

# **FiRE**SiDE

The House Magazine of the Thermax Group Volume 47 No.1 & 2 January - June 2017





## About the Cover

On this sliver of land before the vastness of the sea, we behold the shimmering day and remember the glorious ways that brought us here.

There is also the vulnerability we experience as events and happenings unfold, upsetting the rhythm of the known and the familiar. Still, at this point of our arrival, we are ever hopeful. Even as far horizons await us, we are spurred by the promise of newer days and the excitement of purposeful action.

*(Image by Suhas Asnikar)*

## BACK COVER

Explorations in Learning

## Comment

“To see what’s in front of one’s nose needs a constant struggle.”

– George Orwell

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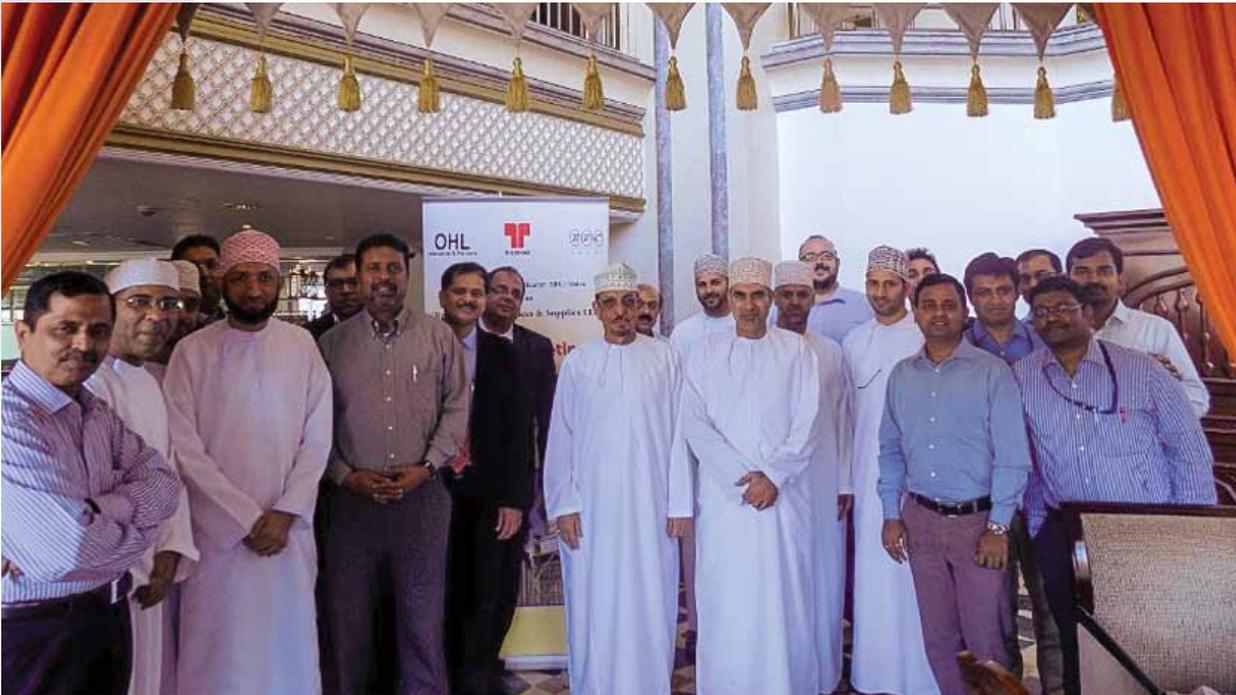
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# What's New?

A significant step to encourage indigenous production

## Thermax equipment for efficient power generation in Oman



*Thermax personnel with team from PDO in Oman: installing critical equipment*

**T**hermax is supplying two heat recovery steam generators (HRSGs) to Petroleum Development Oman (PDO), a leading hydrocarbon exploration and production company of the Sultanate. One HRSG will convert PDO's existing gas turbine power plant to a high-efficiency combined cycle power plant at SaihRawl. The second one is for PDO's greenfield combined cycle project at Lekweir.

At the existing plant in SaihRawl plant, Thermax's HRSG will harness gas turbine exhaust to generate an additional 58 MW. This eco-friendly solution would reduce

heat emission to the environment. The consortium of Bahwan Engineering Group and Obrascón HuarteLain, Spain/Oman selected Thermax, an approved vendor of PDO to design, manufacture and supply the high-efficiency equipment. The consultant of the project is Técnicas Reunidas, Spain.

The other HRSG at the Lekweir greenfield project will feed an additional 34 MW green power to the grid. Zawawi Power Tech Engineering is the EPC agency with Worley Parson engaged as consultant.

Thermax is participating in Oman's national endeavour to encourage indigenous production. The equipment despatched will have some of their components assembled locally in Oman.

Thermax's Boiler & Heater division has previous experience of supplying boilers and heaters in the Sultanate of Oman, and works in association with Hi-tech Services & Supplies LLC. The business division regularly supplies high efficiency heating systems to global clients.

Will help industry reduce greenhouse gas emissions and have positive implications for public health

## Teaming up with FlowVision, Denmark for NO<sub>x</sub> Reduction

FlowVision technology used in this waste-to-energy plant in Europe.



causing respiratory and skin diseases. It will help Indian industry reduce NO<sub>x</sub> emissions to permissible levels (100 mg/Nm<sup>3</sup> for the power and 500 mg/Nm<sup>3</sup> for the cement industry). Some of the methods offered through this tie up are Selective catalytic and non-catalytic reduction (SCR & SNCR) which will reduce nitrogen oxide emissions in conventional power plants that burn biomass, waste and coal. SNCR is used both in cement and power plants.

**T**hermax teamed up with FlowVision A/S, Denmark, to provide to Indian markets technology that can reduce nitrogen oxide (NO<sub>x</sub>) emissions.

The tie-up will help industry reduce greenhouse gas emissions and has positive implications for public health. NO<sub>x</sub> gases react to form smog and acid rain,

The initiative will also support the government's efforts to reduce the emission of greenhouse gases, in line with the country's commitments at the Paris Climate Summit (COP-21).

FlowVision is an engineering company headquartered in Odense, Denmark. It specialises in the design and supply of state-of-the-art emission abatement systems.

## Thermax acquires facility of Weiss in Poland, expands into Eastern Europe

**T**hermax, through its step-down subsidiary in Denmark, has acquired certain boiler manufacturing assets and production facilities of Weiss Sp. z.o.o. in Poland. The definitive agreement was signed on March 28, 2017 and the transaction was completed in April 2017.

The acquisition is of strategic advantage to Thermax as it gains additional manufacturing capacity for expanding its business in

Eastern Europe, offering more efficient waste-to-energy and biomass solutions.

"With this acquisition, we are consolidating our presence across Europe with the specific intention to enter the East European market where renewable energy solutions are growing at a rapid pace," says M.S. Unnikrishnan, Managing Director and CEO of Thermax.



Weiss equipment at a customer site

This biomass project is a first for Boilerworks and an important step

# Biomass plant in Copenhagen gets an upgrade from Thermax's Danish subsidiary

**B**oilerworks, Thermax's Danish subsidiary is supplying an upgraded furnace and grate to an existing straw fired biomass boiler at DONG Energy Avedøre, the first ultra-supercritical straw-fired boiler plant in the world. This 5 million USD project that began in December 2016 will be installed and

commissioned in 10 months.

Boilerworks is fulfilling the client requirements on quality control, documentation, construction and manufacturing standards. This biomass vibrations grate project is a first for Boilerworks and an important step in its strategy to broaden its range of products.

The Avedøre plant in Copenhagen began operations in 2001 and contributes up to 35 MW electricity and 50 MW heat. It produces 144 tons of steam per hour at 583°C and 310 bar. Besides power generation, the plant also contributes to district heating in Copenhagen.



*Work in progress at Boilerworks, Denmark: broadening its range of offerings*

Biocask is a cost-effective, plug-and-play sewage treatment and recycle product

## Satisfied customers voice their support for Biocask on its road show



Sewage treatment system at one of the roadshow centres

poor treatment facilities is a looming environmental crisis. “Decentralised treatment plants like Biocask play an important role in meeting the challenge of space requirement. It can easily fit in a 3.5 m basement, making it a very viable option,” says Vishal Mehra of WWS.

Dnyaneshwar Nemade, GM Engineering of a Sandvik group company grappled with a conventional sewage treatment plant at his tooling plant in Pune. Bore wells are his only source of water and it was a shame to discard the water after use. So when Thermax installed a 100 KLD compact system with UV to treat wastewater, Mr. Nemade was able to recycle the water for flushing, cleaning and cooling, and reduce its hardness.

Sakharam Ghogare, another happy customer from Reliance Industries who oversees sewage treatment at the company’s housing colony at Chunabhatti, Mumbai says, “At

Rs. 79 per cubic metre, the cost of water in Mumbai is spiralling. We are pleased with Thermax’s Biocask which treats sewage from our 1000 flats for flushing and for gardening.”

Experiences like these from more than 45 customers underline Biocask’s success. And as it travels en route a seven-city road show, it is being promoted to many more builders, architects, consultants and industries. Untreated sewage is one of the worse pollutants of surface and ground water with cities dumping 70-80% of it in water bodies. Moreover, the paradox of reduced supply of per capita fresh water, ever increasing sewage generation, and

Biocask is a cost-effective, plug-and-play sewage treatment and recycle product with minimal civil work at site. It can be placed in the basements of housing societies, IT parks, commercial complexes, hotels and small industrial units. Treated sewage can be utilised for certain industrial applications, gardening, flushing, cleaning, etc.

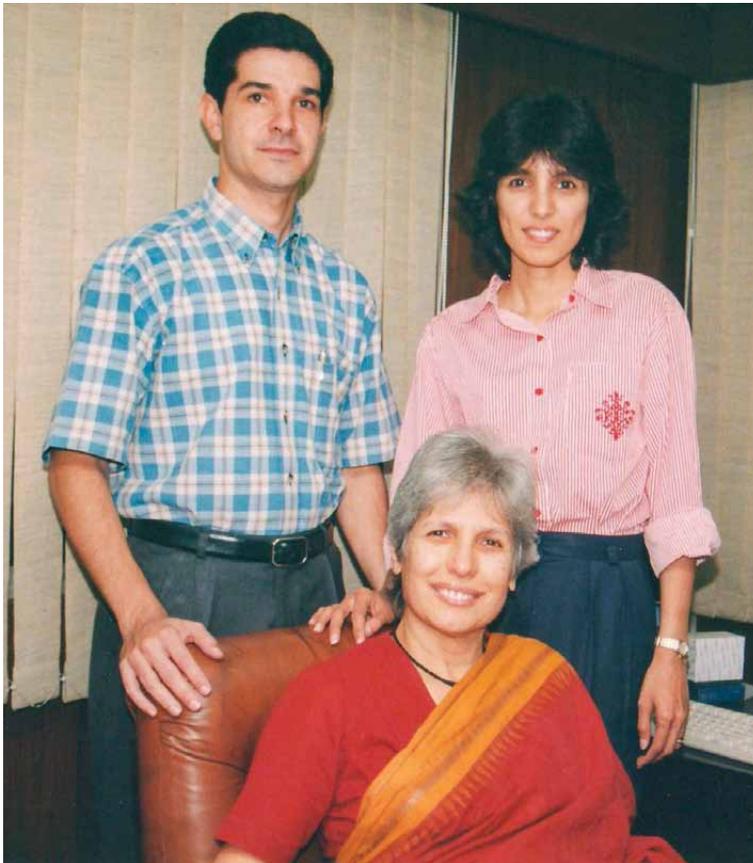
The road show kicked off by the WWS team from the Pune factory traveled to Hyderabad, Chennai, Visakhapatnam, Bhubaneswar, Kolkatta and Siliguri. The division tied up with a radio channel to promote the event across major cities.



Reflections on  
Thermax at  
**50**

# Thermax over the years:

## Interview with the promoters and the managing director



“I think the three of us are equally fond of and committed to Thermax, but certainly not obsessed only about this. We lead a fairly balanced life.”

— Anu

*Fireside: Let us talk about the last 25 years as it was during that phase, Thermax became the company that it is today. In 1995 we became a public limited company. In a basic sense, what did it mean to go public?*

**Meher:** I remember, when we went public, my father used to say, 'Earlier, you were responsible for

your employees and customers and whatever happened affected you, your family, and in some ways employees and customers. But now, you are accountable to a new stake holder: the minority shareholders, who have put their faith in Thermax.' He felt the responsibility was manifold when the company decided to become a public limited company.

So, this philosophy of taking care of all the stake holders is ingrained in us.

**Anu:** In response to a journalist's observation that after going public 'you must be very relieved that you don't have any personal financial responsibilities', Rohinton replied, "Sorry! My responsibility has enhanced several times because I am answerable for all my acts now, to people who have placed their trust in Thermax."

*Fireside: Meher, Pheroze, early 1990s also happened to be the years when you began your careers in Thermax.*

**Meher:** To me, from the beginning, it was obvious that if I join Thermax, it had to be as

a trainee. It turned out to be a good decision. Nitin Warty who was heading our water treatment business, treated me like any other trainee. He didn't deal with me as Mr. Aga's daughter. He pushed and challenged me, gave me every opportunity to learn and grow. It was a great experience as I felt that I was an integral member of the team.

**Phero:** My association started with the family first. When I was dating Meher, I remember, once as we were coming back from Bombay, Uncle Rohinton took me inside the Chinchwad factory. This was no formal induction. At that time I was working in the boiler division of J.N. Marshall where I used to compete with Thermax. Though I won a couple of orders my ego has to admit that I lost many to Thermax. I thought, instead of fighting Thermax, I should quickly join the competition – and decided to get married to Meher. Moreover, I was also drawn to automobiles, opened a workshop and trained under a friend to run a metal forming and turning machine shop which made parts for Bajaj and other motorcycle and automobile companies. After our marriage, it was Anu who brought up the subject of Meher and me moving to the UK office. Maybe we could 'get to know each other' better.

**Meher:** I was nervous about the shift, as the UK business was going through a difficult phase and we were expected to turn it around. We were quite happy that Dr. Joshi and Chidambar were also deputed to the London office. In

fact, Dr. Joshi immediately agreed to the idea of moving to London, even before talking it over with Lily, his wife. Such instinctive care for the organisation is something unique about our people. They have such a deep concern for Thermax and for the family. At other places, these entities – organisation and promoter family – can be separate and non-intersecting, but in our case, both are convergent. In some ways, if you are for the organisation, automatically, you are for the family. And, for us, we were always convinced that the organisation comes first.

**Phero:** I was not scared of moving there. In those four years, beginning from a tough situation, we turned around the UK operations, finished off extremely well. Unfortunately, when we were doing well, Rohinton passed away and we decided to come back and be with Anu and my parents.

For me those years were important not just professionally. I must put this on record: this family never made me feel like I was a son-in-law. I always felt like I was the son. We came back, Meher was inducted on the board straight away. I worked under Anil Sarwade in the International Division.

**Meher:** Working together, initially, was a challenge. There weren't any defined roles. Everyone did everything. Eventually, Phero moved towards sales and was the external face of the company. I took care of the back-end functions including administration and finance.



**“From a predominantly Indian company we have grown to be a global entity. Today, 1/3<sup>rd</sup> of our business revenue comes from overseas markets.”**

**— Unny**



“I am glad a set of guiding values have sustained us. Remember, not every business family is able to do that.”

— Meher

**Phero:** In that 450 sq.ft office we sat as far away from each other as possible!

**Meher:** In the years that followed, Phero has been a constant source of counsel and support. He is always with me. There are times when I am challenged by the complexities of my role. The constant dialogue that happens between us really helps.

*Fireside: Anu, how do you look back on your years at the helm of Thermax-especially after taking over from Rohinton Aga in 1996? It was not a planned succession.*

**Anu:** For Rohinton, anything other than work was a distraction. He was obsessed about Thermax. When I look back at my time, it was a responsibility thrust by the board. But I looked at Thermax as our family legacy. I felt a great sense of responsibility to protect and nurture it for my children and for future generations. At times, taking over as Executive Chairperson was such a burden that I used to fantasise about being sick and admitted to a hospital for a couple of days, so I could just relax. I was out of depth on the business side. We were not doing well and it was a very difficult time. While Meher and Phero are passionate about Thermax life, I don't think I ever felt passionate about being the Executive Chairperson. I found my passion through social work, through my involvement in the social sector. It was through

a sense of responsibility that I worked each day.

*Fireside: Tell us about the turnaround phase in Thermax, around 2000.*

**Anu:** There were some major measures that were introduced to help us turn around. We reconstituted the entire board, exited several businesses and so on. It was the first time in India's corporate history, the entire board resigned and was reconstituted. It was Berjis Desai who suggested that Thermax needs a new board. The credit goes to all our former directors who graciously stepped down in the larger interests of the company.

The family had to decide whether to be on the board as non-executive directors or continue with their executive roles. Meher and Phero, respectively managing International business and the new bottled water business of Thermax-Culligan, were quite upset with me for giving them such a choice. Of course the suggestion came from our consultants, Boston Consulting Group (BCG), but I was the one who ultimately accepted or rejected their recommendations. “There were many of their suggestions which we didn't implement. Then, why accept this,” they wondered. Eventually, they decided to be on the board as non-executive members. Though at that time it did cause a little tension, today they agree it was a wise decision.

*Fireside: And in 2004, you decided to call it a day...*

**Anu:** Once the company turned around, I got a lot of compliments; I was in the media glare. Power makes you like your position of authority. So, at 61 I found it difficult to give up, though I myself had decided to retire. At a press conference, I announced I was going to retire. Meher was upset that I hadn't discussed it with her before I publicly made the announcement. If I had done that, it would never have happened. That was my way of mobilising myself by declaring in public, and then working towards it.

**Meher:** Initially, I had my doubts about taking over from Anu. In a way, her declaration helped me to arrive at a decision.

*Fireside: For employees and well-wishers of Thermax, the three of you represent 'the Family'. What's the family's take on the Family?*

**Meher:** A family business has to be inspired by a philosophy, some convictions that go beyond calculations of immediate returns. A strong set of values, the kind of people we recruit, especially at the management level, sets the culture and tone of the organisation. I am glad a set of guiding values have sustained us. Remember, not every business family is able to do that.

Today, we are three family members who are closely associated with the business; who spent 10 years in executive

roles. Tomorrow, our children may be a part of the business. As individuals, we each have our own perspectives, we don't always agree with each other; but there is a strong bond of love and genuine respect for each other. We often have intense internal deliberations, but are able to arrive at a consensus and we try to speak in one voice.

*Fireside: Rohinton Aga passed away in 1996, over 20 years ago. He was passionate about meeting the requirements of the customer. And his writings show his business vision was always allied to national perspectives – energy efficiency, environmental concerns. How far has Thermax fulfilled his vision of meeting customer and national requirements?*

**Anu:** Rohinton was indeed a visionary. Yes, he could place Thermax's business and its aspirations within a framework of national priorities. He was also an intellectual, who expressed himself eloquently. He lived Thermax, 24 hours, which was a good thing, and a bad thing too. I don't think any of us live with that level of intensity about Thermax. Fortunately, I think the three of us are equally fond of and committed to Thermax, but certainly not obsessed only about this. We lead a fairly balanced life.

Customer focus is as, or even more, relevant than it ever was. Not just customer, but also the minority stake holder. I think all three of us have that commitment. It was an anonymous letter from a shareholder – saying you have





“The older generation understand the customer-centric behaviour of Thermax. I would like it to percolate down to the new younger Thermax.”

— Pheroza

let me down, Mrs. Aga – that mobilised me to hire BCG. ‘Let me down’ continues to be a dirty phrase for us.

**Pheroza:** Yes, concern for the customer runs deep in all of us. I find it very irritating when a customer calls me about something that’s not done. Why would a customer have to escalate the complaint to the family, and not get it resolved at the management level? Normally, it’s because of sheer frustration. We as family members also have to be careful – not to disempower the managers who are in direct contact with the customer, but ultimately, it is always the customer who gets priority.

Obviously, when a complaint from a customer comes to me, I get it sorted out. That goes for Meher too.

**Unny:** Our going public almost coincided with India opening up its economy. In its first 25 years Thermax was in a protected but restricted economy. Today, it is truly a competitive market, both in India and the international markets. In such an open economy, survival itself depends on product development, quality improvement and customer service. Our survival and growth reflects customer satisfaction in every aspect of our dealings with them.

**Pheroza:** We are not the Reliances of the world, where we touch people’s lives with mobile telephony or other direct people-centric businesses. We specialise

in providing best-in-class solutions to other business houses. So what is it that we can do? Increase the productivity, efficiency and quality of those companies with our products. In turn they will flourish and that cascading effect will help in India becoming a better, if not world-class manufacturing base. This way, we can help the economy and the environment. So, the dream continues, but in a way we can be in charge of that dream.

**Meher:** It is not just for the three of us family members. Customer care is embedded in the organisation, starting from Unny and operating at different levels. We will never willingly let down a customer. We will always stand by him, always rectify if something has gone wrong.

**Anu:** I would not romanticise it is in our DNA to look after customers. Certainly, we wouldn’t shortchange customers. But don’t we sometimes take them for granted once our sale is done?

**Pheroza:** The older generation understand this customer centric behaviour of Thermax. I would like it to percolate down to the new younger Thermax.

*Fireside: It’s often said of Rohinton Aga that he was bold to venture into new businesses. Has today’s Thermax lost its appetite for taking risks?*

**Pheroza:** Mr. Aga was a visionary with a global perspective. Having said that I have to give credit to our current management too. Things have changed hugely.

Compared to earlier times, today we have a more complex environment out there. There is fierce and ruthless competition in the market place. So, to say that we have a low appetite for risk is questionable. Rather, today it is more of calculated risk; it involves more of due diligence. So it takes much longer. It is always perceived “non-risky” to say ‘No’ but such an approach is also very prudent in times that are very volatile. The same advisors who tell you to acquire assets and empty the coffers during good times will also congratulate you when you did not listen to them during more hard times.

**Anu:** We also went into new businesses where we didn’t know how to manage: wind energy, software, electronics, etc. Our bottom line was eroding. Eventually, we had to clean up our act. So in today’s time, with fierce competition, it could be disastrous if we took that kind of risk.

**Phero:** It’s a different kind of a risk, today. Subtle risk.

**Unny:** Let me talk of Thermax as it is today. We have accomplished much that we can be proud of. We are a recognised organisation in the industrial landscape of India and have evolved into a leader in the energy and environment sectors of business. Our opinions are sought and heard by the market and the Government.

From being a predominantly Indian company we have grown to be a global entity. Today, 1/3rd of our

business revenue comes from overseas markets, as against a single digit share, earlier. Both the products and project businesses have established footprints and have created competencies to successfully manage business.

A decade of growth (20% CAGR) has helped us grow to our current size. However, in today’s uncertain environment, we might not have similar space for similar pace of growth. To overcome this constraint, we have to expand our portfolio and move into new geographies, through both organic and inorganic initiatives. These certainly are planned for and are at various stages of implementation.

**Anu:** I am glad Meher is leading the efforts to take the company into greener technologies.

**Meher:** We have ample opportunities to mature as a green company in the energy-environment space. With the issues of climate change and the volatility of oil prices, customers too have persuaded us to move into clean fuel based systems and equipment. I was particular that our subsidiary, Thermax Onsite Energy Solutions Limited (TOESL) should continue with clean energy solutions. That decision has obviously put limitations on its growth. I think we have live by that decision if it means short term setbacks. It is when you are at the cross roads, one’s values are truly tested. We need to stand by our convictions. Let’s not forget that ‘Profit is not just a set of figures but of values.’





“I found my passion through social work, through my involvement in the social sector.”

– Anu

*Fireside: On being a company that does business according to the rule book*

**Anu:** In terms of governance, we have improved from our earlier days. All three of us and our Board insist that we continue to follow the ethical path. It's a step in the right direction.

The environment is much vitiated today. There is a lot going on in every sector, in spite of the talk about clean up. I am glad we have chosen not to be part of it, even if it means less business. All credit goes to the management team for implementing it. I am really proud of Unny and his team.

**Phero:** Once we took that decision, many of our managers actually felt relieved; they felt they were getting a clear mandate. The right type of managers are very happy to work within the constraints of such an ethical framework. Yes, they are challenged but that brings in creativity too. Reducing complacency, it breeds a kind of efficiency.

**Unny:** Our desire to be a clean, honest and law abiding organisation has made it that much more difficult to conduct business in India. But there are hopeful signs. With the ongoing digitisation of our economy and implementation of GST, the overall governance of Indian business is expected to be more transparent and clean. This should certainly help us to be a preferred supplier-partner in the medium to long-term.

*Fireside: By adopting such an approach, for example to pull out of municipal water business, are we missing out on emerging business opportunities?*

**Anu:** The preparedness to say 'No' in order to uphold what we believe in, even if it means missing out on opportunities...that's okay.

**Meher:** Sure, there are huge opportunities in the water business. We continue to contribute to the national endeavour to conserve water through our technologies that recycle water in industrial projects. Even in the municipal sector, tomorrow if there is a developer, we can collaborate either in an EPC role or sell equipment to the developer. We are keen on exploring business opportunities, so long as there is no underhand deals.

**Phero:** We have to target the segments with which we are comfortable to do business. We have to mitigate risks and create a road map for the future. Some of these projects that we are reluctant to get into might help our business divisions to gain quick turnover. However, to shore up the bottom line, we may be forced to do all kinds of questionable things. So, it is a conscious choice of deciding where we want to be.

**Meher:** If we don't take such decisions, what's the role of the family and the board?

I think it is the right decision to conduct business under an umbrella of healthy values.

*Fireside: Is there a reappraisal within the company about the product and project businesses of the company... especially in the context of uncertainties and volatility of projects?*

**Unny:** It is a myth that Thermax has product and project portfolios. In reality barring our chemical and service business (15% of topline) Thermax is a capital equipment provider for capacity building. Associated with capacity building, we are, invariably, a project business company. The day we can buy any of our equipment from a supermarket shelf, we would have become a product company. I do not see it happening in the near future.

**Pheroz:** It will truly happen if we really standardise our products, go for mass customisation. The customer could perceive it as bespoke or customised product, but really standardised for us.

**Unny:** Customers are concerned about a definitive time schedule and a price for the best possible solution. To meet their needs, we should be innovative in the first place. To be competitive we should standardise, mass customise, modularise, miniaturise and mechanise.

**Pheroz:** The new products coming up in the Thermax basket will certainly help here. Let me add that our tendency is to design one product, and assume that we have designed one that is future-proof. Future-proof products are those that have various versions at the back-end, and a steady roll out of newer versions are introduced only

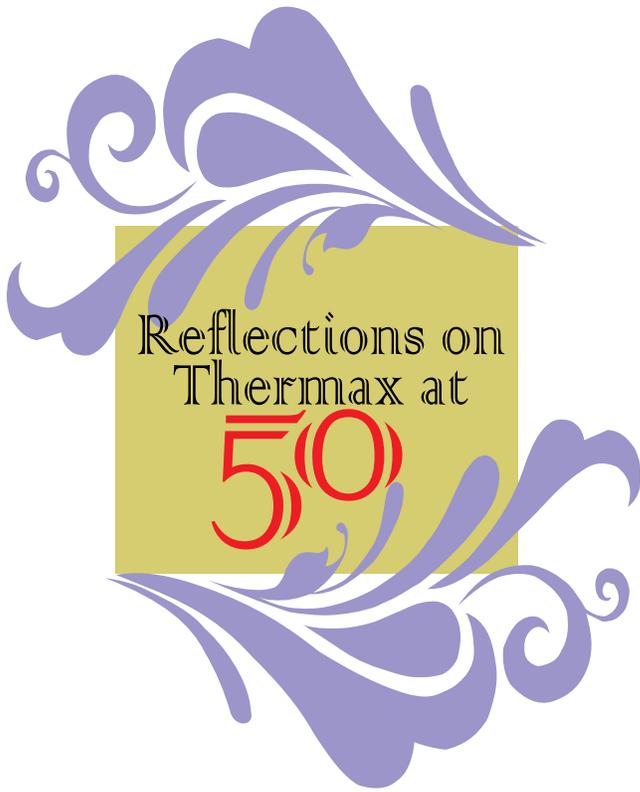
at the appropriate time. That way, we can be one step ahead for our customers and, most importantly, of our competition.

*Fireside: Taking a crystal gazer's perspective, how does the future appear for a younger Thermax, where average age of employees now hover around 30?*

**Unny:** Advanced robotics, 3D printing, metal deposition and artificial intelligence will transform skill requirements for doing business at a quicker pace. You will need fewer people in both white and blue-collar categories. They would certainly have much higher skill levels than the current breed of employees. Commensurate with their capacities, they will be compensated at higher levels than today. Even in this transformed eco-system, based on the emotional connect employees have with the vision, leadership and culture of the organisation, employees will have the choice to remain in the same organisation for longer periods. Automation cannot do away with the emotional connect necessary for employees. Loyalty, as defined in the past where you underpay and then compensate the rest with a better culture may not work in the future. If an organisation is capable of fulfilling the material aspirations of an employee and thereafter satisfy his deeper needs – like the need to belong – we can be confident of loyalty even in the 21st century.

*{Interviews conducted by  
A.M. Roshan}*





Reflections on  
Thermax at  
50

## My First and Last Job

**A**fter completing my Ph.D. from IIT Bombay, I had plans of going abroad for postdoctoral work. I had met Mr. Aga, who offered me a job at Wanson (India). When I failed to get admission in any university, due to the recession of the 1970s, I reluctantly joined Wanson – after I made him wait for six months. After Ph.D., joining a small scale industry was not easy. But soon

after joining I fell in love with the people, Mr. Aga’s lofty dreams, the atmosphere of trust, freedom and responsibility given to people, and the respect I got from my superiors (although Mr. Aga treated everyone as his colleague). I thought there could be no better place to work. I declared that Thermax would be my first and last job, and that was exactly how I felt when I retired from the same company.

and Mr. Bathena turned ordinary people into heroes, as Thermax offered enough opportunities and employees could grow by handling newer responsibilities.

I will never forget my first boss, Mr. M.P. Rao. A practical engineer, he guided me in my initial days and gave me a new approach to design. I learnt a lot of ‘thumb rules’ from him, and I owe a lot to him. Besides Mr. Aga and Mr. Bathena, it was my good fortune to come in contact with people like him and Kabraji during my formative years. Unknowingly you emulate your heroes and develop your own style. They infused in me enduring values like honesty, being fair to everyone, loyalty, innovative approach, hard work and a simple lifestyle.

In 1976, one day Mr. Bathena suddenly transferred me from the Design department to R&D. Mr. Aga gave only one directive - develop saleable products.



Dr. N.D. Joshi

“We don’t need Ph.Ds. in Wanson,” that is how Mr. Bathena welcomed me. “Put your degree under the mattress”, he would say. This was his way of testing people. He would ask awkward questions and test your reactions for the first few months. He gave more importance to the character, pedigree and values of a person than his degrees. Once you passed his test, you would receive all his love, guidance and respect. I was lucky to join Thermax when it was small and growing, and we grew with the company. Mr. Aga

I had tremendous freedom in operation - from finding out what the customer needs, making a prototype and presenting the idea to a potential customer to selling the first few units, installing them, troubleshooting and commissioning. I gained first-hand experience of customers, technology, competition, costing, pricing and networking within the organisation. I could travel extensively within the country and abroad. Never caring for the mode of transport or about personal comforts, my goal was always to reach early at minimum cost. Possessed by work, not even my family came in the way of my work. I am proud that we could create a market-oriented and practical R&D that enhanced the top and bottom lines of the company. It is satisfying to look back and see several of the products that I helped develop – coal fired thermic fluid heater, Multitherm, fluidised bed boilers and heaters, husk fired boilers, Thermosyphon, exhaust gas boiler, FAB reactor and so on. Several of them still contribute to Thermax's growth.

I have witnessed ups and downs as the company evolved from a small-scale unit to an energy and environment major. From a single product (coil type boilers and thermic fluid heaters) company we grew to a multi-product and multi-business organisation, respected and with a global presence. As someone associated with the development stages of the company – new products, technologies, manufacturing units, and territories – I still remember the learnings at every stage.

Being in R&D was fun. With no repetitive jobs, it gave me variety even in routine work. When you develop a new product and someone is happy using it, it gives you tremendous satisfaction that no amount of monetary compensation

can match. Similarly, at Thermax we never got big salaries, but it was a privilege working with Mr. Aga. He showed us big dreams and created job excitement which no amount of money can create. As someone who always showed a way out of difficult situations, he was a great binding force.

I could have retired as R&D chief but for the two opportunities presented to me by Abhay Nalawade. Our UK office was facing uncertainty, and on his suggestion, I went there in 1992 along with Meher, Pheroze and Chidambaram. Seeing no commercial sense in continuing we recommended its closure. Mr. Aga refused and instead threw up a challenge – can we make it work? With my R&D background and approach, we developed new products like De-icer boiler and VOC incinerator apart from making Thermopac, locally at a lower cost. That one year was taxing but very rewarding too as we could turnaround the UK operations.

Thermax has always encouraged a culture of innovation. You were never questioned for making mistakes but could be questioned for not trying. With its variety of applications and willingness to take risks, we also created a culture of entrepreneurship. All of us believed that this was our own company. Anyone leaving Thermax could command elsewhere at least twice the salary, and yet most of us decided to stick to Thermax. There are enough examples of employees coming back as they could not adjust to the new culture.

After returning from UK, Abhay asked me to head the Waste Management division. The technology of wastewater treatment was totally alien to me. Here again my R&D instinct came in useful and SAFF and FAB reactors would become popular products.

After the demise of Mr. Aga in 1996, the transition was smooth. Abhay Nalawade was a natural choice as successor. Both Abhay and Prakash who followed him were my personal friends and working with them was easy. Abhay brought me to the corporate office in 1999. I could vindicate the trust he had in my technical and financial acumen by generating historical profits through proper investments in treasury.

I wanted to be remembered for my Innovative spirit and therefore instituted an Innovation Award by donating Rs 10 lakh – perhaps the first time for an employee in the history of corporates. I always felt that I had earned and learnt everything in Thermax. Therefore I could never think of working for any competitor after retirement as all my knowledge and experience belong to Thermax.

In this company you have the freedom to voice your dissent. There are no ill feelings as long as the purpose is constructive and there is no personal agenda. I must make a special mention of Anu's tremendous patience. She tolerated all my criticism.

Joining as a design engineer, growing to be a Director of the company and retiring as an Ex. Vice President was a long journey. I am living a happy retired life. Having worked hard all along, I feel I deserve a relaxed life. I spend my time trekking, listening to classical Indian music, playing harmonium, travelling, meeting friends and being with my grandchildren as long as I can.

Life couldn't be better.

**– N. D. Joshi**

Former Executive Council Member  
and Innovation Chief

# On businesses, people and values that made Thermax



Ramani with Jayasri, his wife

I had the privilege of being associated with Thermax, this venerable institution for over 40 years.

During these years, with ample support from my colleagues, I had the opportunity to launch, grow and sustain four major businesses.

The first instance was Multitherm in 1974, a solid fuel fired boiler. It was launched in response to the global economic shock triggered by the hiking of oil prices by OPEC nations. This boiler was a trendsetter and it helped Indian industry explore alternatives and develop flexibility in the use of fuels. For Thermax, Multitherm represented the beginning of its expertise with the widest range of fuels.

We launched vapour absorption chillers in 1983. From generating heat, as a company we had moved on to heat recovery and it was a logical step to tap into vapour absorption. The chillers used heat to generate cooling. Initially we had a tie up with Sanyo of Japan, but eventually we indigenised the technology and began manufacturing the chillers at our Chinchwad facility.

In 1994, Thermax expanded

its footprint to the Power business through the concept of cogeneration – generate simultaneously, from a boiler, steam and power for industry use. Rohinton Aga who aligned national concerns to business aspirations, saw cogeneration as a logical way out for the power-starved economy of India. Eventually, we would expand and move into power generation. In 2005, we opened up another business line of providing the O&M support for power plants.

These businesses today form the mainstays of Thermax's energy portfolio and continue to generate revenue and profit for the company, years after they were launched.

In developing these products and businesses, we faced many trials and tribulations, besides the barriers of mindsets that we had to overcome during the journey. But, at the end success made it all worthwhile. Let me also add that we weren't slaving away without joy. The entire experience was enjoyable in many ways.

Today, looking back on those heady days, let me share some thoughts on why as a company we did well and why, for these initiatives and similar ones, success was

a natural and assured outcome. Performance for us was a natural work ethic backed by the sheer pride of achievement. Name, fame and money never came in the way of performance. There was no pressure on us to perform but we found excitement and fun in performance. Spurred by challenges, and unhampered by performance pressure, our creative energies found full expression at work. As Mr. Aga taught us, we performed to express, not to impress.

Nurturing our passion for work was the family culture - an overarching canopy that said *apna ghar hai bhai !* And therefore '*Safalthaai hoo hua hi padaa hai*'. Unconstrained by the pay check or the clock, and paradoxical as it may sound, an altruistic selfishness drove spirit and flesh. After work, evening get-togethers at the office used to be entertainment time, when our hits and misses and mistakes, goof-ups and omissions were laughed off (and laughed at). Many thanks to the Aga family for seeding this invaluable spiritual value at the work place – a distinguishing difference between Thermax and others.

One of my first learnings from

Mr. Aga was to ensure that people received three things at the work place - dignity, participation and recognition. Chasing business goals without this vital element is indeed skating on thin ice.

New products, new businesses, innovation, technology, growth, even customer satisfaction and profits are all very important but only next to employee happiness. Unequivocally, people played a singularly important role in making all our initiatives a sustainable success. The crucial role of the leadership was (and is) to provide emotional sustenance or 'care' – to instill a sense of belonging and to keep the team a close-knit community.

Lastly, Thermax was nimble and quick footed at the market place, thanks to its outside-in approach. An important perspective that helped the process of launching new products and businesses was to ask, 'From the customer's perspective, what real and unique value am I adding?' My profit, my turnover, my growth, my business plans and targets, my order, my share price, etc., are truly irrelevant because they, as a result, will follow. It is a mistake to allow the 'my' factor to take precedence, because that approach will most certainly elude success.

As we grow in figures and numbers, we do need to bring in newer controls and systems to meet compliance and other

compulsions. However, that should not obscure the fundamental values that created the institution in the first place. If we allow that to happen, it would be like the old line about "a successful operation, but a dead patient!"

The 50-year mark, is a good time to pause and consolidate, by reinforcing these values, for the next big leap.



– R. V. Ramani

Former Executive Council Member  
and Head of Power division

## My years with Thermax and Rohinton Aga



Shaikhali (right) with Naishad Parikh  
of Arvind Mills (Fireside, 1996)

**B**efore I came to Thermax in 1981, I was with the Tatas. After graduating from the London School of Economics, I had joined the Tata Administrative Services. When I was heading HR at Tata Steel, Jamshedpur, I came in touch with Rohinton Aga. I was fascinated by his charismatic personality. I had been in conversation with him for nearly

six months, and he wouldn't take No for an answer. Finally, I said goodbye to Tata Steel, came to Pune and joined Thermax, which was then a Rs. 25 crore company.

My first day happened to be one when the announcement of Wanson formally becoming Thermax was made. It was announced at a meeting of the

employees at the canteen, where I was also introduced to everyone. Those days, the entire staff could come together at one venue. I began my 20-year long service at Thermax as Head of HR and Corporate Planning.

Thermax, by the turn of the '80s, was doing a profitable Russian export business. Rohinton was a



quintessential entrepreneur, daring and adventurous. He wanted to diversify into new and profitable

businesses. We used to evaluate all kinds of business proposals including one for making spectacle frames. Another business that Rohinton was interested in was to market guava juice in cans and we even scouted for a potential JV partner. He envisaged Thermax's business transition from the familiar to the not-too-familiar. From boilers it was a natural move into water treatment and then to air pollution control. From the 'metal bashing' that we did at the boiler factory, Thermax also moved on to paint spray guns, and he even toyed with the idea of moving into ship building. Rohinton was prepared to give a three-year gestation period for a business to give returns.

My job as a corporate planner was to explore, read and discuss. Economics was a thread that connected us and Rohinton would sometimes, break into Gujarati with me. Yes, he was a workaholic. He stayed on in office till 8.30 or 9 pm. Our discussions would, on many occasions, spill over to leisurely Sundays where we would meet at his house garden over beer and a bunch of papers.

It was in 1984 Thermax diversified into software. We should remember that Thermax had no computers at that point of time. Rohinton told me, "You are from Tatas and you

have enough experience of seeing new businesses getting launched. Start a software business. We can always get a GM (HR)." So, we began the software business. Till the time PM Kumar came to head HR, I looked after both that function and the software business.

We did have our rough patches in our journey. I remember, especially the cash crunch in the mid-1980s. The company couldn't pay its vendors and it was only Mr. Aga's word of honour that saved the day. It was a horrific experience. But we weathered such bad days. While Rohinton wouldn't hesitate to take major risks, he was averse to large projects which demanded huge investments. He believed in small beginnings and gradually scaling up the businesses.

I am privileged that I had the opportunity to work with Rohinton Aga, and know him as a person. He was shy, keen to listen to people. He was a patient man, sometimes listening even if there was a steady stream of rubbish at the other end. He often tried to excuse people who turned up late. "Maybe something more important may have delayed them," he would say. He never shouted, but when he began twirling that Cross pen with his fingers, and his back assumed a stiff position, one knew that it was a signal to vacate the chair and pack up.

Since I was also Thermax's point man with CII, I have seen him as the Chairman of the Energy Committee of CII. He had the natural stature to lead the body

and his dazzling brilliance would impress anybody.

Mr. Aga was not an orator. But he scripted and structured his texts meticulously. Raghuram was endlessly revising manuscripts as Mr. Aga modified and polished what he wrote, what he had to say.

He believed in giving higher responsibilities to young people. When Thermax moved into the bottled water business (from which eventually it exited), Mr. Aga was clear to entrust charge to a youngster who would have the responsibility and compensation of a divisional head. He was in favour of scanning the environment to pick up talent at higher salaries, an approach that was not shared by some of his senior colleagues.

He loved his food, and smoked against medical advice. Whether fewer or no cigarettes and less work would have prolonged his life and given us more of his years, I leave it to the list of imponderables.

B.K. Khare was the prime mover for Thermax going public. He argued that the move can create funds for growth and create tremendous goodwill. Rohinton felt it was the right decision. And yes, it created wealth for many people. Thermax's decision to be a public limited company considerably enhanced its stature.

**– Mansoor Shaikhali**  
Former Director of Thermax

## **Round up**

# **Thermax Cooling bags prestigious order from Samsung Engineering**



*A petrochemical complex: process cooling requirements*

**T**hermax is supplying low pressure steam chillers to Petronas, an integrated petrochemical giant in Malaysia. The order for the equipment was placed by the South Korean EPC

major, Samsung Engineering.

The chillers – three of 2413 TR and two of 948 TR – will be used for process cooling at the ethylene oxide and ethylene glycol plant of

the Refinery and Petrochemical Integrated Development (RAPID) project of Petronas, coming up in South Eastern Johor.

Bagging this order from Samsung is an important win for Thermax as South Korea is one of the leading nations deploying absorption technology. Thermax was chosen from the local and global options available.

## **Repeat order from Chambal Fertilizers and Chemicals**



*Total water management: supporting expansion plans*

**T**hermax's WWS division bagged an order from Chambal Fertilizers & Chemicals Ltd. (CFCL), Rajasthan. The scope of this job includes pre-treatment and demineralisation plants, condensate polishing unit, side stream filtration plant for ammonia and urea units, and water recycling facility.

This is a repeat order from CFCL which caters to the expansion of its urea and ammonia fertiliser complex at Gadepan, Kota. Toyo Engineering from Mumbai is the EPC consultant for CFCL and they awarded the job to Thermax after due diligence following the bidding process.

# Thermax at trade shows and industrial events

## ACREX 2017

**T**hermax Cooling participated in ACREX 2017 at Greater Noida, in February. Along with its high performance triple effect exhaust chiller, the team showcased an innovative range of comfort and process cooling solutions. These cater to the needs of cold storages, hospitals, hotels and industrial-commercial establishments.



## Conference on sugarcane value chain

**B**oiler & Heater business participated in an international conference and exhibition on sugarcane value chain –Vision 2025 in November. The technology session of the conference was chaired by Thermax MD and CEO M.S. Unnikrishnan.

Organised by the Vasantdada Sugar Institute, the event was inaugurated by Prime Minister, Narendra Modi. Nearly 2000 delegates participated in the event.

## Salt Conference

**A**t the Salt Conference in Thoothukudi, Tamil Nadu, Thermax's Channel Management Group made a presentation on the latest technologies for salt drying. This niche event organised in October 2016 by CII saw salt manufacturers, exporters, traders and entrepreneurs exploring new techniques in various areas of the salt industry.



# Summer League 2016 trophy for Thermax Cricket Club

**T**hermax team won matches against five teams - Shivas Cricket Club, Cosmos Bank, Bajaj Cricket Club, Advocate Cricket Club and Sulzer BCP – to lift the prestigious prize. Organised by the Pune District Cricket Association (PDCA), Summer League (20/20) 2016 tournament had 87 teams participating, mostly from companies and some from private clubs.

Thermax had been the winner, earlier in 2012 and 2013.



Winner from 87 teams: the Thermax team

# Power division ties up with DKTE College of Engineering



(From L to R): Dr. V. R. Naik (HOD, Mech dept, DKTE), Ravinder Rao (Power HR), Dr. P. V. Kadole (Director, DKTE), L. Venkateswaran (Head Power O&M), Devendra Bora (Power HR) and Dr. L. S. Admuthe (Vice Principal, DKTE)

**T**hermax Power O&M has tied up with DKTE Society's Textile & Engineering Institute, Ichalkaranji to launch a jointly designed course 'Power Plant Operations' for graduate and diploma engineers. The course interweaves classroom training with practical sessions and field work and will address the requirements of operation and maintenance workforce in the industry.

# Take an extra step for safety



Customers of thermic fluid heaters: at the safety awareness programme

**T**hermax's C&H Services SBU had successfully conducted a safety awareness programme – for clients who use the company's thermic fluid heaters and thermic fluid.

Titled 'Take an extra step for safety' the programme was conducted in November 2016 in Ranipet (Tamil Nadu) with the help of Shell, Thermax's partner supplying thermic fluid to customers. Over 45 customers took part in this interactive session, which also helped them voice their concerns and also know more about Thermax's new products.



Thermax construction chemicals: finding new customers

## Construction Chemicals for industrial flooring

**T**hermax's construction chemicals are finding several new customers. Recently, the Chemical business bagged an order to supply construction chemicals to SRF, Indore for industrial flooring.

SRF, a leading manufacturers of specialty chemicals, technical textiles and engineering plastics, required flooring done for its newly constructed manufacturing facility at Indore – that would withstand the weight of heavy equipment and abrasion due to continuous movement of heavy machineries.

In the face of stiff competition, the Chemical and CMG team could persuade SRF to try Thermax's construction chemicals- Tecfloor PR, Tecfloor UL and Tecfloor ET. The job was successfully executed to the satisfaction of the customer.

# Skid mounted thermic fluid heater for the oil and gas industry

**T**hermax has dispatched a customised skid mounted gas-fired heater to Tatweer Petroleum, Bahrain through the EPC major Petrofac LLC, Sharjah.

The 2.35 Mn Kcal/hr modular heater from the Heating division is the perfect solution for gas field operations in the Bahrain desert where minimum site work is a decisive advantage. The plug-and-play heater checks all the boxes for being efficient, faster to install without delays from weather and crew, economical, and easily mobile. Thermax hopes to bag more orders for the customer's upcoming expansion projects.



Compact and efficient heaters: gas field operations in the Middle East

## Golden Jubilee celebrations at Chennai and Savli

**T**hermax teams at Savli and Chennai celebrated the Golden Jubilee with their families. It was a memorable occasion when they remembered the inspiring journey of the company. As with similar celebrations across Thermax, these events too were enlivened by group dances, warm conversations and good food.



Scenes from the Golden Jubilee celebrations

# Beyond Business

## Meet the girls who excelled with the power of education

**T**he municipal schools run by Thermax Foundation and Akanksha in Pune are revising popular notions about government schools. Year after year, K.C.Thackeray Vidya Niketan (KCT), with stellar results of its Class 10 students, have shown that given the right environment and stimulus, children from deprived backgrounds can perform as good as, or even better than their counterparts from privileged homes. The other four schools allied to the Foundation also have been shaping up very well.

Meet Mrunal and Namrata, students from these schools, who have gained admission at reputed international schools of learning.



*Mrunal, former student of KCT School, Pune, now at United World College, Singapore*

Mrunal who studied in KCT from grade 3 to 10, after her school finals exam has been selected to study at the United World College (UWC). She is now doing her International Baccalaureate (11<sup>th</sup> and 12<sup>th</sup> Standard) at UWC, South

East Asia in Singapore. She is studying dance, sports, science, English literature and language, among other subjects.

At school, more than academics, Mrunal made her mark as a talented dancer and public speaker. The school gave her ample opportunity to display her talent and she was the lead dancer at its programmes. A gifted speaker, she honed her skills at school events, eventually winning the best speaker prize in 2015 at the St. Mary's interschool debating competition. She represented her school at the Model United Nations Conference (2015) held in Symbiosis, Pune. Mrunal also played for her school in interschool volleyball and football tournaments.

Mrunal says her school does not limit students' engagement with the world only to books, but nurtures them to think critically and develop the latent leaders in them. When Anu and Meher met her in Singapore, Mrunal told them that Akanksha's training at the KCT School is on par with any other international school.

At UWC, she choreographed a Bhangra dance performance with friends from various nations. The educational programme there includes community work once a week and outdoor group activity entirely planned and arranged by students. With her class mates, she has already trekked

in Vietnam. "It is great learning experience which made me more independent and thoughtful," Mrunal says.



*Namrata, earlier at AVBM School is studying now at St. Olaf College, Minnesota, USA*

Namrata Khanvilkar has just begun her graduation course this August at St. Olaf College in Minnesota, USA. A student of the Acharya Vinobha Bhave Municipal School (AVBMS) in 2015, she did her International Baccalaureate at the United World College in Armenia in 2017. While studying there, she got a full scholarship to pursue her studies in the US. She is now a student of biochemistry there.

Reflecting on her own life, Namrata believes in the power of education to make changes in the lives of people. She plans to return to India after her studies and work with schoolchildren. She would also like to fund at least one child's education as soon as possible.

Both Namrata and Mrunal had parents who believed in educating their daughters. They stood by the dreams of their children.

# Signposts

This essay by Randall Ivey traces the reduced importance of books and the encroachment of technology that distracts us from the habit of reading. A cautionary piece as we turn over our lives – our imagination and our memories – to machines.

**W**ere it not such a looming and very possible prospect on our collective cultural horizon, a discussion of the demise of the book in its traditional form, that is, a compendium of knowledge bound in the confines of paper, cloth, and glue, would be not only amusing but almost surreal. The book has always been with us, ever since Mr. Gutenberg gave this gift of learning and pleasure to the world in 1439. It has been a feature of every home and office, even those occupied by people who do not actually read books, as a symbol of civilization and good taste, as well as intellectual curiosity. At least some modest stand of books can be (or could be) found in almost any drug store or grocery store, even in a small community such as ours. The library has served as yet another symbol of man's intellectual progression and need to learn and enjoy. Books have evinced such passions and have helped

**THE  
IMPORTANCE  
OF READING  
IN THE  
DIGITAL AGE**

**In Fahrenheit 451 books are banned because of the emotional responses they evoke in people, the tendency they have to make people think for themselves, thus causing them to be unhappy because of the complexity of life that books reflect.**

create such discussions that lead to controversy that on some dark occasions they have been burned by misdirected individuals who thought that if the conveyors of certain ideas, thoughts, and emotions were destroyed, those very ideas, thoughts, and emotions would go up in smoke with them.

Those are just a few of the examples of how the traditional book has exerted such power over men and women through the last seven centuries, at least in what we commonly think of as Western Civilization.

But the book's endangerment is real; it is looming, as we can see from the recent failure of a number of both national book chains as well as the demise of many independent sellers and small bookstores throughout the nation, in big cities and small, not to mention, most alarmingly for many of us, the encroachment of technology in

place of the traditional book, the replacement of books by Ipads, Iphones, Blackberries, Apps, and flat screen TVs as sources of entertainment and information. "What is the big deal?" some ardent progressives might ask. "No one reads anymore. The book is as outdated as the Edsel and the hula hoop and vinyl records and VHS tape. Let it die a quiet and dignified death. We as people will get along just fine."

Or will we?

I propose not.

I would call to your attention the novelistic masterpiece of an author recently deceased, Ray Bradbury, facetiously dubbed "the master of Science Fiction," but so much more than that. Bradbury was a poet, even in prose, and a fantasist and a philosopher, perhaps a prophet too. Yes, very much a prophet. The novel to which I'm referring is *Fahrenheit 451*, initially published in 1953, a book perhaps many of you have not only read but taught. The novel's setting is the United States sometime in the future. The U.S. has become, ostensibly, a police state, and one of its more unsavory aspects of this "new world" is the outlawing of books. Books are banned because of the emotional responses they evoke in people, the tendency they have to make people think for themselves, thus causing them to be unhappy because of the complexity of life that books reflect. If one is known to possess books, his home will be ransacked



**We don't want to take the time and solitude required to enjoy and experience fully a compendium of words by a total stranger, not when we have the swift efficacy of Twitter and Instagram and, of course, Facebook where we can "message" at once our latest ache or pain.**

by a squad of "fireman," who will arrest the perpetrator and then burn his or her books in a public fashion. So where, in this seeming Utopia envisioned by Bradbury, does one find recreation? Why in TV of course – flat screen TVs on which the announcers proclaim themselves "cousins" to the viewers, thus replacing actual biological family members. Or if one cannot find his happiness in constant viewing of the ubiquitous Big Screen, he may turn to pharmaceuticals to do the job, little green and yellow and red pills that will push away and vanquish any signs of unhappiness, for in the society of *Fahrenheit 451* that is the number one goal, the *raison d'être*, to be always happy. Happiness, however, comes at a grave cost. One must in exchange give up one's memories, one's capacity for authentic joy and sorrow, one's awareness that life is a mixture of pleasure and pain, fulfillment and loss.

Although published sixty-one years ago, the book has as much relevance for our present times as it did then, perhaps more, since Bradbury's predication of hypnosis by television and prescription has come to pass. (Who do you know



without such a flat screen TV? What neighbor haven't you run into at the Wal-Mart pharmacy?) My students hate the book, almost uniformly. And it is no wonder. "It's boring," they tell me as they continue without missing a beat the spider-like motions of their fingers on their tablets or pads. And part of me, while agonizing at such a statement, understands that too. *Fahrenheit 451*, while a short book, requires as much patience and thought as any longer work. And we live in a time

when patience is in as almost short supply as manners and common decency. We don't want to take the time and solitude required to enjoy and experience fully a compendium of words by a total stranger, not when we have the swift efficacy of Twitter and Instagram and, of course, Facebook where we can "message" at once our latest ache or pain. But as any wise person knows, worthwhile activities, those that leave us with lasting intellectual, emotional, and physical benefits, are those which require effort, time, and patience. Otherwise all human discourse becomes ephemeral and we are reduced to the catatonic consumers of clichés that populate Ray Bradbury's novel.

Let me be not selective nor prejudiced in my great concern here. It is not merely the Internet, a device I use daily for my job as well as, ironically enough, to buy books, at fault here. The Internet's predecessor, that eternal bugaboo, television itself, once called by the poet Larry Woiwode "the one eyed monster that eats books," owns much of the blame for our growing illiteracy and reversion to the cave, as it has for many years now, and I

cannot allow it to go unscathed here. No longer do we turn to Aristotle or Thomas Aquinas or even The King James Bible for moral and ethical instruction but to the faux-hillbillies of Duck Dynasty and the much-married but apparently little-learned Kardashian clan.

If we want advice on how to proceed with our lives, we consult Snooki, late of the Jersey Shore, whom Cornell University, once a respected bastion of learning, recently paid a fee of \$100,000 for an hour of her wit and wisdom. In Bradbury's novel the personages haunting the flat screen TVs are more familiar presences than the characters' spouses or neighbors, and at least to some extent that is what has happened to us. We are more concerned about the freedom of speech of a "reality TV star" than the plight of those who live around us who might be



suffering malnutrition of both the body and the brain. The denizens of The Bold and the Beautiful and The Young and the Restless are more vivid to us, trapped in their twirling carousels of crises and paramours, than our neighbors or relations or co-workers. Even worse, television, through such programs as the CSI shows and Criminal Minds, among others, has presented violence with such elegant precision and balletic choreography in some cases that many people, specifically children, are numbed to the reality of such behavior and often imitate what they watch with or without the

supervision of their parents.

I shall make one last lob at TV: I am increasingly convinced that the prevalence of so much television in our lives, particularly among the growing population of our elderly, people very often

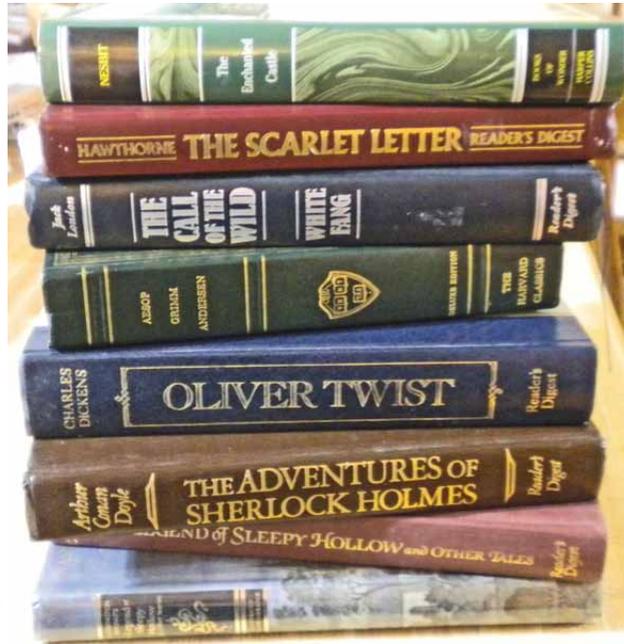
shut in and without sufficient contact with the outside world, has contributed to the greater incidence of Alzheimer's disease in this country. After all, TV watching, like Internet surfing, is largely a passive activity, requiring essentially the click of one or two fingers on a remote or a mouse. Images are presented to us, requiring no actions of our own imagination. Details and facts are absorbed and analyzed and spit back at us faster than the linotype once employed in newspaper offices. The inhabitants of the Big Screen make up our minds for us.

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**TV watching, like Internet surfing, is largely a passive activity, requiring essentially the click of one or two fingers on a remote or a mouse. Images are presented to us, requiring no actions of our own imagination.**

**We are in yet another context submitting ourselves to machines, turning over everything to them – even our imagination and our memories. And when that process is complete, we become something other, something less than human beings.**

They tell us how to react, eat, vote, mate, pray, and raise our children. Worst of all, television provides the imagery that our own brains used to manufacture in the kind of creative thinking that marks an individual. We don't have to do that anymore. In fact many of us prefer not to do it. One of the saddest lines of prose I ever read came from one of my own students late last fall semester. The class had been asked to compare William Faulkner's short story "A Rose for Emily" with Alfred Hitchcock's classic horror film Psycho. This particular student concluded his comparison with this observation: "It is better to watch the movie than read the book [sic] because then you don't have to visualize anything for yourself." Out of the mouth of babes, so to speak. From the keyboard of the young and upcoming. Have we become that mentally lethargic? Are we in the possession of such intellectual ennui? If so, we are in great trouble. The brain needs exercise, as much as any other part of the body, and one of the ways it attains that exercise is through the close and careful reading of books.



Now is the time, so late in this talk, to clarify my own position in this dilemma. Of course, as a teacher and writer of fiction, it is more my duty to encourage the reading of what we term, somewhat loosely, "literature." One hesitates in using the term, for fear of having the same result that holy water does on the flesh of the vampire or the announcement of tax hikes to members of the Tea Party. Yet literature is democratic in the bigger sense. It encompasses a number of genres. It literally offers something for everyone.

When I discuss narrative fiction with my students I first present to them a quote by the Peruvian

novelist Mario Vargas Llosa, a recent Nobel laureate in Literature. I discovered the quote many years ago in a collection of his essays entitled A Writer's Reality. He called fiction "a necessary lie." This is a provocative statement, perhaps one contradictory to our basic moral standards, since we have been brought up from childhood to believe that lying is bad behavior. Upon reflection, however, Vargas Llosa's description makes sense. Fiction is something its creators make up. It is not factual. It did not really happen, as is the case with a lie, where the outcome is most certainly dubious. "How," I ask my students, "can a lie be necessary?" We throw the question around and decide, collectively, that while narrative fiction does not have the same life-sustaining necessity as oxygen and water and food, nevertheless our lives would be greatly diminished without it. Most readers turn to narrative fiction seeking entertainment and escape, but there is an instructional quality to fiction as well, as we can see in the stories of the ancient Greeks and Romans, in

## The brain needs exercise, as much as any other part of the body, and one of the ways it attains that exercise is through the close and careful reading of books.

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the fables of Aesop, in the night-time tales of the Brothers Grimm which helped many of us go to sleep at night, and the parables of Jesus Christ, who understood that humans respond more favorably to stories than they do to traditional sermons.

“But I don’t like fiction. I like something that is true,” moan some opponents of reading novels and short stories. Madeline L’Engle, the late writer for children and adults, had the perfect response to such a reaction. She said, “Facts are limited things. Only stories can tell the real truth.” And she is right, for it is only in fiction, in the hands of master storytellers, that we see human behavior at its most vivid. Where else could we find a more harrowing depiction of mental struggle and family dysfunction than in Hamlet, with its protagonist vacillating between thought and action once he’s been asked to avenge his father’s murder? Not in a recondite medical tome and certainly not in the tawdry ramblings of Dr. Phil.

Where is there a more poignant portrait of struggle and ultimate triumph, where is there a more lasting tribute to the values of fortitude and loyalty than in David Copperfield? Certainly not in the chronicles of The Many Wives from Nowhere or the dubious gyrations of Dancing with The Has Beens.

Fine, fine, you may be saying. But cannot I find these stories and their attendant amenities elsewhere than the book? After all, this is the twenty-first century, and we have the Nook and the Kindle and all their various brethren now at our disposal and can download any book we wish with a press of our index finger. Again, I would say no. First of all, these reading tablets are bad for the eyes. Their light at night can induce insomnia. And not every endeavor should be so quick and easy, including the acquiring of wisdom and pleasure. Secondly, they are contraptions, wholly impersonal, lacking in all the qualities – the lush pages, the bright covers, the

individual designs – that make reading personal and meaningful and not dependent on the whims of electricity. Lastly, they are but another sign of what the Kentucky poet Wendell Berry lamented as man’s determination to become himself a machine, with this or that gadget attached to his person, even when he leaves the house, even in the midst of other human beings. We are in yet another context submitting ourselves to machines, turning over everything to them – even our imagination and our memories. And when that process is complete, we become something other, something less than human beings.

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Source:  
[www.abervilleinstitute.org](http://www.abervilleinstitute.org)

## From Recruiter to Researcher:

### *A personal journey*

**31**st January, 2017 will always remain a special day for me. It was on that day I was awarded my Ph. D. for research in the field of Management – Human Resources.

It has been a long journey for me since I enrolled for research at the University of Pune. What led me in this direction? It always interested me to take up a subject, dig deeper, understand various dimensions and look for answers. It was in December '11, I mustered courage and appeared for the first of the three-staged entrance examination at the University. As the exams progressed, candidates kept getting eliminated. At the final round of personal interviews, there were more than 50 eligible applicants for one vacant seat. I recall feeling completely out-of-place. But I was ready to justify why I chose to undertake research and I had my list of possible topics that would be useful for academia and industry.

The selection panel was anxious to know if I would be able to devote sufficient time to the research, or just block another deserving candidate. I managed to assure them and thankfully, I was selected.

For my research, I chose the topic, *How do we enhance employability of engineering students, both graduates and diploma holders?* As an HR professional, I had seen students struggle to qualify for an engineering course, only to be labelled 'unemployable' after a 30-minute campus interview at the end of their course. For the students, it is agonising, and many a times, brutal.

Let me share how employability plays a key role. At our campus selection process, students with consistent academic track records who score well on our technical and aptitude tests reach the final interview. But some of them are unable to relate concepts with practical application. At a reputed institute, civil engineering students were unable to estimate simple dimensions – like that of the room where the interview happened. Though the students had knowledge, they lacked the confidence or the skills to apply what they had learnt.

Then, there is the lack of commitment. Students often asked interviewers if the job was office-based. If a civil engineer is not eager to work at site, or a mechanical engineer is hesitant to grease her hands on the shop floor, it is a serious employability challenge.

My research focused on talent at entry level; hence my interest was in ensuring that 'key skills', career advice and an understanding about the world of work are embedded in the engineering curriculum.

I went through the whole gamut of research methodology – review of literature, course work, design of research framework, pilot study, field survey and statistical data analysis, before I wrote the thesis. Let me admit, I wasn't much of a reader but 4.5 years of research changed that.

Emotionally, there were times when I felt joy and satisfaction, alternating with depression and anxiety too. It was sometimes a journey of loneliness where I'd suddenly be plagued with doubts, "Will I be able to complete?" But a resolute 'yes'

would counter these fears and help me stay focused.

I met a different section of society – many students, academicians, a few bureaucrats, and senior HR leaders including our MD, Unny who shared his thoughts on the subject. For the survey, some of my best respondents were engineering students who hadn't found jobs yet.

Broadly, the findings of my research pointed to areas of improvement - for employers to engage with the academic world; for institutes to focus on students applying knowledge; students to be committed to the engineering profession; and Governing Councils designing curricula that helped students with outcomes.

It had been a unique and enriching experience. It was gratifying to successfully test the Employability Model in my thesis, while offering tips to governing councils, employers, engineering institutes, and aspiring students.

I owe my Ph. D. doctorate to all respondents who honestly shared their views, to the professionals who offered valuable suggestions, to my research guide for his able support, to my family who encouraged me to follow my dream and to my gurus who showered their blessings.



**Devendra Bora**

(HR Power Division)

# Slice of Life

## An umbrella start-up that failed to open



**A** Chinese umbrella-sharing start-up has hit a patch of bad weather after nearly all of its 300,000 umbrellas were stolen just weeks after launch.

Sharing E Umbrella, modeled after popular bicycle-sharing platforms, was launched in April with an investment of 10 million yuan and by the end of June had rolled out in 11 mainland Chinese cities including Shanghai, Nanjing, Guangzhou and Nanchang.

The app allowed people to rent umbrellas —picked up from stands located at subways and bus stations — for a deposit of 19 yuan and 0.50 yuan fee for every 30 minutes.

Company founder Zhao Shuping was inspired by bike-sharing platforms and “thought that everything on the street can now be shared.”

The issue for Sharing E Umbrella, it turned out, was getting people to return the umbrellas. “Umbrellas are different from bicycles,” he said. “Bikes can be parked anywhere, but with an umbrella you need railings or a fence to hang it on.”

More to the point, the platform doesn’t charge users an unreturned umbrella fee, meaning most people simply ended up keeping them. Zhao said taking them home was “probably best” as they would at least be “safe.”

— From *New York Post*

## Soldiering through the eye of the needle

**I**n my work as an anaesthetist at a military hospital, I am continually amazed by the number of soldiers who become pale, sweaty and anxious when I approach them with a needle.

Recently a warrant officer was making more fuss than I’d expect in a children’s ward and had to be comforted – and restrained – by my nurse. Trying to distract him, she asked him what he did in the army. Somewhat sheepishly, he replied, “Bomb disposal.”

— *Readers’ Digest*  
(Life’s like that)

## And this bilingual poster

Amsterdam > Barcelona > Berlin > Brussels >  
Cologne > Frankfurt/Male > Hamburg >  
London > Munich > Salzburg > Vienna >>

**M**  
MEININGER

**IN GEVAL VAN BRAND:**  
Verlaat het gebouw voordat je het  
op social media post

**IN CASE OF FIRE:**  
Please leave the building before  
posting it on social media.

www.meininger-hotels.com

# SparX of talent : celebrating one's passion for the stage

A series of stage performances held across work centres in Pune displayed the verve and talent of Thermax teams. Organised under the banner of SparX, these events presented an exciting mix of dance, songs, skits, instrumental music and poetry reading. The zeal and passion of the performers shone through in the vibrant sessions.



# Explorations in learning



Thermax's Learning Fest, in a series of sessions, celebrated the spirit of learning through alternate explorations using music, art and movies.

One group built conceptual models with art and craft material to explain how climate change offers opportunities Thermax could tap into. After viewing the Sydney Lumet-Reginald Rose film classic, 12 Angry Men, another group reflected on the spirit of

enquiry and reason to realise the true potential of enlightened citizenship.

A session with drums highlighted the importance of collaboration and synchronisation. And Vicky Roy, who ran away from home and survived as a rag picker spoke about how he taught himself photography and was eventually selected to document the reconstruction of the World Trade Center in New York.

