

NIIT UNIVERSITY

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From the Editor's Desk

Dear Readers,

We are back with another edition of our monthly online newsletter. Campus news has some interesting news , from the NU world, in case you missed it. We have a Social Event this time, where a Conference on Blockchains was conducted by NIIT and which in turn greatly enriched the attendees.

I would like to draw your attention to the Expressions Section, which has three interesting contributions. First is an article by Prof. Nitin Bhatia from the ECE department relating the experiences of his Ph.D days and reminiscing how crucial a part that period played in making him a researcher. A short Hindi poem by student Prasad Badgujar commenting on the hypocrisy of mortals is second on the list. And last but not the least, sketches and painting very lovingly contributed by the father of one of our students.

NUtons have certainly made waves wherever they went and that is quite visible in our Achievements section. Different individuals on different platforms have made us proud through their achievements.

I now take your leave. I hope you all enjoy the issue. On behalf of my team, I wish you all a Happy Reading experience.

Warm regards,

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CAMPUS NEWS



Holika Dahan at NU



Students who stayed back on campus for Holi vacations witnessed Holika Dahan on 1st March 2018, along with some faculty of the university where Holika was burnt. Apart from the onset of spring and winter harvest, the festival also celebrates the victory of good over evil.

Musical Holi Celebrations

On 2nd March 2018, NIIT University celebrated Holi, the festival of colours, in its true spirits with the concept of dry Holi. People played with dry gulal and other healthy colours instead of water. Everyone was enthralled with the colours on their faces, and happiness in the heart during the musical celebration.

Invited talk by Dr. Saurabh Vijay

Dr. Saurabh Vijay delivered a talk on '*Multi-disciplinary lines of higher studies and research in Germany for undergraduate engineering students*' at NIIT University on 5th March 2018. He has been working as a post-doc in DTU Space, Technical University of Denmark. He introduced students to research opportunities in German Universities and shared his career experience as well as life in Germany. He gave guidelines about choosing a research career path in Germany and the approach to pursue that. The informative talk given by Dr. Saurabh helped many students clarify their doubts about higher education opportunities and the path towards it.

Photography Lecture

NU INSTILS – The Photography Club of NIIT University conducted a photography lecture on 7th February 2018. In the lecture basic photography skills were taught to the students who had applied for AOC-141 as well as to the students who are a part of the club itself.

SEBI Visit



Students of NIIT University visited the Securities and Exchange Board of India, Delhi on 16th February 2018. A few students of B. Tech (CSE) and the students of minor-finance went to the visit conducted by **Professor Gurendra Nath Bhardwaj**. In SEBI office, they had an interactive session with the Senior manager of the regional branch where they discussed about stock market, exchange trading fund, investment banking, insider trading, ETFs, and some case studies like the Sahara scam. He shared some facts about SEBI preamble and its power. This interactive session was quite fruitful for the students.

DJ Night at NU

On the eve of 16th February 2018, *ingeNUity* – The Cultural Fest of the University organised a DJ Night where students of all batches were invited to dance to the tunes of joy. It was followed by the launch of this year's fest logo and official announcement of the schedule of the fest. Counting as a pre-fest event, this set a mood of celebration and gave a taste of a fun and happening college life.

NU-INSTILS Photo walk



The NU photography club organised the '*ANNUAL PHOTOWALK*' on 24th Feb 2018. The theme for this photo walk was historic, architectural and to explore AGRA- The City of Taj Mahal. It was an excellent opportunity to witness and unwrap the world's most recalled love story.

TEDx NIIT University

The University's first ever TED event took place on 18th February 2018. The event started at 10 a.m. wherein the students of our university gave a dance performance on Ganesh Vandana. This was followed by **Professor Parimal Mandke** and **Mr Rajendra S Pawar** addressing the audience.

Various talks on social, cultural, educational and philosophical topics emanated. The event ended with a wonderful speech given by Maj Gen A.K Singh, after which all the speakers planted trees in the campus as per NU tradition.



KPMG Session



A session on '*Ethical Hacking and Cyber Security*' was conducted by KPMG at NIIT University, on 17th February 2018. This session was led by **Mr. Rishabh Dangwal**, who is one of the most renowned Cyber Security Professional and Ethical Hacker. This four hour long informative interaction covered technical session on Cyber Security, RedTeaming Basics and Advanced Pentest, followed by a demo of Real World Attack Vectors and their mitigation. The speakers also interacted with students, cleared their misconceptions and made them more aware of the need and skills required for a cyber security professional. The session left the students with a practical mindset to choose a career in the world of cyber security.

Launch of Integrated MBA program

NIIT University offers academic programs in all disciplines that are closely aligned with the needs of the industry. The main purpose is to prepare learners with the concepts, skills, attitudes, and values required. With this overriding tenacity, the university launched an integrated MBA program.



Media Coverage: - NIIT University taking the course of Entrepreneurship forward: Digital Learning

In Digital Learning - Asia's premiere magazine for ICT Education, an article featured covering NIIT University as a role model in the area of learning, research, innovation and sustainability. The article focused on NIIT University's encouragement in entrepreneurship from the grass root level and emphasized on how that has been done using teaching methods. The success stories of start-ups have been highlighted such as Peer XP Technologies, SpectraSmart, AT-Lead and Czar Securities.

Media Coverage: Providing Learners with an Environment of Ideation, Innovation and Entrepreneurship- NIIT University Careers 360

An exclusive interview of **Dr. Sunil Khanna**, Vice President, NIIT University (NU), was featured in Careers 360- India's largest higher education & career counselling portal. The coverage featured the multiple undergraduate, post-graduate and doctoral programmes offered by NU and mentioned about non-technical programmes in Humanities and Liberal Arts that NU plans to add in the near future. Dr. Khanna mentioned the four core principles at NU that are learning industry-linked, technology-based, research-driven and seamless. He said, "A deep connect with the industry is the hallmark of NU through a curriculum directly aligned with the needs of industry. Accomplished industry professionals participate in our curriculum design and teach a significant proportion of the program. NIIT University's Industry Advisory Board comprises corporate leaders from some of the world's premier industrial organizations". It further highlights the environment of ideation, innovation and entrepreneurship been provided to students and talks about excellent placement record of NU since inception.



Special Events

Conference on Blockchain by NIIT Technologies

On 23th February 2018, NIIT Technologies co-hosted a conference on the topic '*Introductory Session on Blockchain Basics*' with NASSCOM at NIIT University. The speakers **Mr. Rajesh Dhuddu**, Head, Market Development at Quattro, **Mr. Samrat Kishor**, Manager Accenture and **Mr. Sajal Singhal**, AVP, Engineering at GlobalLogic explained the concept of blockchain to the NU Students present there. Starting from the history of blockchains to the current developments and future scope everything was discussed by the professionals. The interactive session with the panel followed by the lab session turned out to be a great experience of learning for the students. Also, the students were shown practically, how to create a block and connect it to create a block chain. This hands-on experience was really beneficial for the students who are going to work on these current technologies in their near future. This session was a big success and NIIT is looking forward to more such opportunities.



EXPRESSIONS

Delta X

I was sitting with one of my former colleagues in an engineering college in Alwar (my home town) when I received a call from IIT-B asking me to join as soon as possible. It was my Ph.D call. There was no looking back after that. I must confess that I got a Ph.D enrollment in IIT-B because the advertisement said B.Techs are allowed to apply, which I saw accidentally. There was no other reason for me to apply for the Ph.D. However, when I saw that the stipend was 60% higher than my salary I started taking credit for the good decision. So it happened.

I came from an academic background which many people call "humble" these days. For me, it is "humble" raised to the power 'n', where n can vary from 2 to infinity. I got a feeling of the importance of my degree when HCL came for campus placement offering a phenomenal package of Rs. 60K per year. However, the same degree took some of my friends to very good positions in industry and academia, and me to IIT-B.

When I joined, I had neither any idea about what we call a Ph.D nor about what the teachers in IIT-B can transform me into. I got a glimpse of it when I was listening to Prof. Dinesh Sharma on the day of our interviews. "If you think creating a long code can give you a Ph.D then you are mistaken. You have to add a delta x to the knowledge." That looked challenging. Since it happened before my joining, I did not care much. But it shattered one of my qualifications. I could write long codes and I was under the impression that writing a complex program should be enough to solve any problem.

It was later that I realized that one must have a problem in hand before a computer program can solve it.

A computer would do whatever you want it to do. Nothing more. Nothing less. And finding a problem is as easy as finding the intersection of the curve and its asymptote. You are always at a problem, but still it would go on and on and on.

Incidentally, Prof. Sharma was also the head of our department and I had to take his signature to register for a course. I informed him that my registration would be delayed as the staff in academic office is facing some technical issues. He replied, "Then ask for the manuals and correct it yourself" I thought, "What?! Are you serious?!" The legitimate excuse of something not happening was not enough! How on earth could I have ever thought of that. It changed something in me. The attitude of looking at the solution rather than the problem was ignited.

It is neither the number of publications nor the report card of the course work that defines a Ph.D. What really matters is the way of critically looking at a given problem and working towards the solution.

While working with my supervisors I took my own time learning this. I got a good combination of teachers as my supervisors. Prof. Joseph John from EE is an experimentalist, and always tells me about the beauty as well as the hardships of getting an experimental result. Prof. Kailash Rustagi from Physics department is a theorist but remains more keen on getting experimental results. How did I find them? It is a story in itself. There is a lot of literature available on many "How to's" but on this aspect we rely more on our kins called seniors. A few guidelines were, "work only in simulations - avoid experiments", "ask how many publications before the supervisor says OK", "look for the number of students already engaged with the supervisor", "take a seminar and then decide" etc. I found the last one worth taking. So, I started knocking at the door of every faculty member to make myself familiar with the kind of research going on in the department. Initially, like many other new entrants, I also went to the microelectronics building to hunt for my research future. I was finding it difficult to imagine how could everybody be busy doing something. More than that everybody knew what they were supposed to do.

I interacted with many faculty members and without understanding much about their respective works concluded that I cannot work in this area. So, I switched the building. My next target was electronics and circuits. I went to Prof. M. B. Patil and asked for some time to talk. He asked "So, what is your interest?" I said, "Sir, I am coming after my B.Tech. I am still exploring different areas." He intercepted, "First get more clarity about your interests. Then we shall meet." This was something I did not expect. After this meeting, whenever I met with a faculty member, I did not introduce myself as the explorer but as the person who has a keen interest in their respective working areas, whatever it may be! Finally, I met Prof. Sharma again and announced my difficulty in finding the seminar topic. He suggested to me to meet Prof. Madhav Desai and Prof. Shalabh Gupta. So, I met with Prof. Desai first. He recognized me as he was in my interview panel. He agreed for the seminar but warned me that he would not grant me any grade until I finish my seminar work. This could take even a year and he would keep the grades on hold. If I wished to escape without finishing the seminar work, he would not hesitate grading a FAIL! I said to myself "Jai Raam Ji Ki" and left his office. Later I went to meet Prof. Shalabh Gupta. He explained his work nicely and I decided to do my course project with him. I also asked him for a seminar topic. He suggested me to look for another faculty member so that I would be having a choice for my Ph.D supervisor. Finally, I landed up with Prof. John and got my seminar topic leading to the termination of my search.

As per the senior's guidelines, a seminar was not a serious issue. You say what you understand. And then examiner would say something. You listen and finish. My examiner was Prof. Rustagi from the Physics department. Prof. John suggested me to ask a person from the Physics department as it would help us getting good feedback. My seminar work required knowledge of solid state physics, quantum mechanics and electromagnetics. In the absence of all these elements my presentation appeared quite naive. However, after knowing about my educational background of Electronics and Communication Engineering, Prof. Rustagi adjusted his critical eye. I still remember what he said when we discussed his involvement as my co-supervisor, "You have to work hard to receive my criticism." This statement was a game changer. Even today I work hard (enough!) to receive his criticism.

As the time went by, my knowledge base expanded. I started exploring further with Prof. John and switched between topics. This was the time when I had to search for a Ph.D problem. He asked me to meet him once a week. At that time, I could not read and understand more than one page of a paper in a week's time. He understood it and gave me enough time to get firm on my feet. When I listen to people uttering their supervisor's cruel nature I feel pity on myself for missing that aspect. Whenever I went to Prof. John to discuss something, I had a smile on my face while coming out of his office. He was always encouraging and gave fruitful bytes whenever we met. These are a few things I learned from him.

"In Ph.D, you don't have to work for a Nobel prize. This is a training of how to do re + search. Your real work will start after your degree."

"In the first year, I will tell you what to do. In the second year, we will learn together. From the third year onwards, you have to teach me."

"There will be a time when even I will not understand what you are saying. You have to explain it to me. This is how research should go. If I already know, what is the new thing about it?"

"You have to generate knowledge first. Don't worry about the use. It will happen."

More than just these bytes I was learning more in his course on Fiber Optics Communications.

A nice mixture of theory and practice, with small experiments in classroom, he deepened my interest on fiber optics and related topics. Being an experimentalist himself, he always kept me tight on the directions. I remember when I showed him a journal paper about doing some simple things, he said "Let others do things just for the sake of doing something, but you should not".

I was getting similar insights from Prof. Rustagi. I used to meet him only to show some results and get his feedback. In the initial days, I could not even understand what he was saying. So, I used to take notes of what he said. And then I had to spend 4-5 days to understand his points, and what more I had to read. Every time I said something, he remembered a talk that he had attended in the past. Then he googled. And then he told me what I had missed. Later as my comprehension grew, I could understand him well, and more importantly - ask questions.

When I finished my second annual progress seminar, I thought that I had enough work to write a paper. I asked Prof. Rustagi about it. His response was "What do you want to write?" I was not expecting that question. I gave the obvious answer - "the seminar work." He replied, "Send me whatever you want to write. I will correct." After 6-8 months I was ready to submit my first paper. Prof. Rustagi gave a green signal with the comment: "This work is more like 'aisa bhi kuch hota hai'. We need to make more out of it."

Initially, some small results gave a sense of satisfaction about achieving the "delta-x". However, now I could see the difference between two different "delta-x's". One was just for the sake of an increment - 'aisa bhi kuch hota hai'. Other, for which I was still struggling, requires something more than that - something that can make an impact - something that can give rise to an interesting phenomenon - something that can trigger a "Wow"! Making something substantial out of already acquired knowledge requires constant discussion with colleagues and supervisors. It came to me in the form of a question. My work involves a simple all-fiber structure, in which I was studying the power coupling between various modes of two different multimode fibers.

"This multimode to multimode coupling is very interesting. Let me ask a simple question to you. Can you tell me to which mode you can couple maximum power?" Prof. John asked me one day. He told me about his Ph.D problem when his supervisor asked him a similar question - How to maximize the power that can be coupled to a single mode fiber.

A similar question was asked by Prof. Rustagi, "Can you couple all the power to any one mode?" I answered negatively mentioning the need to solve many equations simultaneously. He replied, "No no...you are misunderstanding what I am saying. You don't need to couple all the power to one mode. What is important is the power contrast between these modes."

That was it. It struck. This one question defined my work for next one year and eventually became the theme of my Ph.D thesis.

Questions and discussions are the most important aspect of working a way out. I give more weight to questions. Once I was arguing with Prof. John to include one more parameter in the theoretical analysis. He said, "In practice, nothing works perfectly. I don't care about these results if they are not of practical importance. But if you can tell me the percentage error that can happen by neglecting this, I can comment." This was the right question.

"One must ask the right questions", Prof. Rustagi told me one day. The discussions with colleagues and supervisors must end up with some legitimate questions that one should answer. This is how things progress. If you think you know the answer, think twice. If you think you still know it then write it in your words. If you can get away with the writing, you may relax until somebody else points it out to you.

I think this is the time when a Ph.D student feels confident. A feeling of ignorance after a simple contribution completes one cycle of the spiral. Now, questions are not discarded but are appreciated. And more importantly, this uneven mixture of ignorance and knowledge becomes more spicy than Haldiram's. It is not just the academics where the changes in the thinking are apparent. The whole process of Ph.D helps in developing a critical eye which can be directed anywhere. A new appreciation of the world, with a lot more colours, seems viable.

Prof Nitin Bhatia
Dept. of Electronics & Communication

Maine Dekha Hai

Maine logo ko pyaar ke naam par chand taare todne ka wada karte dekha hai,
Lekin jimmedari ki baat karte waqt maine unhi logo ko haath khade karte dekha hai.

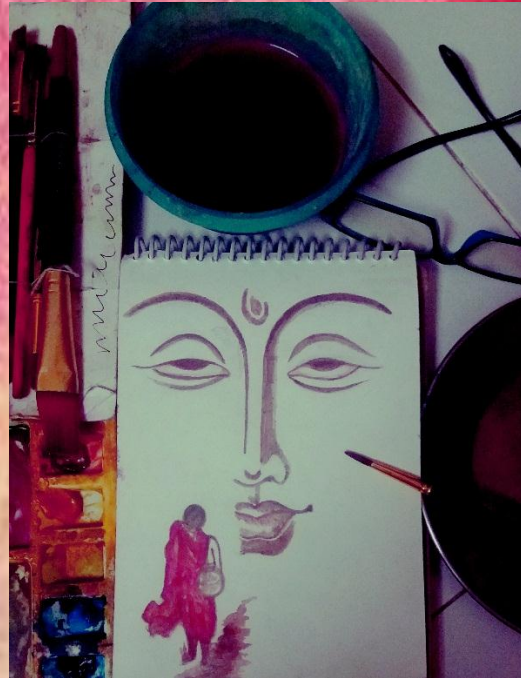
Yuhi nahi milti kisiko yaha izzat jo ke sidha dil se nikalti hai,
Maine logoko muh pe sir aur peeth peeche kutta kehte dekha hai.

Bhookh kya hoti hai, ye kabhi kisi gareeb ko jakar puchiye,
Maine hazaro kharch ne wale logo ko unse kuch sikko ke liye jhagadte dekha hai.

Wo zamana hi kya tha jab maangne par madat bhi mil jaya karti thi,
Maine ek insaan ko hi insaniyat bhulate hue dekha hai.

Prasad Vijay Badgujar
B. Tech (2015-2019)

Sketches and Paintings



Mr. MM Panigrahi
Father of student Anand Panigrahi



Paper Published in the Journal of Chemical Physics

Dr. Vinay Sharma published a paper titled, "*Anion dependent ion pairing in concentrated ytterbium halide solutions*" in the Journal of Chemical Physics which is an SCI indexed International journal brought out by the American Institute of Physics. Dr. Sharma, who brought out this paper in collaboration with a few of his colleagues, studied the ion pairing of ytterbium halide solutions.

Success at Cliffesto, NIT Srinagar

The robotics team of NIIT University, participated at the Cliffesto, Tech fest of NIT Srinagar, Uttarakhand during 16-19th February 2018. They bagged the 3rd position in Robosoccer, 2nd in Flotter and 3rd in Debugger competitions out of a total of 12 teams.



Paper Presentation at Bits-Goa

Ayushi Goel, student of B. Tech CSE (2015-19) presented her research paper in the International Conference on Economics and Finance from 16-17th February at BITS- Goa on the topic '*A Study on Buyback of Shares in the Indian IT Industry*', which has been selected for publication in Springer.

NU B. Tech Student Gets Admission into World No. 12 University for Masters in Management.

Sourya Rudra of B. Tech Biotechnology (2014-2018) secured admission into the Grande Ecole Masters in Management program at EMLyon, France. (World number 12 in Management courses). He also secured a 30% scholarship at the university. He got a decent score of 320/340 in his GRE exam and a score of 109/120 in TOEFL. His advice to all students is, "*be confident about what you want, start planning early and brush up your communication skills.*"

Industry Experience as a Platform for Academic Careers

Students of ECE batch 2014-16, **Karan Vinayak** and **Mahima Maheshwari**, compared notes of their rich experience gained during the industry practice at the faculty workshop held at the NIIT University. They gave an overview of the dual advantage of academic rigor and industry relevance to students and faculty.

