

# BITSAA DELHI - NCR 2023

## **BIT Sindri Alumni Association Delhi NCR**

(Registered Under Society Act 1860, Registration No. - S 35928, RO, Govt. of Delhi)

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## Transforming into a "Sustainable Integrated Energy Company"



BITians continue to win admiration and accolades by proving their mettle and excelling in their chosen fields. Be it motherland or abroad, our alumni have kept the nation's flag flying high.

Our distinguished alumni - Professor Ramjee Prasad (1963 ECE) was acclaimed with Pravasi Bharatiya Samman Award by the Government of India. Presidential Award of Appreciation Certificate and Medal for "Specially Distinguished Record of Service" was conferred upon Shri Vinayak Chandra Gupta. Shri Ram Naresh Singh (1980 Elect), Chairman - Damodar Valley Corporation was awarded for exemplary leadership role in the category "Transformational Leadership in Power Business Sector". Mr. N K Mehta, Founder & CEO - I Secure Network Solutions won laurels as "Most Impactful Tech Leaders". Each and every BITian feels extremely proud and joins in solidarity to congratulate them. We have, no doubt whatsoever, that BITians will continue to be brightest shining stars and will bring glory to our alma mater in future as well.

As always, these re-union continues to provide a platform to show our camaraderie and reinforce our bonding and network; to share our common concern with fellow BITian brethren; to felicitate those with praiseworthy accomplishments; to deliberate upon way forward for more active engagements.

The world is seeing India with a ray of hope and optimism. BITians can a play a significant role in taking our alma mater and the nation forward by resolving to walk together, to think together as well as to co-create a culture of innovation and entrepreneurship.

#### Executive Committee



Dr H R P Yadav President



Shri Shushil Kumar Immediate Past G.S.



Shri Santosh Kumar Joint Treasurer



Shri Alok Anand Vice-President



Shri Narendra Kumar Treasurer



Shri Ritesh Zonal Secratary



Shri Abhay Kumar Immediate Past President



Dr Harinarayan Tiwari Joint Secratary



Shri Ranjan Gupta Nominated Member



Smt. Nitu General Secretary



Shri Shashi Bhusan Zonal Secratary



Shri Ananad Prakash Nominated Member



Shri Chandrika Prasad



Prof. Vishwanath Sinha



Prof B N Mishra



Shri B S Sahay



**Patrons** 

Shri Raman



Shri Y K Bhagat





**R B Prasad** 



Shri P K Sihna



## **BITSAA NCR**

President Dr H R P Yadav

Vice President Shri Alok Anand

General Secretary Ms. Nitu

Treasurer Shri Narendra Kumar

Jt. Secretary Dr Harinarayan Tiwari

Jt. Treasurer Shri Santosh Kumar

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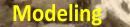
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Shri Chandrika Prasad Chief Patron, BITSAA NCR

#### Patron's Desk

It is heartening to note that BITSAA Delhi NCR will be organizing Alumni Meet and AGM on 19 February 2023 at IIT Delhi Seminar Hall. This Meet has been long awaited and now time has come to meet with BITians with their Spouses and children during Alumni Meet.

I am also delighted to know that the beautiful souvenir will be brought out on the occasion. My heartiest congratulations to the President and his team in EC for taking all necessary steps to organize the Meet along with AGM in a befitting manner.

BITSAA Delhi NCR Chapter is one of the vibrant chapters globally reputed due to its large network and being at national capital Delhi. Some of the very professional events like Interactive Sessions under the tenure of present President Dr H R P Yadav were organized to address the global as well as national issues. Those events were well received by the esteemed members.

I am sure that the new EC will also follow such actions to benefit the society at large.

I wish the Meet and AGM a grand success.



Sudhanshu Shekhar Jamuar Patron, BITSAA NCR

#### Patron's Desk

Dear All, It brings me a great deal of joy to keep up our enduring relationships with fellow alumni. You have always been a source of inspiration for me. We must congratulate each other on achieving this esteemed job in our field of expertise and adding prestige to BIT Sindri. I wish to take a moment to thank all of the members who dedicated their time to establish BITSAA NCR CHAPTER and keeping it on going. You have always

served as an inspiration to alma mater and a role model as alumni of BIT SINDRI. I have a deep conviction that this platform for sharing information will mould all of us and get all of them ready to take on the difficulties of the wider world.

BITSAA NCR CHAPTER helps in creating a healthy bond between our institute and industries by sharing our valuable thoughts on the latest technology advancements and the industry expectations.

This reunion will undoubtedly bring back fond memories for all of us and enable us to cherish the special times we shared with friends, instructors, and mentors.

I cordially invite non=members of BITSAA Alumni staying around NCR to join the BITSA NCR CHAPTER so that we may continue to build positive relationships with one another. This will enable us to Keep in touch with non-members as a Member of the BITSAA NCR CHAPTER and enable us to communicate with you to get the most recent information and fast notifications about our events and initiatives.



President's Desk

Dr. H R P Yadav

#### My Two-year Journey as President, BITSAA Delhi-NCR

I was declared elected for the office of the President, BITSAA Delhi-NCR for the session 2020-2022 on 25 September 2020 and subsequently took Charge of the Office of the President on 02 October 2020 through Video Conference since the terrible Covid -19 Pandemic was at peak. I was also unanimously elected for the office of the President, BITSAA Delhi-NCR for the session 2016-2018. I on behalf of the Executive Committee and also on my own behalf, wish to express our deepest gratitude to the departed soul of Late H P Agrawal Sir, who had conducted the election as Chief Election Officer in 2020 in a very smooth and transparent manner despite his ill health. The entire BITSAA NCR Chapter owes to His Yeoman's services. During this two-year journey from 2020 to early 2023, not much could be done due to Covid-19 Pandemic starting from March 2020 to mid-2022 in worst situation. Some of our dear Bitians lost their lives due to the terrible pandemic. We could not do anything except to express our condolences to the bereaved families. However, we tried our best to keep the pace in motion by organizing Executive Committee Meetings at BITSAA Delhi-NCR Office at 260 Kailash Hills, Nehru Place, New Delhi 110019 as and when we used to find normalcy from covid impact. Sometimes we had no option except to meet in virtual mode. Some of the initiatives taken by us as follows:

- Published BITSAA Delhi -NCR Newsletter, circulated amongst all members including Overseas Members. It was well received.
- The Office of the NCR Chapter at good location was managed on monthly rent basis to discharge the responsibilities of the Chapter. Mr Abhay Kumar, Immediate Past President played an important role in managing the rented Office.
- Membership drive was launched
- Finance of the Association was kept intact with the available corpus.
- EC had approved the requisite budget to revamp the website of the Chapter.

The income and expenditure statement of accounts will be presented during AGM concurrently to be held with Alumni Meet on 19th February 2023 at IIT Delhi.

Now, I take this opportunity to extend my sincerest thanks to all the Office bearers, esteemed Members of EC, Chief Patron, Patrons, Special Invitees for their wholehearted support & cooperation in the endeavors of BITSAA NCR during my presidential tenure. There is a need to improve the quality engineering education as per NEP 2020 to achieve UNSDGs 4 Agenda by 2030. Hence it is high time for all us to energise ourselves to connect learnings through classrooms with vocational skills education by reaching out to the industries and vocational skills education centres.

I am sanguine that my successor will have more opportunity to execute for the benefit of BITSAA through this vibrant Chapter.

I hope that the Souvenir being brought out on the momentous occasion of Alumni Meet will disseminate significant information regarding achievements, contributions and visions of the distinguished BITIANS to take BITSAA to a greater height.

I wish the AGM and Alumni Meet a grand success.

Wishing all the Members and their families "A Very Happy and Prosperous New Year 2023"

With warm regards,



<u>Immediate</u> Past President's Desk

Mr. Abhay Kumar

I feel delighted to know that the prestigious BITSAA (BIT Sindri Alumni Association), NCR Delhi is organizing its Annual Alumni Meet on 19th February 2023 at IIT, Delhi and a Souvenir is also going to be published on this occasion.

Remembering the Alma-Mater has always been a pleasure. Needless to say, that memory of the nostalgic good old days pumps enough adrenaline in the blood to make even a sagging mood rejoice the moment. And if the Alma-mater happens to the BIT Sindri, the feeling is simply irreplaceable – SECOND TO NONE. Alumni meet is a grand occasion to reunite with old friends, professors and observe significant development in the college. Alumni of any institute have strong emotional attachment with their Alma Mater and they are the brand ambassadors of the institute occupying eminent positions in various fields spread across the globe. It is a time to commemorate this special occasion and revisit the golden moments and memories of the days gone by.

Our achievements undoubtedly are comparable to any Institute of the eastern part of the National but we would be befooling ourselves if we fail to admit that BIT Sindri has not been able to achieve the place of pride of the founder Chief Minister of Bihar, Sri Krishna Singh had dreamt of. Industry-Academia Interaction is very important area that we need to focus on. With increasing competition, every engineering college must start industry-oriented curriculum to keep abreast with the best in the market by fulfilling the need of the industry. No Industry can deny placements to industry ready skilled engineers who can take charge of the floor from the day one. Our Institute is presently going through the transformation stage and it is our commitment that we not only bring the old glory back but also bring it to the new heights. It is heartening to see that BIT Sindri under the dynamic & visionary leadership of committed and enthusiastic Director, Dr. D.K. Singh has been instrumental in implanting various strategic steps to achieve the desired results.

As an ex-student of this institution, I look forward to all Alumni to come together to take this institution to greater heights and contribute to the further growth of their parent institution and enabling it to make a model institution on the national arena.

I wish this Alumni Meet a grand success and extend my sincere wishes for the Souvenir to be published.



General Secretary's Desk

Ms. Nitu Kumari

Hello Bitians...

We may be in any stage of our life, 30s, 40s or 70s, 80s...Once a Bitian, will always be a Bitian. The sound of this word opens a unique blissful dimension in our hearts where no other identity matters. To be able to connect to this unique dimension in the hearts is what makes my journey as Gen Secy amazing.

It has been a great privilege and an honour to become general secretary for this coveted organization i.e., BITSAA NCR. Being a part of BITSAA NCR executive committee has indeed been an insightful experience for me. Working with BITSAA NCR Executive committee presented me with an opportunity to connect with BITians like never before. To be able to interact with seniors (some of them as senior as the 1957 batch) and juniors as fresh as 2021 passouts helped me gain new perspectives in life.

Like most other places, last two years at BITSAA NCR have not been very productive due to multiple waves of pandemics in which many of us lost near and dear ones. The times were tough, but it also taught us new ways of interacting and working in teams. We moved forward with online meetings and virtual meet-ups. Finally the time has come to meet BITSAA NCR Alumni physically. I take this opportunity to thank each and every member of the Executive Committee who are working very hard to make BITSAA NCR Annual Meet 2023 a grand success.

It is also very heartening to see that in a very short time BITSAANCR community has shown so much enthusiasm for the event on 19 Feb 2023 at Seminar Hall, IIT Delhi. I would forever be grateful for the love and support showered on me by all members of BITSAANCR fraternity.

Wishing the new Executive Committee all the best and looking forward to vibrant community interactions in coming times,

Blessed to be here... With warm regards,

Nitu Kumari



Shri A K Singh

#### <u>From the Desk of Director</u> (Technical, Projects & Raw-Materials), SAIL

I feel elated to know that the prestigious BITSAA (BIT Sindri Alumni Association), NCR Delhi is organizing its Annual Alumni Meet this time on 19th February 2023 at IIT, Delhi and a Souvenir is also going to be published on this occasion. Alumni meet is a great occasion to reunite with old friends, professors and observe significant development in the college.

Alumni of any institute have strong emotional attachment with their Alma Mater and they are the brand ambassadors of the institute occupying eminent positions in various fields spread across the globe. They are the torch bearers of the Institute and help in spreading the glory of the Institute.

It is a time to commemorate this special occasion and cherish the golden moments and memories of the days gone by. As an ex-student of this institution, I look forward to all Alumni to come together to take this institution to greater heights and contribute in the growth of our parent institution and enable to make it a model institution of the nation.

I wish BITSAA, NCR Alumni Meet 2023 a grand success and extend my sincere wishes on the occasion of publication of this Souvenir.



Director 's Message

Prof (Dr) D.K. Singh

Welcome to BIT Sindri. It offers me tremendous satisfaction and pleasure to write about BIT which has served as the nation's flagship institute of technical schooling for greater than 73 years now. We are proud to be making ready the dynamic leaders, humans who can make a distinction, and a pool of intellectuals who can make a contribution to the group of workers of tomorrow.

Endowed with a spectacular campus, tremendous management, properly certified schools, and a top educational ambiance, the institute continues to try to be a pinnacle-rating engineering Institute in the country. A properly designed curriculum, several technical workshops and conferences, and a disciplined scholar neighbourhood distinguish BIT as a center for first-rate education.

In the altering instances of globalization and technological transformation, addressing the challenges of a higher world is the want of the hour. As an educational institute, we apprehend the obligation of making sure the attainment of price primarily based schooling to each & every of its college students and to nurture their juvenile minds to suit today's world through their Genius and knowledge.

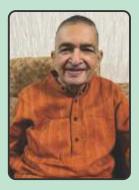
As a Director, I feel lucky to work for one of India's oldest, greatest & most complete instructional institutes. It offers me immense pleasure to announce that BIT Sindri is on a charming direction of boom & improvement and will quickly stand amongst the greatest technical institute of no longer simply India, but rather the world. With this thinking in mind, I desire you to have an outstanding existence beforehand & a thank you for touring us.

I am happy to learn that the Annual Alumni Meet and AGM will be held on February 19, 2023, in the IIT Delhi Seminar Hall by the BITSAANCR Chapter.

I send my warmest congratulations and blessings to all Bitians on this momentous occasion and wish the BITSAA NCR further success and hoping for Best future collaboration and contribution.

Hope to be related continually!

#### <u>Message From Alumni</u>



Mr Surendra Prasad Sinha, 1955-59, Mechanical

#### **Dear Alumni**

"It gives me immense pleasure to continue our everlasting ties with BITSAA NCR. BIT Sindri have always been my source of inspiration. On the occasion of Annual Alumni Meet - 2023, I wish all the Alumni of BIT Sindri acquire prestigious position in their area of expertise and bring laurels to our institution. Namaskar."



Er Shivanand Roy 1973 (Civil)

#### **Dear Alumni**

I am delighted to know that BITSAA NCR Chapter is organising Annual Alumni Meet and AGM on 19 February 2023 at IIT Delhi Seminar Hall . It is also heartening to note that the Souvenir will also be brought out on the occasion . On this momentous occasion I convey my best wishes and greetings to all Bitians and hope that the BITSAANCR will achieve greater height.

## **Glimpses of Reunions**



Global Alumni Meet 2022 at BIT Sindri



Entrepreneurs Meet 2022 at BIT Sindri

## Glimpses of Reunions '22



'85 Batch Meet



BITSAA Dhanbad Chapter Meet

## BITSAA NCR (2020-2022)



Review of BITSAA Delhi NCR Meet @19<sup>th</sup> Feb 2023 (Venue: IIT Delhi)



General Body Meeting

## <u>BITSAA NCR (2020-2022)</u>



General Body Meeting



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# <u>Sustainable</u> <u>Environment – An Imperative</u>

Prof (Dr) H R P Yadav, FIE

India has been facing tremendous challenges in terms of rising population, rapid growth of economy and urbanization, threats of global warming and climate change , rising of green house gases emissions, quality education; etc.

These issues need to be addressed adequately by the policy makers ,educationists , stakeholders .The UN has framed 17 Goals of sustainable development dealing with the above agenda and their respective actions . All nations have been given mandate to take actions on SDGs 17 Agenda .The SDG Agenda are an urgent call for action by the developed as well as developing nations in the world. The Government of India has already initiated several actions on SDG 4 Agenda , SDG 9 ,SDG13 Agenda and so on .

SDG 4 agenda mandates quality education which has also been emphasized in the implementation of National Education Policy 2020 . There is a need of interface between class room education and skill and vocational education to bridge the gap between industry and academia. The vision of our Hon'ble Prime Minister is to produce job creaters rather than job seekers . Quality education at all levels must be accessible to everyone to make India self- reliant. ICT and Digital India mission are the essential technology tools to make Indian education system more compatible and sustainable.

SDG13 Agenda dwel upon climate actions . Due to rising trend of Green House Gases (GHGs), depletion of natural resources due to more consumption by the increasing population, mismatch of demand and supply interface, there is a threat of ecological imbalance.

Global warming due to GHGs emissions and thereby adverse effects on climate are the consequences being faced by the nation. Anthropogenic activities such as a large number of motor vehicles on the roads of metro cities are the precurssors of green house gases emissions into the atmosphere and finally responsible for increasing global average temperature.

Several protocols by the UN have been formulated ; UNFCCC, Inter-governmental Panel on Climate Change (IPCC) are the most prominent ones. As per United Nation Framework Convention on Climate Change (UNFCCC) 's COP ( Conference of Party ) Paris 2015, India has been mandated to reduce GHGs emissions earlier by 30 % to 35% but now 45% by 2030.

To meet this target, the citizens of India need to change their mindset and to adapt themselves with the renewable energy sources in place of fossil fuels for transport fuel, thermal power plants ;etc. The commercialization of hydrogen production and its storage is also of paramount importance to make transportation sector carbon free and green transportation.

We are so- called engineers and thereby our prime responsibilities are to create products help society to achieve affordable means of necessity. We should believe in research and innovations rather than bookish knowledge. Our engineering education in the very beginning must have connect with industry exposure and problem solving aptitudes.

On account of huge population of India i.e approx. 1.4 billion , the resources are being consumed at very fast rate . There is a big gap between supply and demand . In such situation ,there is a need of generation of resources and minimization of use of natural as well as man-made resources . The shift from fossil energy to renewable energy to make the environment sustainable is envisaged . Alternative transport fuels such as ; biofuels e.g E20 ,E10 ,B20 and B 10 ,CNG ,H-CNG are to be implemented in toto in the major cities to reduce emissions of GHGs.

Author is a Professor of Environmental Engineering ,Amity University Haryana ,Gurugram



## Engineering Application of 3D LiDAR scanner for reality capture

Mr. Binay S Sahay

Role of digitization in Industry 4.0, where Lidar based 3DLaser scanning is going to play a big role. It can help the Institution in terms of knowledge & Demonstration. A 3D scanner is a non-contact, non-destructive digital device that uses a light line/laser to accurately capture the shape of a physical object into Computer-Aided Design (CAD) data. It generates a point cloud or a set of data points in a coordinate system that accurately depicts a physical object's size and shape. This is a high time that Industry starts using the technology to save on its effort in the domain of creation of Infrastructure, maintenance and enhance the life cycle of the asset.

To recreate 3D objects is an essential requirement in the context of Industry 4.0. 3D scanners are helpful for designing, assessing the minor features of any product, capturing freeform, and providing precise point clouds for complicated geometry and curved surfaces. Today advanced technologies are being introduced in industries and 3D scanning technology is one of the latest emerging technologies. The situation has progressed significantly and the ever-emerging world of 3D technology still disrupts a variety of sectors e. 3D scanners are available on the market from high-end possibilities. They have different resolutions, and now they provide details of the scan to superimpose colour on an object, but the industry wants them to be developed for other quality attributes. Even in crime scene investigation it is being used as a first responder. It helps crime scene preservation and recreation of the incidents for the court of law.

3D LIDAR (Light Detection and Ranging) scanners are becoming increasingly popular in the field of reality capture for engineering applications. These scanners use laser beams to measure the distance between the scanner and the objects in its environment, creating a 3D point cloud of the area. This technology has a wide range of applications in engineering, including surveying, building inspections, industrial automation, and even self-driving cars.

One of the most common uses of 3D LIDAR scanners in engineering is in surveying. These scanners can quickly and accurately capture large areas of land, providing detailed information on the terrain and any man-made structures present. This information can then be used to create detailed maps and models of the area, which can be used for a variety of engineering projects such as road and bridge construction, land development, and mining. This technology can also be used to identify potential hazards such as landslides, sinkholes and other topographical features that can be dangerous to people and infrastructure.

Another important application of 3D LIDAR scanners in engineering is building inspections. These scanners can be used to capture the condition of a building quickly and accurately, including any structural issues or defects. This information can then be used to create detailed models of the building, which can be used to identify and repair any issues. In addition, 3D LIDAR scanners can also be used to create detailed models of the interior of a building, which can be used for architectural and design purposes. This technology can also be used for building retrofits and renovations, providing architects and engineers with accurate measurements and data on the existing structure, which can help to minimize disruptions and improve the efficiency of the retrofit process.

In addition to surveying and building inspections, 3D LIDAR scanners are also increasingly being used in industrial automation. These scanners can be used to capture the layout of a factory or other industrial facility quickly and accurately, which can then be used to optimize the production process. For example, 3D LIDAR scanners can be used to map out the layout of a warehouse and identify any bottlenecks or other issues that are causing delays in the production process. With the help of 3D LIDAR, engineers can optimize the flow of goods and materials, improve safety and even plan for future expansion.

Another emerging application of 3D LIDAR scanners is in the field of self-driving cars. These scanners can be used to create a detailed 3D map of the car's environment, which can then be used to navigate the vehicle safely. 3D LIDAR scanners can also be used to identify obstacles and other objects in the car's environment, which can be used to improve the car's ability to avoid collisions. This technology is becoming increasingly important as the development of self-driving cars continues to advance, and as more and more companies invest in this technology.

Despite the many advantages of 3D LIDAR scanners, there are also some limitations to this technology. One of the main limitations is that these scanners can only capture the information in their line of sight, which means that they are not able to capture information in areas that are obstructed or hidden from view. Additionally, 3D LIDAR scanners can be quite expensive, which may make them less accessible to smaller engineering firms or individual engineers. Another limitation is that LIDAR scanners are sensitive to environmental conditions such as fog, rain and snow, which can affect the accuracy of the data captured.

To overcome these limitations, engineers are now developing new techniques and technologies such as Multi-beam LIDAR and flash LIDAR, which can capture data in a wider field of view and improve accuracy in adverse weather conditions. Furthermore, the cost of 3D LIDAR scanners is gradually decreasing as the technology becomes more widely adopted and production costs decrease. In addition, engineers are also developing software and algorithms that can be used to process and analyse the data captured by 3D LIDAR scanners, making it more user-friendly and accessible to a wider range of users.

In conclusion, 3D LIDAR scanners are an essential tool in the field of reality capture for engineering applications. They can be used to quickly and accurately capture large areas of land and man-made structures, providing detailed information that can be used for a wide range of engineering projects. These scanners have a wide range of applications, including surveying, building inspections, industrial automation, and even self-driving cars. Despite some limitations, engineers are continuing to develop new techniques and technologies to overcome these limitations and make 3D LIDAR scanners more widely accessible and user-friendly. As a result, this technology is likely to become an increasingly important tool in the field of engineering in the years to come.



**Binay S Sahay** 



Mr. Abhay Kumar General Manager (Marketing) MMTC Ltd., New Delhi

# <u>India's G 20 Presidency:</u> <u>An Opportunity for India to</u> <u>Showcase Leadership</u>

India took a year-long presidency of G20 on 1st December 2022. In Bali, Hon'ble PM Shri Narendra Modi assured the world leaders that during the G20 presidency, India would work towards inclusive, ambitious, decisive, and action-oriented policies. Delineating significant themes and priorities, PM Shri Modi stated that the G20 must send a strong message of 'peace and harmony', without which generations next will not be able to take benefit of economic growth or technological innovation.

Hope, harmony, peace and stability are significant ideas that will outline India's presidency of the G20 grouping of the world's most advanced and emerging economies. G20 affords India, the world's fifth largest economy, an excellent opportunity to form world opinion when there is widespread polarization and escalation of geopolitical rigidities. India will work tirelessly to advance peace, stability and shared prosperity in a fragmented world.

The establishment of the G20 is an outcome of the dissatisfaction of the international community over the failure of the G7 countries to find solutions to the global economy's problems. The view that appeared at the time was the importance of middle-income countries and those with systemic economic influence to be included in the discussions to find solutions to global economic problems. This group has a strategic position as it jointly accounts for about 65% of the world's population, 79% of global trade, and about 85% of the world economy. Various G20 meetings will discuss and find solutions to resolve challenges which impact global economic growth, such as finance, trade, infrastructure and investment, energy, employment, corruption eradication, development, agriculture, technology, innovation, and the digital economy.

The spirit of India's G20 chairmanship is manifested in the theme of 'One Earth, One Family, One Future' enshrined in the ancient Sanskrit ethos as 'Vasudahaiva Kutumbakam.' The logo encompasses a budding lotus and its seven petals, clasping the globe's affirmation of the fundamental values of all life, such as human, animal, plant, and microorganisms and their interrelation on the planet Earth and the broader universe. The lotus emblem in the G20 logo illustrates hope in these troubling times. Seven petals on the lotus represent seven continents of the globe and seven music notes. G20 will carry the world together in harmony. The lotus flower depicts India's mythological heritage, faith, and intelligence in this logo.

India considers its G20 presidency a medium of change and world transformation in this era of multi-dimensional crises like food and energy security. With the world caught up in conflicts, jeopardising the lives of ordinary people, India will harness its G20 presidency to reach constructive solutions to various challenges, like reviving global growth, more decisive climate actions and robust global health architecture. Endorsing food and nutrition security will be essential as the pandemic has strapped millions of people into poverty. Accelerating Sustainable Development Goals (SDGs) and leading the world to adopt an eco-friendly sustainable lifestyle through LiFE (Life for Environment) will be other significant priorities in the next few months.

With its core strength in information technology, India focuses on making digital architecture inclusive of becoming an agent of socio-economic evolution. Promoting inclusive growth and financial inclusion will be the key priorities. As we move forward, the G20 will also be a chance to showcase India, the largest Democracy in the world, its glory and diversity. It will also have an opportunity to show the member nations its new heights of excellence in areas ranging from economic progress to science and technology, space, innovation and start-ups. This platform would help India to showcase its development and propose its models to the world as potential solutions. With sound macroeconomic fundamentals. With robust public finances, soaring marketing and export trajectories, resolute climate leadership, etc, India is a bright spot shining on the Global horizon.

Challenges for India: India has assumed the presidency when the world is confronting various problems. With geopolitics at its highest point, it seems like an enormous task for India to sail through these rocky waters. It poses multifaceted challenges for the member nations, and they will be eager to know the Indian viewpoint on each issue. India acknowledged the impending consequences of economic decline, growing global poverty, and the delay in achieving Sustainable Development Goals. The G20 was an alienated house, with several leaders abdicating their responsibility to find a peaceful solution in Ukraine. Political leaders must address the root cause of the food, fuel, and fertiliser crises, the Ukraine conflict, and related sanctions. In this regard, the stamp of Indian diplomacy by way of Hon'ble PM, Shri Narendra Modi's statement, "Today's era is not of war," resonated well. A finely balanced outcome by the contending groups saved the Bali summit. India now faces the challenge of taking the lead and getting both warring sides on the negotiation table to end the conflict.

Conclusion: India, at the G20 summit, has very evidently expressed its vision by asserting that without peace and security, our next generations will not be able to benefit from economic growth and technological innovation. India is recognized as a world leader now. The promise Indian PM Shri Modi emphasized for an actionoriented and determined presidency will be closely watched, not only by the members of the G20 but also by international organisations such as the UNO, Think Tanks, Diplomats across the world, and more importantly, by the countries of the Indian Ocean Region (IOR). India has already taken the lead in some aspects, particularly in technology with digital public goods and its governance, self-reliance or Aatma Nirbhar, vaccine diplomacy, and asserting its firmness on various geopolitical issues. Consequently, the stage is set for India to strive towards global peace, rules-based governance and growth for all in this world.



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- Mineral Engineering & Agglomeration
- Ironmaking
- Steelmaking & Refining
- Continuous Casting
- Refractories
- Rolling Technology
- Development of Steel Products
- Design Engineering

- Metallurgical Services
- Analytical Services
- Corrosion
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- Energy
- Process Automation & Instrumentation
- Software Development
  - Environment & Waste
    - Management

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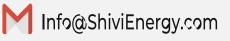


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**Re-United Batch 1985-89** 

Mr. Alok Anand

BIT Sindri's 1985-89 Batch has initiated a unique program from the year 2021 - after the bitter experience of Covid-19. To live the life king-sized, the Batch decided to meet annually w.e.f. 2021. In first year, Reunion was organized in Ranchi at a beautiful location of Eklavya Banquet (a project of BITian) with 1 night - 2 days stay. The 50 odd batch mates joined the reunion and enjoyed thoroughly in scenic surroundings of Ranchi including Hundru-fall.

Later in Dec. '2022 the batch again re-united at Historical location of Lord Jannath (Puri) and Konark with 2-night's stay. This time the family of 85-Batch responded overwhelm and the togetherness multiplied in number touching 100 (incl. family). The joy of spending some quite moment together in scenic tourist spot of Puri & Konark was the game changer.

Again, the location, spirituality, Heritage etc., combined together created a mesmerizing effect. While departing, the 85-Batch separated with commitment to re-unite again in 2023 at some other location (preferably somewhere in North-East/ Delhi) to bring more batch alumni from surrounding locations in fold. We are committed to grow in bonding and numbers year on year....

This is a unique initiative by 1985-89 batch to re-unite the Batch by organizing the meet in different locations across country each year.

Some glimpses ...



















Shukla's Seven Research Mantras for ALL

Dr S K Shukla Professor, ECU Australia

Mantra #1: Define a new problem for its possible solution, or work on a known problem for its new or improved solution.

Mantra #2: Do your experimental and/or mathematical works with great accuracy and precision.

Mantra #3: Prepare the list of assumptions and/or limitations of your completed research work as applicable with a suitable discussion in the article.

Mantra #4: Try to explain the mechanism(s) of your research observations and findings, as possible, and attempt to develop scientific theory, equation/expression, design chart or design table for field applications.

Mantra #5: Compare your new/improved research findings and solutions with currently available ones, if any, with a critical discussion.

Mantra #6: Describe your research work in the article using short and clear sentences in simple and plain English, and avoid any kind of errors, including grammatical and presentation errors.

Mantra #7: At any stage of research process, there should not be any rush that can cause errors in your research outcomes and their publications.

Shukla, S.K. (2022). Seven research mantras: A short guide for researchers. International Journal of Geosynthetics and Ground Engineering, Vol. 8, No. 6, pp. 75.1-75.4, <u>https://doi.org/10.1007/s40891-022-</u> 00419-6

Link for its FREE download: *https://link.springer.com/article/10.1007/s40891-022-00419-6* 



Dam Safety Act 2021

Dr Harinarayan Tiwari Managing Director Floodkon Consultants LLP

The Act provides guidelines for the surveillance, inspection, operation, and maintenance of all specified dams across the country.

As per Dam Safety Act 2021, Chapter VIII, Clause 35 (2), Page Number 11 "Every owner of a specified dam, for each of its dam shall, carry out Risk Assessment Studies at such interval as may be specified by the regulations and the first such study shall be made within five years from the date of commencement of this Act (14th Dec 2021).

Chapter VIII, Clause 36 (2) The emergency action plan referred to in sub-section (1) shall, —

Set out the procedures to be followed for the protection of persons and property upstream or downstream of the specified dam in the event of an actual or imminent dam failure or to mitigate the effects of the disaster;

include therein, —

- i. the type of emergencies which are likely to occur in the operation of any reservoir;
- ii. identification of the likely catastrophic flood in the event of any dam failure, along with probable areas, population, structures and installations likely to be adversely affected due to flood water released from the reservoir;
- iii. warning procedures, inundation maps and advance preparations for handling efficiently and in the best possible manner the likely adverse situations specially to avoid loss of human life;
- iv. such other matters which may having regard to the geographical conditions, size of the dam and other relevant factors as may be necessary.

CHAPTER X describe the "OFFENCES AND PENALTIES" for the violation of the Dam Safety Act. "Shall be punishable with imprisonment for a term which may extend to one year or with fine, or with both, and if such obstruction or refusal to comply with directions results in loss of lives or imminent danger thereof, shall be punishable with imprisonment for a term which may extend to two years".

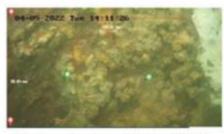
The Act applies to all dams with height more than 15 Metres, or height between 10 Metres and 15 Metres with certain design and structural conditions, and includes dams built on both inter and intra-state rivers.

#### When the requirement is?

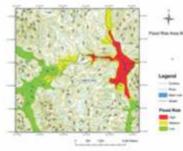
- i. above fifteen Metres in height, measured from the lowest portion of the general foundation area to the top of dam;
- ii. between ten metres to fifteen metres in height and satisfies at least one of the following, namely: —
- a. the length of crest is not less than five hundred metres; or
- b. the capacity of the reservoir formed by the dam is not less than one million cubic metres; or
- c. the maximum flood discharge dealt with by the dam is not less than two thousand cubic metres per second; or
- d. the dam has especially difficult foundation problems; or
- e. the dam is of unusual design;

#### **Technical Components of Dam Safety Assessment**

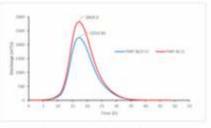
- 1. Structural Health Assessment
- 2. Estimation of Hydrological Extremes
- 3. Computer Based Hydraulic Modeling/Dam Break Analysis
- 4. Inundation Maps Preparation
- 5. Risk Assessment
- 6. Emergency Action Plan
- 7. Development of Instrumentation Networks
- 8. Decision Support System for Public Dissemination

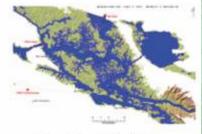


Underwater Investigation (SHA)

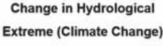


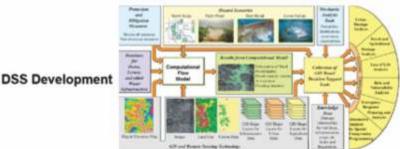
Flood Risk Map





Dam Break Analysis







Mr. Randhir K Choudhary Civil (2005-2009)

# Exploring the Legend of the Saraswati River: What Do the Studies Say?

In 2013, Shri V. Narayanasamy, the Minister of State in the Ministry of Personnel, PG & Pensions and the Prime Minister's Office, provided information in response to a written guestion in the Lok Sabha regarding the Saraswati River. He stated that the Indian Space Research Organization (ISRO) conducted a study on the palaeochannels in North-West India and linked them to the channels of the Saraswati River. An integrated map of the river Saraswati palaeochannel was created, starting from its origin in the Himalayas and ending in the Rann of Kutchch. The origin of the mapped course of the river Saraswati palaeochannel was linked to the Himalayan perennial source through the Sutlej and Yamuna Rivers. The government has been working to trace the origin of the Saraswati River and has established a committee for this purpose. The work on the entire course of the Saraswati River in North West India was completed using Indian Remote Sensing Satellite data and a digital elevation model. The satellite images, which have synoptic view advantages, were multi-spectral and multi-temporal, and were useful in detecting palaeochannels. The palaeochannels were validated using historical maps, archaeological sites, hydro-geological data, and drilling data. It was observed that significant Harappan sites such as Kalibangan (Rajasthan), Banawali and Rakhigarhi (Haryana), Dholavira, and Lothal (Gujarat) are located along the river Saraswati.

The revered Saraswati River is a legendary lost river mentioned in Hindu mythology. It is believed to be the goddess of knowledge, music, and the arts and is often depicted riding a swan or playing a veena, a stringed instrument. Despite its cultural significance, the Saraswati River is not a physical river that can be found on a map. However, recent studies have attempted to locate the ancient river and determine its existence. These studies were prompted by the discovery of geological and archaeological evidence that suggests the existence of a large river in north-west India and eastern Pakistan around the time of the Harappan Civilization. Ongoing efforts to gather evidence can provide a clearer understanding of the river's existence.

Over the past few decades, several studies have been conducted to determine the existence of the Saraswati River. Some studies analyzed satellite images and discovered a paleochannel, or an old riverbed, that matches the description of the Saraswati River in Hindu scriptures.

Another study examined sediment cores from the Thar Desert and found evidence of a substantial river that once flowed through the region around 4000 BCE. The researchers believe this river could have been the Saraswati River. Nevertheless, not all specialists concur that the Saraswati River was a real physical river, with some proposing that the geological and archaeological evidence can be attributed to other natural processes.

There are experts who completely reject the existence of the Saraswati River. To resolve the disagreement, a comprehensive examination that combines evidence from various disciplines, such as archaeology, geology, hydrology, and satellite imagery, is necessary. The cultural and spiritual importance of the river in Indian history should also be taken into account. Despite the ongoing argument, the pursuit for the Saraswati River continues as it holds great cultural and historical importance for India and remains a significant part of the national consciousness."

The existence of the Sarasvati River continues to be a subject of debate, despite detailed descriptions in Vedic and ancient texts, evidence of its connection to the Harappan civilization through archaeology, and recent scientific studies. However, there is a common misconception that the Vedic Sarasvati River was purely mythical and its existence is a result of Hindutva ideology, which has fueled sensationalism and hindered academic discussions. Therefore, it is crucial to address these misconceptions before exploring the scientific investigations.

The notion that the Sarasvati River was purely mythical is incorrect. The idea of its presence at Prayag's Triveni Sangam, which is not mentioned in the Vedic literature or the Mahabharata, is a later tradition. The river was revered as a deity in the Rigveda, India's oldest text, where it was referred to as "*the best of mothers, the best of rivers, best of goddesses*." The Sarasvati was described in physical terms, such as being full of "great waters" with an "impetuous, unbroken, swift-moving" flow from the mountain to the sea. The *Nadi Stuti* hymn specifically locates the Sarasvati between the Yamuna and the Sutlej. Later Vedic literature such as the Brahmanas, acknowledged the river's decline and eventual disappearance, and its name was transferred to other rivers in the region to keep its memory alive. In conclusion, the literature suggests that the Sarasvati was a real river that, for unknown reasons, dwindled and disappeared, and it was not a "mythical" river.

Additionally, Nilesh Oak's study aimed to establish the chronology of events mentioned in ancient Hindu scriptures like the Vedas, Ramayana, and Mahabharata. He accomplished this by examining the astronomical positions and geographical descriptions found in these texts. He then compared his findings to the results of other geological and hydrological studies carried out worldwide. This research enhances our understanding of the region's geological and hydrological history, and offers new information about the river systems in ancient northwestern India. Furthermore, it highlights the historical and cultural significance of the Saraswati River in Indian mythology and tradition. In his study, Oak presents a comprehensive timeline for the Saraswati River that dates back over 70,000 BCE.



डूमं में गङ्गे यमुने सरस्वति शुतुंद्वि स्तोमं असिक्र्या मंरुद्ध्धे वितस्तयाऽऽर्जीकीये शृष् तृष्टामंया प्रथमं यातंवे सजूः सुसर्त्वा रस्य त्वं सिंन्धो कुभंया गोमुतीं क्रुमुं मेहुत्न्वा स

Figure 1: The spatial sequence of major northwestern rivers as stated in Nadistuti sukta

The Saraswati is a legendary Himalayan River believed to have flowed in the northwestern plains of India, through states such as Punjab, Haryana, Rajasthan, and Gujarat and parts of modern-day Pakistan during the Vedic period. It was considered to have been a vital source of water for the Vedic/Indus/Harrapan civilization. The existence of the Saraswati River has been a debated issue in Indian geology and archaeology for centuries. However, these issues were resolved in the 19th century.

In 1855, French geographer Louis Vivien de Saint-Martin was the first to propose the existence of the "lost river Saraswati" based on reports by British topographers of a large dry riverbed in the area between the Yamuna and Sutlej, which matched the location of the Sarasvati as described in the Rigveda. Additionally, the existence of a small river named "Soorsuty," "Sursooty," or "Sarsuti" on early British maps dating back to 1760 further supported this connection. As a second illustration, consider James Rennell, a British geographer and cartographer, who in 1778 presented in his "Memoir of a Map of Hindoostan or the Mogul Empire" the most comprehensive map of India at the time. It depicted "Sursooty" merging with the "Caggar" or "Kenker".



**Figure 2:** (a) The "Guggur" and "Soorsuty" marked in this detail of a 1760 British map and (b) A detail of Rennel's map of 1778, with the "Ghaggar" and the "Sarsuti" marked.

The study of the Lost River Saraswati has seen a resurgence of interest in the 21st century, as it sheds light on the relationship between rivers and climate and the impact on society. Modern techniques such as high-resolution remote sensing and isotope analysis have been used to upgrade and refine palaeo-drainage maps and investigate the connection between the Harappan civilization and climate change. However, most studies only focus on specific sections of the paleo-channel, leaving gaps in understanding its upstream continuity, flow timings, and eventual disappearance.

Despite similarities in the proposed paleo-course of the Saraswati River through remote sensing, conflicting views remain regarding its upstream flow and timings.

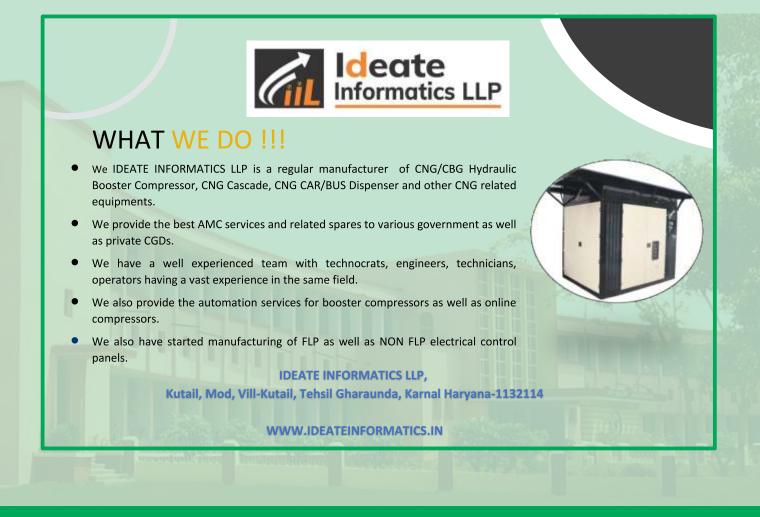
Recently, the government of Haryana has taken steps to revive the legendary Saraswati River. To achieve this goal, the Haryana Saraswati Heritage Development Board (HSHDB) was established in 2016. This board operates under the jurisdiction of the Department of Archaeology and Museums in Haryana and aims to protect and promote the cultural heritage associated with the Saraswati River. Its mission is to protect and promote the cultural heritage and civilization of the Saraswati River, and to revive it as a symbol of national unity, cultural integration, and spiritual revival. This includes preserving heritage sites and monuments related to the river, conducting research and archaeological surveys, and raising public awareness about its cultural and historical significance.

The HSHDB also aims to develop the region along the Saraswati River into a hub for spiritual, cultural, and eco-tourism. This includes restoring and developing the infrastructure and amenities along the river, promoting cultural events and festivals, and providing opportunities for local communities to benefit from the region's tourism potential. In conclusion, the HSHDB, in collaboration with central and state departments, is working towards reviving the cultural and spiritual significance of the ancient Saraswati River and preserving its heritage for future generations. The scientific basis of these efforts, however, remains a subject of debate among experts.



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### FAMILY TALKS



Mr. Aviral Anand S/o Mrs. Arpana Anand

# Investment Banking and The Surging World of Distressed Assets in India

Last week a report came out that Ardani Power and Jingle Power were among 12 companies in a head on battle to acquire PVR Power's distressed assets in Punjab. PVR Power operates two thermal power plants of 270 MW each. It was admitted for corporate insolvency by the National Company Law Tribunal (NCLT) in October 2022 on an application filed by a Nationalized Bank.

There is a lot to comprehend here; What is a distressed asset? What is the National Company Law Tribunal (NCLT)? How does it work? And why are companies investing in troubled assets?

We sat down for a conversation with Mr Expert – an Analyst working at reputed investment banking division handling Distressed Assets – to help us understand this field and the role of investment banking.

Let's Dig in.

#### Definition:

A distressed asset is an investment that is priced below market value – generally due to solvency and cash flow issues on the part of the asset's owner. It serves as an opportunity for a company to buy an asset for a discount while also diversifying their investments as distressed assets have low correlation with equity and debt markets. A distressed asset is sold via the corporate insolvency resolution process.

#### Corporate insolvency resolution process

Before 2016 there was not a robust legal framework in the country to handle sale of distressed assets. Insolvency and Bankruptcy Code enacted in 2016 came up with Corporate Insolvency Resolution Process (CIRP) to resolve these defaulting companies. The process is aimed to be completed within 180-330 days ensuring a time bound process.

Any financial or operational creditor can file for corporate insolvency with NCLT if a company defaults on its debt. Within a specified timeline NCLT commences Corporate Insolvency Resolution Process, this leads to a public announcement and submission of expressions of interest. The next stage is accessing the data room which contains any documents regarding the asset that the bidding company might need to evaluate in order to assess its value. Post this they submit their resolution plan, if more than 66% of voting share is in favour of the plan, it is sent for COC's and NCLT's approval.

The deal is closed if all the checks are completed like bid paying capability of the buyer.

To summarise, the Corporate Insolvency Resolution Process allows distressed assets to be turned around by selling them in a time bound manner to buyers with a resolution plan. It gives companies another avenue of investment that allows them to diversify or expand their portfolio at discount prices. Why would someone invest in distressed assets:

Even with the discounts these assets could still be bad for business, after all they have been loss making for years. Why would a company then invest in a distressed asset? Let's go back to the PVR Power example. With the push for renewable sources of energy some might argue buying heavily indebted thermal power plants is not a sensible business decision. Mr Expert gave us an insight into their rationale: thermal power plants might not be favoured in government policies today but given their power generation capabilities and cost economics it is probable that a growing country like India would need to rely on these plants more in the future. This means that when the country goes back to thermal power plants for energy needs these companies will score big. Right now, they are getting these fully operational thermal power plants for "dirt cheap" prices. Even today, India draws 57.5% of its power from thermal power plants.

Mr Expert further states: Many a times these assets turn into distressed assets due to poor management. Companies bank on turnarounds of these assets post acquisition due to their better management. There is also an argument of buying low and selling high after these turnarounds. Such investments also provide an opportunity for companies to enter new geographies. These distressed assets may also be non-commissioned. New owners would lead to improved financing and hence completion of the asset.

Investment banks aid these companies in acquiring and selling distressed assets. This new and upcoming side of investment banking is gaining prominence in India and they play quite a comprehensive role in such deals.

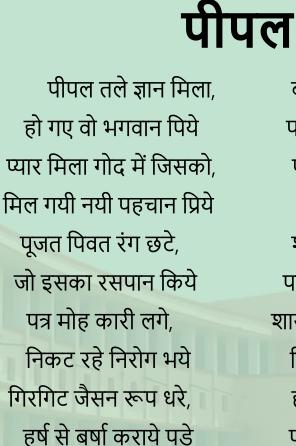
#### Role of Investment Banks (IB)

Investment banks in this field either aid the buy side or the sell side of the deal. Mr Expert took us through what each side entails.

On the buy side, investment banks help in valuation of distressed assets and setting up bids. As part of this process the investment bank also collects and evaluates documents from the data room. They also aid in creating a resolution plan, and aligning goals of different players in a consortium. A consortium is usually formed in cases where one company does not have the required finances or both players want to limit their risk exposure. In such cases, during the bidding process, the investment bank has to align interests of both companies if say bid need to be raised or the resolution plan needs to be altered. They also help in determining how the deal is financed - by debt or equity. Mr Expert mentions that investment banks are always on the lookout for potential deals. They do this by keeping a track on companies that are struggling to service their debt. Once they file in NCLT, the IB utilizes its extensive network and starts reaching out to its partners to find a potential buyer. They then help this buyer secure the deal as mentioned above. Hence IB are involved from start to end in this process.

On the sell side, investment banks are involved in evaluating companies that submit EOIs. They are involved in outreach to bring in more bidders and set up site visits. They assess the plans of potential bidders and whether they will be able to pay the bid amount. IBs look at company financials amongst other aspects while determining validity of a bid. They also set the evaluating criteria of the deal. Hence, overall, they provide end to end support, including helping RP run operations of the company.

Looking at the future, Mr Expert mentions that deal sizes in this field for top investment banks are north of Rs. 100 cr ranging from a typical hotel business to a heavily indebted power plant. Investment banks are getting a healthy cut in these deals. The prospect of this field is improving in India, with the advent of insolvency law in 2016 distressed asset deals have seen a surge in both deal size and volume.



बीजक जिसने शूक्ष्म धरी, पर पेड़ तो बहुत विशाल लगे पीपल कोंपल धरे न धरे, धरा को जो शीतल करे शरण में इसके जो आया, पथिकों को दिनरात प्राणहवा शाखाओं में जिसके गोप झूले, चिड़ियों ने मधुर गान किये हो गया वो सौभाग्य भला, पीपल ने जिसको छांव दिये

नरेंद्र बरनवाल (Author of अपनी कस्तूरी) Chemical Engineering, 2004-08

### FAMILY TALKS



<u>Contactless,</u> <u>Unexpected Goodbyes</u>

Ms. Twinkle D/o Shri Abhay Kumar

Hi after a very long break, I have a lot to say, I hope you're here to listen. 10 days ago, I lost my dada to covid. He had been struggling to beat the virus for 21 days in the hospital and when it got too much, he gave up or rather his body did. I know he wanted to come back home to us. The day he got a hospital bed, we all including him were so relieved to know that he will get the treatment he needs to be back on his toes. His symptoms were severe and painful, he could barely even get up to use the washroom. Little did we know, the last of him that we would get to see was him waving us goodbye while the ambulance staff assisted him out of his room. Given the nature of the disease, my family could not meet him in the ICU or even comfort him in his last moments. All his last rites were performed under strict covid protocols and only my father along with his two brothers, all clad in protective gears got the privilege to perform his last rites. Yes, 'privilege'. Given the number of deaths happening in Delhi and India, there are many bodies which go unclaimed or the families are unable to cremate/bury them for whatever reasons. So, I am grateful to our hospital, doctors, ambulance staff, and crematorium workers for being present to cooperate with my father for dada's the last rites. On 6 may, when we got the news from the hospital at 3 in the morning, none of us were ready to believe it. I still cannot accept that he will not come back. The way he left was very unexpected.

I wish I could hug you or at least hold your fragile hands before you left for the hospital dada, even if it meant me being infected too. (I did get infected though, should have probably just taken the risk and spent the last few days with him in his room taking care of him where he was isolating) This disease kills the essence of humanity-human contact, touch, proximity. Masks, double masking, gloves, ppe kit and face shield: this was the bare minimum equipment that my father would have to wear to go to the hospital to get back dada's medical reports, his belongings and for depositing money. My father lost his mother a year back and now seeing him mourn the loss of his father is truly heart breaking. There is nothing any of us can do to comfort him except wait for time to heal him and to stitch up his open wounds. Last month, I lost my beloved Nanu to covid too, again very unexpectedly. His loss was the initial blow to our family and we were praying for dada to come back home after digesting nanu's loss. Nanu did not live with us and so I have not been able to process his absence completely yet, the realisation will hit me like a truck when I visit my nani's house and don't find nanu there to spend time with me and nani. We were a family of 6 initially, I grew up with my nana nani and later shifted with dada dadi in

our own house. For the past 15-20 years, I have been so used to my grandparents being there around me, I consider them as my second set of parents, who are sweeter and more understanding than th my original parents. Without my grandparents, I would not have been who I am today and where I am today. I owe a lot to them. left to right (dada and I last year diwali, nanu with his youngest grandchildren on his birthday last year, both were extremely fond of their grandchildren) After dadi's loss, I along with my sister started spending more time with dada during the day when both my parents would be at work. We could feel his pain and longing for dadi but he always was a happy, simple man who found joys in little things. Him leaving us has left the house and family incomplete and disjointed. None of us were prepared for this. But give things time and they will heal and rearrange.

I try to comfort both my mother and father for their respective losses, as they both try to confide in each other with their tears and shared hugs, but their aching to have their fathers back is unmatched to my pain and unfathomable to me. I love you and miss you my nanu and my dada, I am sure you both are watching over me and reading this as I type, I have no other physical means of contacting you both now. Covid has claimed so many lives that I feel selfish talking about my loss. A loss is a loss, however big or small and the pains of two different people can never be compared. We all have been affected in some way or the other and need to let ourselves feel the different range of emotions to heal through this. A few days back, a friend of mine lost her mother to covid. This devastating news made me realise the levels on which people around me are hurting. It is impossible for me or anybody else to imagine or even try to comfort her as her pain is unique to her. I along with my friends have no words for her loss, all we feel is helpless and numb. We can only hope that she finds the strength to get through this. The more I think about what she is going through, the more miserable I get and start belittling my own pain. But then again one cannot belittle their own struggles by comparing them with another's. Whatever you are going through is unique to you and I wish you all the strength to feel all of it and then get past it, slowly but surely. Through shared compassion and empathy for each other, we may be able to comfort each other to some extent. Death is miserable. Death up close is devastating. Death due to covid is still unacceptable to me.

This article was not easy for me to write, but it was necessary to get my feelings out in the way I best can. With a heavy heart and tears in my eyes, I hope we all are able to gather the strength to deal with the anxiety, fear, pain and loss, even if it happens after failing several times.

Love and virtual hugs Twinkle.



**Covid Memories -2021** 

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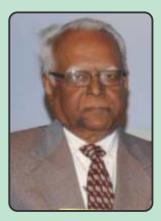


Smt. Kumud Sharma



Dr H R P Yadav at the Seminar

### In Deep Remembrance



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Prof J P Singh Civil Engineering



H S Mishra Ex. VP-EC 1986-90 Mechanical



Randhir Pandey 1987-91, Mechanical Director, Oracle



Anand Kumar Director R&D, IOCL 1966-70 Chemical



Naresh Dubey 1983-87 Civil



Sona Lal Dutt 1966-70 Elect.

**BITSAA NCR** is paying homage to all the departed soul from BIT fraternity.

### तुम त्म सच हो, या माया हो। रति की छाया हो, या काम की अभिलाषा होः किसलय का विहास हो, या मधुकर का गुंजन हो। संगीत का आलाप हो, या वीणा की झंकार हो। अनादि का नृत्य हो, या अनहद की नाद हो। प्रभ् की कला हो, या कला की प्रकृति हो। पुरूष का वेग हो, या नारि का संवेग हो। करूणा की सरिता हो, या सरिता की करूणा हो। प्रेम का सरोवर हो, या अक्षय कमलदल हो तुम तत् सत् हो, या नेति नेति हो।

राम त्म तो थे कण-कण में, फिर क्यों आए इस निर्जन वन में? पूजा तो तेरी की जग ने, बदले में चाहा दूसरों की खुशी खुद के लिए ! संदर अयोध्या और उसकी प्यारी धरा, परिवर्तित हो गयी रण में ! जग की चाहत मे तूने, दिया सीता को भी वनवास ! लोगों ने खोखली विश्वास ने तुझको, तेरे मंदिर में दे दिया कारावास ! क्या जरूरत है. तुझको मंदिर में बांधने की ? तेरी कर्मभूमि को, लह् के लाल रंग रंगने की ! छोड़ दो राम को हवाओं में, फिर से बस जाने दो सबके मन में! इतना अपनापन ही प्रदर्शित करने की चाह है, तो उतार लो राम को अपने जीवन में!

श्री हरिनारायण तिवारी

#### **SHILPKAR**

A skyrocketing horizon for hope A streak of empathy within heart A beginning in bounty of benevolence A longing saddled in sacredness Gives a clarion call to wake up. An artisan at bottom of pyramid Painting eccentric vagaries of life Walks bare-foot in my dream To brighten artisan's canvas of life A mute craftsman rises in me!!

#### बेटियाँ

गर घर में बेटियाँ न होती जहां में खुशियाँ न होती I सीने में धड़कता दिल न होता शाखों में हरी पत्तियाँ न होती II

चाय की फ़ीकी चुस्कीयों में मिसरी- रस घोलती बेटियाँ I मुंह बनाते , रूठते -हंसाते ख्वाहिशें जगाती बेटियाँ II गिलहरी की तरह फुदक-फुदक चहकती – इतराती बेटियाँ I रंग-बिरंगी तितली की तरह आंगन में मंडराती बेटियाँ I अपनी शैतानी -मनमानियों में शायरी गुनगुनाती बेटियाँ I माँ के आँचल में छुप कर ममता जगाती बेटियाँ II

फिर किसी रोज सब छोड़ चिड़ियाँ बन उड़ जाती बेटियाँ प्यारी माँ को पराया कर खूब रुलाती बेटियाँ II

> संतोष 'स्नेहिल' इलेक्ट्रॉनिक्स -89







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## समृद्ध भारत ऊर्जावान जीवन

#### 'पहले इंडियन फिर ऑयल' के मूलमंत्र को आत्मसात करते हुए

इंडियनऑयल भारत का अग्रणी ऊर्जा आपूर्तिकर्ता है। आपात स्थिति और आपदाओं के समय समर्पण व लगातार उन्नतिशील विचारों द्वारा समाज के विकास के लिए हम 'राष्ट्र सबसे पहले' की भावना के साथ प्रतिबद्ध हैं।

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