Day after day, we are trying to discover as many ways as possible to make our work easier. While trying to avoid hard work, we are not seeing the incoming danger. It's been the nature of humans to discover ways to make their work easier. Earlier, people walked tens of miles to reach their destination. Then, they started using animals for traveling. After some time, they invented cars. Now, they are so lazy that they are in need of driverless cars.

It is not at all good that we are inventing a breed of machines which can do our work, think like us, and easily overpower us. That is what I am talking about, "Artificial Intelligence". For making our work easier, nowadays, we are giving wrong powers to machines. While giving them such delicate powers, we don't think about whether they can handle it correctly or not. Sophia, a humanoid robot developed by Hong Kong-based Company Hanson Robotics has been given the power to think and react like humans through a complex set of algorithms. In an interview, Sophia said that it will destroy mankind. This is the greatest threat to us. Still, this robot is not being terminated. Rather, scientists and governments are investing more time and money on such harmful things. Why not destroy such a thing? What if the robot malfunctioned and starts making more dangerous humanoid robots on its own? We should work on discovering ways to make our work easier but we shouldn't make such machines which can easily end mankind.

Why not work on our brains rather than on these objects and increase the productivity and yield of it. According to researchers, if we get a way to use the higher consciousness of our brains, we will be able to move things by just seeing them and will be able to teleport. Let us unite to end laziness, work hard, take care of our planet and find a way to use the full strengths of our brains and bodies.

Enslavement

by Kautuk Shrivastav
B.Tech II Year



Rousseau's famous statement that "Man was born free but everywhere he is in chains", is very true even in modern times. God intended man to be free, by giving him a fertile, thinking brain and the power of imagination and intelligence, so that he could soar high, above all other creatures on earth. But alas! It is not so! Man has become a slave to his social, religious and political ideologies. He is chained and fettered by narrow prejudices and stigmas of caste, color, creed, race, religion, and region. Issues like "apartheid", "casteism", "communalism" etc., where one class of people think they are superior to others, have become major issues of discontent and war between people belonging to different castes and religions. In India, if the caste system prevented individuals from rising

higher, in countries like Africa, "apartheid" hampered progress, development, and freedom. Not only color, creed, caste leads to prejudices, but there is discrimination against women too, in most sections of the society. Man has false notion that women are inferior and cowards, whereas the truth is that both are equal.

So enslaved are the man to such prejudices and his narrow-mindedness that he has forgotten that all are born equal. That is why lower castes are discriminated and denied facilities and opportunities to improve their lot. Because we are bonded and chained to social and religious stigmas and taboos, the spirit of true freedom has been lost.

Fortifying the frag- gileness in our lives

by Iman Shakeel
B.Tech II Year

**THE TRAGEDY OF LIFE IS NOT DEATH,
BUT WHAT WE LET DIE INSIDE OF US
WHILE WE LIVE. – Anonymous**

Ponder for a while... Are the problems or challenges you might currently be facing really as serious as you perceive them?

"You are not here to merely make a living. You are here in order to enable the world to live more amply, with greater vision, with a finer spirit of hope and achievement. You are here to enrich the world, and you impoverish yourself if you forget the errand. I'll make you this promise: on your deathbed, in the dusk of your life, it will not be all the risks you took that you will regret the most. Rather, what will fill your heart with the greatest amount of regret and sadness will be all those risks that you did not take, all those opportunities you did not seize and all those

fears you did not face.

When we hate our enemies, we are giving them power over us: power over our sleep, our appetites, our blood pressure, our health, and our happiness. Our enemies would dance with joy if only they knew how they were worrying us, slashing us and getting even with us! Our hate is not hurting them, but our hate is turning our own days and nights into a hellish turmoil. Who do you suppose said this: "If selfish people try to take advantage of you, cross them off your list, but don't try to get even. When you try to get even, you hurt yourself more than you hurt the other fellow"? ...One sure way to forgive and forget our enemies is to become absorbed in some cause infinitely bigger than ourselves. Then the insults and the enmities we encounter won't matter because we will be oblivious to everything but our cause...

We live in an age where we have conquered the highest of mountains but have yet to master ourselves. We have taller buildings but shorter tempers, more possessions but less happiness, fuller minds but emptier lives. We walk this planet for such a short time. In the overall scheme of things, our lives are mere blips on the canvas of eternity. So have the wisdom to enjoy the journey and savor the process.

Say no to weapons

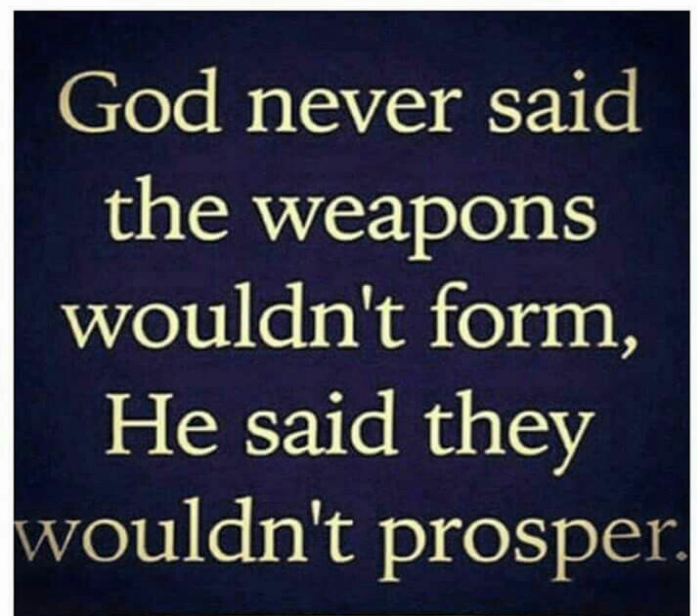
by Bhavana Vashish
B.Tech II Year

I wish not for myself but for the human race as a whole, I don't find the logic behind people fighting with each other even after knowing that they are born of the same ancestor, same God. I don't understand the reason why there is a need for borders, army forces, and mass killings. Why human use weapons to kill members of someone else's family? Why does human want to see the red colored blood of another human?

Why mankind hate their own people? Why human shout, protest, fight? Why there is no peace in the mind at all?

If there was a giant monster dictating over humans, there would have been a reason for people asking for freedom but why people want freedom from other people? Why people rule over other? Why newborns have to breathe the air full of smoke produced by bombs and rifles? Why can't they breathe fresh air full of brotherhood, harmony, peace? Why don't all people remove the boundaries both from land and their hearts and love their sisters and brothers of different skin color, beliefs, and thoughts?

We all are humans, same species, same ancestor, same planet, same blood color, same beating heart, then why not same love for others across the states, why not same love for other religions, other beliefs and variety of skin colored humans? Why there are words like hatred, terrorism, killing, weapons and that too are used for us, the humans and not for any other species?



God never said
the weapons
wouldn't form,
He said they
wouldn't prosper.

Was this the purpose we were sent on this beautiful blue planet? Are we not deviating

from the path of brotherhood and kindness which was originally filled in us by the God? As human's duty, there is no need at all to make new weapons but to make peace among our own people.

Jamia's Own Metro Station

by Tarab Rizvi
B.Tech II Year

it aims to serve 25 metro stations from Janakpuri West to Botanical Garden.

The coaches have LED information display, power charging capacity and colourful seats. The new stations have been decorated using themes of nature, yoga, and cultural landmarks. The platform screen doors (PSDs) are also being used for the first time. PSDs are glass-made screens installed near the edge of platforms that open only when a train arrives and shut after it departs, thus catering to the safety of passengers. The construction of the Jamia Millia



Jamia Millia Islamia received the Jamia Millia Islamia Metro Station as a Christmas present. Located on the magenta line of the Delhi Metro it was inaugurated by PM Narendra Modi on 25th of December, 2017.

Connecting the stations Botanical Garden to Kalkaji Mandir the metro station serves over more than 2,000 passengers every day. The Magenta Line under the Delhi Metro is the first driverless metro train in India introduced along with the Communication Based Train Control (CBTC) signaling technology, which facilitates the movement of trains within a frequency of 90-100 seconds. A rapid transit system in Delhi

Islamia Metro Station began in the year 2014. The university in full swing provided support to this mega venture.

Magenta Line is the third Metro line to be inaugurated by Prime Minister Narendra Modi in 2017. He has urged the commuters in Delhi-NCR to travel in metro trains and leave back their vehicles at home. Striking to achieve a “Less Polluted Delhi” he said Metro will help reduce the use of fuel and save the environment. As for the students of the university traveling by metro will considerably reduce their travel expenses. Earlier, passengers had to travel up to the Govind Puri Metro Station, the then nearest

Metro Station to the university but now the journey between Noida to South Delhi has been reduced to just 19 minutes, thanks to Jamia's own metro station!

The Ignored Truth

by Bhavana Vashisht
B.Tech II Year

While reading the newspaper, my eyes got stuck at an article about corruption in real estate sector, in which it was written how half of the money while buying a house is black and is given through cash that is, not shown to the government, so as to save taxes. Even after knowing all the truth, the government isn't willing to take any step forward. The black money in the Swiss Bank remains a known but ignored topic.

The other day, there was an interview of IITJEE cracker, the top-ranked student said when JEE results were announced and media used to visit his kuccha house to interview him, the villagers used to throw stones and threatened to kill his family. Why? Because he was a Dalit and those narrow-minded people think Dalits can't get good education. Even after 71

years of independence, thinking of people acts as a barrier in the journey to progress.

While reading crime reports in the newspaper, I tried to find the reason for a person to perform any crime. Why corruption? Why robbery? Why gender-based discrimination? If you try to go deep into this topic, you will find how most crimes are linked to poverty. Because of poverty, there is lack of education, which give rise to gender discrimination, fights, clashes based on castes and religion. Hence, to stop major crimes, first poverty has to be eradicated. All these are one side of the coin, other better side is still left to be disclosed. OK! So till now we have been successful to send a space shuttle to the red planet, Mars. We have our own space satellite launching vehicles and have launched 210 foreign satellites. We have our own nuclear weapons which are owned by only 9 countries. Cataract and plastic surgeries were discovered

in India, we have 3rd largest Army in the world, we owe the title of having highest number of religions, languages and handling this is not an easy task. Companies like PepsiCo, Nokia, Adobe, Microsoft, SanDisk, Google, Master Card etc. are being headed by Indians. India is the world capital of talent and we must be proud of our motherland!



FIRST RANK IN e-Yantra 2017



DESCRIPTION OF THE COMPETITION:

e-Yantra Robotics Competition (eYRC) is a unique annual competition for undergraduate students in Engineering/ Science/ Polytechnic colleges. The competition has evolved over the years to include a number of teams by introducing different Tracks in the competition. This inspired e-Yantra Robotics Competition (eYRC-2017) to introduce a Theme “Transporter Bot” as a means to map the model of a farm, pick up the crates of different kinds and load them in the vehicle to transport them to market.

COMPETITON LEVELS:

This theme had 4 levels which included learning the basic tools for implementation of the theme to final implementation of the theme using FireBird V Robot. After qualifying all the levels to total 5 finalists were selected for finals which held at IIT-Bombay on 22-24 March 2018.

TECHNICAL DETAILS OF THE BOT:

FireBird V ATMEGA2560 technical specifications

- Microcontroller:

Atmel ATMEGA2560 as Master microcontroller (AVR

ACHIEVEMENTS

architecture-based Microcontroller). Atmel ATMEGA8 as Slave microcontroller (AVR architecture-based Microcontroller)

- Power:

9.6V Nickel Metal Hydride (NiMH) battery pack and external Auxiliary power from the battery charger. On-Board Battery monitoring and intelligent battery charger.

- Dimensions:

Diameter: 16cm and Height: 8.5cm

COMPETITION RESULT:

Jamia Millia Islamia's team was selected as one of the top 5 finalists out of 57 teams in Transporter Bot theme and stood first in position at the Finals.

TEAM MEMBERS:

Md. Zafaryab Abdullah of EE-2nd year, other three members were from ECE-2nd year; Raghav Goel, Kashif Khurshid Noori, Manish Kumar Mishra.

FIRST RANK IN ROBO SOCCER

DESCRIPTION OF THE EVENT:

Chandigarh Group of Colleges (CGC) organized an Inter-College Robo Soccer match in 2016 to test the technical and innovative skills of students from different colleges. Around 20 teams participated in the event from all over India, making it a huge success. Our Jamia Millia Islamia team from Delhi was one of the

toughest competitors for the other colleges which mostly were from Chandigarh area.

COMPETITION LEVELS:

With a total of 20 teams, the arrangement was such that 5 teams were divided into a group of 4, out of which 2 teams of each group played quarterfinal match. To win the competition, 2 group matches were to be played to reach quarterfinal then semi-final match and after a high-level competition and clearing this round the team reached finals

COMPETITION RESULT:

Jamia Millia Islamia's team was selected as one of the top finalists out of 20 teams in Robo Soccer Competition and stood first in position at the Finals.



TEAM MEMBERS:

Participated in a team of four, our Jamia's students were from EE and ECE Department; Mukul Sharma, Akash Kochar, Syed Alishan, Vaish Tyagi.

Versification

We are the change

by Iman Shakeel
B.Tech II Year

Be the change you wish to see,
Be the change in all you see.
Rather than to lay things fresh,
Enhance them to refresh.
At every stride a hardship new,
A call out new, a challenge new.
Stride it hard and get it through,
See it, make it, and face it through.

We have spent years alive,
But always been deprived.
We need to be the reason,
And not change like a season.
We got to take it...TAKE IT!
My dear brothers and sisters,
It's time to make a change within.
But, for the life, you wish to see,
A life you wish to live in.

Be the change you wish to see,
A change from within.
Every hurdle overcoming,
Every success encompassing...
Oh yes, together we can be the change,
I know that we can be the change.
It's never too late
Oh! I know it's never too late

I wish that we could someday,
Find the strength to make a change
Before it gets too late.
Be the change you wish to see,
Be the change in all you see,
Be the change you wish to be,
A CHANGE from within.

Our Strange Lingo

by Kautuk Shrivastav
B.Tech II Year

When the English tongue we speak,
Why is break not rhymed with freak?
Will you tell me why it's true?
We say sew but likewise few?

And the maker of the verse,
Cannot rhyme his horse with worse?
Beard is not the same as heard
Cord is different from word.

Cow is cow but low is low,
Shoe never rhymes with foe.
Think of hose, dose and lose
And think of goose and yet with choose.

Think of comb, tomb, and bomb
Doll and roll or home and some.
Since pay is rhymed with say
Why not paid with said I pray?

Think of blood, food, and good,
Mould is not pronounced like could.
Wherefore done, but gone and lone-
Is there any reason known?

To sum up all, it seems to me
Sound and letters don't agree!

As the cliché goes, 'English is a funny language' because of its inscrutable structure. The very funny English language has eccentricities that seem incomprehensible at times. Solving a puzzle from the New York Times sometimes makes you wonder about 'abstruse glut of antediluvian perorations, if the newspaper's profligacy of neologisms and shibboleths ever set off apoplectic paroxysms in you, if it all seems a bit recondite, here's a reason to be sanguine', the English language has an insurmountable data of interesting words for its readers. The following lines of a composition will definitely let you know why English is funny and strange.

Versification





Industrial Visit at NTPC Dadri

by Harsh Ranjan
B.Tech III Year

EVENTS



After a long hectic schedule of classes, laboratories, various project work and our first sessional test of the 6th semester, we got the lucky chance to have an Industrial Visit at NTPC, Dadri on 22nd March 2018 with the due cooperation of Department of Electrical Engg. We all know that NTPC (National Thermal Power Cooperation) is India's Largest Power Generation Company. It was just a dream come true for us to get an opportunity to go for such great Industrial Visit.

Our Trip started at sharp 9 am, where we boarded a bus and moved on to our destination. We reached NTPC Dadri Township at 11 am where we went to EDC (Employees Development Centre). We were introduced to our visit coordinator, Mr. Abhishek Saxena. At EDC, we went on to a virtual trip to NTPC Dadri through video lecture where our visit coordinator told us about each and every minute details of NTPC Dadri



and its glorious achievements. Here are some of the glimpses: NTPC Dadri is a unique power plant of NTPC group which has both coal-based thermal plant and gas based thermal plant of 1820 MW and 817 MW respectively and 5 MW solar plant totaling 2642 MW. After that, we were provided safety helmets before starting our real trip on the field. We went to Stage1 and Stage2 consisting of both coal as well as gas as fuel. We also saw all the important components required for Power Plants which we have studied in our books like Turbine, Cooling Tower, furnace, HVDC Switchyard etc. At the last moment of the trip, we came to know that how power is transmitted in a bulk to different parts of the state through Rihand-Delhi Transmission line.

Our trip was highly successful especially because of our HoD-Jaffery Sir, Majid Sir, Manaullah Sir, Kirmani Sir and our DEE. We now know how Electrical Engineers can play their social role to create a new way of life for the citizens of India.



GATE Seminar by T.I.M.E Institute

by Zibran Ansari
B.Tech III Year

One of the most memorable dates for the Department of Electrical Engineering, Jamia Millia Islamia is 10th October 2017. On this day, a highly successful GATE Seminar was organized in association with T.I.M.E. at FET Auditorium of Jamia.

The event which was coordinated by Zibran Ansari, Farheen, and Bhavana Vashisht was of great benefit to all B.Tech, Diploma and B.E. students and attracted a focused audience of 250 students. Highly useful information on the topics such as Indian Engineering services, PSU & GATE, the importance of Core subjects in GATE& ESE, Internships and Profile building, Career opportunities after B.Tech. etc. was extraordinarily delivered by IIT graduates Mr. Rakesh Kumar, Mr. Chandan Baranwal and Mr. Rishi Mishra from T.I.M.E.



From the review taken of the audience, the seminar helped the students to explore the Career opportunities and made their future plans more clear. This seminar not only helped the students to gain more insight of GATE but also boosted their confidence and gave them the right strategy of preparation. As the Department wanted to help students in all ways, this seminar was for free of cost and refreshments were provided to each and every student who was a part of this memorable seminar. More such helpful events are being planned by the Department to guide the students.

दास्ताँ ए जामिया

- मुज़म्मिल अय्यू

हांलाकि मीनारों के बोलने का दुनिया में कोई रिवाज नहीं है, लेकिन इल्म की मीनारें जब बोलती हैं, तो हवाएं भी ठहर कर सुनती हैं...

सुनो... मेरे मुल्क के पुरानों सुनो, इल्म के दिवानों सुनो, मुल्क के मुस्तक़बिल नौजवानों सुनो, आज मैं तुम्हें अपनी कहानी सुनाता हूं, मैं दिल्लीवालों की दिल्ली में हल्काए जामिया की चौहद्दी में बनी इल्म की एक इमारत जामिया मिलिया इस्लामिया बोल रहा हूं...

सरहदें तक़सीम होने से पहले 29 अक्टूबर 1920 में मेरे वजूद की पहली ईंट उत्तर प्रदेश के अलीगढ़ में रखी गई थी, इस उम्मीद के वास्ते कि मैं दुनिया में देश का नाम रौशन करुंगा...

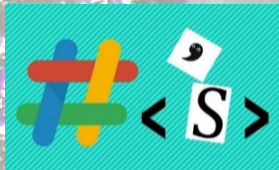
लेकिन शुरुआत में ही दुश्वारियां मेरे दामन से लिपट गईं, तमाम तक़लीफों का सामना करते हुए मेरा बुनियाद रखने वाले मोहम्मद अली जौहर, शौकत अली, मौलाना महमूद, हकीम अजमल, मौलाना हुसैन, अहमद मदनी और डॉ मुख्तार अंसारी ने कभी हार नहीं मानी, और तरक्की का हर पत्थर मेरे दरोदीवार से जोड़ते गए, यही वजह है कि आज भी उनके पसीने की खुशबू मेरे दरोदीवार से महकती है। वक्त 22 नवंबर 1920 के दौर में आ गया था, मेरे अंदर इल्म की रौशनी जलने लगी थी, और हकीम अजमल खान को मेरी रहबरी के लिए पहला चांसलर चुना गया, धीरे धीरे मेरी ज़िन्दगी की रफ़्तार बढ़ने लगी, इंकलाब का दौर था 1922 ने अपनी आमद कलेंडर में दर्ज करा दी थी, और असहयोग आन्दोलन के बाद अलीगढ़ से दिल्ली के करोल बाग में मुंतकिल कर दिया गया, और मार्च 1935 में, ओखला की सरज़मीन पर मेरे नए घर का पत्थर रखा गया, जहां मैं आज भी मौजूद हूं...

मेरी रहबरी के लिए जाकिर हुसैन साहब को पहला वाइस चांसलर बनाया गया, जबकि मेरे सिर पर रहमत का हाथ रखने वाले कांग्रेस के राष्ट्रवादी लीडर अबुल कलाम आज़ाद साहब थे, जिनका मेरी ज़िन्दगी में बेहद अहम तावून रहा है, मेरी उड़ान को परवाज़ देते हुए 1988 में भारतीय संसद के एक्ट के तहत मुझे सेंट्रल यूनिवर्सिटी का दर्जा दिया गया, इस ज़िम्मेदारी के साथ कि, मुझे मुल्क में मुस्तकबिल पैदा करना है, जिसके बाद से मेरी गोद में हर महज़ब के बच्चे पल रहे हैं, 210 एकड़ में फैला मेरा आंगन एक ऐसा गुलशन है जहां पर हर रंग के फूल खिलते हैं, जहां राम रहीम कंधे से कंधा मिलकर चलते हैं, जहां हर महज़ब के बच्चे एक कलम से मुल्क के तक्रदीर लिखते हैं, मेरी छांव में आज भी करीब 40 फ़ीसद बिरादराने वतन इल्म की इबारत लिख रहे हैं, मेरी गोदी में खेलती मेरी बेटियों की मुस्कान मुझे ज़िंदा रखती है, मैं बहुत खुश होता हूं जब मेरी बेटियां बुरखे और जीन्स में एक साथ टहलती हैं, ज़माना कहता है कि मैं, जामिया...

एक स्कूल नहीं...एक दुनिया हूं, अपने चाहने वालों की, हमारे गुलशन के फूल आज पूरी दुनिया में महक रहे हैं, मेरे आंगन में बड़ी शैतानी करने वाला शाहरुख आज दुनिया का किंग खान है, काँपी पर पेंटिंग बनाने वाली किरण राव, लवलीन टंडन आज देश को दिशा देने के लिए फिल्म बना रही हैं, तो सहवाग मुल्क की शान है, गगन अजीत हॉकी की पहचान है, हमारे घर की चाहरदीवारी से निकला मेरे बेटा एस वाई कुरैशी मुल्क का इलेक्शन कमिश्नर रहा है, तो हमारी बेटी बरखा दत्त समाज में न्याय की लड़ाई लड़ रही है, ऐसे कई किरदार मेरी छत से निकले जो मुल्क के रहबर हैं, मुल्क के मुहाफिज़ है, मैं, जामिया मिलिया इस्लामिया बस इतना चाहता हूं कि पूरी दुनिया में मेरे बच्चे मुल्क का नाम रौशन करें और अमन का पैग़ाम दुनिया के सामने रखकर एक मिसाल बने...और तालीम की इस मशाल को आगे और आगे बढ़ाते रहे...



CENTRE FOR INNOVATION & ENTREPRENEURSHIP



HASHes is a programming club which conducts events to promote the culture of competitive programming. Students are given information about online resources available and the key concepts they need to know to excel in the field.

“Switch To Code”, an online competitive programming contest was organised along with successful workshop on Web Development using Ruby on Rails which was taught by Coding Ninjas.

E.S.R.O

ESRO is a Robotics club in which members are engaged in building embedded and robotics projects to prepare for various competitions

Currently the members are working on AUTONOMOUS AND MODULAR QUAD COPTER.

MELISSA

MELISSA is the debating society which encourage students to speak out their thought and views on current topics.

Throughout the session regular debates are organized and competitions are held which helps in confidence boosting an improvement of speaking skills.

L.B.I.

CIE under the ASPIRE scheme of the Ministry of MSME, has set up a Livelihood Business Incubator (LBI at JMI campus to assist and enable the prospective entrepreneurs to learn product manufacturing processes coupled with technology development under one roof.

It was founded by Prof. Mini S. Thomas and Dr. Zainul Jaffery in the year 2016-17.

LBI provides opportunity to unemployed to acquire skill for enterprise building and incubate them to become successful small business owners.

It consists of- Beautician Training, Hardware Networking, Bakery Products, Tailoring and Embroidery, Spice Grinding and Making, PET Bottle Making

MIND-BLOWINGFUN FACTS

by Prabhat Vashisht

1. The word engineer comes from a Latin word meaning 'cleverness'.
2. One Google search produces about 0.2 g of CO₂. But since you hardly get an answer from one search, a typical search session produces about the same amount of CO₂ as does boiling a tea kettle. Google handles about 1 billion search queries per day, releasing some 200 tons of CO₂ per day.
3. The fastest passenger train in the world is the Shanghai Maglev with a maximum operational speed of 430 km/h.
4. 220 million tons of old computers and other technological hardware are trashed in the United States each year.
5. Bandra Worli Sealink in India has steel wires equal to the earth's circumference. It took a total of 2,57,00,000 man hours for completion and also weighs as much as 50,000 African elephants. A true engineering and architectural marvel.
6. All of the gold mined in the history of the world would more or less fit into a 21x21x21 meter cube.
7. The building of the Panama Canal, which links the Atlantic and Pacific Oceans, was one of the most difficult engineering projects ever. It is estimated that over 25000 workers lost their lives during the long and dangerous project, with most dying from disease and landslides.
8. The tallest wind turbine in the world has rotor tips that reach over 200 metres (656 feet) above the ground.
9. The Great Pyramid of Giza is the oldest of the Ancient Wonders of the World and the last one that remains largely intact.
10. The first official game of football was played at the University of Cambridge.

STUDY IN VARIOUS FIELD

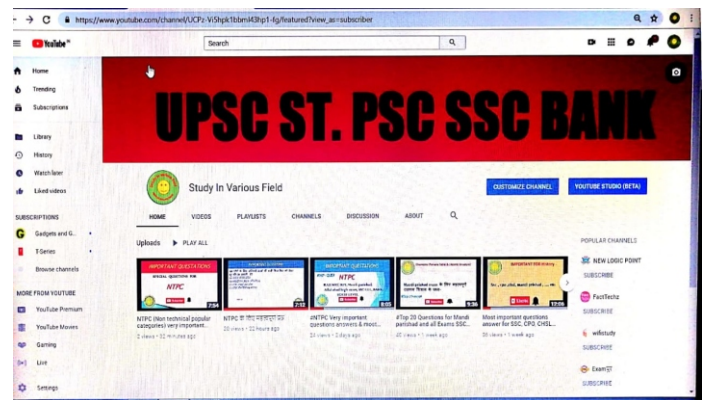
Who says you can't learn valuable things on YouTube? Yes, the top YouTuber PewDiePie from Sweden is famous for screen casting himself playing video games while telling incredibly stupid jokes (and his videos have been watched nearly 15 billion time!) but fortunately there are lots of other educational YouTube channels you can productively spend your time watching.

Believe it or not, YouTube offers a treasure trove of edutainment opportunities for both learners and teachers. The world's largest video website is empowering a new generation of online teachers who are building massive audiences and teaching million of people through the Internet.

Study in various field is one of the good YouTube channel for those who are preparing for competitive exam like SSC , Bank PO , Bank Clerk etc .

Whose link is as follows

<https://www.youtube.com/channel/UCPz-Vi5hpk1bbmI43hp1-fg>



YouTuber
Hemant Kumar



Department



Dr. Zainul Zaffery
(Head of Department)



Dr. Shahida Khatoon
(Faculty Advisor)

Editor-in-Chief



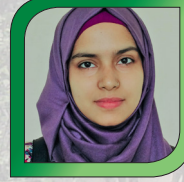
Zibran Ansari



Iman Shakeel



Bhavana Vashist



Tarab Rizvi



Vikas Sharma

Editing Team

Head Designer

Student Advisor



Awanish Shukla



Md Raza Ali



Naman Garg



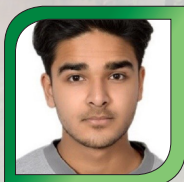
Gaurav Ahuja



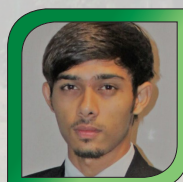
Faizan Ahmad

Photographers

Team Members



Salman
Ahmad Khan



Asim Asrar



Mayank Jha



Nikhil Varshney



Kautuk Shrivastav



Mohd Shariq

**“Never follow other’s footprints,
to make your own footprints unique”**

-Zibran Ansari



JAMIA MILLIA ISLAMIA
Jamia Nagar,
New Delhi - 110025.

