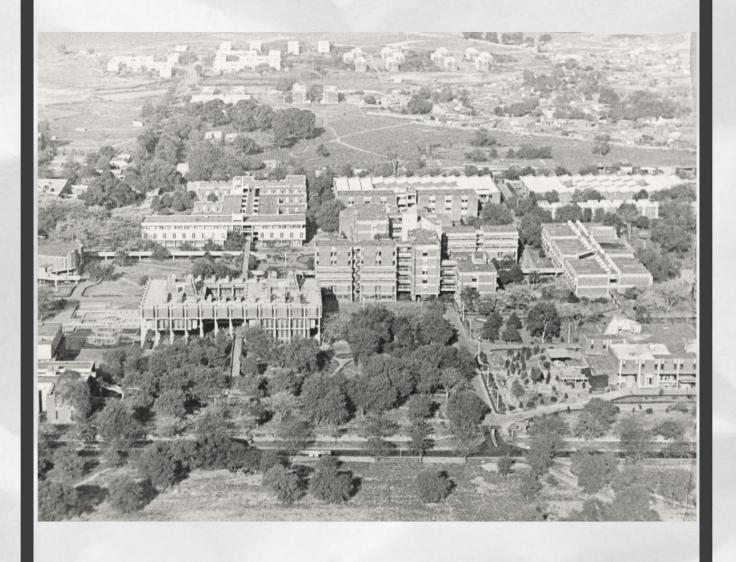
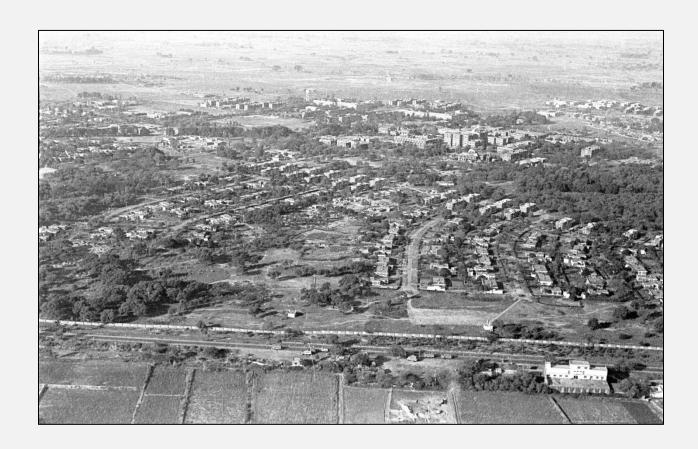
# the spark

ISSUE #9 MAY 2024 IIT KANPUR





History has proved again and again that events far separated in space and time conspire to produce unforeseen and far reaching consequences

Long long ago Columbus discovered America

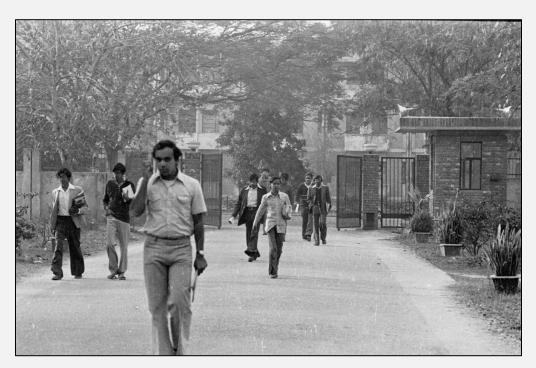
Long long ago Shershah Suri built the Grand Trunk Road

Long long ago the English claimed Cawnpore in the name of the King

I.I.T.K. was historically inevitable.



... And the Institute came to pass...



... so did we.

The Way We Were, 1979
Pictures: Shirish Joshi

# The Spark

#### May 2024

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Special Thanks to Professors Kalidas Sen, Sudhanshu Jamuar and T L Viswanathan, the Khandekar, Mukherjee and Sinha families, and DORA Kantesh Balani for their help with this issue.

Views and opinions expressed in The Spark are those of the Editors and Contributors and not those of the Indian Institute of Technology Kanpur, unless specified otherwise.

#### **Editorial**

The 'White Issue' of the Spark takes a break from the 'Women of IITK' to bring memories from Residence Halls around the campus, with the featured stories based during the late 1970s through the mid-1980s. Several of these are anchored around the 1979 photo yearbook, **The Way We Were**.

'The Way We Were' was not the first photo yearbook to be released on the campus. That was 'This Bit of That India' (1975), but it is probably one of the most memorable. What was special about both 'This Bit...' and 'The Way...' were not just the pictures – we all loved those, but also the verses that accompanied them. This issue of the Spark tries to add narratives to those pictures, using your contributions... and we would love to receive more!

The events following the assassination of Mrs. Indira Gandhi remain one of the sadder chapters of Indian History, with the Sikh neighborhoods of Delhi and Kanpur being heavily impacted. What is not as well known is the courage and leadership shown by the IITK student community towards protecting the Sikh families on campus during those difficult times. The Spark goes back to those days of early November 1984, narrating the events as they occurred on the campus, and then in Hall I.

The Spark pays tributes to several well known IITK Professors who passed away in recent months. Among them, Professors TR Viswanathan and Sameer Khandekar had been active contributors to the Spark and we will miss their support and encouragement.

As always, we look forward to hearing back from you. Please write to us at: <a href="mailto:spark@iitk.ac.in">spark@iitk.ac.in</a>



The LHC, after the rains, March 2024
Picture: Priyanka Meena (Research Scholar, Physics)

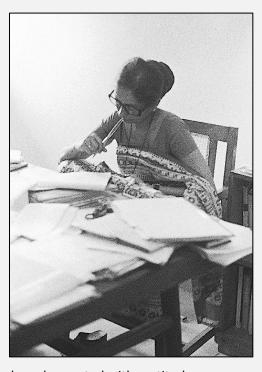
#### **Letters to the Editors**

Please write to us directly at spark@iitk.ac.in. We love to hear back from you and will try to publish as many letters as possible.

#### Memories of UK

The Spark's remembrance of Prof Usha Kumar triggered a whole host of my own grad school memories. I remember my first semester at IITK. Ushaji was on personal leave or sabbatical, and we needed to make up missed classes in multiple three hour sessions. It was in those very first sessions that I had decided I would work under her guidance if she would have me for her PhD student.

The first six months after qualifiers, I was told not to worry about a topic but to read anything and everything that interested me, that my research would take shape on its own. So I read and we discussed arbitrary stuff as my research problem began to gel in my head and on paper. Only later did I realize that this was about more than completing a dissertation or having a degree stamped to my name. This was a master lesson in learning to think creatively, to watch the process as it unfolded and took its course. To date, it is not as much the problem as the process that intrigues me and every time the solution appears



magically on its own. I will always appreciate this gift given freely and accepted with gratitude.

Ushaji was often exasperated with me for dressing the way I did - "the best dressed woman on campus with the worst dressed student", she would chide, to which I would chuckle later, partly because the underlying affection was evident and partly because youth doesn't really care about looks until age begins to take over. I remember the disapproving up and down look she gave me as she saw the sari I turned up in for lunch with Arun (then, my future to-be husband) and her at her place. I remember the fondness with which she asked Preeti (*Preeti Prasad Sayeed*) how I looked all decked up for my wedding (I looked grumpy, Ushaji). I remember her words as I took leave after submitting my dissertation - "you know if I had a daughter, she would be your age". Those words, for some reason, have stayed with me since, although I understand the extent of its depth better today than I did then. Ushaji you do have a daughter, older now than what you were then. With everlasting gratitude...

Also, for me any mention of Prof Usha Kumar would be incomplete without mentioning my dearest friends who were closer to Ushaji than I was: Amrita Tripathi Sheikh, Leena Chatterjee, Sanjeev Sharma. And those friends who shared my dissertation journey, its fun times and tribulations, and listened to all with amusement and sympathy too: Preeti Sayeed, Nandini Raghavan, Malini Raghavan Anuja Mathur, K. Geetha. Remembering all of you fondly for what each of you have meant to me.

Abha Varma, PhD, Psychology, 1985

Picture: Shirish Joshi

These stories beautifully bring out the essence of UK's unique and charismatic persona. They are truly a walk down memory lane, visiting her place for lunch or dinner and cakes, playing scrabble and I also remember accompanying her on a protest march in the city. But for me the strongest memory and influence has been of her as a teacher. I was lucky to assist her in an elective and the way she wove in lessons from the little Prince into the course was fascinating. She was my role model as a teacher and I am grateful that I could learn from her.

Leena Chatterjee, PhD, Psychology, 1984 Professor, BITS School of Management Former Professor, IIM Calcutta

Thank you very much for forwarding me a copy of "The Spark"; most interesting reading for sure!

On the subject of Dr. Usha Kumar, I particularly remember a few memories associated with her during my stay in the institute between 1967-72, and subsequently when I was working with DCM Ltd. in New Delhi. During the period 1967-72, Dr. Usha Kumar would regularly conduct self-awareness and knowledge retreats of two to three days which I recall that a couple of my friends had the privilege of attending. These were very well regarded, and the mere fact of being in the presence of Dr. Usha Kumar was quite elevating!

Subsequently in the 1980's, DCM Ltd. had engaged her professional expertise in evaluating and recommending a few senior personnel from within the organisation for top level senior positions. As Head of the Chairman's Office I had the opportunity to interact in this exercise; it was an added pleasure that Dr. Usha Kumar was conducting the evaluation.

Gopal Saxena, 1967-72



Professor Usha Kumar with Tasha, 1977
Picture: Shirish Joshi

#### Thank You for the Feedback

Thank you for this issue of the Spark. It brings the memories of IITK days alive. I was there from 63 to 68 as a student of Mechanical Engineering. I read all the stories, so well written, making me live those days once again.

I am saddened to learn about Dr Vasudev's demise. I was with him in 1966 along with three more of my classmates doing a project at Sriram Compressors, Hyderabad and later at Fiberglass Pilkington in 1971. He was excellent in his field and guided us professionally. My sincere condolences to his family.

Regards N N Goyal BT, ME, 1963-68 Director Operations, UP Twiga Fiberglass Ltd.



And when the lights go out, the test carries on...

Students complete the final questions of an open book endsem exam using the light from cell phones.

Dept of Management Sciences, December 2022 Picture: Shakti Chaturvedi (Research Scholar, IME)

# **Republic Day Celebrations on Campus**

The 2024 Republic Day Celebrations were held in, and around the grounds of, the IITK Auditorium. The flag hoisting ceremony was followed by the National Anthem, release of the magazine 'Antas', Service Awards for the employees, Cultural Programmes by the Campus School, Opportunity School and Kendriya Vidyalaya, and a demonstration by the Taekwondo Club on some self-defence and brick breaking moves.

The event also gave us an opportunity to share with you the renovated photo gallery in the Auditorium Lobby. As part of the November 2023 Foundation Day celebrations, the IITK APPROACH Cell took the responsibility of renovating the gallery. This photo gallery was originally created with the help of alumni during the Golden Jubilee celebrations of the Institute.

"In this renovation, we created contemporary oil paintings of the campus, below the historical photo backdrops. The paintings were recreated from campus photos, institute calendars, and private sketches. The artists who created these paintings belong to traditional 'painter' families of old Kanpur city who used to create Bollywood Movie posters in the past! We invited them to our campus to create these marvellous campus paintings!" (Late Professor Sameer Khandekar)



Republic Day celebrations on Campus. Picture: Girish Pant (Information Cell, IITK)





Views of the Auditorium Gallery with the historic pictures supplemented by artwork of the 'painter' families of Kanpur, the project supported by the APPROACH Cell, IITK. Pictures: Aman Kumar Singh (BT/MT, CE, 2020-25)

For more information about the APPROACH Cell, please refer to the Spark, Issue 7, August 2023, p 265-267.

# **Annual Flower Show at the IITK Nursery**

The Annual Institute Flower Show was organized at the IITK Nursery during the third week of February 2024. Apart from the flowers on display, and the competition for awards between the Residence Hall *Malis*, the Women's Association of IITK organized a fete full of fun and food, puppet shows and children's activities.

The temples inside the Nursery predate the IITK campus and have quite an interesting history. Due to some historical events, before the establishment of IITK, this area had special significance for the local residents; this led to the establishment of the Campus Nursery in the earliest days of the campus. It also became a sanctuary for peacocks, which of course, have continued to multiply on the campus ever since. More on these stories to follow in a future issue of the Spark.



Flowers on display at the IITK Nursery Credits: Kunal Bhoye (BT, ChE, 2020-24), Ishan Singh (BT, ChE, 2020-24)



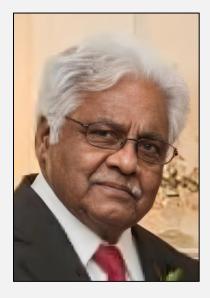
Competing for top honours at the 2024 Flower Show. Pictures: Aman Kumar Singh (BT/MT, CE, 2020-25)



The old Nankari temples predate the establishment of the IITK campus. They have an interesting history, which we hope to cover in a subsequent issue of the Spark. Picture: Aseem Shukla, IITK Flower Show, Feb 2023.

Tributes

Professor T R Viswanathan (1937-2023)



Professor Thayamkulangara Ramaswamy Viswanathan, one of the early Professors of Electrical Engineering and Computer Science at IIT Kanpur, passed away on December 21, 2023, after a brief illness. He had served as the Head, Computer Centre, and Dean of R&D at IIT Kanpur, and taught courses in Electrical and Computer Engineering. He also supervised the thesis work of many graduate students in the area of Analog Integrated Circuit Design.

Professor Viswanathan earned a B.Sc in Physics from the University of Madras in 1956. He graduated in Electrical & Communications Engineering from the Indian Institute of Science, Bangalore, in 1959, where he then started his first job as a research assistant. In 1959, he along with Professor H N Mahabala,

made a 40-day journey by boat and bus from India to Saskatchewan, Canada for completing their higher studies. He received a M.Sc. in 1961 and a Ph.D. degree in Electrical Engineering in 1964 from the University of Saskatchewan, Saskatoon. He then was on the faculty of the Electrical Engineering department at University of Waterloo, Canada for a year.

Professor Viswanathan joined IIT Kanpur in 1965 in the initial stages of the institute. Until he left in 1978, he worked tirelessly in establishing the Electrical Engineering department along with other eminent faculty members. At Kanpur he also met his future wife Lakshmi, who joined the department as faculty in 1965 and completed her Ph D in 1970.

Professors TL and TR Viswanathan, Sept 2019

Professor Viswanathan was much admired as an outstanding teacher and mentor who connected well with his students. Many of his students have been extremely successful in industry and in academics. In 2022, alumni from the IITK batches of the 1960s and 70s collaborated to establish the Prof. T R Viswanathan chair to honour faculty who distinguish themselves in teaching and create a positive influence in the lives of students by mentoring them.

Post IIT Kanpur, Prof. Viswanathan was a professor at University of Waterloo, Canada, University of Michigan, Dearborn and Carnegie-Mellon University, Pittsburgh. He then joined AT&T Bell laboratories in 1985 where he worked for ten years designing and manufacturing products for data and voice communication systems. Simultaneously he was Adjunct Professor at University of Pennsylvania. In 1995 he joined Texas Instruments as Director of Research.

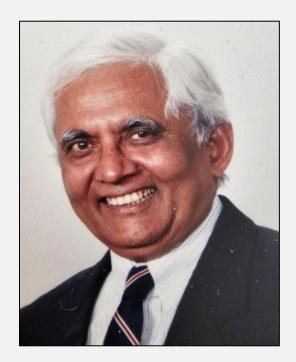
After retiring from Texas Instruments, he was a Partner at Artiman Ventures. From 2005 he was a research professor at University of Texas (UT)-Dallas and then at UT-Austin holding the Silicon Laboratories Endowed Chair in the Electrical and Computer Engineering department. Following retirement, he had been a Research Professor Emeritus.

Over the years, he had remained in active contact with the IIT Kanpur community, connecting with students and alumni on social media, and contributing to the Spark. As recently as November 2023, he had expressed his desire to visit IITK one last time. We will miss him dearly.



UGC Summer Institute of Electronics at IITK (May 1976). Professor T Lakshmi Viswanathan is visible in the middle of the front row, and Prof T R Viswanathan is seated beside her, fifth from right

# Professor V P Sinha (1938-2024)

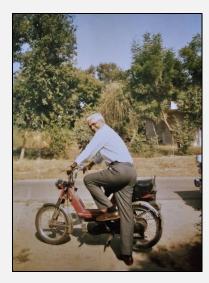


It is with a heavy heart that we announce the sad demise of Prof. Virendra Pratap Sinha, a true pillar of wisdom and one of the earliest faculty members of IIT Kanpur and founding faculty members of the Dhirubhai Ambani Institute of Information and Communication Technology (DA-IICT). He left us peacefully on Saturday, January 13, 2024, after bravely battling Parkinson's in Mumbai.

Prof. V P Sinha graduated from Bihar Institute of Technology, Sindri with specialisation in Telecommunications in 1959. In 1962, he joined City University London (UK) for a doctoral degree, where he worked in the emerging field of digital signal processing. After completing his Ph.D. in 1967, He joined IIT Kanpur in September 1967 as Assistant Professor and retired as Professor from IIT Kanpur in 1998.

His journey in academia spanned over 30 years. He was at IIT Kanpur from 1967 - 2001, followed by a brief stint of one year at IIT Bombay, 2001 to 2002. Later, Prof. Sinha dedicated 13 years of his life to DA-IICT Gandhinagar (2002 - 2015), leaving an indelible mark on the newly established institute.

As the first Dean (Academic Programs) of DA-IICT, he played a pivotal role in shaping the academic landscape of the institute. Many of the excellent academic practices, policies, and guidelines, which are being followed at DA-IICT, are a testament to his profound wisdom. DA-IICT owes much of its character and excellence to Prof. Sinha's decision to devote his post-retirement years to shaping the future of education here. His impact is immeasurable, and DA-IICT would not have been the same without his dedication and vision.



Dr V. P Sinha had a magnetic personality. Those magical lines of forces emanating from him always impressed you deeply whether you were a creative writer in Hindi or English, a student of Art, Science, or Engineering, a sports person, or even any common man performing his daily chores. He was an outstanding conversationalist on diverse contemporary topics; one wanted to continue listening to his musical voice interspersed with the pauses of numerous disarmingly sweet smiles. To continue, he only needed a giant cup of hot tea in hand. A compulsive bicycle rider, he lived a disciplined life and contributed immensely to building two major institutions. He frequently crafted humorous one-liners. While teaching a course on Signals and Systems, he would ask "Let us consider Jalebí as a system..."

Mrs. Meera Sinha, his wife, and two daughters, Shubhra and Shalini, together with him constituted a model family unit at IIT Kanpur. VPS and Meera Ji loved gardening. They planted many fruit trees, cultivated a garden full of flowers and a thriving kitchen garden. They made many grafts of lemon trees which they gave to friends and families all over India.

Prof. VPS was the author of a book titled 'Symmetries and Groups in Signal Processing'. Beyond his professional achievements, he was cherished as a lovable teacher, a compassionate family man, a humble individual, a witty friend, and above all, a 'wisdomary'. His presence lit up our lives, and his legacy will continue to inspire generations to come.



Professor and Mrs Sinha on a visit to London

Text Contributed by Professors Sudhanshu Jamuar (IIT Delhi) and Kalidas Sen (University of Hyderabad)

# Professor Sameer Khandekar (1971-2023)



Our much loved Professor of Mechanical Engineering, Dr. Sameer Khandekar, tragically passed away while interacting with alumni at a reunion celebration on campus. He was 52.

Prof. Khandekar received his B.E. Degree from Government Engineering College Jabalpur in 1993 and went on to work in the L&T Shipping group from 1994-1996, and at Barber Ship Management, Malaysia from 1996 - 1998. He completed his M. Tech from IIT Kanpur in 2000 and his PhD from the University of Stuttgart, Germany in 2004. He was with the Department of Mechanical Engineering at IIT Kanpur from September 2004 until his untimely demise on 22 December 2023. He was also an invited professor at KAIST, University of Chiang Mai, Federal University of Santa Florianopolis, Brazil, and DAAD research fellow Germany.

Prof. Khandekar was an internationally recognized researcher in the area of heat pipes, electronics thermal management, and energy systems. He won several awards for his research and was a fellow of INAE and the Institution of engineers. He was also an editor of several international journals including the International Journal of Heat Transfer and Interfacial Phenomena and Heat Transfer. As an excellent educator and mentor, he was much loved by all, across the spectrum of the student body.

His boundless energy, friendship, and cordiality were treasured by everyone across the institute and outside it. He actively contributed to the institute administration in various capacities including Head of the ME Department, Associate Dean of Innovation and Incubation, Dean of Student Affairs, Member of PGARC, and Treasurer Alumni Association, to name a few. His large heartedness, kindness, and empathy for people also touched organizations such as Shiksha-Sopan (Opportunity School for the weaker sections of society) where he was the current president.

#### At a Shiksha-Sopan Independence Day celebration

A bundle of energy, he headed the APPROACH Cell at IITK, which is dedicated to the Appreciation and Promotion of Arts and Cultural Heritage among the community. In the few months since its inception, this cell organized Guided Walks to the historic areas of Kanpur, conducted a Pottery Workshop on campus, renovated the Auditorium Gallery with artwork from the local city painters, held a Rangoli competition, and showcased a Bicycle Renaissance event, along with lectures and demonstrations on Indian Art and Culture. He was an active contributor to the Spark, and we cherished interacting with him on some of these projects.



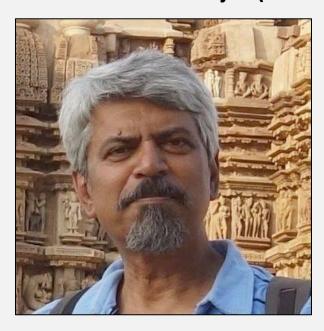
Prof. Khandekar was also an actor, poet, and artist and will be remembered for his outstanding performance during the IIT Kanpur Diamond Jubilee function (*Ek aur dronacharya*). The Department of Mechanical Engineering and the IIT Kanpur community mourns his untimely passing away and prays that his soul rest in eternal peace.



Prof. Sameer Khandekar and Mrs. Pradnya Khandekar (on the far right) at an APPROACH Cell event

Contributed by the Dept. of Mechanical Engineering, IITK

# Professor Amitabha Mukerjee (1957-2024)



Prof. Amitabha Mukerjee, a former Professor of IITK's Departments of Mechanical Engineering and Computer Science, passed away on 24 January 2024. He was a gifted individual with diverse talents and interests, which went well beyond research and academics. He was a poet, an avid nature lover, and a biker, known all over India for his cycling treks through the Himachal Mountains, South India, Uttarakhand, Northeast India, and even through the European Alps. He was a pioneer in organizing bike rides with IITK students, faculty and staff; these rides would take them all around Kanpur, from Bithoor to Nawabgani.

He was an avid bird watcher and had a wonderful collection of bird photographs from the campus, including many migrant birds which have now become a rarity. His interests in music were remarkably diverse, ranging from Indian classical to Bollywood, to pop and Latin hits. He was a master at word play; this became the basis of much of his poetry. Those who knew him remember him as an exceptionally wonderful person, very friendly to all -- you were always welcome to his home.

Prof. Mukherjee had received his B.Tech. from IIT Kharagpur, and then earned his MS and PhD from the University of Rochester. His research interests included artificial intelligence, spatial reasoning, video analytics, robotics, and virtual reality. He had served as a faculty member in the Mechanical Engineering and the Computer Science and Engineering departments at IIT Kanpur.

Sadly, he met with an accident on 24 January 2016, while cycling with an IITK student group. After being struck by a bus, he fell into a coma and remained in a semi-conscious state for eight years. His family members, including his parents, brothers, sister, his niece and sister-in-law, as well as some of his close IITK friends, maintained hope that he would regain full consciousness. That sadly, did not happen, and he passed away in January 2024. We pray that he be with God, in rest and in peace, in full consciousness and bliss.

Contributed by the Dept of Computer Science and Engineering, IITK

## My Brother, Moni

#### Dipika Mukherjee

My father's diplomatic career took our family around the world. Amit (I call him Moni), was born in Bangkok, Dada in Baghdad, and the youngest, Babs, was born in Jakarta. I am the only India-born, but when I was six months old, we moved to Geneva, Switzerland.

Among the siblings, Amit spent the most time in India. He spent most of his school-life in Narendrapur Ramkrishna Mission, a school run by the strict monastic order established by Swami Vivekananda. Vivekananda's teachings reverberated around the world and I often walk past the part of Michigan Avenue in Chicago named Vivekananda Way; the opening lines of Vivekananda's speech at the World Parliament of Religions, on 9/11 of 1893, are inscribed in metal at the Art Institute in Chicago.

As my parents' first offspring and the most precocious, it must have been hard for them to send him so far away from the family, at the age of 11, to such a strict boarding school in India. Amit had shown early signs of genius and an irrepressible curiosity; before his first birthday, when an action movie was being screened in Bangkok, he had jumped up and said fire! fire! in Thai at an age when most children were struggling to say Mama.

Then, at ten years of age in Geneva, he almost killed himself.

In an effort to read a car number plate, Amit had leaned over the balustrade of our apartment in Geneva and tumbled two storeys down. My mother had stepped out to the shops below to get something; when the ambulance arrived in minutes, there was no parent at home. Dada raced down the stairs and was fighting off the paramedics, shouting in his five-year-old language of Bengali and French to leave his brother alone.

When my parents saw Amit in the hospital in Geneva, there was no brain damage, only broken bones and teeth. He was completely unrecognizable.

Traumatized by this experience and my mother's ill-health, my parents had to send Amit to boarding school – and choose a school that was both intellectually rigorous as well as well-disciplined -- before he turned eleven. Yet, Moni emerged from this first serious accident with a razor-sharp intellect that is the first thing anyone mentions in his memory. He also burned with an energy to live life to the fullest.

After Moni's accident in 2016, we did everything we could, first buoyed by the IITK family which held us in a warm and tight embrace through the days at Regency hospital and beyond. The university volunteers were at the hospital 24/7, with Amit's close friends and colleagues monitoring everything. Their crisis management skills are exemplary: they logged in updates manually, and there was already a Google drive that became a repository of Amit's medical data when we arrived.

There was an outpouring of messages and anecdotes from around the world at his passing. We knew Amit was much beloved, but it has been overwhelming to see the legacy he leaves behind. Beyond the love we all hold in our hearts, we are grateful to each one of you for walking with us on a very difficult path for the past eight years, and in the depths of the darkness, being our light. May his memory always be a blessing.



Celebrating at a family luncheon, Delhi, 2014.

Professor Amitabha is on the front left. Dipika is on the far right corner of the table.

#### About Dr. Dipika Mukherjee:

Dipika Mukherjee (webpage) is an award-winning author of fiction and poetry and an instructor in the Writer's Studio of the University of Chicago's Graham School. Her book Shambala Junction won the UK Virginia Prize for Fiction and her book Ode to Broken Things was long listed for the Man Asian Literary Prize. Her creative work is included in The Best Small Fictions 2019 and appears in World Literature Today, Asia Literary Review, Del Sol Review, and Chicago Quarterly Review, and her essays appear in Newsweek, Los Angeles Review of Books, Hemispheres, Orion, Scroll, The Edge and more.

Dipika has been writing about Prof. Amitabha Mukherjee for some years now, and two of her essays are easily available online. These also appear in her latest book titled *Writer's Postcards*.

<u>To Keep My Brother Alive, I Will Fly 7,500 Miles</u>

<u>A Light in the Dark: Celebrating Diwali in Delhi</u>

Siblings Amitabha (Moni), Dipika, and Ashis (Dada) Mukherjee, at their Delhi home, 2015



# Murakh-ji's Survey on how to Remove Bees from Campus

Amitabha Mukerjee, IITK EYES, 1990s

A gigantic beehive hangs from the rafters of the PKK Library. Bees had become a major problem on the campus in the 1990s and 2000s, disrupting academic events (see the Spark, issue 2, Dec 2021, pg. 67) and attacking campus residents. Picture: Ravi Mishra (BT, MME, 2003-07).

Murakh-ji, a well-meaning but somewhat dim-witted individual, who somehow had very deep observations on campus life, visited the different Departments trying to find a solution. This story appeared in the IITK campus magazine EYES in the mid-1990's.



Recently, the problem of bees has been vexing many creative minds on campus. Murakh-ji set out to survey the high tech priests on this incisive problem.

Entering the campus, he went to the first building and put the question to the first person he met. This happened to be a **Computer Scientist**, who took Murakh-ji to a tea room upstairs where a high-level meeting was in progress. After much deliberation on a whiteboard, the following simple and foolproof procedure was proposed.

#### Algorithm Bee:

- 1. Start at the Main Gate.
- 2. Repeat
  - a. Turn left, and traverse the width of the institute.
  - b. Turn right, and traverse right back, advancing a bit into the campus each time.
  - c. During each sweepline traversal, catch all insects fitting a fuzzy bee template.
- 3. Continue until you reach beyond the institute boundary.
- 4. Here you may dump all the bees captured into the nahar.

Parallel Processing researchers suggested executing the algorithm with divide-and-conquer by having O(n) people swoop through campus waving insect-trapping nets and uttering loud war-cries to let others know where to rendezvous with them. Assembly language programmers suggested executing Algorithm B on their hands and knees to speed up execution at the critical points.

Much impressed, Murakh-ji then went to the **Mechanical Engineering** building. It was suggested here that a large energy source be used to vibrate IITK at a frequency that would resonate only bees and nothing else. The bees with their small mass would absorb all this energy and in a short while their amplitude would be so high that they would be scattered all over the known universe.

The **Robotics** people suggested building an artificially intelligent flower that would snap shut whenever a bee sat on it. A similar technique had been developed in Germany and they would have to look up their catalogs to see if they still had the name of the vendor.

The **Physics** department devised an experiment whereby bees were fired through a small hole, and emerged on the other side as waves or bees, depending on how you looked at it. Thus having demonstrated the quantum nature of bees, they said that there would be high certainty of capture only if the bees' velocity was known with a sufficiently high error. They wanted a week's time to come up with a method to make bees move more erratically.

**Humanities** conducted a three-year World Bank funded study on the social dynamics of the beehive and recommended that all bees be made Queens -- then all the beehives would disintegrate on their own in no time.

While talking to **Mathematicians**, Murakh-ji could not establish an existence proof for bees, and without this, people refused to discuss the matter any further. **Statisticians** decided to trap the first insect they saw N times and call it a bee within an estimable variance.

Murakh-ji left this group in a hurry.

The **Electrical Engineering** department pounced on the idea, convened a national seminar, and convinced the Department of Electronics to fund a five-year multi-institute Technology Development Mission to study the problem with partial industry funding.

The **Workshop** staff, being real engineers, suggested testing insects at random. Anything whose bite approximated the bite of a known bee within a manufacturing tolerance would be caught. Those volunteering to conduct tests should be given merit increments.

**Civil Engineers** wanted to entomb the bees in permanently isolated concrete greenhouses thereby creating a separate ecosystem for them to survive without confrontation. Ideal locations for these sites could be pinpointed within 50m through remote sensing techniques.

The **Aeronautical** department wanted to test the bee's aerodynamics and re-design their wing camber so that bees would simply fall to the ground. Unfortunately no experiments could be conducted since their wind tunnel was too large for bees.

**Metallurgists** looked at the bee-wing under the microscope and pronounced it to be similar to a 20% pearlite structure in the Iron-Carbon diagram, which meant that with a density of 7.8, bees, like iron filings, could simply be cleaned up with a high-powered magnet.

The **Institute Works Department** didn't catch bees, but they wanted to know if there was a commission to be had in it.

Finally, on his way home, Murakh-ji bumped into a **Security** man, who vehemently opposed any attempt to remove the bees, since they were an excellent thief deterrent. In fact, thieves often broke the hives to deter any police from chasing them, and therefore, they should be protected by all means.

Murakh-ji had a headache by the time he reached home. While he was having his chai, a bee buzzed in. His wife swatted it with a newspaper and asked him, "How was your day?"

#### Living Life to the Fullest...



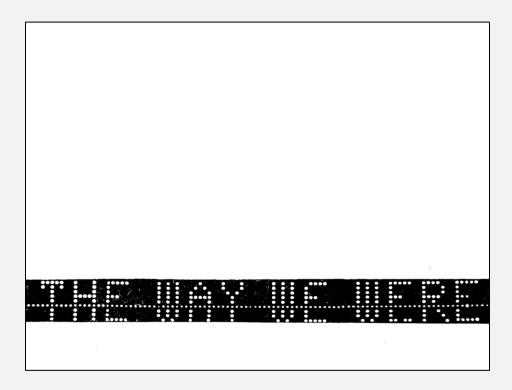
(L) Floating on a coracle on the Kaveri River at Hogenakkal, during the Tour of Tamilnadu 2013. (R) After riding through the Gata Loops during a cycle ride from Manali to Leh in 2012. These pictures have been shared by Saumyen Guha (Professor, CE, IITK) who accompanied Prof. Mukherjee on many of his trips and is present in these pictures.

#### And loved by the Campus Community...



(L) With Students, on an outing. (R) With some campus children and their parents on a bike ride along the canal. Pictures: Saumyen Guha

## The Way We Were, 1979



The following selection of stories includes several anchored around the 1979 photo yearbook, The Way We Were.

'The Way We Were' was not the first photo yearbook to be released on campus. That was 'This Bit of That India' (1975), but it is probably one of the most memorable. What was special about both 'This Bit...' and 'The Way...' were not just the pictures – we all loved those, but also the verses that accompanied them... words that evoked the moods and feelings of students, which continued to resonate with batches over the years and were then printed over and over again.

The Way... was the result of an extraordinary collaboration between a few students (gruntwork), the Students Gymkhana (enthu), the DOSA (Funding) and the in-house print shop, Graphic Arts. Photographs taken by a handful of students over the years were printed in the then-new darkroom in the then-new SAC, carried down to the conference room and laid out on two very long tables, where a small creative team assembled the pages and did the final paste-ups – sticking the actual photos on sheets of paper which were converted into printing blocks.

Accompanying those images, they thought up those meaningful words that still bring a reminiscent smile to those of us fortunate enough to have a copy. The text on the very first page, "History has proved again and again... IITK was historically inevitable" was conceived at around 3AM, taking generous liberties with what little history we knew about the GT Road. In retrospect, the penultimate sentence should have read "Long Long ago, Pandit Nehru and JFK were born, a generation and a world apart, and yet... IITK was historically inevitable".

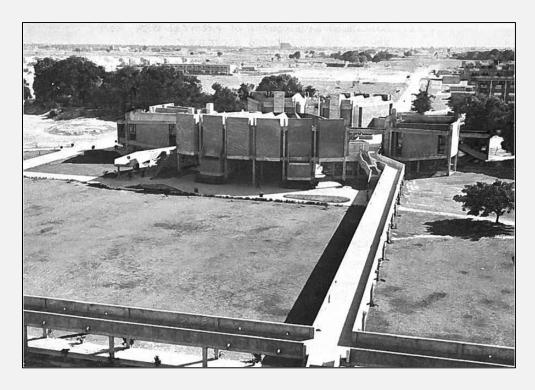
Such indeed, are the simple twists of Space and Time...

# One Day on a Sunday: French Toast and the Panki Thermal Power Plant (c. 1975)

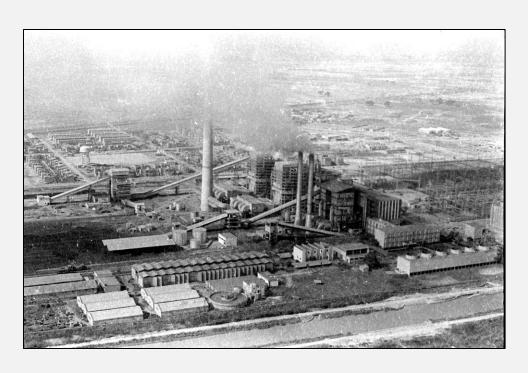
Farrokh Langdana (BT, CE, 1974-79)

So I had just finished a plate of French toast here in New Jersey, thanks to my wife, Mary, and my mind wandered to IITK where the French toast was different---salty, and not sweet. *Kaddu* (Pumpkin) ketchup is the condiment, not maple syrup. Lots of little onion bits are happily embedded in the French toast batter. Our Umesh Mishra is at the table asking for more "French Toast", but in IITK language ©. There are massive pitchers of tea....weak tea, but unending, and still very drinkable.

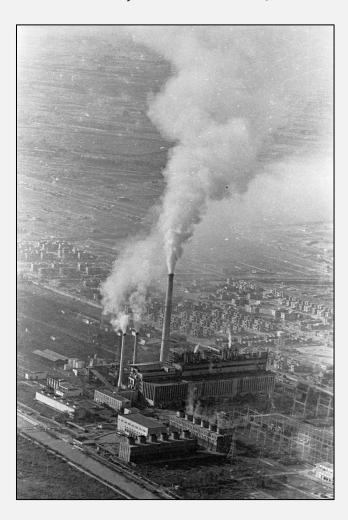
Someone points out that Bantwal's (Shankar Baliga) Dad is GM at the Panki power plant. It's a Sunday. Nothing to do besides *mugga* (study). So off we go---walking—to the Panki Power plant. It is maybe a 2 hour walk. And lovely. Through fields, past ponds, alongside a canal, then across more fields. It smells fresh and clear. We have no caps, no water bottles, no back-packs, no shades—only Hemant Shah has polarized shades which he will lose at Bithoor, but that saga is for another day. No GPS, no cell phones, no sun screen, no small juices, all of us are in the same breakfast clothes, wearing *chappals*, and alas, no l-phones hence no photo documentary of the great expedition.



The view from FB looking towards the Panki Power Plant in 1968. This view remained largely unchanged till 1976 when the original SAC and GH were added. There were no walls or fences on the campus, till the academic area wall was built in 1977. Picture: The Frontier Batch (1963-68) Collection



Aerial Views of the Panki Power Plant, 1977



It is a multi-wing expedition with Bantwal leading the procession--after all, his Dad runs Panki. In addition to A-top, there is C-top here, Jake (Priyadarshan Jakatdar) and Ajax (Ajay Mookerjee), Ringy (Rajiv Roy), Tanku (Abhay Shankar). It is an awesome multi-wing procession in white, straggling across the Indo-Gangetic plain. We simply walk out from E-bottom and head for the massive chimney on the horizon. Farmers stop to stare at us. Farm animals move away. Kids interrupt their planting and stand up and gawk. A whole flock of large white birds suddenly lifts off from an adjacent field....it is magical.

And see, since there are so many of us, there is a reassurance that since nobody is in the library mugging (studying), the relative grade distributions will not be affected. This subconscious logic drives our very existence in IITK. If *janta* is not mugging, then it is OK to be *fatrus* for a while. Hence the large GBM's, the L7 movies with the whole class there, the mass bunks....see, it is all tied to relative grades.

So off we go... We finally cross a canal and there we are at Panki, after about two hours.

The visit was uneventful—they would not let us in the plant; security issues. Poor crestfallen Bantwal.

But nobody cared. It was a great Sunday walk after French Toast. I remember looking back at IITK from Panki, across the green fields and canals. The IIT buildings looked diminutive; they were barely visible. While on campus, I was constantly awed by the faculty building, by L7, the gliders, the IBM 7044, the TV Center, Christopher Flores, and the fact that we were all "big shots". But now, from just two miles away, the whole campus looked insignificant—swallowed up by the big outside world. Perhaps this was a harbinger of what was to happen to us all. Barely three years from the date of this expedition, we were all "swallowed up" by the big outside world. It happened very fast. One day, three years later, we simply stepped off E-Bottom H1 and walked away.

#### About the author:

Farrokh Langdana, FL to many of us, got his B.Tech from IITK and then went on to get his MBA and PhD in Economics from Virginia Tech. He is currently Professor of Economics and the Director of the Executive MBA program at Rutgers University. A brilliant teacher, FL has been awarded the Excellence in Teaching Award in MBA and EMBA programs over 25 times; the new Rutgers Business School building now has the Professor Farrokh Langdana Classroom named after him.

FL's witty writings and his memorable skit performances were a feature of IITK culture in the late 1970s. Among them were the captions for the photo yearbook, The Way We Were, and the skits featuring him and Umesh Mishra. The Coca-Cola formula was



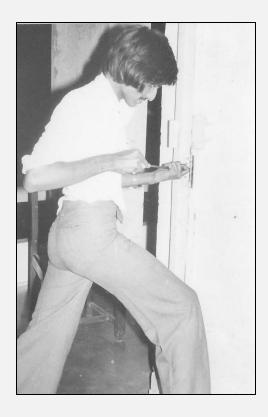
discovered on the IITK campus, and the ensuing struggle for its possession between Albert Einstein and Isaac Newton resulted in a battle between the Atom Bomb, and you guessed it... the Apple!

# The Re-hung Door

Hall I, B-Top, 1978

Some very good reasons why you should never leave your room unlocked when you head to class, or leave those keys with 'trustworthy friends' when you head out of town...















"This was done in my room B-309 in Hall 1 over a weekend when I had gone to my home in Kanpur. The main architects involved in doing this were my wing mates -- Vivek Bhargava, Rajiv Roy, Lalit Jalan, Sunil Kakar, Alok Agarwal, MK Dubey, Umesh Damle, etc.

When I returned on Monday morning, the door did not open and when I pushed harder it swung from the top as the hinges were shifted from the side to the top of the door frame. I had to go in and out by raising the door and slipping in and out from the side. This was one of the many pranks that we had in B wing top - the Badmash wing... Nostalgic memories of fun days!

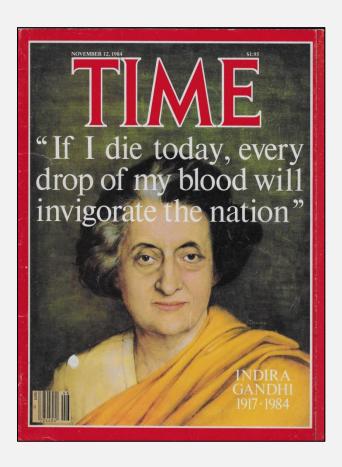
And by the way, the room was locked properly but the latch on which the lock is put was also removed as you can see in the pictures."

Deepak Gupta (1974-79)

Credits: These images were scanned from the original prints used to create the photo yearbook The Way We Were, and were originally shared by Dinesh Jain (1974-79)

# **Days of Madness Past**

Sanjiva Prasad (BT, CSE, 1980-85)



This is a first-hand narrative of the events on the IITK campus following the assassination of Mrs. Gandhi in October 1984. This story may be a bit disturbing to some. At the same time, the courage and leadership shown by the students in those difficult times evokes a sense of pride that we continue to cherish today.

Sanjiva Prasad got his BT in Computer Science from IITK in 1985, and is currently a Professor at IIT Delhi. His father, HY Sharada Prasad (<u>Wikipedia</u>) was a close advisor to Mrs. Gandhi; he was present at 1 Akbar Road on the morning of her assassination, adding an element of personal involvement to this narrative.

To our knowledge, no pictures exist of these incidents. The images have been recreated, based on detailed recollections of alumni, by Sukanta Kundu (BT, AE, 1980-85). During his years at IITK, Sukanta had been actively involved in the Photography and Fine Arts Clubs, serving as the Fine Arts Coordinator in the Cultural Council, and the Graphics and Photography Editor for the Spark, 1982-85.

# **Days of Madness Past**

We had just finished a class upstairs in the Computer Centre, possibly a course involving Hoare Logic, and come down the steps, when one of the young professors asked me if I had heard the news: that Indira Gandhi had been shot. I could be mistaken if I recall noticing a crooked smile on his face, almost a smirk of augury, as if to say that she had it coming, for he certainly had been a vocal critic of her policies. But that may just be one of those tricks that memory plays.

The news took a while to sink in, and I don't remember where we went next, but recall hearing that she had been shot by her Sikh bodyguards, and that according to a BBC broadcast, Gopalaswami Parthasarathi (GP Mama to us) (*Wikipedia*) had also been shot. I looked for Rishi (Rishikesha T Krishnan, GP Mama's great-nephew), and we went to the Director's office to try phoning Delhi for a confirmation of the news and to find out what was happening there. Telecommunications were poor in those days, and after a couple of hours of fruitless attempts to reach GP Mama's house, or my father's office, we walked to Prof. Sampath's residence to see if we had better luck on that phone line.

We weren't able to connect to GP Mama's trusted aide Ayyaswamy, but were able to speak with my mother, who told us that GP Mama was safe, and that he hadn't been at the Prime Minister's house after all. But that Shouri (my father, HY Sharada Prasad) had been present there, waiting with Peter Ustinov at 1 Akbar Road (a bungalow adjacent to the PM's official residence that served as her office at home) when he had heard the shots. So the much vaunted BBC had not been correct about the details, though they were perhaps the first to (correctly) announce the assassination of the Prime Minister. "I've been trying to contact you," she said, "But the phone has been ringing non-stop. Journalists wanting to speak to Shouri ..." My mother informed us that my father had come home very briefly in the official car, since the official Ambassador car that was used to rush Indira Gandhi to AIIMS had reversed into our personal car crushing in the doors on one side. Shouri had quickly told my mother the grim news and that he feared that the situation might turn ugly. (Both of them had witnessed communal riots in Bombay soon after Independence).

The news of the Prime Minister's death was eventually announced by AIR well after noon, though without many details. Our classes were cancelled for the day, with an air of uncertainty regarding when they would resume.

Rishi and I walked back from the Director's house to our hostel along the main arterial road of IIT Kanpur, past the old SAC. It was only a week or so earlier that we had walked this same stretch late at night when the campus was being dolled up for the Convocation and President Giani Zail Singh was to be the chief guest. Several new signs had come up along the road, pointing to various landmarks on campus: the Air Strip, the Library, the Academic Area, the Health Centre and the Swimming Pool. Possessed by a mischievous urge, we had twisted the signposts that were still setting in the freshly poured concrete bases, leaving them pointing in all the wrong directions. Somehow those moments of innocent pranks seemed so distant on this fateful day.



Very soon the country erupted (we were to hear about this as rumours trickled in). A large group of us was present at the main gate of IIT Kanpur, at the railway crossing, when trucks full of local goons descended on the campus, demanding entry. The guards at the gate refused to let the trucks in.

They were headed by an elderly Nepali sentry with a creased visage, who stoutly maintained that he had no orders (aadesh) to let them in. The leader of that mob mockingly announced to his band that the whole country was up in rage, and here was this little man waiting for orders. Eventually the mob barged in, but without the trucks, since the guards (to their credit) would not let the boom up. (In

retrospect, the guard in his own small way showed quite some courage, though then we were greatly distressed that he had let the mob in anyway, and had not spoken more forcefully). The mob consisted of young men, lumpen elements most of whom were between 16 and 30 years old. Most of them were dressed in white pyjamas and kurtas or shirts, many of them with *gamchhas*; some carried *lathis*. They dispersed quickly within the campus, no doubt to intimidate the Sikh families and to make off with what material they could.

Later in the evening, back in our Wing in Hall I, we heard from our friends what they had seen happening in different parts of the campus. The door of the Gurudwara had been broken in and burnt, and the building vandalised. Our wing-mate, Abhoy Ojha described the scene that had taken place in front of a professor's house — not fully dressed, this academic had pulled out a sword to defend his home and family. Someone in the mob had raised a "maaro saale ko" cry, inciting the rest to put him in his place. But fortunately the leader of the gang had decided they should move on. When one of the band insisted that they should teach the old man a lesson, the gang-leader had pulled out a katta (a country made pistol) and very quietly told the fellow off. The gang moved on, presumably to vandalise the Gurudwara.

Fortunately no lives were lost on campus. This was partly because of mob greed, and due to the extraordinary solidarity shown by the campus community. IIT Kanpur's campus is quite porous and abuts two villages, Kalyanpur and Nankari, both of which have a fair number of unemployed lumpen youth. When Tiwari, one of the local store-keepers in the Shopping Centre from whom we bought cigarettes, paan, cold drinks and ice cream, was seen roaming around the campus with the mob, some of us remonstrated with him, asking him what he was doing and whether he had lost his senses. He quickly sensed that he would incur the wrath of the student body and with alacrity told the band that there was little loot to be had on campus and that they would be better off going to Gumti Number 5.

The Student Council on its part had decided that all Sikh families on campus were to be protected by moving them into the student hostels for their safety. A meeting was on at the SAC, where the details were being worked out. No one could quite agree on which hostels were to accommodate the families. Hall V and IV and III and II were too close to the fences and not secure. Neither was the Girls' Hostel. So it was to be Hall I, and there was a fresh round of quibbling about the outer wings not being safe enough.

Finally, unable to take this dithering anymore, Rishi — in his characteristic monotone voice that can disguise resolve and strong emotion — announced that we in C wing (top and middle) would accommodate the families in our rooms. Munnu (Abhijit Sahay) and others from C mid and C top of Hall I quickly endorsed this statement. A few others also volunteered their rooms. And so it came to pass that we went in Institute vehicles and brought the Sikh families and lodged them in our rooms. The family of Prof. GS Kainth, a diminutive professor in Mechanical Engineering, who had three young daughters, moved into my room and the one next door. Other families were accommodated in the adjacent rooms. We moved our rugs and blankets into the balconies, packing a few clothes and essentials into small bags, and slept in the corridors.



Most families stayed in C-Top and C-Middle. They moved into rooms that were in the middle of the wing, the thinking was that they should not be in places which were close to the periphery. In most cases, since more than one person was being accommodated in a single room, the cot was brought out, and mattresses spread directly on the floor of the room to accommodate them. To give the families some privacy, the students did not sleep directly in front of their rooms, and moved their cots towards the end of the corridors. The 'What Me Worry' cartoon sketches visible at the end of the Hallway, were originally done in F-Top/H1 by Raman Bhatia. Image sketched by Sukanta Kundu (1980-85)

For the next few days there were no classes. The campus took on an air of part agitation, part picnic, fuelled by an inchoate sense of activism. Students patrolled the streets, armed with hockey sticks to protect the campus from any incursions by *goondas*. Most shops were closed, though a few grocers and vendors briefly opened their shops or stalls to sell some food and other essentials. One group of students had prudently stocked up on large quantities of Maggi instant noodles and eggs. In the nippy early November nights, one could see groups of students carrying and unrolling bundled blankets and *razais* on the pavements and corridors that they thought needed their protective presence. As it turned out there were no further incidents on campus, though news filtered in from the city of a movie hall being burnt and several shops in the larger markets having been looted by mobs. Businesses owned by Sikhs were targeted by mobs, with the active collusion of local residents (who like our Tiwari would maintain a tactful arms-length distance from the actual looting).

Tiwari though would face the consequences of roaming with the looters. Some nights later some batchmates raided his stall, breaking into the freezers in which ice cream bricks were stored, and ate their

way through his entire inventory. As they recounted it they even enacted the *Jaane Bhi Do Yaaron* bit of *aadhaa khao, aadhaa phenko* (*hat saalaa*, Vanilla *ka brick millaa*). Ojha was furious and didn't speak to many of them for days. Tiwari perhaps had a good idea who the vandals were, but resigned himself to the loss since these were the very patrons who provided him his maximum custom.

By the 2nd of November, if not earlier, the army had deployed a few trucks ("not truck sir, three-tonner") to patrol the campus and stationed a platoon in our hostels. When one of our inquisitive friends had peeked under the canvas of one of the trucks he was immediately confronted by the barrel of a rifle. The troops in Hall I included a Sikh jawan, and it was heartening to note how his fellow soldiers had such a protective attitude towards him, instinctively being by his side wherever he went. They stayed on for at least a couple of weeks, leaving only when it was clear that there would be no fresh outbreak of "riots" in Kanpur. Towards the end of their stay in the hostel, a student observed that the *roti*-eating appetites of two of them exceeded that of even the "legendary" Sherpal Singh.



An army truck on the Main Drive near Hall 1. There were no protective walls around the buildings in those days, though barbed-wire fences had been added following some incidents in the Summer of 1980. Residents from this period might also recognize the Essoman, who inhabited the top- and middle-floor balconies of Hall 1's A- and B- wings from 1975 through 1986. Sketch: Sukanta Kundu (1980-85)

In the midst of all this chaos in Kanpur city, Alok Mathur's father, who was on a trip to Kanpur and wanted to meet his son, managed to find his way to the campus. A positive and resourceful man, generous with his compassion and willing to undergo the hardships of roughing it out, he gave us just that right amount of adult advice on how to view the situation. Meanwhile we heard wild rumours talking of trains laden with corpses coming in from Punjab and also reports of the carnage of Sikhs in Delhi. Mr. Mathur also was a welcome presence for the professors, who could share their thoughts,

feeling and worries with him. There were life's lessons also learnt from the Sikh families staying in our rooms. Prof. Kainth was a particularly gentle person. He spoke more in anguish than in anger about what had transpired; I do not know if he was old enough to have experienced the horrors of the far greater pogroms at the time of the Partition, but his sorrow at what was happening in the country was palpable.

There were awkward moments too. Once I, together with some others (Ojha and Awasthi I think), accompanied a Sikh lady to her house for her to get clothes and other necessities for a few more days. When her neighbours knocked on her door and entered, she started screaming and almost had a hysterical fit. The poor neighbours, who had innocently come out of genuine concern, were alarmed by her reaction. Later we heard the rumour that she had "celebrated the death of Indira Gandhi by lighting candles and distributing sweets", a common refrain that one would hear of others who had been attacked elsewhere. What truth lay in there we will never know.

Those were days when a certain madness infected our nation, revealing the baser instincts that lurk beneath the surface of our supposedly human exteriors. And yet there were moments of great generosity and kindness, of bravery and compassion that are revealed in common people. When you realise the courageous moral fibre of those whom you might not have regarded highly earlier, and your most fun-loving friends reveal flaws in their character or irrational hatred, it makes you shake your head and wonder.

#### About the author:

Sanjiva Prasad (1980-85) obtained his BT in Computer Science from IITK and went on to get his MS and PhD from SUNY Stony Brook. He worked in Ithaca and Munich before returning to India and joining the faculty at IIT Delhi in 1994.

He is currently the Head of IIT Delhi's School of Public Policy, after having served as the Head of the Department of Computer Science and Engineering (2018-2021). He is also the Co-Editor-in-Chief of ACM Books, headquartered in New York. Sanjiva is an active researcher in programming language semantics and verification, and has chaired and served on programme committees of several international conferences.



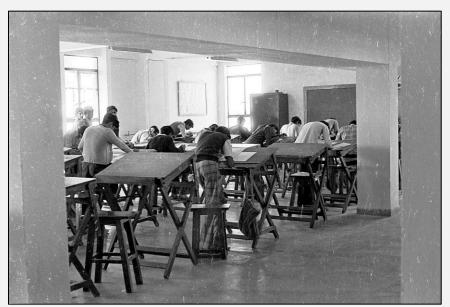
At IITK Sanjiva was a very active member of the Western Music and English Literary groups. A frequent contributor to the Spark and the Festival Souvenirs, he was the English Lit Coordinator and the editor/publisher of the Souvenirs for Festivals '82 and '83. As a member of the Quiz Team from 1981-85, we best remember him leading the IITK team in the early rounds on its way to winning the televised Quiz Time National Championship in 1985.

## The Technical Arts: Workshop Woes

Anuradha Jagannathan (MSc, Physics, 1975-80)

As we were told upon arriving on campus, an ideal IIT-ian was an all-rounder. Our training would aim for intellectual growth, yes, but one supplemented by practical skills to the maximum extent possible. For some, this goal always remained elusive. Despite all their enthusiasm, and much revving of -figurative-engines, their mastery of practical techniques never got off the ground. This is the sorry tale of one such group.

Our batch arrived in 75 and got right down to business in the carpentry workshop in the very first semester. After an introduction to mortise and tenon joints and lathes we were told to form groups and come up with a woodwork project. Immensely inspired, I drew up many sheets of blueprints for convertible furniture like sofa-cum-beds and ladders which folded down to a chair. I brought the finished drawings hopefully to the professor. However, he was not convinced, no doubt because he had had many years of teaching this class. He suggested that our group, which included Sudha Nair, go instead for a design (that he happened to have at hand) for an automatic opening door. I tried for a while to incorporate some of my favorite chair-ladder elements into the mechanism of the automatic door... but in the end we just went with the prof's idea.



The Technical Arts. In the five-year Programme, these included TA-101 Engineering Graphics (image above), 102 Intro to Design (Carpentry), 203 Mfg Processes (Machine Shop), 204 Mfg Processes (Smelting), and 306 Computer Programming. Later, in the 4-year program, the Carpentry class was eliminated and the Mfg Processes classes combined into one. Picture: Shirish Joshi, Jan 1979

We assembled two wooden flaps for the door, on a box-top representing a wooden floor. Inside the box a set of uneven springs controlled the degree to which the floor could be depressed by someone "walking" on the top. It looked all right even though the doors often refused to remain in position. But alas, a flaw in the construction resulted in very little torque actually getting transferred to the door hinges, and all the squeezing in the world only made the doors swing open a little crack. For the big day of presentation of the projects in L7, we exhausted ourselves, pushing down on that wooden box top,

but those doors simply ignored us. We then humbly watched other groups which came with their fancy cigarette dispensing machines and such, sweeping away the public.

The next semester, it was in metal working that we thought we might have our chance. Our project was a bread slicing machine. Sobered by the previous carpentry experience, we did not attempt to draw any fancy machines. In fact, quite the opposite, when the technician suggested we incorporate a rusty old serrated disk he had lying around (from a bicycle?), we jumped at this short-cut. All we would need to do was to sharpen the blade a little and add a handle! Which we did. The disk was mounted on a platform, and then we tried to slice some paper. Sadly, that blade was still too blunt to manage it -- but no problem, we would choose something a lot softer for our demonstration. To complete the ensemble, we attached four metal rods as legs. The technician, a kind man, looked at this contraption and said it reminded him of a peacock. We asked why was that. He told us that a peacock dances proudly, showing off his fabulous tail – until he notices his ridiculous legs. Then he slinks off, embarrassed. And sure enough at the end of the day, we again didn't get a very good grade from the project -- most likely the professor too knew more about peacocks than we did.





(L): TA-203, the Machine Shop. Visible here is Mr. Vishwakarma, Machine Shop Technician. He was a really good machinist, and most helpful, always ready to spend long hours in the workshop to help us take those projects to completion. Picture: Shirish Joshi (R): TA-204, A smelting/casting workshop assignment in progress. Picture: The Way We Were, 1979, shared by Dinesh Jain (1974-79)

After these experiences and another one involving the final year project in electronics, which failed miserably, I was finally ready to graduate. My feeling was, IITK training had equipped me for higher studies in a theoretical subject. And that's what I set out to do, at graduate school in Yale. However, there too, they believed that all physicists should have some experimental training. Thus it was, that I was alone in a laboratory facing a pumped dye laser connected with a car battery to provide 20kV pulses. What happened to the car battery and the laser and the subsequent shutting down of the top floor of the Sloane physics building for a month is a story best kept for another time.

Today's workshops are superbly equipped with buttons that one can push, to have an object printed in 3D. But making things from scratch that actually work gives a special feeling. Or does it? Others may have worked wonders in the workshop. Maybe they could write back and tell us about it!

### The Cassata Heist

Shirish Joshi (BT, ChE, 1973-78)

Cassata ice cream is different. A multilayered confection in the shape of a half-log, built atop a foundation of rich cake, with a sprinkling of toasted cashew and pistachio pieces adorning the curvature.

It comes in various colors: vivid pink, yellow and red, or a decidedly white base with pista, rose and tutti-frutti. You name the color, there exists a cassata.

It is served in slices, cut as a cross section, so that all the layers are clearly visible: the cake foundation, the various flavor layers, and the toppings. Each slice gets a bit of everything. Decidedly decadent, a cassata can be served at a sophisticated dinner party just as well as a noisy wedding or a rowdy mess hall.

So why is it special? For one, because it is so good. Where can you get to eat three ice cream flavors, plus cake, plus cashews, all at the same time? More importantly, it was super extraspecial for some because that was the ice cream served on special dinner days – once a month, in the IITK Hall 2 Mess, circa 1974-75.

Those special dinner days could not be missed. Lengthy planning went into attending them. Movies in L7 were rescheduled, quizzes rearranged, trips to Chung Fa altered, so as not to miss a cassata dinner. It was that important, especially considering the nutri-nugget curry and tinda masala that was dished out in the name of food on other days.





#### The Story

Two ITK class batches are involved in this story. These were the incoming batches of 1970 and 1973.

The incoming class of '73, was housed in Hall 2 and Hall 3. But, along with the batches of '72 and '71, also resident in Hall 2 and 3 at the same time was the incoming class of 1970. That was because this class, for some inexplicable reason, was some 400 kids strong instead of the normal 200, and so they had to be accommodated in Hall 2 and Hall 3; they could not all fit into Hall 1 when they reached their fourth year.

The class of 1970, being so large, had a number of people who would normally have ended up in lesser

IITs such as IIT Bombay or Madras. These guys, while arguably as smart as anyone, had another positive attribute – they were more adventurous. Daring, even. Hiking tall mountains, swimming glacier streams, building really powerful stereo amplifiers – they did all this in addition to their strenuous academic pursuits. And they did a few more adventurous things, one of which is the rest of this story. They had a 'Plan'.

#### The Plan

The plan was to swipe the entire cache of cassata ice cream on the next cassata dinner.

The good stuff came to the Hall 2 mess in a cycle-rickshaw freezer box, which looked more or less like the one in the picture, but more colorful. This freezer held a number of logs of cassata ice cream, which were sliced up and dished out, 10 slices per log, to the salivating youths.

On cassata day, the plan was to swipe as much of the contents of the freezer as possible, and vanish before anyone figured out what happened.

That is easier said than done.

- -Consider the tell-tale packaging.
- -Consider the shelf-life of the ice cream it had to be consumed within a few minutes of procurement, if the heist was to be a success. That was not so easy.



There were two sides. On one side were the brave 1970 batch guys. All that they were interested in was plenty of ice cream, a bit of adventure, and perhaps a brain-freeze.

On the other side were the Mess Secretary, Gajendra Dublish (1973-78), and some (but not all) members of the mess committee at the time. Dublish was a great guy. Big-hearted, loving to a fault, armed with a voice that carried for miles across open fields. He looked like the classic drill sergeant — burly, handlebar moustache and all. If you followed the three principles — hear no evil, do no evil, etc., he was your best friend. Otherwise, well, he was otherwise.

Gajendra Dublish in a more recent photo (after his wife made him shave off the moustache)



#### The Action

Came the special-dinner day when Cassata would be served at dinner. People knew that something was going to happen, but nobody knew what. Breakfast, lunch and teatime came and went. Small groups huddled. The atmosphere was tense. The mess committee had a meeting. But all was quiet. Dinner started at 7:30. The '73 batch juniors used to start banging on the dining room doors a few minutes earlier, and tonight was the special dinner, so there were lots of people there. The ice-cream guy had

arrived, and taken his cart (with the freezer box full of cassata logs) to the kitchen. Some people were hanging around, hands in pockets, very nonchalant, like detectives in movies shadowing the suspect, but overdoing it.

At about 7:45, the first set of the hungry hordes had just about settled into their chairs and were dipping the *rotis* into the curry-of-the-day, when it happened. Or rather, nothing happened. Hall 2 plunged into total darkness. The power had gone out.

We all looked around, but it was dark, and we couldn't see anything. Then, faintly, in the distance, we heard a *thunk*, like a freezer lid from a cycle-rickshaw freezer that had been opened and dropped down. Then, some very fast, rapid noises. Then, from around us, the sound of running footsteps going off in all directions of the compass.

As we breathed out and realized what had happened, someone struck a match. Its flame shone momentarily like a flash of lightning before it settled down to its yellow flame. A few more matches lit up. Gradually, the room illuminated. What seemed like an eternity was not even a minute. And everything looked totally, completely, normal.

#### What had happened?

Most of the cassata logs had been removed from the ice cream cart, and were now missing. Nobody seemed to know who had done the deed.

Dublish was eating dinner with us when the lights had gone out. He leapt from his chair as soon as there was some light, and charged to the counter. He had his suspicions, and those had come true. Now it was just a matter of apprehending the culprits. But Sherlock Holmes couldn't have found a tougher challenge. As the minutes ticked by, the evidence was, quite literally, melting away.

#### Clues?

There were no clues. No fingerprints, no dropped ID cards, no nothing.

As discovered later, the plan was simple. A bunch of guys, (say bunch #1) would hang around the ice cream cart. Another group, (bunch #2) would hang around the Hall 2 main electrical switchboard. When bunch #1 were in place, a signal would go to bunch #2, who would turn off the main electric switch and plunge Hall 2 into total darkness. Bunch #1 would then surround the cart, open the freezer box, take out as many cassata logs as possible in five or ten seconds, hand them off in twos to the people surrounding the cart, who would then rapidly scatter to various points on the compass.

And so it happened. In about ten seconds, the deed was done, well before the first match was struck in the mess hall.

#### The Results

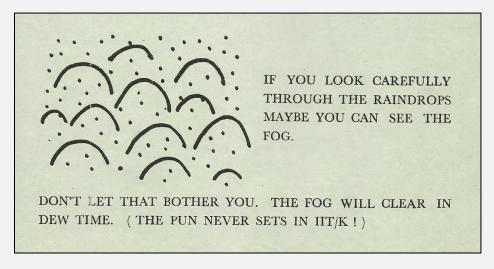
Each and every room in Hall 2 was searched, several times over. Trash cans were emptied to try find the wrappers. Window ledges were scanned. Every nook and cranny was looked into. Many objects considered lost were discovered, but 'The Evidence' was not to be found.

That night, they never found the people who had done it. And the next day was too late. As in the Roald Dahl story, *Lamb to the Slaughter*, the evidence had been eaten.

Months passed. Tempers had cooled, though we knew that Dublish had not forgotten. One fine sunny fall day, a group of friends decided to take in the sun, and went up to the roof of Hall 2, up on the fourth floor. It was a windy day, and bits of paper were blowing about. An especially colorful paper caught the eye.

There it was. The wrapper of a cassata log.

They had checked all the rooms. But they never went up on the roof.



Voffados, Festival '79, Festival Souvenir, 1981. Credit: Raman Bhatia

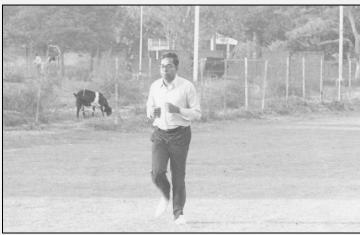


And then, many decades later, when the fog finally cleared, Googlers, following in the footsteps of Rajiv Motwani, discovered what those shapes were really meant to be...

Credit: Raman Bhatia (1977-82)

# The Way We Were: The Memories Faculty





They come from far, they come from near,



Clockwise from top left: Professors Mohini Mullick (HSS—Philosophy), R. Subramanian (EE-Control Systems) and P. P. Sharma (HSS—English); Professor Usha Kumar's Red Volkswagen Beetle.





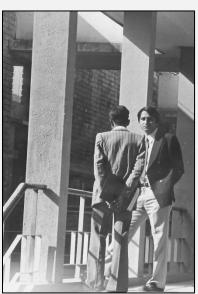




## But one thing's sure, they're funda clear.



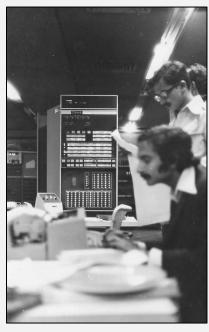


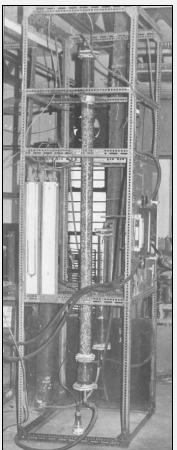


Top Row: Professors K. R. Sarma (EE), Prabha Sharma (Math) and AC Pandey (HSS – English) Bottom Row: Prof. Barun Banerjee (ME), Director Amitabha Bhattacharyya, and Prof. Samresh Kar (EE)

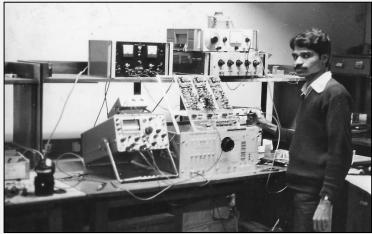
## **Academics**

## A whirl wind tour of labs...



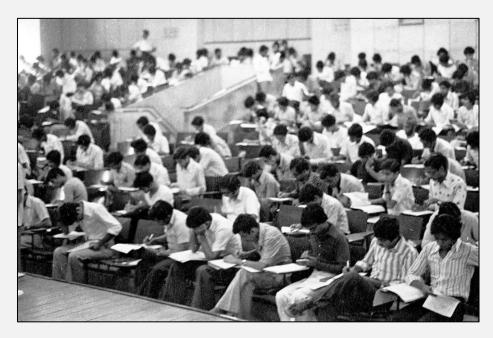






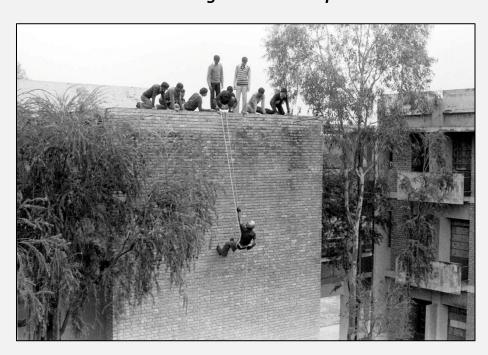


## ... classes, quizzes, assignments and exams...



Exam time, L-7, c. 1977-78. Picture: Shirish Joshi

## ... it was enough to drive us up a wall.



This climb up the Hall 1 stairwell was completed by members of the IITK Mountaineering Club. Climbing the wall is Shankar Baliga (1974-79). Note the proper Personal Protective Equipment worn, without which such climbs should never be attempted. Picture: Shirish Joshi

## Festivals (Antaragni)



A Culfest Soap Box underway in the Hall 2 Quad. Picture: The Way We Were

## Said the man, give me a woman by far Asked the Lord..."Miranda, Avadh or LSR?"





Festival Participants, 1975 or 1976. (L) Pinky Anand, LSR. A feisty gal then, and just as feisty now; she has served as an Additional Solicitor General of India at the Supreme Court. She never did take nonsense quietly... You shot a dart, you could expect a fitting reply. Here she is, Hall 2 quad, probably at a soap box informal event. In the background is the Volga ice cream guy, most likely the same one who delivered Cassatas for dinner, in the earlier story in this issue.

(R) The team from Loreto Cal at the Soap box event. They were regular participants... Festivals '74, '75, '76. Some of them including Sarika (Tiwari) Misra (in the centre of the back row) saved IITK memorabilia for decades (Guest Passes, Meal Tickets, Photographs, Souvenirs), and then shared them with us! Pictures: Shirish Joshi

## **Letters Home**

	dated 7/4/197
larli	ng/doar/oir/macam/
	it was wonderful to hear from you again.
	long time no write ?
endagreenselmingstate	if the way my/our/your/their/his journey started off
	was a precedent of sorts, this letter should find
	you pulverised.
V	how's trics?
phenoculations	kindly refer to your/my letter dated
V	i'm missing you. are you missing me ? say yes.
~	you say you are working. how ? where ?
~	i would like to visit you sometime.
or de en contracte de la contr	these days i'm in too much trouble.
~	send money/received money.
~	kindly inform me about the decision you have taken
	regarding my matter. (regarding money)
na disensa en la profilinca	weather here is rainy/hot/cold/dry/fine.
	look after yourself.
atoesponston and a	awaiting your reply.
**************************************	Love.
	bye.
T	pip-pip.
~	thank you.



Shirish Joshi, Farrokh Langdana, Dinesh Jain, and Jayathi Murthy in the SAC long room, compiling the photobook, The Way We Were, 1979. Picture: Shirish Joshi

Unless indicated otherwise, the pictures in this photo feature have been scanned from the original prints used to compile The Way We Were, 1979.

**The Way We Were** was made possible through the contributions of: Anjali Joshi, Bhaskar Sur, D. Murali Raju, Dinesh Jain, Farrokh Langdana, Jayathi Murthy, Prasanna Mulgaonkar, Satish Mullick, Shirish Joshi, Umesh Mishra and Vineeta Gupta

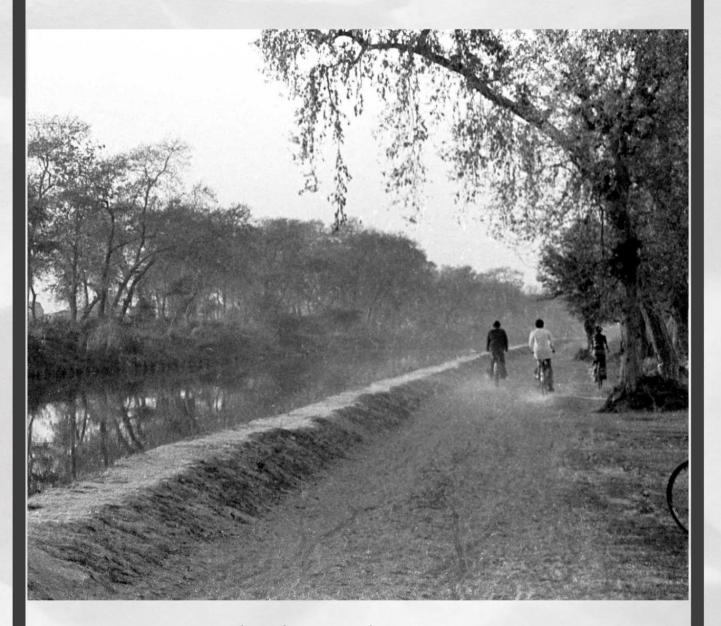
#### Cover Pictures:

Front: The IITK Campus from a low flying Cessna, 1977-78

Back: Riding into the sunset along the Panki Canal. DM Raju, Dinesh Jain and Jayathi Murthy, c. 1978

Pictures: Shirish Joshi.

Cover design by Utkarsh Gupta, Outreach Cell, IITK.



It was long long ago that we came
It will soon be long long ago that we left
- The Way We Were, 1979



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