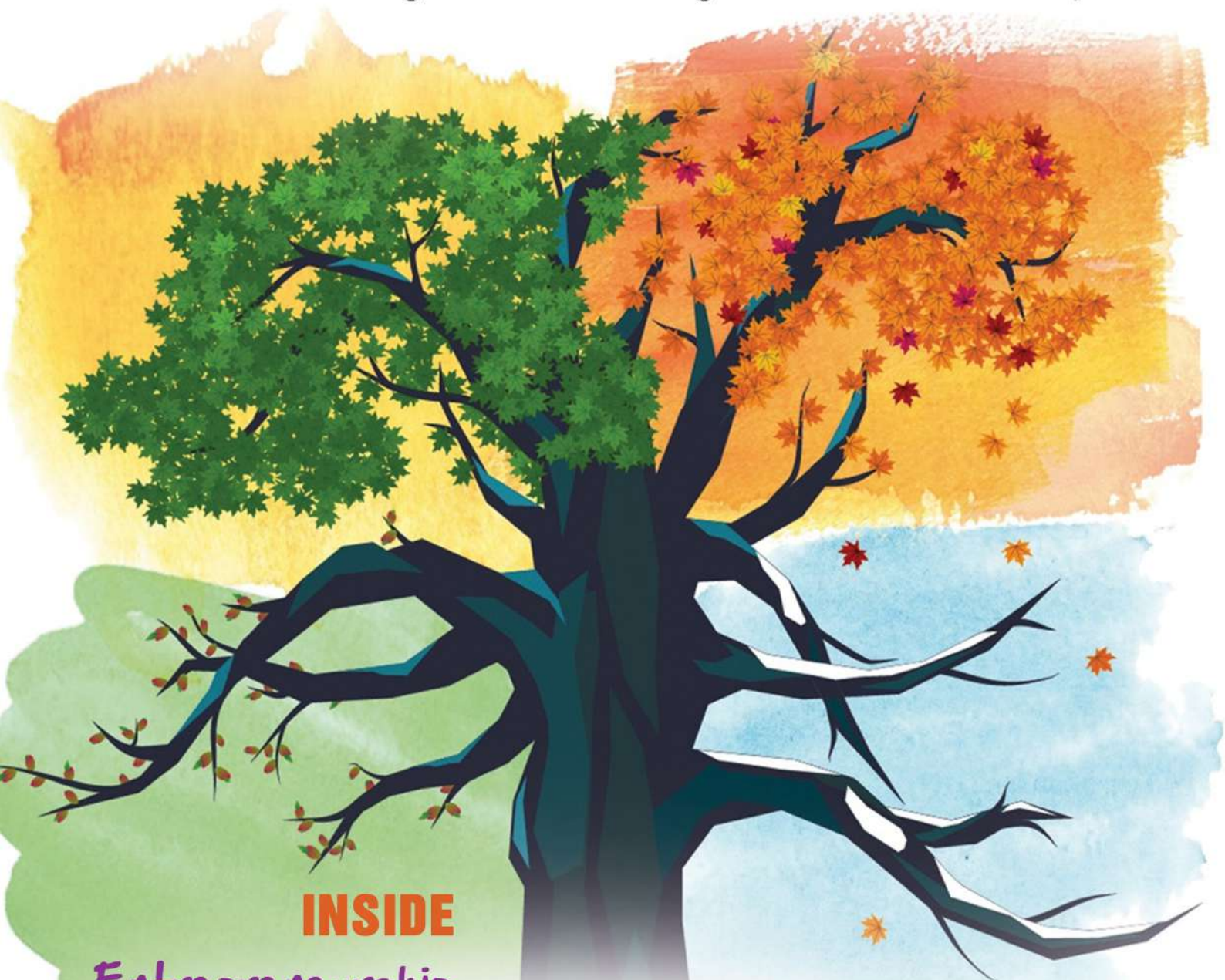


# ForceNeteZine

the magazine of military veterans in the corporate



## INSIDE

Entrepreneurship

Technology

Expatriate Interview

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Data Science



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# Contents

From the Editor.....	6
Book Launch - The Absent Dialogue.....	7 - 9
Ground Report - DGMP 21 (IIM-L).....	10 - 11
Stars of Forces Network.....	12 - 15
ForceNetPreneurs.....	16 - 22
Expatriate Interview.....	23 - 29
Role of MBA in Transition to Corporate.....	30 - 33
Data Science as a Career.....	34 - 43
At the Edge of Projects.....	44 - 47
Superstitions and Myths During Career Transition.....	48 - 52
Podcasts - The New Age Books .....	53 - 56
Book Review.....	57 - 59
Why Become a Victim of Hurt.....	60 - 61
Dholavira - The Smart City of the Past.....	62 - 64
Angel in Distress, in a Far Off Land.....	65 - 68
Direct from the Heart.....	69 - 71

# From the Editor

Dear Readers,

"Patience is not passive, on the contrary, it is concentrated strength", said Bruce Lee, and hopefully I can apply that for the patient wait by the members of the ForceNet for this issue of the eZine.

As we progress in numbers of the issues, we are also endeavouring to bring distinct positive change in the contents of articles being included here. We have very engrossing topics lined up this month as well, and I am sure these will be addressing the concerns of many of our members, and non-member readers as well.

We will surely be able to draw a lot of motivation from the likes of Rajeev Sharma, Anup Aggarwal and Harbinder Singh, who have a variety of experiences to share from their journey so far in their fields of excellence. Our series on Data Science as a career choice continues with valuable inputs from Vinay Gupta. Our younger generation, which makes much use of the technology has also chipped in with their learning, and so we have Henna telling us about Podcasts. Sekhon also contributes with his wisdom, guiding those aspiring for transition to corporate, and Ramesh guides you regarding handling of projects. Suresh has lined up a wonderful review of the book, which you would surely love to lay your hands on, as the next step.

Members are now quite attuned to the fact that the 'Network that Works' has the immense potential to reach nearly every possible corner of the globe, and one such example is highlighted by how we could be effective, in quick time, at a remote island like Bali.

The participation by the members in this effort, by way of contributing mutually inspiring and beneficial articles is acknowledged with complete humbleness. At the same time, I would like to request the existing pool of writers amongst us, to pick up their pen, and do what they are exceptionally good at. The children have started contributing, and so can the spouses now.

Wishing you a wonderful month ahead, the period signifying 'season of love'.

Till the next issue, take care.

Cheers to Forces Network - the Network that Works!!!

Regards,

Lt Col Ranvir Singh

# Events

## Book Launch - The Absent Dialogue

**BY RANVIR SINGH**

It was an honour for the Forces Network to be invited by Anit Mukherjee for the launch of his book 'The Absent Dialogue' and discussion, on 30 Jan 2020 at India International Centre, Lodhi Gardens, New Delhi. Iqbal Singh and I was fortunate to attend the event, and to be able to hear the views of learned and experienced participants on the topic.

Anit is an Armoured Corps veteran of the Indian Army, who at present is the Deputy Head of Graduate Studies, and an Assistant Professor in the South Asia Programme at the S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University, Singapore. He joined RSIS after a post doctorate at the Centre for the Advanced Study of India (CASI), University of Pennsylvania and a Ph.D. from the Paul H. Nitze School of Advanced International Studies (SAIS), Johns Hopkins University. From 2010-2012, he was a Research Fellow at the Institute for Defence Studies and Analyses (IDSA), New Delhi. While in the doctoral program, he worked at the Brookings Institution and was a Summer Associate at RAND Corporation, and now a Non Resident Fellow at Brookings India.

This book has been written by Anit after a well researched period of 10 plus years, wherein he had numerous interactions with hundreds of politicians, bureaucrats and senior Army Officers, including the Chiefs, apart from sifting through various archives.

Book Launch & Discussion

**THE ABSENT DIALOGUE**  
Politicians, Bureaucrats, and the Military in India

Thursday, January 30, 2020  
6:00 pm – 8:00 pm

Seminar Hall, 1st Floor, Kamaladevi Complex,  
India International Centre  
(40, Max Mueller Marg, Lodhi Gardens,  
Lodhi Estate, New Delhi 110003)

**BROOKINGS INDIA**  
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SCHOOL OF  
INTERNATIONAL  
STUDIES  
Nanyang Technological University, Singapore

**DISCUSSANTS**

**Shri Rajeev Chandrasekhar**  
Member of Parliament, Rajya Sabha

**Gen. V. P. Malik**  
Former Chief of Army Staff,  
Indian Army (1997-2000)

**Sanjay Mitra**  
Former Secretary,  
Ministry of Defence (2017-2019)

**Manvendra Singh**  
Former Member, Standing Committee  
on Defence (2007-2009)

**Anit Mukherjee**  
Non Resident Fellow, Brookings India

**MODERATOR**

**Barkha Dutt**  
Journalist and Columnist,  
Washington Post

**THE ABSENT DIALOGUE**  
Politicians, Bureaucrats, and the Military in India  
Anit Mukherjee

The book discussion focused on the broad pattern of civil-military relations in India to argue that it has adversely shaped its military effectiveness. Relying on a combination of archival research and the interviews, the discussion shed new light on the historical evolution of civil-military relations while closely examining the functional, and often



distrustful relationship between the two. A discussion panelist coined it as 'mutual misapprehension'. A fact that came out was that though most post-colonial states have struggled with controlling their military, India has much to be proud of, as the military has never threatened the political order, contested coup rumours notwithstanding.



Anit highlighted reasons for this mutual distrust. First is the problem of institutional design. In India's case, the ministry of defence is almost exclusively manned by civilian officials and is bereft of military expertise. In turn, the service headquarters are almost exclusively manned by military officers and do not allow for adequately qualified civilians to assist them. This arrangement inevitably creates an "us and them" sentiment. The second is the problem of expertise. India's generalist system of administration does not allow for expertise in its civil servants.

More worrying, however, is how can one grow expertise in military affairs when there is no existing procedure for declassification in the military and defence ministry? Indeed, this seemingly simple bureaucratic procedure is responsible for stifling the growth of strategic studies in India and needs urgent remedy.





The panel was however hopeful that the recent creation of the post of Chief of Defence Staff (CDS), and the DMA, which is rightly hailed as among the most notable reform of higher defence organisation, is a positive step in the direction to reduce this divide, and eagerly looked forward to see how it would actually perform on ground.



A wonderful cocktail party was also organised after the event, by Wg Cdr Pulak Mukherjee and Shyamoli Mukherjee, the proud parents of Anit.



**Lt Col Ranvir Singh**, a product of Rashtriya Military School and and alumnus of National Defence Academy, was commissioned into 2nd Battalion The Bihar Regiment in June 1988. He has served in all terrains of the country, held appointments at Armoured Brigade HQ, Area HQ, and HQ ARTRAC, and finally hung his boots in Jan 2009. Thereafter, as a Corporate Warrior, he has immensely contributed for last 10 years to recognised organisations like IL&FS Technologies Ltd, National Institute of Bank Management of RBI, and MMTC-PAMP India Pvt Ltd. He has a keen interest in the field of ever evolving Information Technology, and a flair for writing. He can be reached at [ranvirsm@gmail.com](mailto:ranvirsm@gmail.com)

# Ground Report - DGMP - 21 (IIM-L)

BY SHIVUM UPPAL

*“And as we spread our wings in the blue yonder,  
We leave our past behind and fly towards future,  
Shoulder to shoulder we stand together and ponder,  
We ponder how colourful is going to be this venture.”*



This is the DGMP batch of IIM-Lucknow, who presently is pursuing certification in Management Development to understand and prepare itself for the world outside uniform. A total of 60 fine tuned officers where the experience ranges over one to three decades. Each one of them has a unique skill set, be it touching the skies with glory or dominating the land like a boss or piercing through the waters with unparalleled force. But now, it is time to tweak that special skill into future leadership in the civil world and that is where, this course at IIM Lucknow comes in handy.

The course commenced on 06 Jan 2020 and marks its culmination on 12 Jun 2020. In between every student will undergo various transformative stages that will include 4-5 Academic terms, Co-curricular activities, Sports and the most important of all - Networking! Already the course has put itself on the right track by requesting over 8-10 guest lectures in the month of January on topics like Motivation, Military to Corporate transformation, Entrepreneurship, Strategic Corporate thinking etc. This only speaks of their clear focus and zeal to learn the nuances of corporate culture.

DGMP-21 batch of IIM Lucknow has already begun to steal the show by starting a running group at the Institute where over 40-50 students and 5-6 professors have already joined the group for a daily evening run. On top of that, the batch recently won the Volleyball Tournament Trophy and now is gearing towards another trophy - Cricket!

Now the batch is cruising towards yet another important event of placements in the month of March-April. Needless to say, each and every member is putting in their selfless efforts towards the same. The package of leadership and attitude that a Veteran carries with himself, is undisputedly unmatched but even the best of the best always needed the support of his comrades who are already out there in the civil world, touching skies with no boundaries.

In this quest of networking towards the final placements, the importance of Forces Network Group which has over 5300 members all over the World and rising, can not be over-emphasised. Capt. Uday K. Shriwas from Forces Network took out valuable time from his busy schedule and flew down from Delhi to Lucknow only to guide and have an interactive conversation with his comrades. Therefore, there is no doubt, we are in good hands and the Forces Network is standing by our side, always.

Living to the motto of Forces which is, "Wherever you go, go full throttle", the batch will continue to shine like a star in whatever it participates. This is nothing but only the selfless spark that the course carries with itself, in order to light the affection in the hearts of each and every alumni of IIM Lucknow so that, when they take their 'Antim Pagh', their footsteps be remembered forever!

*"We have the courage, we have the zeal to strive, We are the captain of our fate, we are the masters of our life."*



**Sqn Ldr Shivum Uppal** was commissioned in fighter stream of IAF in the year 2010 and has a decade of experience in flying the mighty MiG-21. He is a third generation Fighter pilot and belongs to Chandigarh. A B.tech in Computer Science Engineering from Chitkara University and a Certified Data Scientist from John's Hopkins University USA, he is presently pursuing MBA certification from IIM Lucknow. He is an avid fitness enthusiast. Presently, he is focussing on Military to Corporate conversion while undergoing DGMP Course at IIM Lucknow.

# Stars of Forces Network

A Forces Network Star is a member of the Forces Network who has gone on to achieve glory in the his/her corporate/civilian avatar. The aim of this series is not just to celebrate our successes from the veteran community, which unfortunately we do not do enough, but also to inspire others. The ultimate goal is to set up a virtuous self-sustaining cycle of inspiration leading to more successes in turn inspiring many more.

**BY BIDISHA PANDEY**

**Colonel Harbinder Singh has had an illustrious career in the Army and with the DRDO. After taking pre-mature retirement, his first challenging assignment was abroad with Armore International FZE at UAE. Subsequently he worked with two other renowned organisations, where he contributed immensely with his knowledge and experience. At present, he is the Chief Operations Officer with Unirail at Hyderabad, which is India's leading private railway Operation and Maintenance service provider. Its expertise ranges in all aspects of railway infrastructure including permanent way, locomotives, wagons, yard operations, re-railing equipment, signalling and telecom, overhead equipment, weigh bridges and level crossings.**



## **Life in the Army**

Colonel Harbinder Singh's first brush with a leadership appointment came in the year 1999, when he was selected to command a mid-sized workshop in Jaipur. During the same period, the Indian Army was carrying out automation of its workshop process at the Headquarters level. He pre-empted this opportunity and started the automation of his workshop. His innovative mind, not only led to a substantial saving of government resources, but also improved his service level. As a visionary leader, Col Harbinder took another initiative of developing and implementing junior leadership programmes. Unlike the common perception of strict command and control over men, Col Harbinder practiced the management of collaboration. The Junior Commissioned Officers of his unit were authorised and permitted to exercise their powers fully under the laid down guidelines. He inspired his men to do what they were expected to do. He did this by enabling and empowering them. Col Harbinder was always looked for out-of-box solutions and therefore was always ahead of his times.

## **Stint at Defence Research and Development Organisation**

The Army units generally provide a stereotype life in any one unit with a given aim and

to perform. For Col Harbinder Singh, his deputation to Defence Research and Development Organisation's (DRDO) Headquarters at New Delhi proved to be life changing. He worked with the Centre for Technology Extension and Cooperation (CTEC) in DRDO HQ, New Delhi from 2006 to 2009 as a Joint Director and was instrumental in handling, monitoring and executing the Limited Series Production (LSP) orders of DRDO based on Nuclear, Biological and Chemical Technologies for protection of men and material. Col Harbinder undertook the campaign in LSP based on Indigenisation (the roots of Make in India were then sown in DRDO in a small measure). He put his mind and soul to ensure that there was no cost overrun and no time overrun in the assigned projects. Meticulous planning and interaction with various agencies to keep a strict control started showing results. He was successful in executing the LSP orders in time domain. Two of the products, which were under his watchful eyes, were also paraded in Republic Day Parade in New Delhi. He also played a sheet anchor role in showcasing DRDO products in International Defence Exhibitions and was present in various discussions in International Cooperation for DRDO. All this enabled Col Harbinder to transition into a Project Management Specialist, a niche segment of the corporate world.

### **The Corporate Switch**

After taking PMR in March 2011, Col Harbinder joined Armore International FZE at UAE as General Manager (Business Development) in Aug 2011. He remembers he was competing against 39 candidates with strong background in similar industries when he went for the interview, but his preparation was all that made the difference. As he knew that the company was planning to expand in UAE, he studied the product, the potential market, expansion plan, logistical issues and prepared a 10 minute presentation which spelt out a business plan. His out of box perception was applauded by the Board of Directors and was appointed as General Manager the same day and assigned an international assignment in the very first job post PMR. He was responsible for overseeing business development operations and, accountable for increasing profitability and achieving business objectives within budgeted parameters in GCC countries and subsequently in Africa. He was actively involved in identifying business opportunities, developing creative campaigns and providing tactical business solutions. He successfully headed marketing operations in GCC Countries and Africa with base in Dubai and had the distinction of achieving 130% of projected sales.

### **Jugapro-Butsbach, New Delhi**

After a spectacular two-year stint at UAE, Col Harbinder decided to return to India for his family, in particular for children's education as they were grooming into formative years of prime education which would be genesis of their careers. He joined Jugapro-Butsbach as Vice President and led the set-up operations for specialist industrial doors and aircraft hangar doors. He implemented an EPC order for installation of one of the biggest hangar doors in the world for Boeing (Air India) project at Nagpur, India in a record time which could accommodate two Airbus A 380 or ten Airbus A 320.

## **Dangote Industries, Nigeria**

In the pursuit of greater challenges, Col Harbinder moved to Nigeria as Senior General Manager (Transport Management) for Dangote Industries and ended up handling one of the biggest transport fleets in the world consisting of thousands of trucks and trailers. He evaluated and reviewed the company's transportation operations, business practices, updated and developed process documentation, streamlined opportunities, and eliminated non-value-added activities. He managed to save 3.8 million for the company by instituting recycling and repair of damaged spare parts and also in provisioning of spare parts for a fleet of trucks and trailers spanning about 7000 in numbers. He was closely associated and worked under Mr Aliko Dangote GMD Dangote Industries, the richest man in Africa, who also figured in top 100 billionaires in the world. This gave a vision and exposure which took him to next level in the corporate world.

## **Unirail, Hyderabad**

As the security situation in Nigeria deteriorated, Col Harbinder decided to move back to India in March 2017 and also the time was calling to be with his children again to pursue their professional and Master's degree courses. He joined Unirail in Hyderabad as Senior Vice President (Operations). This role was predominant for people with Railways background. The will to do made him get over the initial vibes of being a non-railway experienced person and within six months he got into the main stream activities of the Company. His contribution and way of doing business got him the elite role and he was elevated to the role of Chief Operations Officer on 12 Nov 19. Unirail is India's leading provider of railway operation and maintenance services. Today, Col Harbinder leads a team of 2100+ personnel across functions. His gives a lot of importance to Human Resource management and alignment of individual goals of the employees to the overall vision of the company. Col Harbinder believes in empowering his team and making them deliver their best. He ensures the well being of his team, and at the same time, never compromises on deadlines.

## **Interests and Hobbies**

Col Harbinder is an avid reader and an adventure enthusiast. He loves to travel and has been to 42 countries so far. He makes the most of his weekends by planning biking and hiking trips. He aims to be able to run marathons at the age of 60. Col Harbinder also plans to take up photography as a profession in the next few years and aspires to start an event and fashion photography venture of his own.

## **Advice to Fellow Officers**

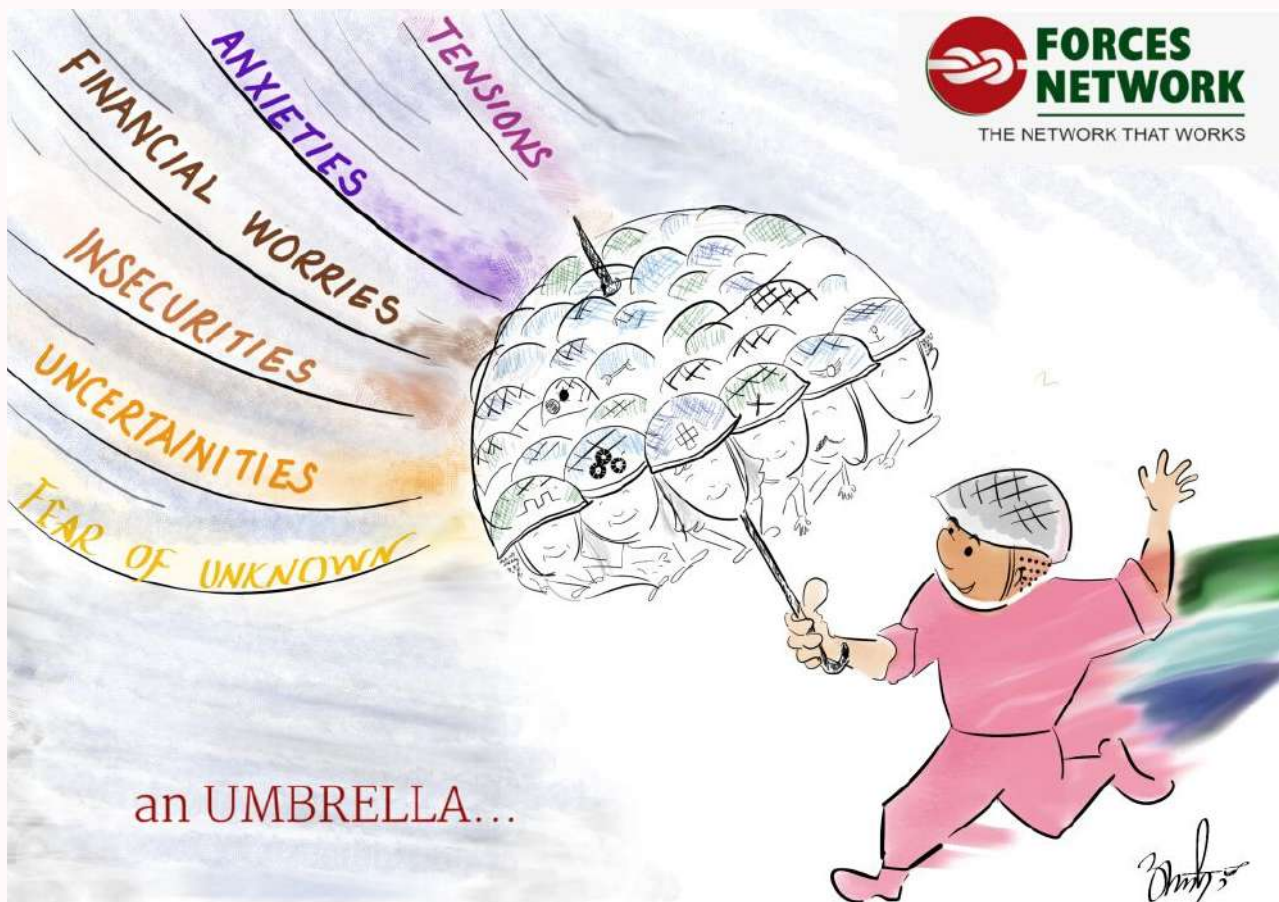
Col Harbinder believes that the preparation for transition should begin at least a year in advance. One should discuss the various factors involved in the fields one is interested in, with veterans who have made it big in that particular field. This happens through groups like Forces Network.

Also, age and experience plays a major role. Col Harbinder advises that officers retiring below the age of 35 should definitely aim for a full time MBA. For those in the age group of 35-50, specialization courses and certifications are a better choice. Veterans switching at the age of 50 or above should mainly look at consulting. Col Harbinder himself has completed 18 certifications so far and believes that learning is a never ending process.

He also says that the market values specialists over generalists, and therefore one should aim to specialize in a particular domain rather than being a jack of all trades. Well defined goals with a disciplined approach is all it takes to achieve what you desire.



**Bidisha Pandey** is a blogger who believes every individual has a story and a lot can be learnt from every story. More stories and interviews by her can be read on her blog site [www.sassyweekender.com](http://www.sassyweekender.com)



*Amit Dalvi*  
Amit Dalvi

# ForceNetPreneurs

In this series we plan to showcase a few entrepreneur members of Forces Network who have achieved a reasonable degree of success in their business ventures. The aim being to celebrate their success as also to learn from them with a view to motivating more amongst our community to take up entrepreneurship as a full time vocation. Finally - we do need job creators in greater numbers than job seekers.

**BY RANVIR SINGH**

**Lt Cdr Anup Aggarwal decided to leave the service of the Indian Navy to pursue his passion in the field of entrepreneurship. In spite of initial setbacks, with his resolute and dogged determination, he has been able to carve a niche for himself in the field of international logistics. He is the Founder and CEO of SAL Logistics Pvt Ltd. Over this period, he has also diversified into other domains, by keeping his ear to the ground, anticipating opportunities, and then exploiting them to their full potential. He has also been a mentor to many, whom he has helped to start, grow, and finally handle their independent ventures.**



Anup Aggarwal has one office at Mahipalpur, from where major operational activities are conducted. The other office is at Paras Trinity Towers in Gurgaon, where he mostly operates from. It was easier for me to catch him at Gurgaon, with his office being in reachable distance. When I reached there as scheduled, I found him eagerly waiting for me. It was later during the interview I realised that he was unwell, but he decided to not reschedule the event, with the aim to not upset my plans. That was an insight into his concern for the comfort of the people whom he dealt with. After quick exchange of pleasantries and a cup of wonderful coffee, we quickly got down to business.





**Ranvir: Tell us something about your background prior to joining the Navy, and your subsequent Navy career.**

**Anup:** I come from a defence background, as my father was in the Air Force. Like all children from defence families, we also frequently changed locations and schools, until I got admission in Sainik School Bijapur. It was from there that I joined the National Defence Academy as a Naval Cadet, and finally got commissioned into the Executive Branch of the Navy in 1987.

While sincerely carrying on with my Naval profession and duties, somewhere in my heart I always had this strong gut feeling that something better was in store for me commensurate to my interests and passion. Finally I took the call, and hung my boots in 1998, after just 11 years of service..

After moving out, I picked up a job with Polish shipping lines with its office at Delhi, however I had to move to Poland as its main operational activities were concentrated at that place. It was a great learning experience for me while I worked them for a little less than one year.



Based on my learning, experience and passion I now decided to start something of my own and thus moved to South Africa, in the domain of International business and trading along with logistics. However, I faced some challenges and the business could not take off as desired. Finally, I decided to return to India and mull over the deficiencies experienced by me, and to work on overcoming them, before starting again with renewed challenges.

I was financially broke upon my landing in India. Nevertheless, with my resolute determination and complete self confidence in my capabilities and ideas, I decided to make a fresh start in my domain of expertise. I decided to take a friendly loan of Rs 1 Lakh and started my own international freight forwarding and logistics business under the name of AV TRANS INTERNATIONAL in partnership. With our dogged determination we were able to establish ourselves within no time, and I was even able to pay back Rs 4 lakhs towards the loan taken, within a period of one year. It was then on 31 Dec 2004, that I started SAL LOGISTICS PVT LTD.

**Ranvir: Please give us more details about what you are presently engaged in.**

**Anup:** We are currently engaged in international freight forwarding and international couriers based out of Delhi/Gurgaon and with our offices also in USA and Europe. We have established ourselves as a leading player in the trade and I get invited by various schools and colleges for giving lectures on International logistics and trends. Now we have plans afoot to start an online school for the logistics trade as I see it as one of the most unrecognized and highly unorganized industry, with a very high attrition rate and huge gap in knowledge of workforce. We have also diversified into the business of creating prefab structures of homes / offices / farmhouse cottages / showrooms / offsite accommodations.



**Ranvir: Any important projects undertaken by you over these years?**

**Anup:** Yes, a lot of interesting, important and challenging projects have come our way over these years. I would like to list them out, as under:

- Entire logistics for festivals of India in France, China, USA and South Africa.
- Part logistics for Asia Cup and T20 World Cup, back to back in Dhaka for two years.
- Logistics for cricket boards of Australia, South Africa and India for various cricket series.
- Logistics for International premier tennis leagues.
- Logistics for disaster struck areas in Kashmir and POK.
- Logistics for Army/Air Force/Navy - Revamp of NSRY project in totality in coordination with SAFFRAN.



- Logistics for ordnance factories for shipping out ammunition and nuclear radio active equipments including missiles for various ships.
- Logistics for renovation of palace of the King Of Bahrain.
- Dismantling of Delhi Eye at Kalindi Kunj, and then moving it to, and assembling in Hongkong.
- Air craft charters of ISRO satellite from Bangalore to French Guyana.

And, there have been many more.

**Ranvir: What was the vision behind starting your venture?**

**Anup:** My vision was to be a leading player in international logistics, and to handle what no other entity wanted to touch, and thereby be known as a company that could carry out the near impossible. Expansion for me in particular, and my company in general, is not defined in terms of revenue or money earned but to showcase the World that more could be achieved in less. Expansion plans also include, as stated earlier, to get a move on with Skill India program to ensure that the quality of workforce that joins the industry is not only certified, but also skilled enough to meet and fill the huge gaps in the trade/industry.

However, the bigger vision was to create more entrepreneurs who could further create more and be part of a support system by providing job opportunities to people who came not from cities but villages, and I am glad and have a huge satisfaction that I have helped in creating more than a dozen entrepreneurs so far in the same field. They maybe small or big, but they no longer depend on someone else and that's the biggest professional satisfaction I have achieved, more than money.



**Ranvir: What were the challenges faced in this entrepreneurial journey?**

**Anup:** I would list them as follows:

- Lack of domain knowledge and adequate financial support.
- Getting the right or so called perfect team/set of workforce that would stand with you under all circumstances, both positive and adverse.
- Building confidence in your abilities and acumen. Each day was a twist in the tale, but I was extremely lucky to find a bunch of people who stood by me and had

undying faith in my abilities and vision, and couple it with leadership traits that I had acquired over the years.

- Learning on job. I knew nothing of this trade until I joined in and learnt things on ground zero by spending many a cold nights on field to learn things first hand. Losing money while learning was a given, as anyone and everyone would and is ready to take you for a ride.

- No previous exposure or peers to fall back upon. I was the first one to start a business as father and grandfather were in uniform. My leaving the safe haven of the uniformed forces before earning a pension was a big cause of worry for them, but the strength to go out into the big bad World and learn and grow was that one thing that kept me going.



**Ranvir: How did you overcome these challenges?**

**Anup:** With not much of formal education, and backed by a mere JNU degree, I was highly unequipped in terms of qualifications to display. And, add to that the unskilled workforce with me who worked without initiative and knew only what was told to them. The greatest learning however came on ground and without any formal training in the field of logistics, and use of common sense, thus cementing my belief that merely an MBA in logistics and supply chain cannot and does not qualify you or train you for what lies ahead. I knew only one thing, to go and grab the information and the knowledge before someone finishes you off for the lack of it, and each day ever since has been a day of learning and that has not stopped ever since.

**Ranvir: How do you find your entrepreneurial journey so far? Any regrets?**

**Anup:** The journey so far has been great, with each day bringing something new to the table and keeping the hungry mind feeding with small doses of trade knowledge and wisdom. Regrets would only be for the opportunities not taken, and not for failures experienced en-route as those have only functioned as stepping stones for me. At individual and personal level, I have decided not to work beyond a point of time on any day and spend maximum time available with family. As a result, my growth has not been as exponential as it can be, but I am happy about my decision, and do not regret it.

**Ranvir: How did you overcome these challenges?**

**Anup:** With not much of formal education, and backed by a mere JNU degree, I was

highly unequipped in terms of qualifications to display. And, add to that the unskilled workforce with me who worked without initiative and knew only what was told to them. The greatest learning however came on ground and without any formal training in the field of logistics, and use of common sense, thus cementing my belief that merely an MBA in logistics and supply chain cannot and does not qualify you or train you for what lies ahead. I knew only one thing, to go and grab the information and the knowledge before someone finishes you off for the lack of it, and each day ever since has been a day of learning and that has not stopped ever since.

**Ranvir: What are your future plans going forward?**

**Anup:** I now wish to diversify into the field of sports tourism, and conducting sports camps in Spain to take sports tourism to the next level. The present engagement might take a back seat a few years later.

**Ranvir: There must have been great lessons during this tremendous entrepreneurial journey. Can you share a few from your experience?**

**Anup:** I am in complete agreement with Larry Alton, who states, "Entrepreneurship is a journey, and it seems like everyone goes through it a little bit differently. Some move through the process fast, stumbling into success in a matter of weeks after executing a brilliant idea. Others move slowly, spending decades of their lives perfecting the art. Some go to college for years getting a master's level education in business, and others get started before they even finish the high school." In my journey so far far, I have gone through all the seven stages as he states in his article "Entrepreneurship Is a Journey in 7 Stages. Enjoy The Ride" (<https://www.entrepreneur.com/article/253768>) which are:

- Intimidation.
- Novelty.
- Overwhelming.
- Rhythm.
- Failure.
- Rejuvenation.
- Temperance.

Apart from that I feel that one should always be hungry to learn. Our environment has a lot to teach, and learning can come from not only those who are superiors, but from peers and subordinates alike. Also, never shy away from doing the work that you expect others to do, or maybe even all the work. Sharing of knowledge and information goes a long way. While strategic information may be restricted, but sharing of other information for fear of competition is falsely placed. It will instead help you to be on your toes always. Most important, do not go by blind faith, and follow your gut feeling and instincts instead. Let people prove themselves first before you place your belief in them, and especially related to your domain and industry.

**Ranvir: So, what advice would you like to give to the fellow ForceNet members who want to take up entrepreneurship?**

**Anup:** I have a very short and simple advice for them, which is, be willing to take the

plunge and accept the pitfalls and enjoy the journey & never be overwhelmed by the challenges. Have trust worthy and thoroughly vetted partner who will stand by you.

**Ranvir: Tell us something about your family, and sports tourism in Spain.**

**Anup:** I met my wife for the first time in 1994, to whom I proposed on the very first date, and got married in special circumstances. She was the HR Head in an MNC, but gave up her career for the sake of the family in 2010. We celebrate our Silver Anniversary this year. Our elder daughter is preparing to join the Air Force in the Flying Branch, or become a commercial pilot. The younger one has chosen to turn professional in lawn tennis, and has been training in Spain for the last two years. It was only while fostering with ideas about her training that i have now come about on this big idea of sports tourism and surely look forward to making it a big success.

**Ranvir: It was really enlightening to interact with you, Anup Sir. Surely, our readers will have a lot to learn and take from your experiences.**

**Anup:** It's been a pleasure for me too. I am available to any ForceNet member, who would like any additional information or assistance on the subject.



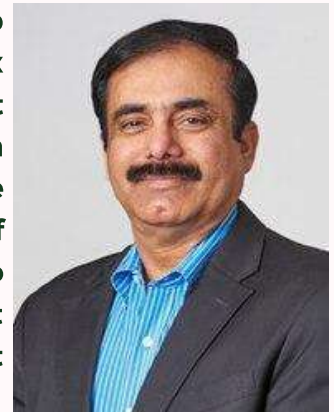
**Lt Col Ranvir Singh**, a product of Rashtriya Military School and alumunus of National Defence Academy, was commissioned into 2nd Battalion The Bihar Regiment in June 1988. He has served in all terrains of the country, held appointments at Armoured Brigade HQ, Area HQ, and HQ ARTRAC, and finally hung his boots in Jan 2009. Thereafter, as a Corporate Warrior, he has immensely contributed for last 10 years to recognised organisations like IL&FS Technologies Ltd, National Institute of Bank Management of RBI, and MMTC-PAMP India Pvt Ltd. He has a keen interest in the field of ever evolving Information Technology, and a flair for writing. He can be reached at [ranvirsm@gmail.com](mailto:ranvirsm@gmail.com)

# Expatriate Interview

In this series we plan to showcase the achievements of the members of Forces Network who have settled abroad and carved a niche for themselves through hard work, grit and determination. The aim is to bring to fore the mechanics of such transitions, and thereby quell the apprehensions of the larger community in the Network. Learning from each other would help us exploit our true potential in any part of the World. And, it could be beneficial for our families too.

**BY IQBAL SINGH**

**Lt Col Rajeev Sharma is the President & CEO of Nova IQ, a deep learning solutions company that helps solve most complex business problems with AI. He served as the senior rocket scientist and deputy project director of Agni III missile program of Defense R&D Organization in India. He has a Graduate degree in Management & Systems Design from MIT Sloan School of Management & the School of Engineering Systems. Prior to joining Nova IQ, Rajeev served as the Chief Solutions Officer at Ness Digital Engineering, a renowned global digital product engineering company.**



*"We must let go of the life we have planned, so as to accept the one that is waiting for us." - John Campbell*

The above words were reverberating in my ears loudly. it was 10 PM (IST). I was interviewing Col Rajeev Sharma over a video link on my laptop. The interview was scheduled for one hour, and I had already spent over two hours. I had lost sense of time, my wife was calling me for dinner, a bit annoyed since I was late for dinner. But in my ears American author John Campbell's quote was playing, again and again! I could not sleep that night just wondering about his life story.

I do not mean to exaggerate. Though I am not a journalist, but I have interviewed a large number of people in my life by virtue of being on the editorial boards of school, college, CME, MCEME, DSSC, community magazines etc. This was, without a doubt, the most fascinating interview, This story was unlike anything I had heard before. Pivoting careers multiple times with all the attendant risks that too across industries, verticals and countries and achieving great success in each endeavor – this is a story that needs to be told, and told to a wider audience.

**IQ:** Please tell me about you early childhood and growing up years?

**Rajeev Sharma(RS):** I grew up in Mumbai suburb of Khar (West). My father died when I was just 8 years old, and my mother re-married when I was about 10. My grandparents were both freedom fighters and my grandmother was especially a huge influence on me. Her stories of freedom struggle and our ancient history left an indelible mark on me as a child. Around 8th grade my younger brother and I both left home to stay with our grandparents. Unfortunately both my grandparents passed away within a year and

half and my brother and I were left alone with our loving caretaker. This phase perhaps was the most defining moment when we refused to return to our parents and decided to stay alone. Being fiercely independent, I picked up random jobs and supported my brother. I also got a lot of support from my uncle.

**IQ: Can you share about more details about your career in the Indian Army?**

**RS:** I joined the Indian Military Academy after MTech in Rocket Engineering from BIT MESRA in the 68 Tech Course but was commissioned in June 1990 with 69 Tech with a silver medal. I was the first technical graduate who was made an Academy Under Officer which was quite a privilege I must say. I always wanted to contribute to India's missile development programme. However, in the initial few years I performed all regimental duties assigned to me including that of The Adjutant of a Training Battalion at the EME Centre. I would always volunteer to take classes for jawans for electronics. My Commanding Officer, Col R Raj Kumar, later a Brigadier, was an outstanding officer and a tough task master. He shaped me professionally in many ways and that helped me later in my career. I was detailed on the ORE & CC - 38 course at MCEME, Secunderabad in 1994. After I stood first on the course, I requested interview of the Deputy Commandant Maj Gen Sujeet Singh, requesting that I be allowed to work in the R&D of missile programme and be posted to DRDO on a tenure. After some initial reservation when he saw the passion in me for research he took a stand for me. He recommended a posting for me to DRDO, and changed my life! I am really grateful to him for he showed belief in the passion of a Young Officer. He also gave me some very good advice, "Don't be a passenger there". Soon I was posted to DRDL, Hyderabad.

**IQ: Tell us more about your life at the DRDO?**

**RS:** Lt Gen Sundaram, was the Director of DRDL and he assigned me to the SPD- Solid Propulsion Design department when I joined on 03 Dec 1994. I was involved in the design of a submarine launched missile with a medium range. I am truly grateful for a lot of people trusted and betted on me. My initial assignment was to design a bolted-joint for a solid rocket motor. For an electronics engineer being assigned a pure mechanical engineer task was quite challenging, however I have never believed in any stereotypes. I worked hard day and night and successfully designed the same. I made the final presentation to Dr APJ Abdul Kalam, then the Chief Scientific Advisor to Defence Minister, Everyone appreciated the achievement. The Agni Project Director who attended the presentation called me aside and asked me if I would like to work with him and develop Agni-III as a two stage rocket. I was speechless!

*(I need to interject here. This is where I met Rajeev in 1996, I was a EME Degree course student at Secunderabad, and stuck with a difficult Electronics project. Somebody referred me to Rajeev and I met him twice and he was very helpful and proffered some very useful technical advice. - IQ)*



Agni-III Experience: Those were exciting times with a lot of hard work, sweat and toil. Anyway the design was successfully completed and was reviewed personally by Dr Kalam in 1998. By then my tenure with the DRDO had come to an end. I was posted out and detailed for the OACTE course. However DRDO wanted me to continue. At this stage Dr Kalam wrote to the then Army Chief Gen S Roychowdhury stating that “Rajeev is our Principal rocket designer”. An army man designing rockets amongst the scientists was not very common. I was then permanently seconded to the DRDO. I continued working hard with all my zeal, and in 2001 I was awarded the “Scientist of the Year” award in DRDO, being the first uniformed person to get this award. I was also recommended twice for a VSM. I was well rewarded, and I must say that as a 37 year old Lieutenant Colonel (in those days that was very young for a Lt Col) I was the youngest Deputy Project Director of Agni -III Programme.

**IQ: Then something happened, a 'Question' that changed your life, tell us more about it.**

**RS:** In the missile programme I saw a lot of investments being made by the government, some of which which I personally felt should have come from the private sector as is the case in the USA. This was in Sep 2004. I asked this question to my Boss Mr RN Agrawal. He replied that while it was a good idea but it will not happen in India as it required huge investments. “Who will do it?”, was his reply,

I found myself replying to him “I will do it”. I said that I will build India’s first private rocket design company. I told him that I will go to MIT and do my Masters in Systems Design and come back and build this company. I do not think he took that statement seriously. Meanwhile I started preparing for GMAT exam. I applied to the MIT Sloan School and got selected, though I did not even have a passport till then. I decided that I will resign from service and go to MIT. I had put in 16 years of service, six years in the EME and 10 years in the DRDO, I was still four years short for my service to become pensionable. My career was on a fast track in DRDO, my promotion board for Colonel rank was due soon and I was on track to possibly become a Brigadier in the next five years. Everybody advised me against leaving at that time, but I had made up my mind. I spoke to my wife, who was a successful working IT professional, and she supported my decision wholeheartedly.

My course at MIT was to start in Jan 2005. My US visa request was sent for a detailed scrutiny given my background in sensitive military technologies. There were some reservations against my premature release by the Army, however I must say that the system supported me throughout. My manager never felt bitter or felt betrayed, Dr Kalam was now the President of India, everything fell in place almost as if it was conspiring for all this to happen. I made it in time for my course at MIT though I was late by around 14 days. I had left without pension, did not have too much money, so I had to sell my flat, as well as take a student loan to pay the fees at MIT.

Life at MIT: I came to MIT assuming that I was cat's whiskers doing what I had done. However MIT was a humbling experience, the best and the brightest of the World were here. What one had done in the past did not matter here. It was lesson in humility for me at the MIT. I saw many others who had done much more than me and that too at a much younger age. It was back to the grind doing the dual degree of System Design at MIT School of Engineering and management at the Sloan School of Management.

Two years at MIT were mind blowing! I also undertook a course in Public Policy as part of the cross transfer at Kennedy School of Government at the Harvard University. The kind of people I interacted with on this course was mind blowing. Somebody who had been nominated for the Nobel Peace Prize, and who later went on to become the President of Liberia. Also the city Mayor of Zimbabwe who had escaped persecution from the hands of Robert Mugabe. The interactions with these peaceniks had an extremely profound impact on my mind. It was a lesson in emotional intelligence.

I wrote a thesis on "How to use engineering enterprise architecture to architect dispute resolution systems". I studied conflicts like Israel- Palestine, India-Pak, etc. I was fortunate to have been taught by the best in the world. Dr Crawley who was the architect of the International Space Station (ISS) taught me enterprise architecture, and Dr Rodberg taught me socio-politics. All this completely changed my perspective. I felt that if I were to design missiles I was not helping the cause of peace. My mind was in conflict.

800 companies came to the MIT for campus placements, and I was engaged with an American aerospace company. I had gone through 3-4 rounds of selection. However, in my mind I was in conflict. How can I design weapon systems and promote peace? On the other hand was the promise to my Country that I shall return and set up India's first private rocket design company. This was very hard period for me. I started asking myself "Am I fraud, a cheat, or a scamster? Who am I?". I was in real pain mentally.

I finished writing my thesis at 02:30 am in the night and called my wife who had by then relocated to the USA in her Indian IT company. I told her about my decision to not design rockets any more, and not surprisingly she asked me to follow my heart. So, the next day I went and told the recruiter interviewing me from the aerospace company that I can not join them as I had changed my mind. I explained my case. He was a white man, and was very understanding. He said it was fine and also made a profound remark that I still remember, He said, "It is for these reasons that countries and people become great".

Post my graduation I toyed with the idea of joining the UN Peace Keeping HQ, and even thought of setting up a Public Policy College in India. Finally I joined Polaris in the US in 2008 as a Vice President and managed the relationship with Global GE Infrastructure business as the Engagement & Account Director,

DynaLead Consulting - My Company: I started my own company DynaLead in Feb 2009. It was a consulting company using mathematical modelling to advise Hedge Funds. I adopted the systems approach to my consulting practice. After five years I sold my company and made a nice profit.

Ness Digital Engineering: I was once giving a talk on the 'Nuts and Bolts of Leadership' while still in the process of exiting DynaLead. There was a lady in the audience who stayed back to talk to me. She said her husband is the Chief Revenue Officer of Ness and they were looking for a Head for Business and Technology solutions. She felt that I should meet her husband. It was a God sent opportunity as I was exiting my company. I soon joined Ness as Vice President & Head of Business and Technology Solutions. Ness offered me \$30,000 more in salary than what I had demanded. It was here that I really understood as to how corporate America works. Soon I became part of the Board and was in line to become the CEO in Ness.

Lessons at Ness: I carried these lessons from Ness:-

- Understand the culture of an organisation.
- You can disagree by giving an alternate solution, but not by cribbing.
- You don't simply give an opinion but you need to show the gaps/ facts.
- Do not react but respond to situations. Do not try to rebut an argument immediately, hold back, think and then speak. Speak less.
- Acknowledge when you don't know.
- Come out of your comfort zone.
- You are not married to a person in the company, but the institution.
- Be a specialist, not a generalist.
- Flowery English language does not help. Instead, you need to execute on ground. Communicate in simple terms.

How Nova IQ Happened: I was in touch with Arun Verma, an ex Indian Army Engineer officer in the US. He was from Kilo Squadron of 22 NDA Course. He had fought in the 1971 war in the Shakargarh sector, left the Army as a Major in the late 1970s and then moved to the USA. He now runs a very successful staffing firm, with a revenue of about \$ 60 m. He would often invite me to join his Company, however I told him that staffing is not something that I would enjoy.

In 2018 Arun approached me with a proposal to set up an AI company, with a seed funding of USD 2 m. I told him the money was insufficient. He asked me to start and said more funding could follow. That is when I joined Nova IQ and now I am the CEO and President, I hired two employees from Ness. One of them, Prabha moved to India and heads the Labs at Hyderabad. The other, Dharam, is in the US.

We were very clear that we do not want to be an everything company. We would be niche, we would not be mediocre. So, we spent the first six months coding algorithms in Deep Neural Networks, We were focused on Deep Learning. When making client

calls we would give ten AI demonstrations but no powerpoint presentations. As a result today we already have five big projects including a few from Wall Street, Our revenue has crossed \$ 1 m and we have 14 employees. We are scaling up and hire talent from MIT, CMU, IIT, BIT etc. and are soon seeking PE funding. We conduct hackathons to select talent, as we are mathematically gifted company with exponential talent.

**IQ: In your life you have taken audacious risks, and pivoted careers multiple times. What do you think gave you the confidence to undertake those risks and execute them so successfully?**

**RS:** As I look back, it seems true indeed that I took some audacious risks. Quite honestly, one thing led to another and I had not designed the script like clockwork as it may appear. Quite early in my life after my MTech at BIT MESRA in Rocket Engineering, the decision to join the Army was an outlier in my program. My professors thought that I should pick up a career in rocket propulsion design as a scientist in VSSC Trivandrum or the DRDO. The second blip came when I decided to leave the Army and DRDO giving up my pension (left after 16 years of service) and future ranks. That was a thoughtful decision as I wanted to build my own private rocket design company. During my tenure at DRDO I came to believe that the Government alone is not the best vehicle to build these capabilities using public money. A strong military-private capability complex was needed for a country like India. However, after coming to MIT and taking extensive coursework at Harvard Business School and Kennedy School of Government, I realized that I did not want to build rockets anymore for anyone. From Rocket Engineering to IMA to DRDO to MIT to Entrepreneurship and now to Corporate, life has opened amazing doors for me for which I feel blessed. This was possible because I never restricted myself to a static view of who I am and what I could be. Grateful to the teachings of my Grandma, I think. Her blessings stay with me.

**IQ: Any regrets in life?**

**RS:** Not really, although I feel that I should have finished my PhD at MIT. But again, that would have been a very restrictive view of myself. So it's all good I guess. In today's times, education is but one tool that we could use to uncover our potential. There is no one normative way. We decide who we are and what we wish to accomplish.

**IQ: To wind up what advise would you like to give to military personnel seeking civilian careers?**

**RS:** Not sure if I have all the right answers but in my view it's all right to make mistakes and not know the best path forward. Life always shows a way. To my fellow brother officers I would say that all transitions are challenging and they nudge us to explore and build upon a new dimension. Few thoughts in this regard are:

- Your rank should not define you, your thinking should define you. You are not your rank. You are far beyond that.

- Your capabilities are not what you did in your last posting or last few tenures.
- Degrees are helpful and may open a few doors but success happens when you add value.
- Do not worry too much about equivalence on the civvy street. I always got more powers in DRDO than what my rank would have otherwise bestowed upon me. Your work, skills and talent should outsmart all norms, traditions and dogma.
- You will get paid for what you bring to the table and not what you did anywhere.
- Become a specialist. Be good at any one thing then work on that and hone that skill. Be really good at that and 10 times better than others. Keep upskilling yourself in areas that you are most passionate about.
- Salary should not be made an issue of self-esteem. It is all about the value you add in the organisation. Understand that.
- Be in the good company of people who are your benchmark. Move around with people who you want to be.
- Consider yourself as a product, and think outside in. Read and read. Think non-linearly.
- Yes, your transition has to be deeply thought through, planned and meticulously executed. It cannot be a random decision.
- I firmly believe in the concept of ABCT – Any Body Can Tech being propagated in Forces Network, Technologies today are not monolithic. You don't need to know the entire monolith, technologies are more user friendly today than before. Self-learning has never been easier than it is now with so many MOOCs. As an aside I have been a member of Forces Network from Day 1 ie 04 Dec 2007 though I have never posted a single mail in the Group I enjoy reading all the emails. I find it to be a brilliantly conceived idea and extremely well executed.
- Invest in yourself, Invest in your education and upskilling.
- There are no shortcuts – you need to go through the grind.
- Learn articulating your value proposition.
- Firm but polite actually works in the corporate world too.
- What worked for me, may/will not work for you. Don't be a poor image of anyone else but a true version of yourself. The corporate world will value what you bring to the table.

*(Based on inputs provided by Lt Col Rajeev Sharma)*



**Lt Col Iqbal Singh** was commissioned on 19 Dec 1987 into 4th Battalion The Garhwal Rifles. He completed MTech after undergoing the EME Officers Degree Engineering course on Infantry vacancy, and subsequently graduated from the DSSC Wellington. The officer has also done a tenure in the Indian Army's Wargaming and Development Center (WARDEC). After hanging his boots in Jun 2008, he is currently working in a senior role in a large European telecom MNC based at New Delhi. He is a frequent speaker on various industry fora on technology topics especially Cloud Technology and Artificial Intelligence. He founded the Forces Network, having 5200 plus members, on 04 Dec 2007 and continues to drive it to greater heights. He can be contacted at [igchucks@gmail.com](mailto:igchucks@gmail.com)

# Knowledge Bank

## Role of MBA in Transition to Corporate

**BY J S SEKHON**

### **Leaving the Armed Forces**

Different people could have different reasons for leaving the Armed Forces, and the same is not an easy decision. After all it's a settled life and why leave a well-established career to jump into stormy waters. From what I've seen, apart from SSC officers who in any case would have to move on to a second career, most of the PC officers leave the Armed Forces prematurely either due to the fact that they don't see a career ahead for themselves or are no more enamored by the uniform or the perks and privileges which come along with it. There are also those albeit a few who have this ambition of proving themselves in the civil streets. I guess for Permanent Commission officers, the primary reason is pretty akin to Jeff Bezos' Regret Minimization Framework, wherein he talks about looking back at his life when he is 80 years old and not regretting having taken the entrepreneurial route. On similar lines, while a career in the Armed Forces is without doubt one of the finest careers which one can aspire for, there comes a time when one would like to change lanes and move into civvies with the aim of fulfilling one's aspirations.

### **Why do an MBA Course?**

An MBA from a premier B School in my opinion is the safest way to launch a second career for Armed Forces' Officers. I call it Risk Mitigation. Most of us in whatever amount of service we would have done, would have developed a fair amount of skills to help us survive in the corporate world. However, an MBA from a premier B School provides you an armour. It is more or less a sure shot means of launching a second career with a very high probability of success. While I understand that this sounds brutally honest, that is how it is. There are several reasons for the same. An MBA provides you much needed knowledge and skills. Trust me, there is a fair amount of learning needed by an Armed Forces Officer before he steps into the Corporate world. While we develop wonderful skills in the Armed Forces, most of them though extremely valuable could be very 'Fauj' oriented and unless coupled with the requisite learnings of an MBA could be of little use. An MBA from a premier B School these days is extremely contemporary and very technical. Gone are the days when an MBA was essentially theoretical in nature and comprised of subjects which we in the Armed Forces would probably already be exposed to in the numerous in-service courses which we undergo. Considering the fact that technology has entered and influenced every sphere of business these days, an MBA can provide the much needed skills to jump start a second career. In this context, it may be worth mentioning that there are several professionals from the corporate world who go in for a second MBA at a certain stage in their career to provide them the much needed boost to go on to their next level.

## MBA Versus Resettlement Course

Well, there is a fair amount of difference. Let me first tell you about the commonalities. The first being that a Resettlement Course from an IIM could be pretty grueling. I can vouch for IIM Lucknow atleast. Having interacted with the officers doing the DGMP as it's called here, I can confidently say that a fair amount of effort was required on their part and of course the learnings would have been there.

However, let me pen down some advantages of the one year MBA vis-a-vis a Resettlement Course. Firstly, the one year MBA gets you an MBA degree. Starting this year all IIMs are awarding a degree for the one year course. Secondly, the learnings are obviously much more considering the duration which is one year as compared to six months. Thirdly, learnings outside the class are more, thanks to the varied professional backgrounds of the cohort. One gets to interact with professionals from so many different backgrounds that in a period of one year, one obviously gets to learn a lot from their experiences. Fourthly, the one year MBA from one of the top IIMs or ISB has a certain brand value. Though an intangible, this brand value can be a big differentiator over the entire span of your corporate career. Finally, a one year MBA offers you a structured placement process and more or less one gets a guaranteed placement after the course.

## Tips on preparation for GMAT

If you want to do a one year MBA, you would need to take the GMAT and get a reasonable score so as to get selected into a good school. Since details on preparation have already been covered in a article in the previous issue of the ForceNeteZine, I will not delve much into the same. However some pointers which would be worth mentioning are:

- The GMAT score has a validity of 5 years. It is advisable to take the GMAT at least a year prior to your intended date of commencing the MBA so that you can focus on other aspects towards the later part.
- Set aside atleast 6 months for preparations. The same should be good enough to get a decent score.
- While you can certainly prepare for the exam on your own, a good Coaching Institute can definitely make things easier and pump up your score by a few points.
- Mock tests are extremely beneficial. Not only do they tell you where you stand, but also give you much needed practice. Considering the grueling nature of the exam, Mock Tests can be a big differentiator.
- Finally, the GMAT provides you a major advantage, which is that you can take the GMAT at a time and place of your choosing and can also take the exam a total of eight times.

## Which Institute to Choose for Doing MBA?

I shall restrict myself to the Indian Institutes. The Financial Times rankings for B Schools are the preferred rankings the World over and gives one a fair idea about the standing of the institute. Among the IIMs, my advice would be to restrict yourselves to the top four IIMs viz. IIM Ahmedabad, IIM Bangalore, IIM Calcutta and IIM Lucknow. Apart from the IIMs, ISB has an immense brand value and is among the best B Schools in the Country. While rankings are an extremely important factor, other factors which could be worth considering are, the fees of the course, the location of the Institute, specializations which the particular institute offers in the form of electives and relevance of an MBA degree vis-à-vis a diploma which ISB offers. An MBA degree could be a better proposition if you intend migrating to a foreign country in the future.

## Preparations Before Doing MBA

Now that you have got selected to a good B School, frankly speaking, half the battle has been won. However, to make the most of your MBA, it is advisable to prepare well for the same. Such preparations include academic preparations as well as preparations on the admin side of things. Some pointers are as follows.

- An MBA can be an extremely grueling course so do as much of study prior to the course as possible. The same would make your life comfortable during the course. Finance and Accounting are two subjects wherein it would be worth studying a bit. The same is essential considering the fact that most defence officers wouldn't have much knowledge about these subjects.
- Do brush up your Excel skills, because these can be a game changer.
- MBAs these days are extremely Quant heavy. Revising your Statistics would hold you in good stead.
- Added qualifications such as PMP, Six Sigma, CSM, relevant Analytics courses can also be real game changers. There are several job opportunities, during Placements which specifically ask for these certifications.
- Considering the rigorous nature of the course, ensure that on the administration side of things, everything is taken care of. Since you would have recently hung up your uniform, there may be a fair amount of tasks at hand such as post retirement formalities, settlement of family at a place of your choice etc. Plan for all of this in advance since once you commence your MBA, you may not get much time for this.
- Finally, do focus on your physical fitness as well. It may be months before you get time for that evening run or the session at the gym, so do all you can in the months prior to the MBA. Having said that, while most MBAs are extremely intense towards the initial part of the course, they essentially taper down towards the end and life generally is reasonably comfortable later on.



## While doing the MBA

Certain tips which come to my mind are:

- Do try and complete all activities timely. Don't postpone things for another day, as that 'other day' may never arrive.
- An MBA focuses on group assignments and cases. Be amenable to extremely diverse views and strong opinions which may differ vastly from yours.
- The present generation (civilians) are extremely vocal. Accept that and take it in your stride. It would be a great learning considering the fact that once you are finally there in the corporate world, most of your subordinates would have the same attributes.
- Make the most of your MBA. Participate in all possible activities, be it academic or non-academic.
- Do be a part of some or the other Committee. Examples of some committees are Placement Committee, Alum Committee, Events Committee. One could also be a part of various Clubs Top B Schools have such as Consulting Club, Marketing Club etc.
- Finally, apart from the learning, always keep an eye out for placements. Depending upon your profile, your placement prospects may vary substantially. You may also need to look out for placements on your own if you are focusing on a niche sector. So be active on this front as well.

And, finally.....all the best for the prospective aspirants.



**Wg Cdr J S Sekhon** is an Engineering Officer from the Indian Air Force, and has taken premature retirement after 21 years of service. An alumnus of the Defence Services Staff College, Sekhon also has to his credit over 1700 hrs of flying and is also an M.Tech from BITS, Pilani. Post PMR, the Officer joined IIM Lucknow for the prestigious one year MBA and is due to pass out in Feb 2020. He was a part of the Placement Committee of the Institute and has been instrumental in ensuring 100% placement of the largest ever batch of the Institute. He is all set to join Accenture post completion of his MBA.

# Data Science as a Career

**BY VINAY GUPTA**

*This is the second part of the six series article on the subject, starting from the Jan 2020 issue of the eZine*

## **DSC\_2 - Data Science as Career: What is Data Science?**

Data Science consists of two words viz. 'Data' and 'Science' During our school days, all of us have studied science as a subject and are quite familiar with it.

By definition, science is a branch of knowledge or study dealing with a body of facts or truths systematically arranged and showing the operation of general laws. As regarding Data, it is a representation of facts or ideas in a formalized manner capable of being communicated or manipulated by some process.

Reference of these two words Data and Science in a joint manner was first observed in the book 'Concise Survey of Computer Methods' written by Peter Naur in 1974. Preface to this book tells the reader that a course plan was presented at the International Federation for Information Processing (IFIP) Congress in 1968, titled 'Datalogy, The Science of Data and of Data Processes and its Place in Education' In the text of this book, the term 'Data Science' has been used freely.

Subsequently, during the Members of the International Federation of Classification Societies (IFCS) meet in 1996 at Kobe, Japan, the term "Data Science" was included for the first time in the title of the conference ("Data science, classification, and related methods"). Thereafter, the term Data Science has evolved and grown in leaps and bounds.

As per Wikipedia, Data Science term means "Data science is a multi-disciplinary field that uses scientific methods, processes, algorithms and systems to extract knowledge and insights from structured and unstructured data".

In simple terms, data science is the art of storing, cleaning, processing and organizing the data to turn it into a valuable resource, which helps to take business/personal decisions and build business strategies. It is more of an art than a science because it is all about finding patterns and insights from the raw data and converting into a finished output with pretty visualisations.

We can classify the complete process broadly into three main activities viz. **exploration, prediction, and inference.**

**Exploration** involves identifying patterns in information/data set, such as increasing/decreasing trends of stock prices, non-linear relationship between various weather parameters, outliers in call drop rates etc.

**Prediction** involves using information we know to make informed guesses about values we wish we knew. For example, what is the likely timeline for failure of automobile clutch plate, what are the chances of malignancy in throat region based on medical reports etc.

**Inference** involves quantifying our degree of certainty: will the patterns that we found in our data also appear in new observations? How accurate are our predictions for different sample of data set? So, it enables us to determine the properties of a population. An example of this is the pre-poll results released by media companies, where inputs are taken from a sample of population to predict the likely winner. The probability in terms of percentage of 90% or 75% ( say  $P(90)$  or  $P(75)$ ), is also highlighted.

The primary tools for exploration are visualizations and descriptive statistics, for prediction are machine learning, deep learning and optimization, and for inference are statistical tests and models.

Similarly, there are three primary domain/components of Data Science skill set viz. Statistics, Computation and Business /Domain Knowledge.

**Statistics and Maths** is one of the prime component of data science. Study of statistics enables us to make robust conclusions based on partial or sample information. Such as Hypothesis testing, Analysis of Variance (ANOVA) etc. Mathematical models and algorithms provide the framework/methodology to carry out complex calculations to crunch the data and derive the required results. To name a few - Clustering Analysis, Regression Analysis, Neural Network Analysis, Discriminant Analysis, Ant Colony Optimisation etc. The list is huge and increasing with the contribution from army of researchers. (Explanation of these terms are out of the scope).

**Computing** is the second primary component because programming allows us to apply analysis techniques to the large and diverse data sets that arise in real-world applications: not just numbers, but text, images, videos, and sensor readings. We use languages such as R, Python, Spark, Julia etc., to program and build the models. The analytics ecosystem of programming languages, operating systems, database technologies, visualisations and sensor integrations has become complex and is getting more complicated with every passing day.

**Business/Domain Knowledge** is the third primary component, as the problem definition, context and final application/value being obtained through the analytical modelling lies in the business process. It defines the other two components mentioned above. Domain knowledge includes understanding of business related to various sectors viz. Telecom, Energy, Retail, Health Sciences, Defence, Logistics, banking, and others.

Data science is all of these things, but it is more than the sum of its parts because of the applications and methodologies involved. Through understanding of a particular domain, data scientists learn to ask appropriate questions about their data and correctly interpret the answers provided by the inferential and computational tools.

A wide range of academic disciplines and courses are evolving rapidly to incorporate large-scale data analysis into their theory and practice. Studying data science enable individuals to bring these techniques to create value at their work place, during the conduct of scientific/social experiments, and in their personal decisions.

### **Data Science is New Oil or New Soil?**

In Sep 2012, I was posted in Military College of Electronics & Mechanical Engineering, Secunderabad as Head of Analytics & System Studies Department. I was invited to deliver a talk on Applications of Big Data Analytics in Defence during a seminar organised in Microsoft office, Hyderabad. On reaching there, before the commencement of seminar we were having chat over the cup of coffee. I noticed, one strange response/reaction from the fellow participants, whenever I introduced them about my Army background. They would incredulously look and ask, what was an Army person among the technical geeks, and how was I associated with Data Analytics. I had only one reply, just wait and we will discuss the same question in the networking break after my presentation.

During my presentation, I highlighted four use cases viz. Military Equipment Operational Readiness, Network Centric Warfare, Inventory Planning & Optimisation and Human Resource Management. Considering the vast range of military equipment, wide spread deployment, varying level of exploitation and differing recycling nature, there is a humongous data available for crunching, modelling and taking decisions. Similarly, Network centric warfare requires integration of various sensors inputs in real time, create the operational picture and suggest Operational Commanders the various options to take decision. Thus a huge amount of structured/semi-structured/unstructured, historical/real-time and machine/transactional data gets generated in the defence forces. All we need to do is to build tools and capability to harness the same to generate value. Similar, is the reasoning for other two use cases, I highlighted.

After the presentation, we met again and yes there were questions thrown at me, but their context had changed. It was not why you need analytics? but how do you use analytics?

I realised that other speaker's discussion were mainly focussed on Banking, Financial Services, Retail, FMCG, Telecommunication, Health and Life sciences. Defence or military related applications were either not being discussed in public domain or not being considered by data scientists in their scheme of things.

In Nov 2013, I had a similar experience in Mumbai, the financial capital of India and

one of the leading cities of India in terms of well-developed analytics eco-system. As Head Data Analytics of Enercon India Limited, a leading Wind Energy company, I was invited for a presentation on "Big Data Analytics: A Game changer for Wind Industry" during Big Data Innovation Summit.

Again the participants during the interaction highlighted that they were not aware of the fact that Wind turbines generate huge amount of machine performance data and there are large number of use cases to improve wind turbine performance and optimise the wind farm operations.

It was thus realised that initially, the hype of Big Data & Analytics applications in India was mainly in few sectors viz. Banking, Retail, Telecom, Health Science, and Logistics. Gradually, with the success of this technology, other sectors and proliferation, and their use cases also started emerging in the public discussions.

As we know that with the advent of information technology revolution in late 20th century, majority of sectors and industries started collecting or generating data and storing them. The huge chunk of data so collected can be of great value to the organisation, if they are able to mine/extract using suitable tools/algorithms/methodology or build digital applications on it. This situation has led to the drawing analogy of data with both with Oil and Soil.

### **Let's look at the analogy with Oil first.**

The quote "Data is the new Oil" often said during the seminars/conferences, goes back to 2006, and is credited to Mathematician Clive Humby, but has recently picked up more steam after the Economist published a 2017 report titled "The world's most valuable resource is no longer oil, but data".

During the industrial revolution of 18th century, oil was needed for every industry to run its machines. However, crude oil was of limited use, unless it is extracted, refined and converted to usable product that drives profitable activity. A large number of oil refineries were therefore established in the Gulf region and the US to take care of this requirement.

In a similar way, data is being converted into value, by big and small companies. Leading companies, such as Google, Apple, Facebook, Netflix, Amazon and others are collecting a huge amount of data from humans and machines with every event/transaction/activity. This is being used extensively in personalisation of products and customer definitions. Data, in raw form, has no intrinsic value. Value is created when data is applied to increase revenue, reduce operational costs, create value to customer, create new digital products or enable better governance – and it is here that cost is incurred too – similar to when turning crude resource is converted to a useful end product.

Greater the effort and complexity of process, duly aligned with the business/personal problem/question, greater is the value, which can be derived out of it.

Here, we have an example of retail forecasting in Table 1, wherein the level of complexity and its value increases with the data processing complexities.

<b><u>Level of Data Processing</u></b>	<b><u>Method/Tools Used</u></b>	<b><u>Business Value Achieved</u></b>
Assume last year demand will happen again this year	Excel Sheet	Very Low, likely to have high errors
Fit a forecast curve through the past demand patterns, incorporate Seasonality, trends and Moving average	Excel sheet	Low, likely to have 50:50% errors
Statistically predicts monthly/weekly averages, incorporates hierarchy, causal effects, region and customer segment wise	Business Intelligence/ Dashboard tool	Good value for decision making and facilitate collaboration
Leverages realtime data and increased granularity of factors, reduce bullwhip effect, reduce gaps for short term	Statistical analysis/modelling with good data streaming, aggregation and visualisation tools	High, as it enables planners and managers to get reduce the supply-demand gap, more responsive to customer and greater visibility of complete operations
Takes advantage of social media, customer propensity models, 360 view modelling of customers.	Big data tools, structured and unstructured data analysis tool, with Deep learning and AI models	Very High, as it enables direct connect with the customer, enables multi-channel interaction and achieve customer delight

**Table 1**

Let us take another example. See Table 2, wherein instead of customer behaviour/propensity modelling, the data generated from machines is analysed and leveraged to achieve greater business results.

In this value creation process, 60% of efforts goes into data wrangling by the data scientist. This includes getting the right data from disparate sources, cleaning, restructuring, engineering features, preparing for inputs to statistical model. Every algorithm, every model, and every analysis requires carefully prepared and cleaned data. Even when thinking of a minimum viable product, the owner has to assume a lot of 'cost' up front before any value can be extracted.

In 1990s, our ability to create, store and share data created the information based economy. With the development of Machine Learning algorithms and supporting AI technology, in the beginning of 21st century, this has transformed into Intelligence

based economy. Businesses are building data pipelines, raw data repositories, data lakes, data refineries and digital products. In the next decade it is predicted that AutoML and intelligent applications have the greatest momentum, while other approaches are also popular – namely, AI platform as a service or AI cloud services.

<u>Level of Data Processing</u>	<u>Method/Tools Used</u>	<u>Business Value Achieved</u>
Set threshold for warnings and alarms	PLC based controller	Limited value, as the damage has already progressed to a significant level and can now only be contained
Identify falling/rising trends, build anomaly based rules among a group of machines,	IIoT/SCADA system with centralised analysis on near real time basis, using statistical models	Moderate, as it enables to detect the abnormal behaviour in an earlier time frame, thereby reduced maintenance cost
Build a predictive model to determine the near/realtime comparison with normal & actual machine behaviour. Residuals to determine the health state	Advanced statistical analysis with Neural networks and good visualisation tools	High, as it predicts the behaviour based on various operating parameters and conditions. Model trained on specific machine set gives higher accuracy with much earlier timeline for taking actions
Build Prognostic modelling, Reliability analysis and Residual Useful Life analysis	Use of Deep learning and AI based models, with integration of multiple datasets of machine behaviour	Very High, it enables current and near future planning of maintenance, upgradation and retrofit activities. Future upgrades and design changes can also be carried out

**Table 2**

However, there is a notable difference between the analogy of Data & Oil. While crude oil is a limited resource and likely to deplete in few hundred years, but on the other hand the data is increasing at a very fast pace. The amount of data we produce every day is truly mind-boggling. There are 2.5 quintillion bytes of data created each day at our current pace, and this pace is accelerating with the growth of the Internet of Things (IoT). Over the last two years alone, 90 percent of the data in the world was generated. This is having a significant impact on methodologies, techniques and end viable product of data analysis.

### **Data as the New Soil.**

As soil is one of the main ingredient to grow plants and trees, which enables us to

survive, grow and sustain. In a similar way, with the onset of a digital economy, data has become the key ingredient for innovation and sustainable growth in the digitalised economy. Without it, any business growth would halt. Data sets provide fertile ground, and can be harnessed based on the creativity of the user. Accordingly, various mobile/web applications have been developed. Huge data repository is enabling development of new digital and analytical applications. These applications are changing the way we live, interact, love and work.

Today, internet and smartphones have made data copious, ubiquitous and far more valuable. We are generating data with every movement, trip, website visit, social media posts/interactions. This social situation can be aptly narrated by an old English song "Every Breath You Take" sung by English rock band The Police on the band's 1983 album 'Synchronicity'. Written by Sting, this song was the biggest hit of 1983.

*Every breath you take and every move you make  
Every bond you break, every step you take, I'll be watching you  
Every single day and every word you say  
Every game you play, every night you stay, I'll be watching you  
Oh, can't you see you belong to me  
How my poor heart aches with every step you take  
Every move you make, and every vow you break  
Every smile you fake, every claim you stake, I'll be watching you*

As highlighted by this song, we are leaving digital media footprints of actions and emotions during our daily chores of personal and professional life due to usage of various devices connected on data networks. This huge pile of data being generated has little significance unless it is analysed with suitable use cases, such as buying behaviour analysis, sentiment analysis, crowd movement analysis, recommendation analysis, 360 degree view, fraud analysis and many others. The new breed of applications being developed in last decade is primarily due to growth of data by man and machines. These saplings have now grown-up to be strong plants and trees. We are now reaping the benefits in terms of flowers, seeds and fruits. The growth of data science applications in our personal and professional life, has already impacted our eco-system and means of interactions. The journey is exciting as we will witness greater transformation in times to come.

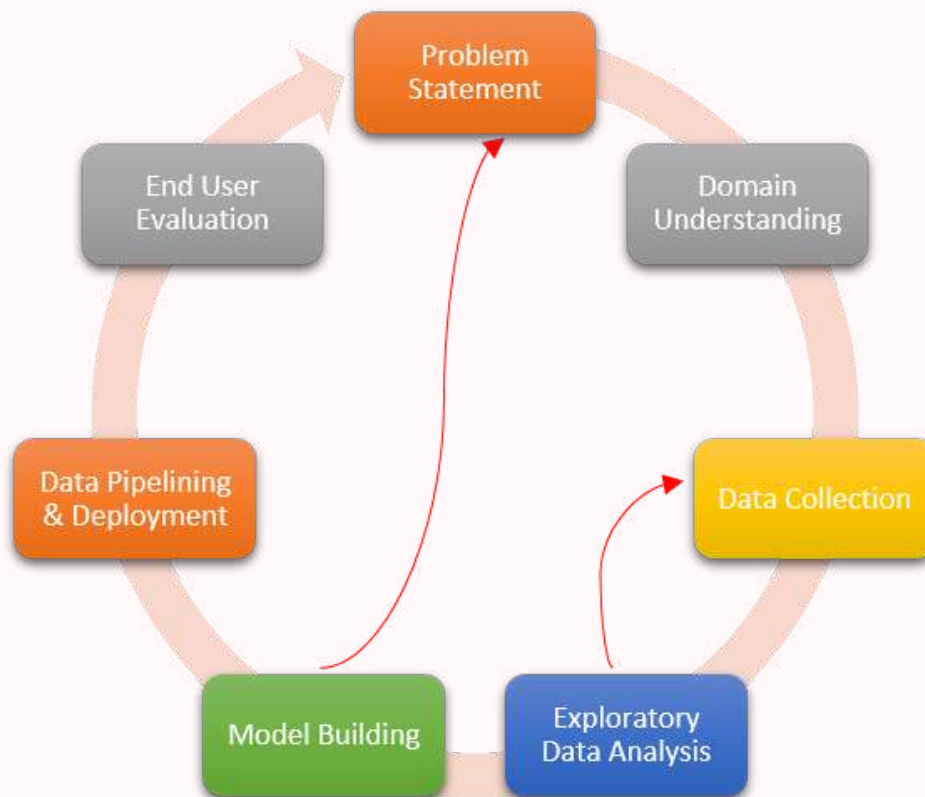
### **Life Cycle of Data Science Project/Initiative.**

In order to implement the Data Science project, there are seven phases/stages of Data Science Life Cycle initiative.

Problem Statement: As in case of every other project, It is very crucial to identify the objective/problem, which is required to be solved using Data Analytics. The problem statement determines the subsequent data sets, analytical models, visualisation/reports and subsequent evaluation of model/results effectiveness. The problem could



be to identify the defects on surface of wind turbine blades, detect financial fraud, forecast extreme weather events or detect the chances of cancer in a patient. However, sometime we may not be working on problem solving methodology but simply start with Exploratory Phase of data set, as some companies/organisation have loads of data but do not what to do or how to make sense out of it. Then Data Analyst tries to identify unknown patterns or relationships in the data set. However, to have a correct inference, domain knowledge and understanding of data set is essential.



**Domain Understanding:** In order to understand the data sets, it is imperative that the Data Science team first spend at least a week with the Subject Matter Experts to understand the physical process, using diagrams, process flows or actual visit to the location. By getting first-hand knowledge of data source, various aspects of data can be understood in a better way and it will be extremely useful in the subsequent stage of EDA or Feature Engineering or Model Building. For example, if we are building the predictive model for failure of Gear Box in an automobile or any other mechanical system, then it is imperative for Data Science team to spend time in understanding the construction, components, working and failure modes of gear box.

**Data Collection:** Next step involved is to collect the relevant data by either connecting to the data sources or take a data dump in a separate database or collect data as excel sheets/documents/images/videos/audios. This process requires coordination with end-user team, data engineers or database administrators. Say for reliability analysis of machines, you would require data from multiple sources viz. SCADA/IoT Data, maintenance logs, repair actions taken, spares/inventory data, team skills data and tools/tackles usage data.

Exploratory Data Analysis: After collecting the data, the Data scientist need to first explore the data by various plots/graphs (histogram, spectrum analysis, density plots, heat maps, box plots..), distribution, summary, pivot tables to understand the data spread, data types, outliers, missing data, duplicate values, invalid data, relationships between various variables, grouping and a lot more. It also enables you to answer, if the data received is correct representative of the problem to be solved. Commonly referred as EDA, this is a very interesting stage as one may discover something very unique or different than the usual perception/belief. Such eye-opening inferences can be of great value for the next step of model building.

Data collection, data understanding and data preparation take up to 70% - 90% of the overall project time. This is also the point where if you feel the data is not proper or enough for you to proceed you go back to data collection step. Once the data is prepared and cleaned we move on to the core of any data science project – modelling.

Model Building: This is the core activity of a data science project that requires writing, running and refining the algorithms, models and programs to analyse and derive meaningful business insights from data. These programs are generally written in languages like Python, R, MATLAB or Perl. It involves application or usage of diverse machine learning algorithms in order to identify the model that provides the best results. Few names of algorithms are CART, PCA, CNN, GAN, ARIMA, K-means clustering, Random Forest etc. Generally, this step involves three activities viz. *Model Building, Training and Validation*.

Model Building involves choosing the statistical model for analysis, identifying and preparing data parameters, which will be input to the model in the required format. The model (or models - generally one should be testing the dataset and problem with multiple models and compare their outputs for effectiveness) depends on the expertise of the team, nature of problem being solved, process time involved and the type of output you intend to derive. After necessary computation/analysis, the results are viewed in form of tabulated, graphical, textual, video or audio output. The model output is evaluated in terms of Accuracy (How well the model performs i.e. does it describe the data accurately) and Relevance (Does it answer the original question that you set out to answer). At this stage, it is important to discuss the outcome with the end-user or Subject Matter Experts or Business team, as the case may be and validate the same. Else, the above steps get repeated again, till such time the desired outcome is not obtained.

Data Pipelining & Deployment: Once the model is built, tested, evaluated and results validated from the end users, then it's required to deploy/operationalize the model. This is required to automate the whole process of data ingestion-data wrangling-data modelling-model results-visualisation. In order to achieve this, the data pipeline needs to be established from inputs sources to the data ingestion interface.

This pipelining would involve connecting with telemetry data source, data warehouse, FTP/OPC interface, existing application databases, APIs, Excel sheets or websites. This plumbing work once established need to be monitored for data flow, as desired. Suitable validation, checks and monitoring logs need to be put into place, so that the team can come to know in case of data leakage or disruption in services. The model build in the previous steps gets deployed either in private/public/hybrid cloud, as the case may be. This step requires greater coordination with IT team members and integration with various business processes, providing access controls and obtaining necessary licences, as required. This step also entails putting the necessary security features into place and thereafter conduct of Vulnerability Assessment and Penetration Testing of the complete application, end-to-end. Testing by end users is done at the visualisation layer to check, if the data pipelines are well established, model outcome is correct and thereafter data representation is accurate. This process takes few months, and may require few iterations before the application can be called as a finished product and ready for launch.

End User Evaluation: The acid test of all the efforts undertaken in previous steps is in the user feedback and their 'ah' moments. It takes a considerable efforts to reach that stage. However if the business problem is correctly defined, data is reaching as per the intended requirements, model results are well tested and then presented with nice tables/charts/infographics, the chances of success with respect to data science project are very high. Once deployed and operationalized, the user feedback is continuously obtained and the project is improved by incremental changes or feature enhancement.

Data science, which is a new and emerging field combines elements from statistics, maths, software development, evidence-based problem solving, and so on in order to re-define the way our business processes are run or personal interactions are done. So, the data science ecosystem is a fresh assemblage of the existing body of knowledge, skills and experiences into something that is new and exciting. The core is the interplay between data content, the goals of a given project, and the data-analytic methods used to create value and achieve those goals.

(Kindly share your comments/inputs/feedback at [vinayeme@gmail.com](mailto:vinayeme@gmail.com), to help improve the content and focus on the readers need and requirement.)

Bibliography - On page 61



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# At the Edge of the Project

*BY RAMESH KUPPUSWAMY*

As defined by PMI, projects are a temporary endeavor to create a unique product or service. It has a defined start and end in time. The various processes are well defined and what would output using the tools and techniques with the input given. Commonly said as ITTOs. A well-oiled machine, giving the right output once the processes and knowledge areas are very clear to use. Typically, it is expected out of any Project Manager.

In practice, the projects do have a definite start as per the predefined date. The execution goes with proper monitoring and control. The success to it remains on the closure, which becomes pragmatically a challenge. It will be appropriate to link the famous Pareto principle for understanding. A little twist to it, 80% percent of the work is completed with 20% of focus and balance 20% of the work takes 80% of the focus. The success of the project still holds good to complete 100% of the scope planned in time and cost. Does every project have a successful completion? One can run through on the various projects, he or she has handled. Probably, it is grim.

Why does a project fail? Enough shreds of evidence to prove teams have worked very hard including working extra hours, but still the project was not successful. This happens not only for the smaller sized projects but also for large projects in terms of cost and effort.

Over the years of experiences handling multiple projects, one ends to stand on the edge to see that something went missing for a successful closure. The challenges posed were different and many times, it beats one's experiences to deliver successfully in spite of the best plan for the execution. It is overwhelming at the end of the day challenging the self-confidence. Sometimes succumb to the situation to go with the flow with some advice, for course corrections to bring it back on track the troubled project.

To bring in introspection, it will be better to list some of them here. Irrespective of the project types, this will be applicable. It may not be exhaustive, but some teasers to tickle one's project management skills to rate themselves how well they have managed.

**Mismatch in Expectation Amongst Key Stakeholders.** Project supporting Operations is a common one, which falls into this gamut. These projects are to meet the immediate needs of the ongoing operations. To meet the deficiencies, the requirement is converted into a project for the purpose of early delivery and costing.

Primarily, one lands up doing quick planning to meet the urgency. The clarity of the scope what initially planned gets dynamically changed with some increments. This is due to a lack of clarity at the customer end or the sponsor. Resource planning and

efforts estimate is augmented resulting in stretching the time for delivery. These type of projects require an exhaustive understanding of the scope or requirements of the key stakeholders to freeze. All assumptions need to be ratified to be on the same page. A big pause is necessary for proper planning and alignment of expectations before jumping into execution.

**A Shift in Organizational Priorities** greatly affects, when the project has been kick-started and in a midway. Mainly the aligned resources are shifted into another priority project. As it pitched to move into low priority, the project more or less comes to a standstill. It may be progressed at a stretched time including the PM's focus on it. More or less, such a project loses its sheen and considered as a failure. This is not controllable, as organizational priority is aligned with the business priorities, which overrides due to business opportunities at stake.



**Inaccurate Requirement Gathering** is the main cause for scope creep in the later stage. Many projects run out of steam adjusting to accommodate the additional requirement. The requirements may be hidden in the assumptions or the requirements captured are not ratified. It pushes to shift the scale to understand that our initial scope baseline was not correct. A cascading effect including the requirement for additional budget. A constraint to move forward and results in a failure. Creating a baseline becomes very important in any project, which has to be mutually agreed. Any change to it should be taken through the change control process to accommodate into the scope.

**Opportunities and Risks** are seldom discussed or given importance at the planning stage. An important outcome of root cause analysis of any failed project. It is more or less creates crises when encountered with unknown risk. Sizable efforts and cost get involved to mitigate the risk, which hits the project budget. One should not forget to encash on the opportunities.

**The shift in the Project Objective** is another cause for the failure. Project objectives must be measurable and contain key performance indicators that will be used to assess a project's success. These indicators will often encompass areas such as budget, quality, and time for completion. The project manager can influence the objective. At the later stage of the project, if the sponsor changes it, the project manager will become helpless. Effort should be not to change the objectives.

**Communication management** is an important aspect for the project success. Many projects fail due to improper communication plan or the project manager is a poor communicator. Timely communication to the right stakeholders will create ownership and proactive support by them. Think, in advance, what the communication flow will look like, what approvals are needed, decision-making, status updates and more. Invariably, it is found in most review meetings; some stakeholders defend themselves as not been informed of the requirement or support.



**Inadequate Sponsor support** will surely result in failure. It may be in terms of cost or resources. Sometimes, a change happens w.r.t initial commitments. That can jeopardize the project plan.

**The goal of the project** has to be aligned with every team member of the project. This includes all the milestones that need to be achieved in the specified time. Some of the resources may be part-time to work or remotely working. Unless the goal is defined and acknowledged, there are possibilities of lack of required attention to complete on time. Many times, only when there is slippage, one comes to know about it.

**Stakeholder Management** is complicated but can become a magic wand for project success. The management of various project stakeholders from above and below the project manager either can positively or detrimentally affect including large-scale projects. Stakeholders can be internal or external to the project team or they can be internal or external to the project scope. The various stakeholders have or perceive that they have various stakes in the project. Based on their perceived stakes in the project, stakeholders behave in ways in which they feel will help them accomplish their project objectives, which may be congruent or incongruent with the project manager's project mission, vision, and/or objectives. Therefore, the project manager should understand the objectives of each project stakeholder in order to effectively manage his or her needs and desires. Given that change is a constant, it is important for project managers to not only elicit project stakeholder feedback on a continuous basis but to also process the feedback and incorporate it into the strategic plan for delivery.

Many more attributes are there that may cause a project to fail. Plans are worthless, but planning is important. That summarizes the effectiveness of the planning. The success of the project linked directly to how well the planning done. Certain aspects are beyond the control of the project manager and those should not bother on his road to project success.

*"First, have a definite, clear practical ideal; a goal, an objective.*

*Second, have the necessary means to achieve your ends;  
wisdom, money, materials, and methods.*

*Third, adjust all your means to that end."*

*~ Aristotle*



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# Superstitions and Myths During Career Transition

**BY MEENA ARORA**

How many times you've stopped when a black cat crossed your way, or avoided washing hair and clothes on Thursday or did not consume non-vegetarian food on Tuesdays?

And, then there are also U.S. Aviation based Armed Forces teams who demand contacting or thumping trees before taking off!!!

Superstition may be defined as a tendency to falsely link cause to effect (may be without any scientific reason or logical evidence). We follow most of our superstitions because of the belief that there is a logical and scientific reasoning associated with it (that we may not be aware of). And the risk of negative consequence if we do not follow them is believed to be much greater than the effort to follow. Nonetheless, we follow because we believe it is for our benefit.

There is an explanation to this tendency. We all know that our brain is a great pattern recognising machine. We try to connect dots to create meaning in patterns. Then we associate one pattern inference with another and so we go on with our analysis. Our decisions are then based on such analysis and inferences. Well, to cut the long sentence short, we may end up getting into the tendency of erroneously linking cause to effect.



Welcome to the modern, post-edification, neo-agnostic human progress. Superstition is fit as a fiddle here. Day by day horoscopes are an essential piece of even the most renowned papers. Well, keep your fingers crossed, and check how many of superstitions are we into?



Superstitions may get deep into many aspects of our lives. Only if we are not aware, we might get into the ploy of wrong and delayed actions. Can we think about this in our career and professional choices too. If we associate this belief system with our education and work culture, we may find the trade-off between being superstitious and being ignorant.

In modern times, evolving superstitions are turning up as a belief in certain management and certification courses, especially, the affiliations and brands. The chances are that most of them don't support us anyway. Our long held ideas may not let us go in for collecting evidences that really prove a brand or certification valuable.

This happens a lot during career transitions. It's not easy changing jobs, being relocated or jumping into a new career, especially, when it is from military to corporate. Considering we spend the majority of our time at work, change in our careers can be destabilizing. This is the time when we have to jettison our strong ideas and beliefs (which might have developed into myths and superstitions and may not be really progressive)

Are you ready for a short quiz to find our myths and superstitions?

This is a self assessment questionnaire (on the following page). Be sincere while answering the questions, to actually know yourself better.



**SUPERTITIONS & MYTHS: HOW AWARE ARE WE ?**

This is a self - assessment questionnaire. Please fill the answers honestly.

1. Birth of handicapped children is the consequence of parent's sin
 

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree
  
2. Civilians cannot work as hard as a military person
 

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree
  
3. It is a symbol of good luck for the father, if the first issue is a daughter
 

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree
  
4. Military teaches us universal leadership skills
 

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree
  
5. If anyone praises a healthy and good-looking child, he/she gets sick for having an evil eye.
 

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree
  
6. Veterans get high profile jobs, with respect to their experience in military
 

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree
  
7. It is a sign of bad luck if someone takes food in a broken or fissured plate.
 

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree
  
8. Veterans are highly efficient and disciplined.
 

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree
  
9. Devils read out a religious book when it is kept open.
 

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree
  
10. Veterans are considered an asset in any civil or corporate organization
 

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree
  
11. If a dog whines piteously at night, danger or death is near.
 

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree
  
12. Civilians know that veterans are highly efficient in almost all fields.
 

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree
  
13. One should not give or take anything from the shop on credit in early morning or at dusk.
 

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree

14. I will learn and upgrade skills once I get a good job.

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree

15. During the last night of the fortnight and full moon, the evil make free movements.

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree

16. The day I am out of service, I will be taken on a good position by any organization

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree

17. Sudden obstacle in the pharynx while taking food, symbolizes that someone is remembering you.

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree

18. My resume can be 8 pages long because I have awards and achievements to mention.

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree

19. Entrance of butterfly in the room is a good sign.

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree

20. I can work on any good work profile.

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree

21. If a baby continuously becomes thinner by being sick, he/she has gone under an evil eye.

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree

22. My military experience is much richer than any of the civilians can think of.

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree

23. Breaking mirror bears a bad sign.

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree

24. I know better than my junior.

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree

25. Some numbers& objects bring good luck to me.

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree

26. I have better plans for my second career and do not need assistance.

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree

27. When eye trembles, despair or happiness are experienced.

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree

28. I cannot be rejected in an interview.

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree

29. When palm itches, money comes or goes.

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree

30. I am multitasked and can apply for multiple fields in one resume.

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree

Score:

Highly Disagree	Disagree	Not Sure	Agree	Highly Agree
1	2	3	4	5

Superstitions	Value	Myths	Value
1		2	
3		4	
5		6	
7		8	
9		10	
11		12	
13		14	
15		16	
17		18	
19		20	
21		22	
23		24	
25		26	
27		28	
29		30	
<b>TOTAL VALUE</b>		<b>TOTAL VALUE</b>	

Score: 101 – 150: You have highly fixed thoughts. You need to be flexible in your views. It is advisable that you seek a mentor.

Score: 61 – 100: You are not too prejudiced but still need to accept other people’s perspectives. Seeking a mentor will be beneficial.

Score: 30 – 60: Highly flexible. Ready to accept others perspectives and a good learner.



**Sqn Ldr Meena Arora** has served in the Indian Air Force for ten years. Thereafter, she has devoted herself completely to counseling and training. She conducts workshops, one on one sessions and training programmes. She is a Clinical Psychologist, Certified Coach (International Coach Federation) and NLP Trainer.

# Podcasts - The New Age Books

**BY HENNA AGARWAL**

Most of the times I wished of something that could ease the process of learning, something that had the capability of not just to let me continue doing my chores but also get to learn new facts at the same time or I must say, something that could just make every minute of my life interesting! Didn't you wish for the same at some point of time in your life? I am sure you did and who doesn't want an easy yet interesting life?

In this world, where everyone is busy in their own work, whether that person is a student who is busy in his school-work or a housewife who has to handle not only the house but her family too, or our defense personnel who are busy in safeguarding the nation, and not to forget the working-class of the society who tend to forget to grasp basic things of life and gradually forget themselves. Everyone has just sacrificed their priceless life into doing some or the other work, right?

But what if, you get something that could ease everything? That could bring a sense to your life without discontinuing your daily chores? Yes, you've guessed it right, PODCASTS! Podcasts are that thing that can do wonders for everyone's life.

But what is a podcast? How will it benefit us? Hold on, I have answered every possible question of yours in the article below. But firsts let us talk about what a podcast is.



## **What is Podcast?**

A podcast is another medium of information which can either be listened or watched. It is a media file of episodic series that can be played anytime and anywhere by subscribing to the podcast channel. It works through the system of web syndications that lets the podcast get automatically downloaded to your local computer or mobile. Presently, audio podcasts are much more famous and beneficial.

It is also quite interesting to know from where did the word “podcast” come? Podcasts were originally invented in the year 2004. It was very much in trend in the U.S. At that time, people used to listen to them in iPods. So, when Ben Hamersley noticed this, he suggested the term “Podcast” which is a mix of “iPod” and “Broadcast”.

But this invention of the word did not mean that podcasts can only be listened on iPods. It can be downloaded and played in any device whether it is a computer or mobile phone.

**Statistics and Growth of Podcast:** The podcast has grown drastically in the past few years. This has been possible because of people being busy mostly in their own world. They don't have much time for themselves or to know what is happening in this world!

In 2016, only 50% of Americans had actually heard about what podcast is. But only a nominal percentage of people had started listening to podcasts. It has been reported that as per 2018 reports, there were 5.5 million active podcasts which comprised 18.5 million episodes. This statistics has increased to 7.5 million active podcasts and 30 million episodes in 2019! In 2018, the growth rate of listeners increased by 2%. And now in 2019, more than half of Americans listen to podcasts regularly and out of which 22% listen to it weekly!

It is seen that men as well as women listen to podcasts with lots of interests. Young college-going and those who commute listen to it regularly.

**Podcasting in India:** Podcasting in India is at a budding stage. The trend has just begun in the country. It is reported that most of the Indian Podcasts are from the Non-Resident Indian Community, that is, podcasters inside India are still emerging. It is expected that podcasting is going to grow drastically in the next few years and will have the largest number of podcasters just like we have in the field of bloggers. Podcasting will become a great industry on its own.

Currently, some well-known music apps have introduced a dedicated section for podcasts, like Spotify and Saavn, TinyTales by Pratik Arora, Musafir Stories, Write and Geek Stories by a group of Bangalore podcasters, The Passion People Podcasts are some of the examples of Indian Podcasts.

Many companies including Doordarshan News have also started podcasting. So, this proves that podcasting in India is on the rise.

Now, as we know how the podcast is growing as an economically viable standalone industry, then let us also check some of its benefits for every class of our society.

**Features of Podcasts:** If you still haven't guessed the pros of podcasts or you are in a confused state, then we have listed below some useful features of podcasts. Let's go.

They are Flexible: Podcasts are flexible in nature. They do not need any internet to listen to podcast. Internet is needed only once when you want to download a particular audio file. Then the rest audio files in that specific series will automatically get downloaded through the RSS system. RSS is Real Simple Syndication which means once you subscribe, then you will get automatic updates.

Can be Heard Anytime: The best part about podcasts is that it can be heard anytime whenever you have time for it. Unlike radios, they are very much in comfort and interesting.

Simple and Cheap: Okay, so you must be wondering all these features will surely cost you a whole lot of money. But surprisingly, it is very cheap! Some podcasts are totally free and some need a subscription which is very much affordable. So, this can be counted as the most influencing advantage for podcasts!

More Targeted Audience: There are many variants of podcasts. Any topic can be covered through podcasts. News, music, movie reviews, novels, some conversation with a celebrity, and many more. This feature makes podcasts to hit on a more targeted audience.

Automatic Updates: So, who doesn't want everything automatic and if our favorite series or audios get downloaded automatically in our devices then what would be better than that right? Yes, podcasts automatically get downloaded in your devices whenever you download at least one episode of any series in your device.

**Benefits of Podcasting for Every Class:** Podcasts are playing a very interesting role in everyone's life. Any person who has welcomed podcasts in his life can't stay without it. But how come podcasting has become such an important part? This would be the question you must be thinking of right now, right? Actually podcasting has been useful not only for entertainment basis but for many ways, let us check out those ways –

For Students: First, let us start with the youngest class of the society. Podcasting has a whole lots of benefits in education. Students can now study on the go, they can play podcasts of any topic, anywhere and at any time. The best part about podcasts is that they are to be consumed in the form of audio. So, students can do whatever they want along with their lectures continuing on podcasts.

Even students who are handicapped, who don't get easy admission in schools can also learn and build up their knowledge with the help of podcasts. They just have to tune in to a podcast and they are good to go.

For Housewives or Non-working Class: The people of this class just stay at home and do their daily chores. This repetitive work does get boring at some point in time. But the housewives or anyone who stays at home can play any podcast like an audio serial, catch up some news or listen stories narrated by some podcasters and many more things!

For Working Class: We all know as our country is into the developing stage and people from working-class have to work day and night which leaves them with not having sufficient time for themselves, isn't it true? Due to this, they don't know what all is going around in this world. So for these people, podcasts have come to rescue. Podcasts have all sorts of categories, from having dramatic episodes to news from all over the world. The working class can listen to whichever podcast they want to while commuting.

For Job Seekers: Podcast has opened a new gate not only for the people who want to consume it but also for the people who are looking for a new career. Such people can try their hands in podcasting as a career. People who create or make podcasts are podcasters. It has a lot of scope in the future.

For Teachers: They can also start recording their lectures in the form of podcasts so that they can earn some side income apart from what they earn from schools or colleges. It is a great source of income.

For Business Class: Podcasting is truly a game-changer for any sort of business as you can promote your business through podcasts. People will get to know about your business and trust you faster. Also, you can earn some side income through it!

## **Conclusion**

Podcasts are definitely worth our time if we use it the right way. Podcasting is bringing people close to being knowledgeable. So, as the podcasts are booming day by day, it is time to invest our time smartly by doing multi-tasking – Listening to knowledgeable things and doing your chores too! These podcasts are invented for people like us due to the habit of staying busy in our own work. I personally do like the concept behind this whole new trend. This new medium of information is not just a medium for entertainment but a very useful one too! Do try some podcasts of your interest and for the people who are into finding a career for themselves, can give it a try. It has a lot of scope and bright future as well!



**Henna Agarwal**, D/o Cdr Subodh Agarwal (Retd), has done her graduation in English (Hons) from Delhi University. She is a blogger by profession, and has written many blogs on different topics, one of them is Podcasts. To know more about podcasts, you may visit her website [www.podionix.com](http://www.podionix.com), and reach out to her on email [henna9818@gmail.com](mailto:henna9818@gmail.com)



# Book Review

## Being Mortal: by Atul Gawande

*BY SURESH CHANDRA*

Beautifully written, illuminating, wise and deeply moving are some reactions to this masterpiece by Atul Gawande.

He has exhaustively dealt with a sensitive issue of ageing and death in our society. Through research, fluid storytelling and personal experiences he conveys what it is that matters most to us as we face the inevitable end of our lives. The book divided in eight chapters follows the trajectory from “independence to death” is easy to read and should be recommended as a must read both for doctors and non-doctors alike. Each chapter begins with a story/personal experience and is followed by a detailed analysis of what it reveals about the healthcare ecosystem.

Each one of us is going to die – most of us probably as a result of ageing consequent to a lengthy period of declining health and debility. Our existing medical ecosystem will be of little help to us. Most of us would spend our ageing years in medical institutions like hospitals, nursing homes or intensive care units at the mercy of regimented routines completely cut-off from important things that matter most to us. The problems of old age and death cannot be handled by modern medicine and we need a different approach to manage the same.

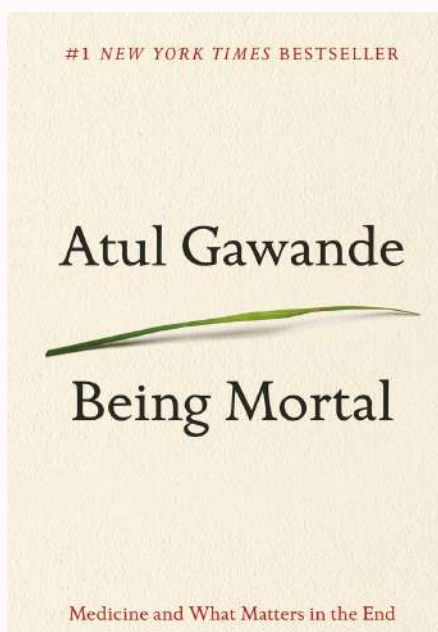
Atul Gawande discusses in detail the life and routine of the ageing and terminally ill patients in nursing homes and intensive cares across US. He very elegantly brings out various reasons why these institutions are detested by most inmates – some of them being shared living, lack of privacy, regimented daily life, lack of free will etc. This in most cases results in resistance by patients “mainly through non-cooperation - refusing the scheduled activities or medications” creating everyday “battles and rage over the priorities and values people are supposed to live by”. He also talks about some successful innovations around these institutions which created “assisted living spaces” – which is something “between independent living and life in a nursing home”. The basic concept of assisted living as envisioned by its creator Keren Brown Wilson, was “freedom and autonomy no matter how physically limited the patient was”. The residents were not called patients but “simply tenants” regardless of their disabilities. They had private apartments with a full bath, kitchen, and a front door that locked. They could have pets and to choose their own carpeting and furniture. They were given control over temperature settings, food, who came into their home and when. They were just people living in an apartment. The novel experiment was monitored closely monitored closely by the government and they concluded that the “residents had not in fact traded their health for freedom. Their satisfaction with their lives increased, and at the same time their health was maintained. Their physical and

cognitive functioning improved. Incidence of major depression fell. And the cost for those on government support was 20 percent lower than it would have been in a nursing home. The program proved an unmitigated success.”

In another innovation to a standard nursing home, Bill Thomas dramatically turned around the Chase Memorial Nursing Home by bringing in two dogs, four cats, 100 birds and small children into the nursing home to combat the “Three Plagues afflicting people in nursing homes - boredom, loneliness, and helplessness.”

The author also talks about doctors, most of whom treat old age as a medical problem. “They treat the disease and figure that the rest will take care of itself”. As per Juergen Bludau, a geriatrician, “The job of any doctor, is to support quality of life, by which he meant two things: as much freedom from the ravages of disease as possible and the retention of enough function for active engagement in the world”. Doctors also need to change their relationship with patients. Most doctors follow the Paternalistic Relationship Model where the “doctors knows the best” and he acts accordingly. In another model he calls the Informative Doctor Model where the doctor will tell you the facts and figures. The rest is up to you. Atul feels that we need an “Interpretive Model” where the doctor’s role is to help patients determine what they want through a shared decision-making model. Interpretive doctors ask, “What is important to you?”, “What are your worries?” and use this information to come to an agreement on the treatment plan that would best meet the patient’s own priorities.

The chapters “Letting Go” and “Hard Conversations” are central to the book. In the chapter “Letting Go” he asks a crucial question like “How can we build a system that supports people at the end of their lives decide that they have had enough treatment?” A doctor always feels that some more treatment can be tried. The growing awareness of palliative care / hospices allows the patients and caregivers to see the value in doing away with endless treatments which offer little or no comfort but allows more relaxed and comfortable life howsoever little the life remains.



Gawande writes that doctors view death as the enemy that needs to be defeated, not surrendered to. Unfortunately, “...the enemy has superior forces. Eventually, it wins. And in a war that you cannot win, you don’t want a general who fights to the point of total annihilation. You don’t want Custer. You want Robert E. Lee, someone who knows how to fight for territory that can be won and how to surrender it when it can’t, someone who understands that the damage is greatest if all you do is battle to the bitter end”.

In the chapter “Hard Conversations”, he talks about his father’s cancer and how the family navigates through the crisis. He talks about the need to have uncomfortable discussions with patient and their caregivers.

Discussions like “What is your understanding about the disease?”, “What are your concerns about what lies ahead?”, “What kind of trade-offs are you willing to make?”, “If time becomes short what is most important to you?”, “Who do you want to make decisions if you can’t?”. A doctor following the “Interpretive Model” would be able to map the treatment plan based on the answer you provide. Like in the case of Susan Block whose father had to be operated for a spinal cancer where there was a risk of becoming quadriplegic – Susan did ask these questions to her father. Her father said that he was ready for surgery and risk being a quadriplegic provided he could have ice-cream and watch football post-surgery. The conversation proved critical, Susan says, because after surgery he developed bleeding in the spinal cord. The surgeons told her that in order to save his life they would need to go for surgery again. But the bleeding had already made him nearly quadriplegic, and he would remain severely disabled for many months and likely forever. What did she want to do, the doctor asked? “I had three minutes to make this decision, and I realized, my father had already made the decision.” She asked the surgeons whether, if her father survived, he would still be able to eat chocolate ice cream and watch football on TV. Yes, they said. She gave the okay to take him back to the operating room.

Though the book is based on the US health ecosystem, but extremely valuable lessons can be extracted by us Indians too. We do not have such elaborate healthcare system like the US, but the questions and issues the book raises are relevant to us and forces us to think hard. Dr Atul has explained how medical science should shift focus to supporting well-being and not just prolonging life at all costs. Whenever serious sickness or injury strikes and your body or mind breaks down, the vital questions are the same: What is your understanding of the situation and its potential outcomes? What are your fears and what are your hopes? What are the trade-offs you are willing to make and not willing to make? And what is the course of action that best serves this understanding?

In the end he states “I never expected that among the most meaningful experiences I’d have as a doctor – and, really as a human being – would come from helping others deal with what medicine cannot do as well as what it can.”



**Col Suresh Chandra** was commissioned on 11 Jun 1988 in the 94 Field Regiment. He commanded 121 Light Regiment and superannuated from service on 30 Nov 2017. An MTech (CSE - IITD), he has been instrumental in the design and development of the ACCCS / Project Shakti. He was an instructor in School of Artillery and DS, JC Wing, Army War College. He has also served with the Wargaming Centre, SWC and was Col GS (Systems) Western Command. Post retirement he divides his time between mentoring underprivileged kids in Mathematics, Physics and Computer Science of Class XII level, and freelancing as a cyber security and data analytics expert. He is available at [sureshchandra@protonmail.com](mailto:sureshchandra@protonmail.com)

# Stories

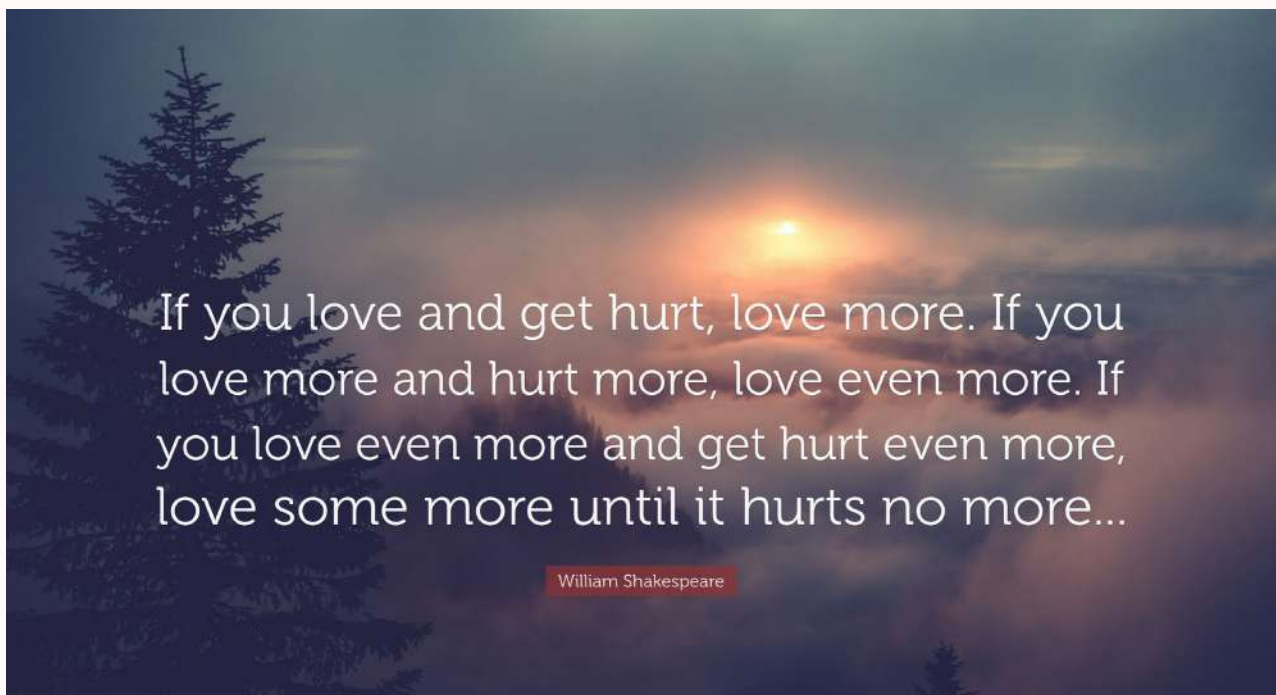
## Why Become a Victim of Hurt

BY DINESH DUTT SHARMA

*“To forgive is the highest and beautiful form of love. In return, you will receive abundant peace and happiness” -Anonymous*

Life is all about making your own happiness and cherishing each moment as God's gift. The gospel truth is, that nothing stays permanent with us in this temporary life span. The only thing which is ever lasting is the good Karmas and memories. Nature all around us is like an “ECHO” of one's own emotions, thoughts, feelings and actions. Somebody has put it correctly as *“The biggest challenge faced by mankind is not any disease, but man's own wrong attitude towards life.”*

The whole environment today is burning with the heat of hatred, jealousy and envy. In our life's journey, many times the situation of delusion arises from unpredictability and anger. In such a state, we tend to loose our reasoning as the evil negativity slowly starts permeating into our thoughts and acting as a punctured tyre, which halts our journey and we find ourselves stranded in the vast ocean of HURT.



No two individuals simultaneously have the same quantum of happiness or hurt.

The major problem which becomes the base cause of hurt is that we act without thinking. Deliberation on every thought before reacting is very important in order to avoid hurt. Each one of us carries a mixed basket of happiness, sadness, hard times

and good times. It does not in any manner implicate that we need to induce miseries and sufferings in life, but rather encourage an attitudinal change of perceiving the miseries/sufferings positively, instead of getting bogged by their negativity. We have to ask God for courage and the ability to cope up during bad times/ days.

Our positive out look and the quality of thoughts lead to our state of happiness. Regular in-flow of ill feelings for others, wrong expectations, false ego and the comparison of one's own life with others leads to unnecessary pain and hurt. One needs to get rid of the burden of ego and individuality to enjoy and rejoice in the bliss of infinity and value ones blessings. Amalgamation of containment and simplification of life is one of the steps to inner peace, which is the best way of avoiding hurt.

When we live one's precious life with true faith and trust in God, we consequently build a shield to protect us from hurt. We may not be born with a celestial "kavach" like Karan of Mahabharata fame but that does not prevent us from creating our own magical shield. 'With the attainment of placidity of mind, a Sadhak's sorrow comes to an end.

*"The intellect of a person of tranquil mind soon withdraws itself from all sides and becomes finally established in God - Bhagwad Gita 2.65"*



**Col Dinesh Dutt Sharma** was commissioned in to Army Service Corps in 1985. He has served in all corners of the Country and in prestigious appointments. He is presently on his first leg of re-employment.

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# Travel

## Dholavira - The Smart City of the Past

**BY SANGEETA THAKUR**

Do you comprehend poetry of life and admire abstract beauty? Do historic abodes make you feel nostalgic? Do you love driving on one of the best roads? And would you prefer a halt somewhere enroute to admire the migratory birds?

If your answer is an emphatic 'Yes', then it is 'Dholavira' for you, and well within reach too.

This ancient engineering marvel awaits at the extreme West of Great Rann of Kutch, Gujarat, India. Unique and seamless are two perfect words to depict the journey to arrive at this smart city of the past. You must plan it during full moon as the sight of limitless white desert under the moonlight presents the unique creation of nature. I was lucky enough to witness the total lunar eclipse the "super moon" here in the clear skies. (<https://www.youtube.com/watch?v=iaRDggf0USY>)



During October to March take a flight to Ahmedabad, Gujarat, India. A 360 km memorable road trip will lead you to Dholavira. You can also pick more closer 250 km away, Bhuj airport which is also the nearest Railway station with government buses plying, if you are looking for budget options. Few tips to be taken into consideration are it has limited options of ATMs, Mobile phone coverage and stay. It is wise to plan upfront, book in advance, carry enough cash, woolens, eatables, drinking water and your vehicle fuel topped up to have a memorable and hassle-free trip. If you plan a short vacation then it is possible in two days once you arrive at nearest airport. Gujarat Tourism website will give you enough information to plan as apt for you. (<https://www.gujarattourism.com/destination/details/12/339>)

If you are looking forward for a 5-6 nights tour package, you may choose one of the following: -

- Ahmedabad, Nal Sarovar, Modhera - Sun temple and Dholavira to give it a perfect mix
- Bhuj, Bhujodi:- village of artisans, Mandvi beach, The Tent city at Dhordo and Dholavira.

The bristling abundance of nature's beauty, age old culture, frills of music, dance and celebration, reflect the grandeur of Kutch. I am sure you will not be able to resist yourself from bright and colourful traditional textile, ornaments and handicraft. Whichever way you plan it let me now give an insight about Dholavira. (<https://youtu.be/VTBs6oEfKDw>).



This ancient settlement will not only narrate a lesson of social studies for your absorption but also is a class of technology and management. Little known Harrapan site is a marvelous example of township planning, oldest water conservation and distribution system, mathematical and astronomical precision and many more.

If you are student of life this is the place for you. If you are travelling with your children it is a beautiful trip coalesced with learning (<https://youtu.be/ZZsm3hROg08>). The ruins and adjoining archaeological museum must be visited along with a trained guide for best experience.

The journey to prehistoric-ultramodern city has abundance of joy, rustic beauty, wisdom, skills and warmth of hospitality all together. And it is just a few steps away to be rediscovered by you!!



And trust me you will take countless halts to capture the reminiscences on the way it has to offer.



**Sqn Ldr Sangeeta Thakur** served as Meteorological Officer in IAF. She has 20 years of diversified experience in the field of Weather forecasting, Education and Airport Terminal management. She has been associated with various schools and University of repute. She was part of the operational team for overall upgradation of Ahmedabad Airport as a consultant with Airports Authority of India. She is presently pursuing a course on Strategic Innovation, digital marketing and business analytics from IIT Delhi.



# ForceNet Connect

## Angel in Distress in a Far Off Land

**BACKGROUND:** Ms Soujanya Rai, daughter of serving Naval Officer, Cdr J N Rai. is a Goa based software developer. She is also a writer, photographer and social media specialist. She has been travelling across the country with her family, and now continues this journey on her own. An enterprising travel/backpacking enthusiast, she has created The Spicy Journey ([www.thespicyjourney.com](http://www.thespicyjourney.com)) to be able to share her stories, (mis)adventures, tips and shenagians.



In October 2019, she was on one such solo trip to the island of Bali, one of the many solos she had done earlier. The confidence had been built over the years, and no misadventure actually happened all this while.

However, the nature always has surprises and challenges in store, probably to test our individual and collective resolve.

**THE CHALLENGE:** Then, on 10 Oct 2019, she met with a serious accident at Bali. She was admitted to the Mangusada General Hospital, Badung, Bali in an unconscious state by the Police.

When the worried parents got the news of the accident at Goa, after having run out of options, they contacted Lt Cdr Lohith Anand Sequeira (Retd). He happens to be a member of the Forces Network, and promised them to use the resources of the Network to provide immediate help to their daughter.

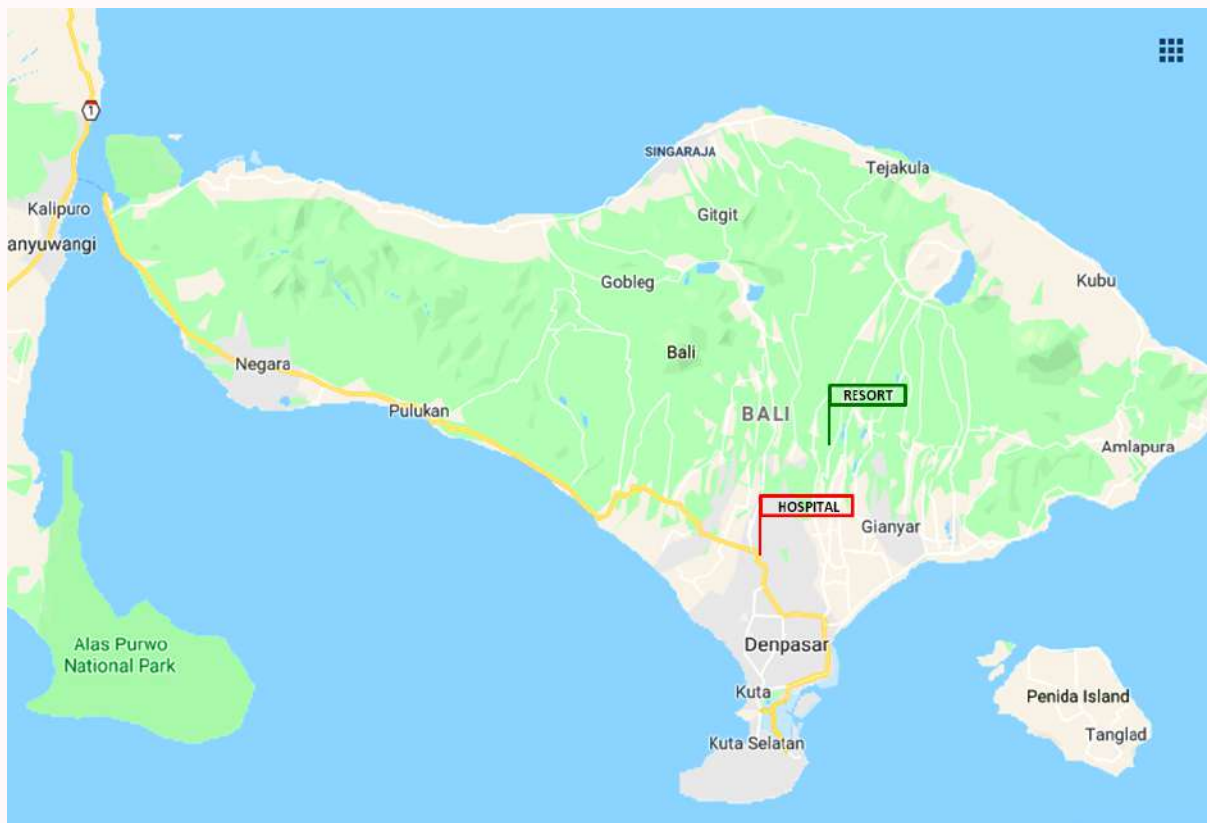


**CHALLENGE ACCEPTED:** Lt Cdr Lohith flashed the news on the Forces Network Group on the night of 10 Oct 2019, and immediately proactive actions started within the Group like a well oiled machine. Promptly Cdr Mathur (Retd) and Wg Cdr Rajesh (Retd) contacted the parents and offered to help in this time of need.

Col Amish Chadha (Retd) ([@AmishChadha](#)), after learning about the help required, took the initiative to reach out to his classmate Mrs Monica Manchanda Mohindra (also daughter of an Army Officer and the owner of Pandawas Boutique Hotel, Ubud) at Bali who moved swiftly like an angel, spoke to Soujanya to comfort her, and then went to Soujanya's hospital and took charge of the girl. She later brought her home, and provided her with all kind of support to aid her recovery. A local doctor, another beautiful soul came to Monica's home for the treatment, as Soujanya was travelling without travel insurance. It was very magnanimous of Monica to take care of the injured girl at this stage and provide her with the required support, both financial and moral, when even the Government officials were perturbed about her travelling without medical insurance, and the inability of her parents to reach her in time.

**MISSION ACCOMPLISHED:** Soujanya was nursed back to wellness by Ms Monica and her family. Thereafter, Monica even assisted in rescheduling her flights and getting her to board a flight to India.

Soujanya finally landed to be with her parents at Goa on 17 Oct 2019, after nearly seven days of trauma and helplessness in a foreign land.



This is another excellent display of the camaraderie and the swiftness shown by the members of the Forces Network, when an angel in distress in a far off of land was provided with succour, co-opting the able and timely support of close friends of the members.

The parents were touched by the swiftness of the Forces Network in reaching out to their dear one in distress. Even though Cdr J N Rai is himself not a member of the Forces Network, however this incident further strengthens the faith and belief amongst the members that if they are in any kind of adverse situation or when the crisis happens in any corner of the World, and when there is no one to reach out to, then come what may, the ForceNet will come like a White Knight in a shining armour riding in from the horizon, to help them overcome that crisis.

Truly wonderful, this Forces Network...the network that works, and ever ready to meet all such surprises and challenges that nature throws at it.

*Details compiled by Lt Col Ranvir Singh, based on inputs gathered from mails in the Forces Network Group.*

**MEDITATE OFTEN ON THE  
INTERCONNECTEDNESS AND MUTUAL  
INTERDEPENDENCE OF ALL THINGS IN THE  
UNIVERSE. FOR IN A SENSE, ALL THINGS ARE  
MUTUALLY WOVEN TOGETHER AND  
THEREFORE HAVE AN AFFINITY FOR EACH  
OTHER—FOR ONE THING FOLLOWS AFTER  
ANOTHER ACCORDING TO THEIR TENSION OF  
MOVEMENT, THEIR SYMPATHETIC STIRRINGS,  
AND THE UNITY OF ALL SUBSTANCE**

**AURELIUS**

# Gratitude

## Direct....From the Heart

I do not have enough words to express my gratitude to Forces Network, officers who conceived it and who are maintaining it .

Few days ago I wrote a mail (*attached below*) seeking help for employment of a girl from my native place in Odisha. She has been in Delhi preparing for Civil Services and unfortunately could not qualify the mains exam this time.

I am indebted to Col Raakesh and Cdr Anup Sir for the huge favour. Col Raakesh referred her to Cdr Anup Sir who displayed his magnanimity by offering such a job that she could work and continue her preparation for CS, despite the fact she doesn't exactly fit into his requirements. He simply accepted her as his employee just to support a struggling civil service aspirant.

Cdr Anup Sir, kindly accept my sincere gratitude.

Forces Network is indeed the network that works.

Warm regards,

**Captain (IN) Dushmantha Kumar Jena**

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Dear Esteemed members,

Last week I was on leave at my native place, a remote village in Odisha. I met a girl who happens to be the daughter of my school senior (businessman not doing so well) and is in search of a job. May I seek your assistance to help her.

### Brief Narration.

1. She completed her B.Tech in ECE from Odisha during June 2013. Worked in Wipro, Bengaluru (through open competition, not campus selection). After a month left her job to prepare for civil services to fulfill her parents' dream.
2. During preparation for CS she was very sick for two years and thereafter resumed preparation. On first attempt she couldn't clear the Prelims. On the second attempt during 2019 she cleared Prelims but got screened out in the Mains whose result was declared recently.
3. Presently, she is at Delhi. Due to not so good condition of her father's business, she is desperately searching for a job. From the brief interaction I could gather that she is very good in coding and has excellent communication skills.

I sincerely request my seniors and friends to help her. You may kindly write to me directly or contact me at 8332874386 (all time) or 9433815765 (beyond working hours) so that I shall tell her to forward her CV.

At the moment she feels a bit frustrated and I am sure our Forces Network would extend a helping hand.

Esteemed Members of Forces Network,

A good mentor always kicks you and shows you the right way of doing things. Throughout my active service, I have had the privilege to serve with two Officers, who have made a profound impact on my perception of professional work and also for setting me on the right path.

They are... Capt V M D Jagannath and Cdr R Kartic. (Both Officers Ranks have been deliberately removed in the linkedin post mentioned below, to maintain anonymity on the platform.)

I have put in the best of my efforts to bring out how minute actions taken by both the Officers towards grooming me and also attempte to grace upon the nuances of how such actions affect the thought process of an individual in the years to come.

A sense of immense gratitude sets within me when penning down this post. Thank you Sirs. Those were testing times, and I couldn't have pulled it out if it wasn't for your relentless efforts.

Last but not the least, I would like to thank Col Iqbal for forging a platform especailly for transitioning officers. To be precise, approximately an year ago you had taken the pain of making me understand the importance of "Content" and that "Professional speaking" is more of a tool to deliver the content, rather than a profession in itself! It was an eye opener and i have set course corrections to attain my goal since then.

As I recollect from one of the workshops I had attended on having a progressive mindset

"I'm Learning...I'm Learning..."

Regards

**Arjun Warriar Krishnan**

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I would like to express gratitude to Forces Network & IQ for the opportunities that it offered to me.

Last month when I switched over to my third corporate job post my PMR in Aug 2013, I was pleasantly surprised to note that the last 2 jobs came through posts in Forces Network.I have also personally acknowledged to the officers who posted the openings.

Thanks once again to this network. Thank you to IQ for having created this platform.

Regards

**Cdr Satish Kumar Yadav, Retd**

I wish to express my gratitude to Capt Uday and Make My Trip team to help in getting refund for a hotel booking, especially when as per terms and conditions of hotel the booking was non refundable.

Thanks a lot Uday for actively guiding me and coordinating with MMT and thanks to MMT team to get the job done up to satisfaction level.

Regards,

**Flt Lt Vasu Kapil**

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Dear Iqbal Sir,

My sincere gratitude for accepting me as a member of this group.

I would like to extend my heartfelt thanks to Col RS Dubey (My instructor for CEH), Col Vijay Kumar Verma (my mentor from Lieutenant days), and Col Sameer Anukul (my guide in planning courses of action). I have cleared CEH with a decent score of 93%.

I started searching for various avenues for myself through this Network, and it has helped me. Thanks

Regards,

**Velmurugan S**

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*Compiled from mails received in the Forces Network Group - Editor*