

ANNUAL ALUMNI MEET 2020

Souvenir

ANNUAL ALUMNI MEET-2020

Saturday, 11th January, 2020

at Air Force Auditorium

Subroto Park, New Delhi



ALUMNI ASSOCIATION

Delhi College of Engineering

(Regn. No. 33032)

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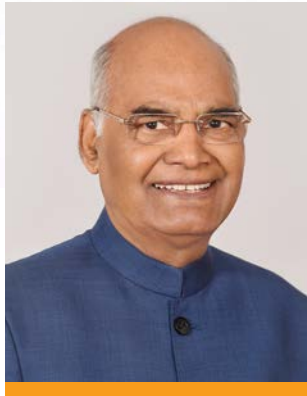
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Ajay Kumar Singh

Press Secretary to the President



राष्ट्रपति भवन
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Rashtrapati Bhavan
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MESSAGE

The President of India, Shri Ram Nath Kovind, is happy to know that Delhi College of Engineering (DCE) & Delhi Technological University (DTU) Alumni Association is organizing Annual Alumni Meet – 2020 on January 11, 2020.

The President extends his warm greetings and felicitations to the organisers and the participants and sends his best wishes for the success of the Meet.

Press Secretary to the President

New Delhi
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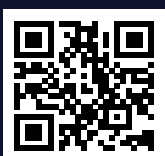


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MESSAGE

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RAJ NIWAS
DELHI-110054

I am happy to learn that the Alumni Association of the Delhi Technological University (formerly Delhi College of Engineering) is organizing its Annual Alumni Meet in Delhi on the 11th January, 2020.

DTU, being one of the premier engineering institutions of India, has always been home to luminaries from across diverse fields. DTU's alumni have been a positive force for change in the society. As DTU keeps on expanding its potential for technological advancement, the onus to maintain the momentum lies on its alumni.

I am sure that the Alumni will continue to conduct themselves in a manner that will bring more laurels to their alma mater, and contribute to nation's technological and industrial progress for a brighter future.

On this occasion, I extend my warm greetings and felicitations to the Alumni Association and wish the Alumni Meet all Success !



(Anil Baijal)



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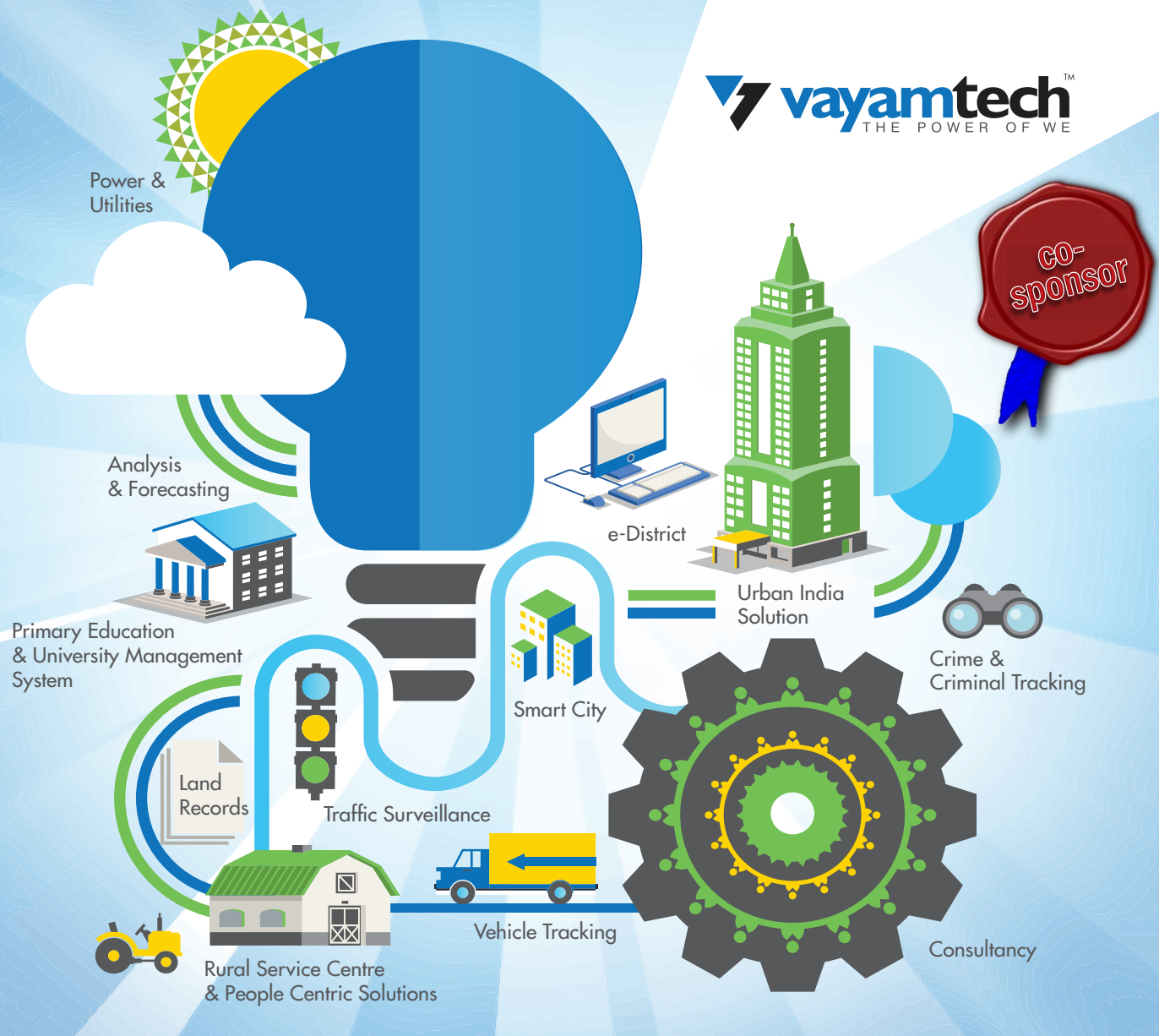
MESSAGE

It gives me immense pleasure to know that the **Alumni Association** of the Delhi College of Engineering (now Delhi Technological University) is organizing its' Annual Alumni Meet in Delhi on the 11th January 2020.

As Chief Minister of the State of Delhi, I am proud of this prestigious technology institute in my State. I am aware that it occupies a very high position in overall ranking of the technological institutes in the country. The Institute has been providing quality education to its students who have proved their caliber and are serving the country in almost all sectors of the economy.

I extend my warm greetings and felicitations to the Alumni Association and wish the Alumni Meet all success.


(ARVIND KEJRIWAL)



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D.O. No.

Date : 03rd September, 2019.

DYCM/2019/842

MESSAGE

I am happy to learn that the Alumni Association of the Delhi College of Engineering (now Delhi Technological University) is organizing its Annual Alumni Meet in Delhi on the 11th Jan 2020.

I am very proud of this prestigious Technology University in NCT of Delhi. I am aware that it occupies a very high position in overall ranking of the technological institutes in the country. DTU has enhanced its services to the country and now is providing MBA also, besides the technical streams leading to B.Tech, M.Tech and PhDs. The institute has been providing quality education to its students who have proved their caliber and are serving the country in almost all sectors of the economy.

I am happy to know that the Alumni Association provides a forum for connecting the Alumni regularly and recognizes their contributions to the country by awarding Life Time Achievement, Distinguished Alumni to its alumni who have excelled in their fields with exemplary services

On this occasion, I extend my warm greetings and felicitations to the Alumni Association and wish the Alumni Meet all success.

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Prof. Yogesh Singh
Vice-Chancellor



MESSAGE

There is nothing like returning to a place that remains unchanged to find the way in which you yourself have altered. Life gives us brief moments with one another...but sometimes in those brief moments we get memories that last a life time.

It is with immense pleasure, honour and enthusiasm that I greet you on the joyous occasion of annual alumni meet 2020 of the Delhi Technological University, hitherto DCE.

College reunions are homecomings, and rightly so. Because, for those involved, it is like coming back home to the academic institutions which had been second homes for them during their student days.

You will reminisce and relive your happy, fun-filled, glorious and unforgettable moments in your university. You will marvel at everyone's and your own personal and professional success and achievement. You will realise how good life has been to you all and deep within you will acknowledge that, to a large or even a small measure, DTU helped bring you to where you are now.

Having completed 79 glorious years of this prestigious institution, we are more than happy to share with you updates and achievements of DTU in the recent years, most notable of which is the Establishment of Technology Business Incubator, encouraging the students towards innovations and entrepreneurship, along with professional development fund, career advancement scheme, initiation of establishment of East Campus of DTU, last but not the least the university student internship programme.

Thousands of miles away you have every right to share with us these achievements and accomplishments, just as similarly we always share and take pride in your work and successes you achieve.

Best wishes and May DTU always keep us in beauty in truth and virtues impassioned embrace, so that we remain ever its valiant legion imbued with unending grace. God bless!

(Yogesh Singh)

6/1/20

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Undertaking **2 Highway projects**, **8 Electrification projects** and **3 Building projects** in India and abroad*

Completed **2 Road projects** on BOT basis and expected to complete **2 more HAM Projects** in FY 19

*As of March 31, 2019 **CARE Rating



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MESSAGE FROM PATRON

Dear Alumni,

It is a matter of great pride and joy that the Alumni Association of Delhi College of Engineering (Delhi Technological University-Delhi College of Engineering-Delhi Polytechnic) is organizing its annual get together on 11th January 2020 at the Airforce Auditorium, Delhi. As per practice, Alumni members in a large number will attend the annual function, enjoying the day with their classmates and the collegemates remembering the golden days when they were in college, they feel young again.

Dr. Muktesh Chandra, President of the association and Shri Sunil Saxena, secretary along with their team have worked hard to make this occasion a well-planned affair. My heartiest congratulations to them.

I wish the Annual Alumni Meet 2020 to be a grand success.

Yours Sincerely,


Karnal Singh

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Dr. Muktesh Chander, IPS

DIRECTOR GENERAL OF POLICE, GOA

PANAJI-GOA

PHONE NO.: 0832-2428360 (O)

FAX NO.: 0832-2428073

Dated: 28/02/2019



MESSAGE

My last one year, as the President of the Alumni Association of Delhi College of Engineering, has been significant. During the Special AGM, held on 22th September 2018, we had promised to democratize and harmonize the functioning of the association and this has been largely achieved. We have now revised the Memorandum of Association as per the needs of the hour and the same has been approved by the AGM held on 30th November 2019. Several changes have been made in the MOA such as changing the name to Alumni Association DCE-DTU, adopting a new logo, opening membership to all graduates and above of DTU, increasing the tenure of Governing Council to three years, introducing transparent E-voting process etc. A comprehensive exercise has been undertaken to update the database of the members and assign new membership numbers. Website has been improved and a number of new features have also been added. We are making serious efforts to increase our membership and communication with them. We have decided to be active on various social media also. I am thankful to all the members of the Governing Body and volunteers, who have contributed to various activities of the association whole heartedly.

I wish all the members of our Alumni Association and their families a very happy, prosperous and peaceful New Year 2020.


2.1.2020

Dr. Muktesh Chander
President
DCE-DTU Alumni Association

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MESSAGE FROM VICE PRESIDENT

Suresh Raheja

Vice-President

Alumni Association, Delhi College of Engineering

Engineers play the most vital and important role in nation building. They create new inventions using best engineered technologies to make human life more comfortable, secure and productive. In modern times, nations which have rich engineering and experienced management domains are flourishing economically and are providing better lives to their people. We have excellent potential to grow in diversified areas and excel in engineering and management fields. We need enormous number of engineers and managers to write next story of success.

The essence of Engineering and Management education which has spread in India is a very positive sign not only to cater domestic needs but provide manpower to the entire world and become biggest technically trained community. DCE DTU is a venture contributing to this Endeavour. We have started with full force to play a leading role in providing quality education and careers. We have identified the needs of modern engineering, technology and management education for modern age students.

At the outset I send my greetings to the Alumni Association of DCE DTU Souvenir 2016, for working on a magazine best in all aspects. I appreciate the efforts of DCE DTU executive council who have done an excellent job in compiling DCE DTU activities over the year and disseminate them through this Magazine.

Suresh Raheja
DCE 1973(M)

गेल (इंडिया) लिमिटेड



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#HawaBadlo





MESSAGE FROM SECRETARY

Sunil Kumar Saxena, ITS

(Retired Director General Telecom, Govt. of India)
Secretary,
Alumni Association

Dear Alumnus,

Welcome to the Annual Meet-2020, an occasion to meet large gathering of fellow DCEites, meeting college time class mates, fun, frolic and laughter, and networking opportunities for all who join at the meet.

I bow my head with respect in front of DP-DCE-DTU faculty, for tirelessly molding excellent engineers at the Institute. The fame that the Institute has as one of the best Engineering Institute is largely because of excellent faculty only.

I congratulate distinguished faculty & distinguished alumni on the occasion of recognition of their hard work & for having achieved name and fame in their life. I also congratulate meritorious students for having proven their outstanding skills and excellence, amongst a large number of best brains at the Institute.

Besides organizing annual meets, felicitation of distinguished faculty and alumni, lectures on current technical topics, Annual General Meetings etc., the Association is also working tirelessly to connect the Institute with the Industry. 'Udaan' is being organized at an even larger scale, likely to be held at DTU sometime in February 2020.

Wish you and your family members a wonderful evening today, and a happy, prosperous & peaceful year ahead!

Sunil Kumar Saxena.

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MESSAGE FROM JOINT SECRETARY

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Joint Secretary
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**Like Branches on a Tree,
We May Grow in Different Directions
Yet Our Roots Remain as One .**

It gives me immense pleasure in welcoming all our 'DP- DCE- DTU Family' members on this annual meet 2020. It is a time when once again we all reconnect to recollect and reminisce. Every year I look forward to join this annual meet . This is the time when we all get an opportunity to mark our everlasting ties with our alma mater and all those who are an integral part of it .

We attribute the association's rise to it's maximum circumference. Though it has increased over the past years but still we are striding to find many of our batch mates who are not on any social networking sites . It's my humble request if anyone of 'DP-DCE-DTU Family' happens to be in contact with them ,please direct them to our website and help this association to enlarge even more. I am sure that the collaborative efforts will help us to achieve scales of our mission.

I also appreciate and admire the strenuous efforts made by the team of Alumni Association for their sterling work and support in every aspect and making such an invigorating gathering. My sincere thanks to all my seniors for their constant support, co operation and guidance that inspired me throughout the past years and finally I wish all 'DP-DCE-DTU Family' a very Happy, Healthy and Prosperous New Year 2020.

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FOREWORD FROM PRINTING COMMITTEE

SM Mahajan

Member GC, DCE Alumni Association
1970-Mech

Dear Alumni

The souvenir of Annual Meet 2020 is in your hands. We have tried to make it more participative & broad based by including a new section on the Golden Jubilee batch giving memoirs of college life and passing out group photo of the three branches, besides the regular information on awardees, messages and articles by the Alumni

We have an overwhelming response for the Golden Jubilee batch of 1970. About 70 alumni of the branch – many with family- are participating in the Annual Meet and the Felicitation function of the Alumni Association. Silver Jubilee batch has always been enthusiastic participant and this year also we have an excellent response. The Alumni Association hopes to continue getting such encouraging response

I would like to thank my colleagues in the souvenir committee- Dr Dipti Mal, Sh Mohit Mittal and Baninder Singh- supported by Paras Rana for the hard work put in in bringing out the Souvenir of Annual Meet 2020

Wishing all our Alumni and their families a Happy and Prosperous New Year 2020

SM Mahajan
Chairman, Souvenir Committee

Execution *beyond* Projections

Reality beyond dreams. IRCON has a current **Order Book** of over ₹ 349,000 million including Engineering and Construction projects in Railways (₹ 309,024 million), Roads and Highways (₹ 21,520 million), Electrification (₹ 14,640 million) and Buildings (₹ 3,816 million)*



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*As of March 31, 2019 **CARE Rating

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Chief Guest

Mr. Sunil Kant Munjal

Mr Sunil Kant Munjal is one of the founder promoters of the Hero Group, India's premier automotive manufacturing group that has evolved from being the world's largest bicycle-maker to the largest two-wheeler maker. He is the Chairman of Hero Enterprise, with interests in insurance distribution, steel-making, real estate and corporate training. He has made strategic investments in several areas ranging from e-commerce to hospitality. He also supports start-ups on digital learning, community transportation, healthcare, women empowerment and education.

He chairs the board that runs the Doon School and sits on the boards of the IIM Ahmedabad (IIMA), ISB, and SRCC. He has co-founded BML Munjal University (BMU) and is President of the Dayanand Medical College and Hospital, Ludhiana. He has also served as president of the CII and AIMA; been a member of Prime Minister's Council on Trade & Industry and was on government taskforces that prepared the ground for India's banking and insurance reforms.

Mr Munjal has set up the Serendipity Arts Foundation which aims to revive patronage in the arts; he is also President of the Ludhiana Sanskritik Samagam which supports performing arts across North India.

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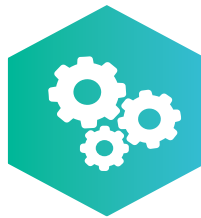
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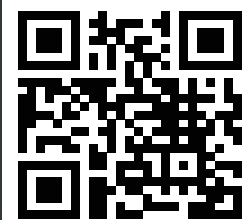
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Distinguished Faculty

Professor Ramesh Chandra
PhD, D.Sc. FRCS (London)

Prof Chandra was the Prof & Head: Deptt. Of Polymer and Chemical Technology, Delhi Technical University. Currently he is the Chairman – Chandra Jyoti International University of H. R.D

He was formerly the Chancellor of Venketeswara Open University, Ita Nagar, Arunachal Pradesh, Pro – Chancellor : Sh. Venketeswara University, Gajraula, Distt Amroha (U. P), Chief Executive Officer: Venketeswara Group of Institutions India, Chairman Delhi Services Selection Board, Govt. of Delhi, Dean: Faculty of Technology, University of Delhi

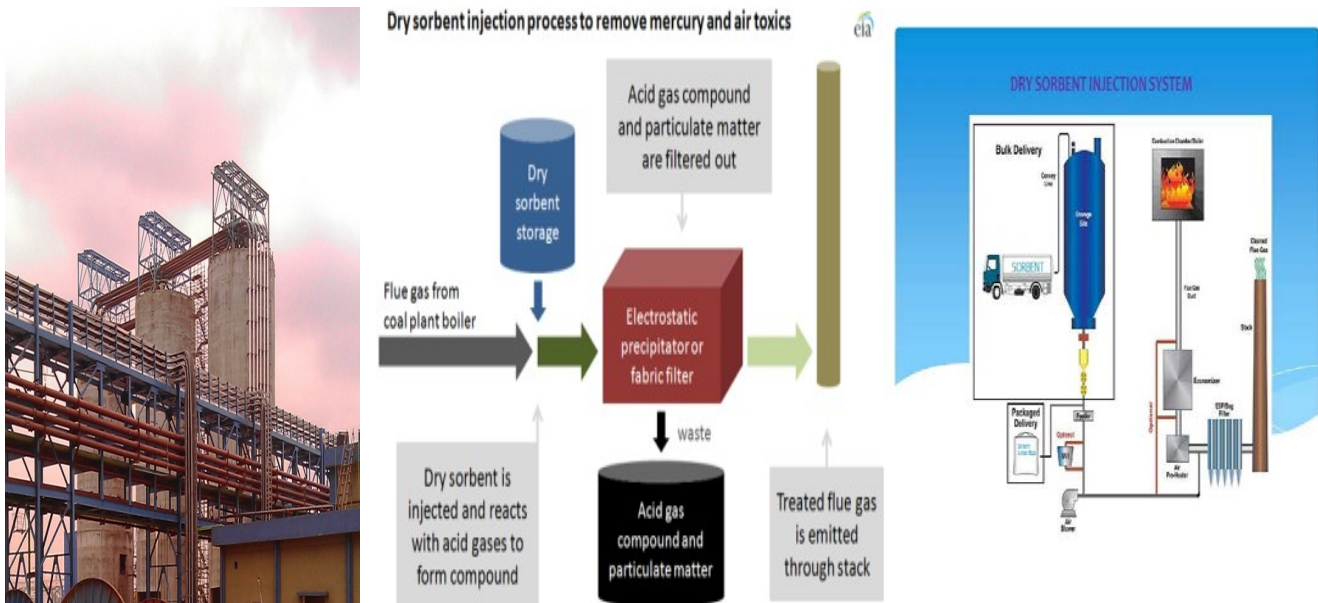
Prof Chandra is the recipient of several national and international awards

International Awards such as Gold Record of Achievement for 1996 from American Bio-Graphical Institute, USA ; Twentieth Century Leader by the International Bio-Graphical Center Cambridge , UK; International Man of the Year for 1996/1997/1998 by International Bio- Graphical Center Cambridge, UK

Lifetime Achievement from the American Bio-Graphical Institute, USA;

Bharat Udyog Ratan by Delhi Government; Rashtriya Ratan Shiromani Award by Modern India etc

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Distinguished Faculty

Prof. (Dr). ANEK PAL GUPTA

- Prof Gupta is PROFESSOR and HEAD Applied Chemistry Dept.(ASAS) & Polymer Technology Center at the Amity University , Gurugram Haryana
- Previously he was PROFESSOR& HEAD , Dept Applied Chemistry, Polymer Science & Chemical Technology ,Delhi Technological University
- Prof Gupta has Teaching & Research Experience of more than 42 years and has 192 publications to his and has guided several Ph.D students:15
- Prof Gupta is Chairperson of Admission Committee for B.Tech (Evening program)
- Expert Member On several Panels of Universities/ Institutes /Technical Boards
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Distinguished Faculty

Professor(Mrs)Daya Gupta

Professor(Mrs)Daya Gupta is M.Sc., Post M.Sc. (Computer Science) from Indian Institute of Technology Delhi. She is Ph. D. in Computer Engineering from University of Delhi.

She has long illustrious association with DTU and DCE spanning around 40 years. She was Head of the Computer Engineering Department at D.C.E and Delhi Technological University for six years (2008-2014). She is the first faculty of computer to join D.C.E in 1978 and established computer centre & introduced computer related subjects in D.C.E. She retired as Professor from D.T.U in 2017 and is currently professor reemployed at D.T.U

She has been visiting professor at National Universities of Singapore. She has the rich experience of developing two prestigious Institute namely Indira Gandhi Institute of Technology, Delhi (1999- 2002), and Ambedkar Institute of Technology, Delhi now AIACT, Geeta Colony (2002 to 2007) at the position of Founder Head CSE and Dean Academics.

She has more than 100 publications in leading International Journals and conferences and delivered expert talk at international conferences workshop and faculty development programs.

She has been the Principal Coordinator in the collaborations with reputed industries like Samsung, Sapient, Saplab, TCS & academic institutes such as DRDO and international universities like NUS, Geneva Institute of Business Administration.

She is a senior member of IEEE and life member CSI.

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**Dr. Ajit Kumar**

Director (Commercial & Operation)-PTC Ltd

Distinguished Alumni

Dr. Ajit Kumar is Gold Medalist of DCE 1980 Electrical batch. He did his PhD in Management and MBA from IGNOU.

Dr. Ajit Kumar joined PTC India Limited as Director (Commercial & Operations) on 2nd April, 2015. He is also Managing Director of PTC Energy Limited, and has commissioned 300 MW renewable energy projects in PTC Energy. Prior to joining PTC, he worked in NTPC for 35 years. During his tenure in NTPC as Executive Director (Commercial), he was responsible for sale and realizations of bills for 235 BU annually. As head of Business Development, he played a key role in finalizing various agreements with Bangladesh Power Development Board for establishing 2×660 MW Thermal Power project in Khulna and with Ceylon Electricity Board for establishing 2×250 MW Thermal Power project in Trincomalee.

At other Management levels, he was responsible for delivering design & engineering inputs, Quality Assurance and Inspection services, procurement & site support for super thermal power projects involving unit sizes of 200 MW, 500 MW, 660 MW & 800 MW. He piloted NTPC foray into nuclear power as Head of Nuclear Power Group & established a JV Company with NPCIL.

He has also travelled to many countries for business development, presenting papers in international seminars and for testing of equipment sourced from various countries.

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**N Sivasailam**

Spl. Secretary, Ministry of Commerce, GOI

Distinguished Alumni

Shri N. Sivasailam graduated in Mechanical Engineering from DCE in 1982 and is a 1985 batch IAS officer from Karnataka. He has recently been appointed as Special Secretary (Logistics) to the Department of Commerce. Earlier he was Additional Secretary to the Department of Telecommunications.

He did his Post Graduate studies at the Faculty Management Studies, University of Delhi and at the London School of Economics in Business Administration and Social Policy & Planning in Business Administration and Social Policy & Planning in Developing Countries respectively. He also has a Post Graduate Diploma in Intellectual Property Rights Law (IPRL) from the National Law School of India University, Bangalore.

He has served Bangalore Metro Rail Corporation Ltd, the Karnataka State Beverages Corporation Limited and Rajiv Gandhi Rural Housing Corporation Ltd. as Managing Director, in earlier stints in the Cadre besides serving an assignment as Secretary in the Rural Development & Panchayat Raj Department of the State Government.

He has been a Member of National Award Winning Teams in Panchayat Raj Administration and E-governance applications.

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**S R Narasimhan**

Director (System Operation), POSOCO

Distinguished Alumni

Shri S R Narasimhan is from 1986 Electrical Engineering batch of DCE and a Master's in Business Administration (MBA) in 1996 from IGNOU.

Shri S R Narasimhan presently the Director (System Operation), POSOCO since 29th Nov 2018. Prior to this assignment, he was Executive Director, National Load Despatch Centre (NLDC) and responsible for reliable and economic operation of the All India electricity grid which is also connected to the neighbouring countries of Bhutan, Nepal and Bangladesh. He has over three decades' experience in power system operation spread across CEA, POWERGRID and POSOCO after an initial stint with BHEL.

Shri Narasimhan joined NLDC in July 2011. He has extensive experience in interconnection of regional grids leading to a synchronous All India electricity grid. He has handled all facets of power system operation ranging from operational planning, scheduling, real time operation and post despatch analysis besides deployment of the necessary tools for visualization and Situational Awareness. He also implemented several electricity market reforms

Shri S R Narasimhan has contributed to several Expert Committees at the Government and regulatory levels in different areas ranging from system operation, grid integration of Renewable Energy (RE) resources and optimization to institution building. He is a Fellow of the Institution of Engineers, India, Senior Member of IEEE and a member of CIGRE. He has published over thirty (30) papers at the national and international level.

He is passionate about making our energy systems more reliable, resilient, economic and clean along with a commitment to technical excellence and the highest ethical standards.

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ARTICLES

1 Money Does Not Grow On Trees

Dr. Muktesh Chander, IPS

Special Commissioner of Police, Operations, Delhi
1983 Elec

For your benefit, I am suggesting you a lucrative proposal. Give me a currency note of Rs. 500 and I would plant it for you in a pot. From this 'seed' a 'money plant' will grow and in six months the plant will bear several Rs. 500 notes as fruits, all of which will be yours. Would you believe it? Most probably not. But it is paradox that large number of people still believe in something similar but cleverly and beautifully camouflaged. Several financial 'get- rich-quickly' frauds/ponzi schemes have their origin in the basic human weakness called greed, which blinds a person, disabling his/her faculties of reasoning.

There is a history of such financial scams reoccurring periodically year after year. Most of these schemes ask investors to deposit some initial amount, either as subscription fee, cost of some fancy products or as an investment. The returns promised are attractively very high and almost impossible to achieve through any legitimate business. The unsuspecting victim easily falls prey to such inducement. In the beginning these schemes pay promised exorbitant high returns to initial investors, from the money received from subsequent investors. The so called initial success and happy investors bring more investors and the pyramid starts growing in size. When the bubble grows large enough or is unable to sustain itself, the fraudsters run away leaving behind a rented premise, hired employees and fictitious identities. Most of the times, they can never be traced. Even if caught, they manage bail and sail through the criminal justice system by spending the money of victim investors on battery of lawyers defending them. Everyone wakes up after the bubble has burst but no one cares when the bubble is growing in size. Investment in teak tree plantation, home typing, selling of costly products/jewellery, advertisements, crypto currencies, bio oil, emu farming, manchiyam goat farming, rice puller etc. are some examples of such fraud schemes. These products or services are simply a carrier on which the fraud scheme rides without generating any suspicion and giving an impression of a legitimate business. It is very difficult for a common man, who does not have any knowledge of financial systems, to distinguish between a good scheme and a fraud.

I would suggest few simple ways, which will save you from such fraud schemes, if only you pay a little attention. First of all choose a modest but safe return option for your investments. Bank fixed deposits, National Savings Certificates, Systematic Investment Plans (SIP), Mutual Funds etc. may not give you high returns but are safer than any fly-by-night operator promising you moon. Any scheme which promises a very high return is probably too good to be true. Do not be tempted by it even if the company has all licenses, permissions and documents to operate. Do not go by word of mouth publicity, social media stories or convincing by your friends and family members. Do your own research and question every claim by the company. If the scheme asks for new members to be enrolled by you for a commission or makes you sell products to new members, whom you only have to enroll, then definitely it is a pyramid scheme. A company has to earn more profit than what they promise you and also pay for expenses to run the company. Always ask how they are going to make that kind of profit and whether it is feasible at all. This question itself will often reveal the trick or fraud behind the schemes. A little background check on the main players of the company may sometime reveal their past criminal record or misdeeds. Learn about various ponzi/pyramid scheme frauds from internet and you would get to know various kinds of existing frauds enabling you to judge a scheme better. In case of doubt ask your banker, any financial or wealth management consultant.

In case you have a slightest gut feeling or suspicion about a scheme, leave it. It is better not to invest in such scheme rather than regret and repent later. Remember a bird in hand is better than two in the bush. In this digital age internet has emerged as a favorite medium for fraudsters to operate. You may get mail or SMS that you have won a lottery, which you never applied for or a wealthy old person somewhere in the world has left you million of dollars or you have got a lucrative job abroad, for which you did not even apply or an unknown Facebook friend wants to send you some costly gifts etc. etc. Control your greed and ask yourself some simple questions. Are you lucky enough that you win lotteries without even buying a ticket? Why someone wants to send you millions of dollars for no reason? Why some company in USA/Canada has selected you for a job you did not even apply for? Why an unknown person, whose identity itself is doubtful, wants to send you costly gifts or dollars, which your own relatives or known good friends may not gift you? You need to use your brains before jumping on any such scheme or offer. Use your common sense and do not allow greed to blur your vision or rational thinking process. Educate yourself about various types of cyber and other frauds occurring in India. Seek guidance, proceed cautiously and always remember the age old advice. **Do not take chocolates from strangers and that there are no free lunches!**

FGD- DeSOx Technology for Thermal Power Plants in India.

- VK Malik , !970 Mech

INDIAN POWER SCENARIO

India has total of 366 GW installed power generation capacity as on November 2019. Coal fired thermal power plants have major share with 198 GW power generation capacities accounting for 54.1% of total installed capacity. Power Plants use coal as fuel & after burning coal, we have ash as residue which needs proper handling otherwise entire area of power plant will get flooded with ash both from chimney and from pumping station of Power Plant. Most of these power plants use domestic coal as fuel which contains 35-40% ash in it.

Emission Regulations for Thermal Power Plants COPP-21 :

Back in Dec 2015, there was a climate control accord in Paris where nearly 195 countries signed agreement – known as COP-21 agreement. This accord provided for air pollution control including SO₂, NO_x, and Mercury Control in Air which we breathe. This has necessitated India to reduce emissions and build resilience to climate change impacts. Due to this, Emission Control Technologies (i.e. AQC Systems) are expected to See Explosive Growth in India as power plants are very big source of these pollutant gases.

Considering the above, Govt. of India issued a Gazette Notification in Dec 2015, where all discharges of Pollutants for Power Plant & Cement Plant were defined and any plant not taking care of this will be closed down.

Brief Review of the New Environmental Rule:-

The notification from MoEF & CC dated 7th December-2015 amended existing norms related to emission of SPM and introduced new norms for emission of SO₂, NO_x and Mercury from Thermal Power Plants (TPPs). It also specifies modified limits for specific water consumption by TPPs. Different limits are specified based on capacity of power plant and year of installation. A summary of new regulations on air emission is given in below:

NEW REGULATIONS ON EMISSION

Date of Installation	PM	SO ₂	NO _x	Mercury (Hg)
Before 31-12 2003	100 mg/N _m ³	600 mg/Nm ³ for <500MW 200 mg/Nm ³ for ≥500MW	600 mg/N _m ³	0.03 mg/N _m ³ for ≥500MW
After 01-01-2004 & Upto 31-12-2016	50 mg/N _m ³	600 mg/Nm ³ for <500MW 200 mg/Nm ³ for ≥500MW	300 mg/N _m ³	0.03 mg/N _m ³
On or after 01-01- 2017	30 mg/N _m ³	100 mg/Nm ³	100 mg/N _m ³	0.03 mg/N _m ³

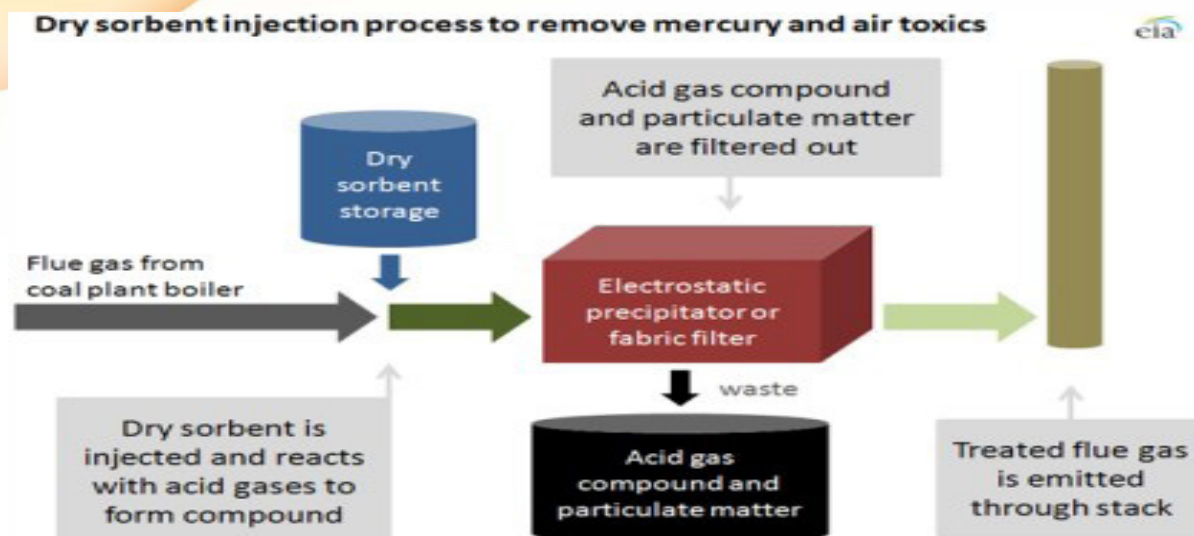
Summary of new regulations on water use:-

1. All plants with Once Through Cooling (OTC) shall install Cooling Tower (CT) and achieve specific water consumption up to maximum of 3.5 m³/MWh within a period of two years from the date of publication of notification.
2. All existing CT-based plants reduce specific water consumption up to maximum of 3.5 m³/MWh within a period of two years from the date of publication of notification.
3. New plants to be installed after 1st January 2017 shall have to meet specific water consumption up to maximum of 2.5 m³/MWh and achieve zero waste water discharged.

DSI FGD SYSTEM (DRY SORBENT INJECTION SYSTEM)-

The dry System is a very cost effective solution to control SO₂ and Sulphur trioxide which contributes major pollutant gases from coal fired thermal power plants.

The two most significant costs associated with a DSI system is sorbent (chemical reagent) usage and excessive equipment maintenance if the system is not designed appropriately. Therefore, UCC DSI strives to provide the most advanced means to use sorbent effectively and draws from 90+ years of dry material handling experience to provide a system that minimizes maintenance.



WET FLUE GAS CLEANING SYSTEM:

The technology involves use of Lime/Lime Stone as reagent to combat pollutant SO_x and will produce marketable Gypsum as byproduct.

In this system, the flue gas from boiler after the particulate removal system (ESP or bag House), is cooled in the Scrubber (many times referred as Absorber). The cooled gas comes in contact with liquid slurry which contains chemical reagent Lime/lime stone which removed pollutant SO₂ in the flue gas and converts it to gypsum.

The cleaned flue gas is exited to the atmosphere through tall Chimney. The byproduct Gypsum is filtered and stored as byproduct for sale/in-house use in case of cement industries.

Government of India with Gazette notification in the month of December 2015 has strictly advised all the coal fired thermal power plants to adhere to the emission norms as stipulated. (Copy of Gazette notification is attached for your kind perusal).

Many stake holders, MOEF &CC, CEA, and Ministry of Power have discussed and decided that the all the Coal fired power plants, should be equipped with Pollution Control systems by 2022, which shall be implemented in phased manner.

The Pollution Control systems need a time line of 12-14 months for DSI systems and 30-35 months for wet systems for large plants. Companies' like NTPC are taking lead with floating tenders for about 40 GW of coal fired power plants owned by them. These are followed by few state electricity boards like MAHAGENCO, GSEL, NLC,

and WBEDCL in the right direction. Similarly the private power producers like Tata Power, GMR, Vedanta, have also been advancing their activities to comply with the new emission norms within stipulated time line.

Just for knowledge sake, the procedure involved is Melco is equipped infrastructure wise & capability wise to take up such jobs

The Author is Managing Director of Melco India Pvt. Ltd is Multi-disciplinary Engineering Company based in Faridabad Haryana . It has presence in Indian Power Sector Since 1971 and is among top 3 NTPC Preferred Companies Providing AHS on EPC Basis and has been awarded India's 1st DSI Project to be installed at NCTPP Dadri (4x210MW)

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AQI – A Tool for Understanding the Quality of Air in Urban Areas

-Prof. S Maji
1981 Mech

Introduction

We are surrounded by a blanket of air everywhere we go. This air is essential for supporting the life system of human. The air we breathe impacts our health. Breathing good quality air keeps us healthy while breathing polluted air damages our respiratory system and other internal organs. So it becomes imperative to understand about the quality of air we breathe. An AQI (Air Quality Index) is such a tool which tells about the quality of the ambient air. It comprises six categories of the air quality ranging from Good to Severe.

Origin and concepts of Air Quality Index

In 1976 in USA, a uniform pollution index was started with the name Pollutant Standard Index (PSI). The PSI constituted ozone (O_3), particulate matter (PM), carbon monoxide (CO), sulfur dioxide (SO_2) and nitrogen oxide (NO_2), which relate ambient pollutant concentrations to index values on a scale from 0 through 500. The scale also gives an indication of the effect of the pollutant category on different class of people. Later on revision were made in the specific requirements of the pollutant. It is worthwhile to mention that a substance is classified as a pollutant if it is present in substantial amount in the atmosphere and has a tendency to cause health impact; otherwise it may not be termed as a pollutant.

The various levels of the pollutant index and their effect on the health of the different segment of human are done in collective consultation with various pollutant monitoring agencies and health departments. Subsequent reforms and amendments were made in the AQI. Earlier there were different areas reporting AQI indices which gave confusing messages about the quality of air. It was hence decided that a single benchmark would be followed to give a clear and consistent message about the quality of air. It was also decided to further expand the categories of AQI. It may be noted that the AQI has no bearing on pollution control requirements for specific sources. Rather, it provides information on air quality and health that will help individual citizens take prudent, self protective actions to avoid or reduce exposures of concern and to avoid contributing to air pollution on days when unhealthy air quality is projected. AQI is essentially a way of conveying scientific/medical advice to the public in an easily understood form.

In India, continuous real time monitoring of pollutants is currently done at 573 stations. These stations collect real time data of eight pollutant namely PM_{10} , $PM_{2.5}$, NO_2 ,

CO, SO₂, ozone (O₃), Ammonia (NH₃) and lead (Pb) for a short interval standard. CPCB has taken the task of providing a standard air quality index throughout the nation with an objective of disseminating uniform data to the public.

AQI Measurement

AQI is defined as a index of eight pollutants in Indian context. It transforms the values of all the individual air parameter value into a single value based on the relative concentration of the pollutant. This results in an Aggregated Air Quality Index .

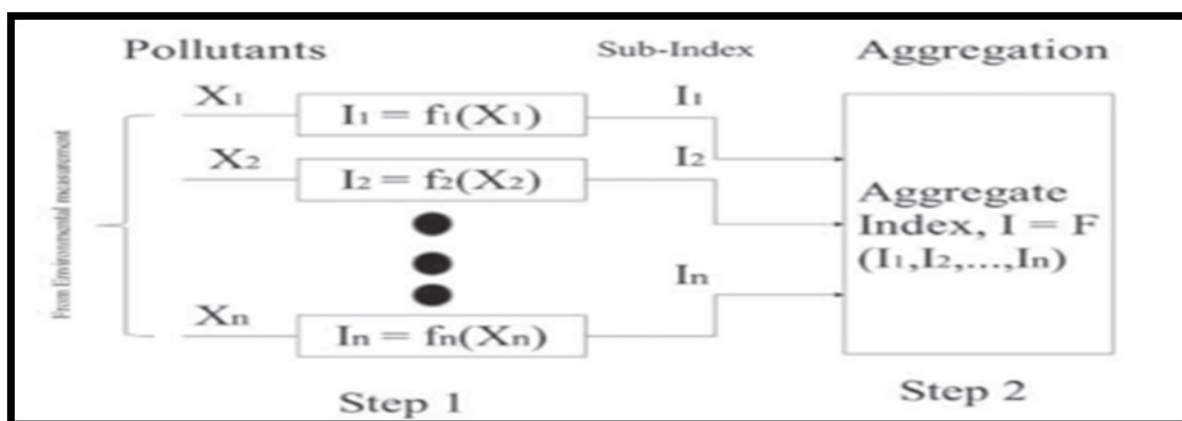


Fig 1: Formulation of AQI

Steps involved in formulating an AQI are Formation of sub-indices (for each pollutant) and Aggregation of sub-indices to get an overall AQI. Sub-index function represents the relationship between pollutant concentration X_i and corresponding sub- index I_i . It is an attempt to reflect environmental consequences as the concentration of specific pollutant changes as well as relation between pollutant concentration and its health impact. Second step is the aggregation based on Min or Max Operator (followed in India). It means that the pollutant having the maximum sub-index shall be reported as the AQI for that particular area. Figure 1 shows how AQI is reported.

The reason for adopting maximum operator is that the health effects of the Synergistic effect of different pollutants are not known and thus a health based index cannot be combined. Also, it reduces the chances of ambiguity arising in reporting of AQI based on improper/underestimation of AQI due to different set standard for each pollutant.

Indian Air Quality Standards

It is important that an AQI system should build on AQS and pollutant dose-response relationships to describe air quality in simple terms which clearly relates to health impacts. The first step for arriving at breakpoints for each pollutant is to consider attainment of INAQS (Indian National Air Quality Standard). The index category is classified as 'good' for

concentration range up to half of INAQS (for example, for SO₂ AQI=0-50 for concentration range of 0-40 $\mu\text{g}/\text{m}^3$) and as 'satisfactory' up to attainment of INAQS (i.e. SO₂ range 41-80 $\mu\text{g}/\text{m}^3$ linearly maps to AQI=51-100).

Table 1 shows the breakpoint concentration for the pollutants considered for reporting AQI in India.

BREAK POINT CONCENTRATION								
	CO	NO ₂	PM ₁₀	PM _{2.5}	OZONE	SO ₂	NH ₃	Pb
GOOD	1	40	50	30	50	40	200	0.5
SATISFACTORY	2	80	100	60	100	80	400	1
MODERATELY POLLUTED	10	180	250	90	200	380	800	2
POOR	17	280	350	150	265	800	1200	3
VERY POOR	34	400	430	250	748	1600	1800	3.5
SEVERE	34+	400+	430+	250+	748+	1600+	1800+	3.5+

Table1: Breakpoint for different pollutants based on Govt air quality objectives

This poor air quality affects the human in a very harmful way. Studies have shown that pollution causes irreversible damage to lungs and respiratory tract. Research has shown that breathing poor quality air can impair children's immune system and increase the risk of other diseases like cancer. Satisfactory level may cause minor breathing discomfort to sensitive people. Moderate pollution may cause breathing discomfort to people with lung disease such as

Asthma, and discomfort to people with heart disease, children and older adults. Poor quality air cause respiratory impact even on healthy people and serious health impacts on people with lung/heart disease. The health impacts may be experienced even during light physical activity .

AQI data of Delhi varies from poor to severe specially in winter days. Fig 2 gives the AQI variation in different regions in Delhi in Dec 2019

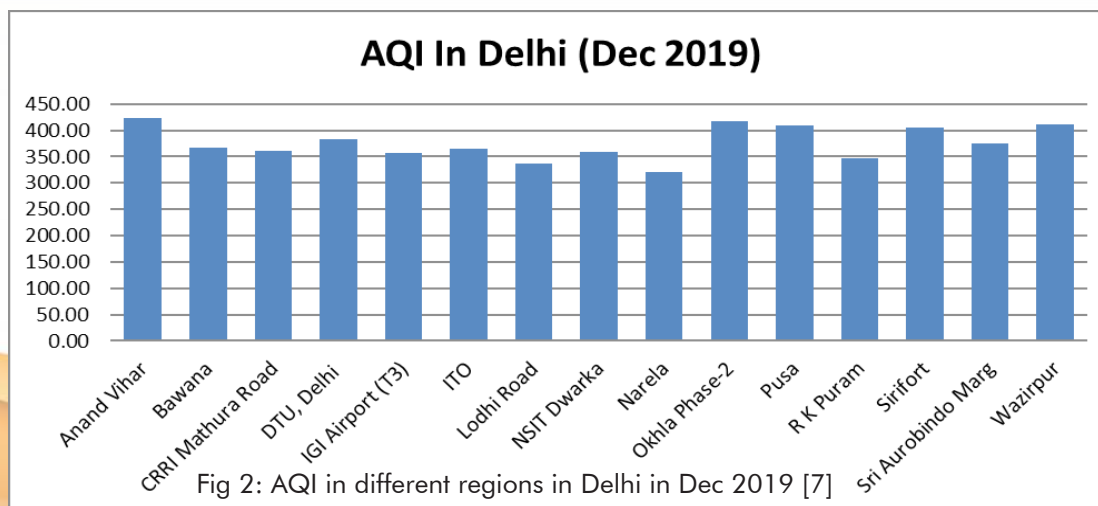
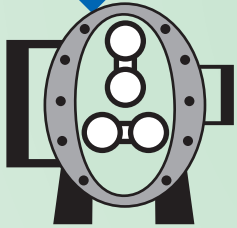


Fig 2: AQI in different regions in Delhi in Dec 2019 [7]



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MEMOIRS OF COLLEGE LIFE 1965-70

Down the Memory Lane- 5 Golden Years of My Life

-S.C.Chetal 70 Mec (67/65)

A feeling does come many times that 5 years at DCE had passed by the blink of an eye. The college education was extremely tough and the professors by and large very dedicated. I remembered college teaching of Carnot cycle, when in one selection interview for recruitment of mechanical engineers for our Centre, one candidate replied that he had heard Atlas cycle and TVS make cycle but not Carnot cycle.

College education, though more on theory than practical, gave enough confidence during service to handle first of a kind challenging tasks. I remember the words of chief guest Dr K.L. Rao in second year annual function of his being questioned for excellent results in a UK engineering college because he taught how to get marks by concentrating on numericals. The issue which is more important of the two: knowledge or marks had been with most of us. Performance in my own case had indicated that I got less marks in subjects which I understood. I got the prize for highest score in electrical engineering subject, which was among many subjects not understood. The college life taught me, still not clear how it happened, my fair expertise to do thermodynamics without slide rule or log tables.

The risk of failure in one subject or the other was there for most of the years. Thanks to the theodolite not being kicked by Prof Narayanan, the then Head of Civil engineering, I passed the civil engineering in second year. At the end of one of the annual examination, some of us would get together to meet the head of the department complaining of difficult and outside the syllabus paper. One of such examination was applied mechanics in second year.

Going to college and coming back home was tougher than college education. Getting bus at red signal or travelling by University special provided unique experience. There was always a fear of being late in the class and in particular for annual examination.

I recollect an interesting event of Professor Kapoor of English where he failed to get correct pronunciation from me for distinction between principle and principal inspite of repeated attempts. Sometimes I used to feel that Professor Wadhwa of, who taught us poetry, could give any explanation or same explanation of different poems, as I never understood relationship between the poem and the poet's thoughts.

Once walking with Prof U.C. Jindal, in fourth year was telling me that the classM2 had not been behaving properly and the student union representative was to be blamed. He got surprise when I told him of representing the class and he needed to improve teaching. The electrical engineering professor telling in class that worst student of the class had got the maximum marks and he needed to be thrown out of class for constant misbehaviour. Mrs Gupta, maths lecturer, once called me to her cabin and told with tears that he needed to behave so that she could teach. Professor Mishra of electrical engineering told me once that he was not getting good sleep because of me. My parents would not have believed that their son saint behaviour at home was too different at college.

Sometimes I feel how I got into college union in fourth year and that too entrusted with sports, a subject far away from my interest at that time. I came to stage only once for just introduction of college union to Chief Guest. Science exhibition organised by the college union was an unusual activity in the college when our bright colleagues led by P.L. Dhar showed their scientific talent.

Being away from home for the NCC camp and engineering visits, without doubt, were the most fun filled and happiest moments. Enjoying the sweets which Jain had brought and would not eat after sunset was the most awaited time during the camp. Our Mamaji, humanities professor, when we were not properly treated by Hindustan Motors, threatened the staff that he would get them dismissed in one moment by phoning Birla, his good friend. .

Bunking classes to see movies at Ritz and Minerva with V.K. Sethi (81/65) had its own charm. On the bunking classes, I recollect our Chemistry lecturer Dubey, who had shifted from Agra College, repeatedly emphasizing not to do mischief after marking attendance in his period, as one student got free due to attendance in one murder case.

Admission to IIT was so near but far away in my life. I Joined DCE in Mechanical after leaving the option of doing electrical engineering at IIT, Delhi or mechanical engineering at IIT, Kanpur. I dropped the idea of doing M.Tech at IIT, Kanpur and left IIT, Delhi after 12 days of attending M. Tech in Thermal engineering as I got selected for BARC training school.

SC Chetal is currently Mission Director, Advanced Ultra Supercritical Plant. He spent 42 years at Indira Gandhi Centre for Atomic Research and superannuated as Director in 2013. He is also presently Honorary Scientific Consultant in the office of the Principal Scientific Adviser to Govt. of India.

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DELHI COLLEGE OF ENGINEERING

Department of Mechanical Engineering

B. Sc. (Mech. Engg.) Final Year, April 1970



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Reminiscences of College Life from 16th July 1965 to 30TH April 1970

-Satish Kumar 70 Elec (156/65)

16th July 1965 was the first day in Delhi college of Engineering then located in the Kashmiri gate Delhi surrounded by the women's polytechnic on one side and the men's polytechnic for Diploma on the other and in very congested surroundings due to the vast auto spares market. The chemistry labs were across the road in a separate complex and the workshops for smithy, forging, carpentry and fitting were tucked into the polytechnic side.

As I and some more joining the college reached the main gate at about 9am we were stopped by the senior students for a round of ragging and taken to the sports ground. The ragging included giving them salutes, doing marchpast, being taught how to greet and respect seniors, singing songs and doing comedy for them. After having been duly ragged we were allowed to go to the administrative office for reporting and other paperwork. Later we went to our department i.e. Electrical to meet Head of Department Prof. R.C. Narayanan.

From the next day the timetable of 8.30am to 4 pm was handed over which remained in practice over the next five years. During the first year we enjoyed the feeling of shedding the tight disciplined life of the school days and having less homework. Majority of us were Day Scholars and with a monthly tuition fee of Rupees fifteen the burden on the parents was affordable. The all route bus pass used to cost a reasonable Rupees twelve. For books we were able to get second hand easily from the 'Nai Sadak' or buy them from seniors and in turn sell our books to the juniors the next year. One book which has stayed on in memory was Electrical Engineering by Uppal weighing nearly two Kg, the other author Thareja's book was the same weight. We also can not forget the 'Aristo' slide rule for all our calculations. First 4 months we were busy for the scholarship examination. There were 7 Merit and 15 Merit cum Means (in each branch) scholarships of Rs. 75 per month accompanied by fee waiver. This was a big relief to the students. For Merit Cum Means the family income per month had to be less than Rs 500 per month.

During the second year came a major distraction in the form of a strike led by the student union president Sagar to demand more facilities and the ouster of the Principal. It lasted over 6 weeks. It included hunger strike and blockade of the road in front of the college which led to the Police arresting some of us and being sent to Tihar Jail for a

couple of days. The strike did achieve some of the objectives and gave birth to the idea of shifting the college to a new location to overcome the shortage of space. This was followed by another strike in our third year with same objectives. The facilities improved within the constraint of space.

Of the great memories of a quality time for friendship it was in the canteen when some lecturer was absent or when we finished the lab work in shorter time (this was almost in every lab class). Quite a few times skipping the class by asking a classmate to do Proxy was also common particularly from the boring lectures. 'Masscuts' by the complete class on some pretext was not uncommon. With a limited pocket money from home eating outside was not easily possible. Getting a snack like "Dosa" for 30 paise, bread Omlet for 35 paise or bread pakora for 20 paise from the canteen and chatting was always enjoyable. Added attraction was a simple game with the matchbox, trying to put that into the Glass kept in the center of the table. This game went on for hours and had money for the winner. Another activity was to open and drink a Coco Cola bottle (180ml those days) without the use of hands. My great friend Vijay was best at it. Never had enough money to buy sports equipment to play. Seeing our batchmate Umang playing outstanding table tennis myself and Khurana used to practice with the backside of our Aluminium lunch box as a racquet on the sitting benches in the nearby Qudsia Garden.

To see a movie which used to cost Rs 1.25 the cost of ticket in the lower class those day , we had to save from the pocket expense by not eating in the canteen and managing with the lunch packet from home. Ritz and Minerva were the favorite halls for most of us. When no other option watching the girls of Women's polytechnic was also an activity. Hardly anybody succeeded with the girls as it was very difficult to make girlfriend those days.

NCC even though compulsory had a side attraction that we used to get a refreshment coupon of 90 paise each time. We had to attend an NCC camp at Khanpur for 5 days with horrible food, unhygienic toilets and place was full of mosquitos .A Number of students fell sick.

In between our classmates Suresh nickname Latoo and Khanna discovered another place for eating at ' Mitthan Lal Halwai' for Puree/Aloo and sweets They did an arrangement with the waiter wherein he would reduce the bill to almost one fourth for a generous tip. A similar arrangement at the Corner café was also made possible.

Another great memory is the Student Union Election during our third year when Our great classmate Bhandari who resembles the famous actor Naveen Nischal fought against Ramesh Sahi of Mechanical branch. The voting resulted into a tie 313 votes each and

in the toss to decide the winner Bhandari lost and Ramesh Sahi became President of the student union. The distraction due to Election, strike and some victimization saw some of us failed to clear the annual exams. Myself and some others escaped with a compartment in Drawing. The lecturer told us before the exam itself that we will not pass. He had found that for our assignment of tailstock drawing we had done glass/pin topo, a practice which was very common. Doing other assignment by copying the ones done by the more hard-working students was very common.

As we came into fourth and fifth year the disturbing position of the job market became clear. The enjoyment hours reduced. The need to score first class with 65% marks and aim for 70% to get interview call from PSUs, major private cos. and MNCs became an obsession. The marks from viva and project report which were in the control of Professors almost forced some to do their 'Chamchagiri'. In the fifth year the Electrical batch got divided into Electronics and Power Systems, the brighter ones choosing the Electronics I remained in the more comfortable Power systems.

Came April 1970 and the pressure of final annual examination. The enjoyment was forgotten. It was tension all over until 30th April when the final viva of the project done by us was held and everybody went his way ending an overall Golden Period of our life and in most the student life. In the absence of mobiles, emails the postcards and inland letters could not sustain the contacts with the best friends also.

EPILOGUE: First our prayers for the soul of our batchmates who are no more with us. May their soul rest in peace.

In retrospect as we all are now in the 8th decade of our life and of a period nearly 50 years back a near unanimity of view is that in spite of all elements of pressure of studies, tension and boredom etc. the period of 16th July 1965 to 30th April 1970 that was indeed a 'GOLDEN PERIOD' of our lives which gave us friendship, enjoyment, learning, intellectual growth and last but not the least Golden Memories.

A word about marks given by the exams. The marks have not proved to be the basis of success in our later lives, students at the bottom of the scale have gone on to do outstandingly well in professional and general life showing that talent was hidden even in college life.

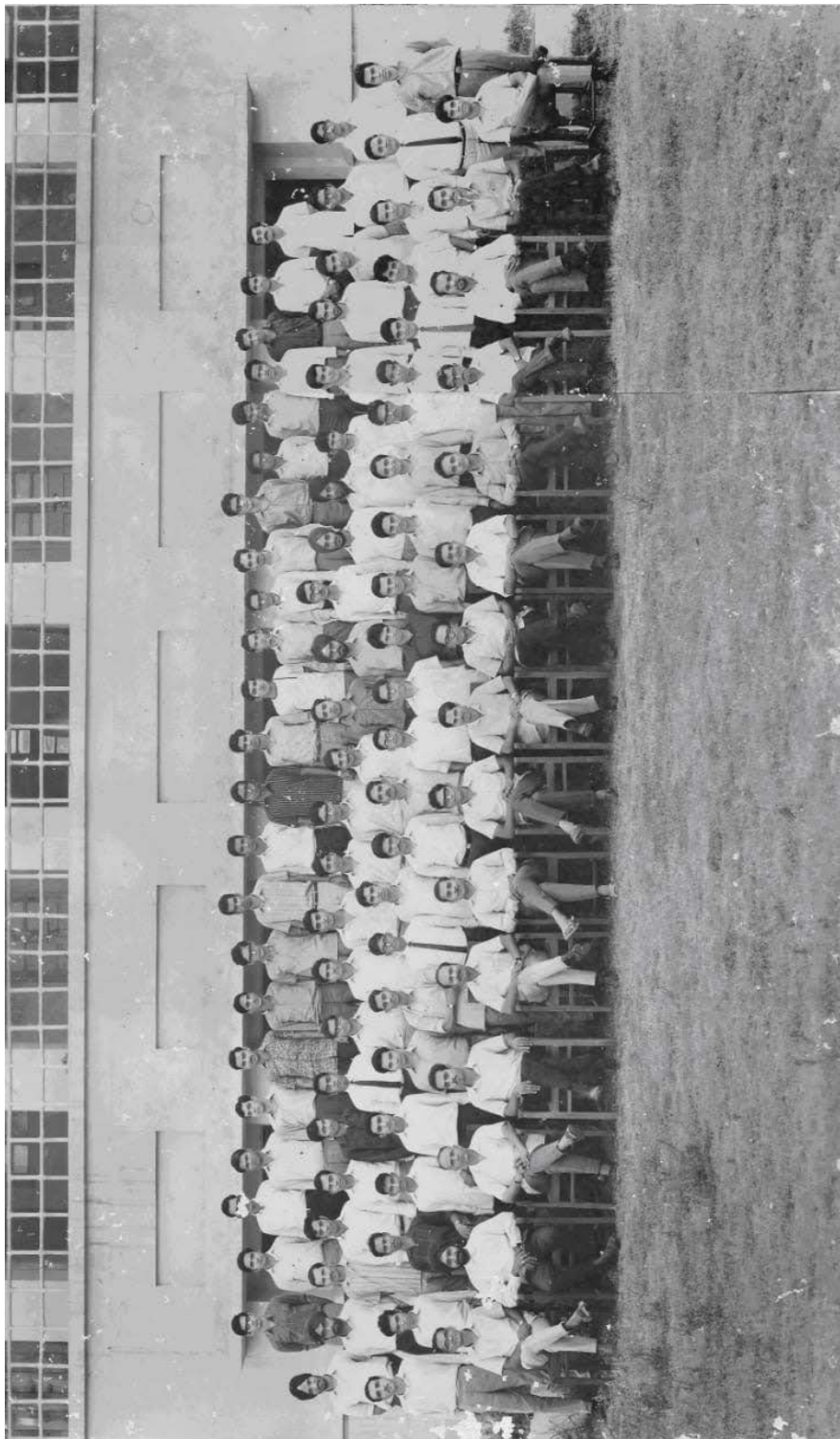
A salute to all my batchmates on the occasion of Golden Jubilee of our great batch.

Satish Kumar is currently CEO of Bergen Group. He retired from Indian Railways as chief engineer and also was faculty in DCE.

DELHI COLLEGE OF ENGINEERING

Department of Electrical Engineering

Group Photo of 1970 Pass outs



L to R Sitting:- Shri R.P. Sethi, Sujjan Singh, V.K. Khosla, D.C. Kulshrestha, R.A. Gupta, D.K. Aggarwal, N.N. Bhargava, Prof. (Dr.) R.S. Shukla, Prof. R.C. Narayanan Head of the Elec. Engg. Deptt., B.N. Mishra, H.C. Sahni, C.L. Wadhawa, Anil Kumar Mittal, Anil Kumar Sood, Umesh Bihari Lal.

Standing First Row:- Jang Bahadur, Roshan Lal, Bundu Khan(staff), Ram Kishan(staff), Govardhan Lal, Pradeep Kapoor, Lok Veer Sharma, Narendra Veer Mohindra, Om Prakash Khatri, Hari Chand Batra, Vidya Bhushan Baturia, Rajender Prasad, Vikas Chand Jain, Chandra Mohan Modhaik, Jagdish Chand Bhatia, Naresh Kumar Dogra, Gopal Krishan Jindal, Suresh Kumar, Pradeep Kumar Srivastava, Susheel Malik, Susheel Behal, Subrat K. Sanyal, Umang Das, Rajesh K. Tyagi.

Standing Second Row:- Kripal Singh Dhillon, Jaspal Singh Sachdeva, Kul Dev Katyal, Suraj Wadhawan, Kamal Dev Sharma, Pradeep K. Bhardwaj, Raghunandan, Subhash Chand Gang, Rajendera K. Gupta, Suresh K. Arora, Praveen K. Jethi, Satish .Ch. Malhotra, Ramesh Uppal, Rakesh K. Dhingra, Harinder Singh, Kanwal kumar Verma, Manmohan Singh Syal, Surender Singh. ---, A.K. Baweja, Virendera K. Walia, Vinod Kumar, Ved Prakash Ahuja, Vijay Bharat Mittal.

Standing Third Row:- Krishan Gakhar, Mahesh K. Ahuja, Naresh Dayal, Prayag Raj, Naresh K. Puri, Gulshan Kumar, Subhash Chand Gupta, Krishan K. Nandwani, Harcharan Singh Dhillon, Rajender K. Kohli, Vipin Kumar, Anupam Kumar Sen, Bihari Lal Malik, Amrit Pal Vasundhra, Bhagwan Sahay, Anil K. Kapuriya, Anil Raj Malhotra, Surender K. Khurana, Virendera K. Gupta, Satish Kumar, Ram Richpal Gupta, Vijay K. Sethi.

hindustantimes

Special Edition, Sunday, September 25, 2011

-S. Gopal, 70-Mech 55/65

This forenoon I visited Kashmere Gate and literally walked down the memory lane. I got permission to go inside the college campus and take a round. However, bowing to the directions of the Security personnel, I did not take any photographs inside the campus. Here are some photographs with some text.



After getting down at the Kashmere Gate bus top we used to take this road to the college

The campus now houses the Indira Gandhi Institute of Technology as the arch indicates.





The West Hostel has now become Girls Hostel. (The East Hostel is now Boys' Hostel; did not get a vantage point to take the photographs of East Hostel)

Kashmere Gate Polytechnic has now become the fice of the Chief Electoral officer. Remember, we used to have our Chemistry lab here.



Boards announcing Ambedkar University and NCC battalion.



Jo das paise me milta tha, ab who ek rupye kaa ho gaya hain.

Yehan kha Puri-Chole kaa swaad kuch hi alag hota tha. I ate one plate puri-chole and drank one glass of swadisht lassi today. The sardar you see in the photograph is of our age. He used to sell coca cola to us. Scroll down for the photograph of the coca cola joint.



Is ko kaise bhul sakte hain..? Class bunk karkey picture dekhne me aur hi mazaa aatha tha! Afsos, kuch saathiyo ne yeh luff ke baarey me nahin maaloom tha!



Samay thum gayaa ho,
jaise. Yeh jaga waise ki
waise hi hain.

The NCC Building still exists



Yeh Makhan Lal ka dudh ka
swaad abhi bhi yaad hain!

Going Down the Memory Lane

-VK Malik, 70 Mech

It was a great experience to get admission in DCE which was one of renowned engineering college during sixties. Since I was not domicile of Delhi, I had to opt for hostel accommodation. And you all know what happens in first one month. Yes full scale ragging every evening and giving "Polytechnic Salute" was an unforgettable experience (Hope all know). In hostel, we had a mixed batch of boys coming from different places with different backgrounds and it was a great relationship experience with all. We used to have evening "ToPo" sessions to quickly finish the day's curriculum. Studies were quite tough all throughout but still managed to clear the exams.

During five years in college, I had lots of experiences as like-

1. Surveying practical had always been a harrowing experience with Prof. R Narayanan. I always wonder why he was like that. Whether he had a tiff with his wife at home or someone else that he always threatened the students to fail them on very flimsy pretexts for not having removed parallax and he did it too. During annual exams, me & Vinod (Bond) decided to take chance and dressed very shabbily with ink splattered on our clothes which showed as if we were highly studious lower income group bracket boys. Trust me it worked in my case and without much of efforts Prof. cleared me without much glancing on theodolite.
2. Hostel experience in first year was an experience when on one first evening, due to lot of halla gulla from first floor of east hostel, our warden Mr Attri thought as if I was culprit and shortlisted me as among so many & asked for my presence in his office. He asked me to bring in my father which was a shock for me. My first lesson of marketing started when I took a chance and rang him up by impersonating my voice as that of my brother Dr Malik from AIIMS. I (Dr Malik) apologized on my behalf to Mr Attri for unruly happening and he accepted the apology. In return he asked for a favour for treatment of his mother which I happily agreed to treat at AIIMS. At last there was a happy ending.

Having enjoyed college life to full, it was indeed a challenge for backbenchers like me to think of a good career. I opted to stay back in India after getting degree despite the fact that I had got admission in Industrial Engineering in Berkeley for M.Tech. There was nothing else to do except to either be an employee or employer and I gambled for later. Having no experience and family background of business where many family members were doctors. Thinking of a change and choosing business as a career was a challenging job but I had no other choice. I opted for later and formed a company by the name of MELCO in September 1971, which was with a small set up of Machines and Foundry. From a small beginning in 1971, we have now grown INR 100 crores turnover company with 800 employees with 90 engineers.

VK Malik is Managing Director of MELCO India, a company of repute manufacturing Ash Handling Systems and FGD for Gaseous Pollutant Control in Power Plants.

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Standing I Row

Standing II Row

Standing III Row

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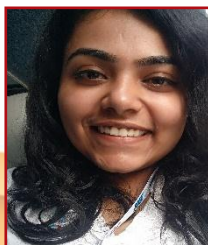
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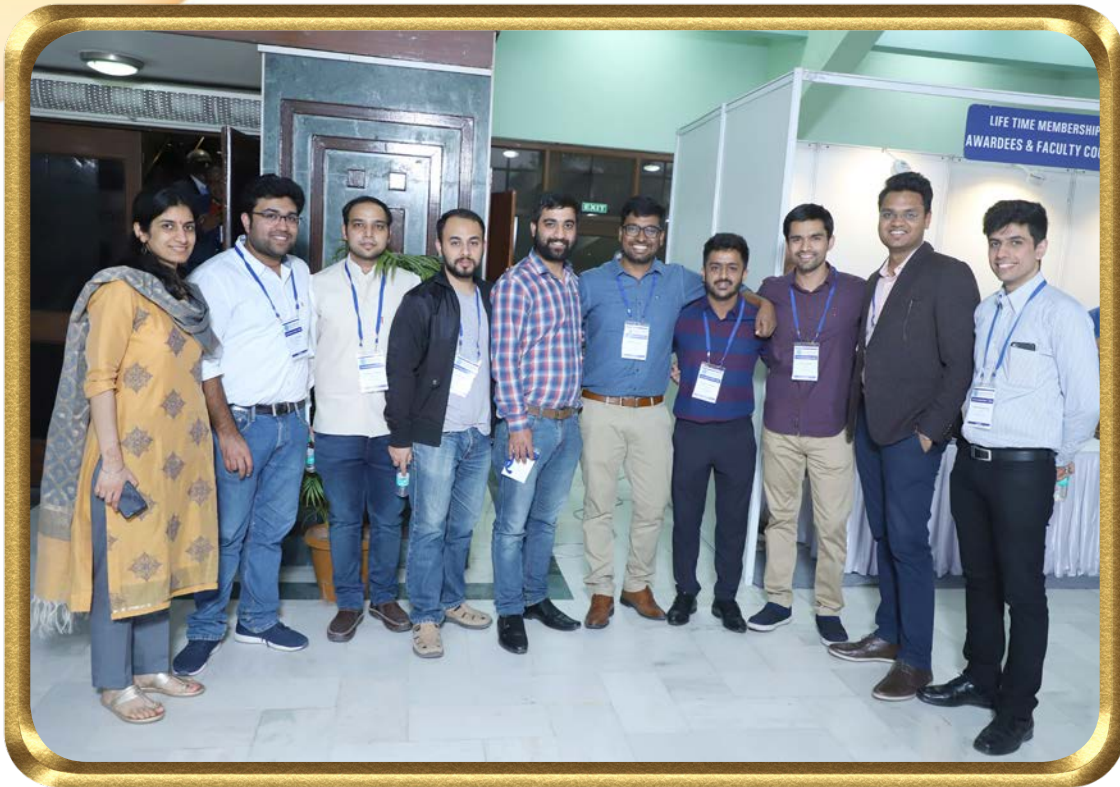
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