

# Connect

Ring  
in  
the new!

*New Products*  
*New Businesses*  
*New Initiatives*

Innovation

Power tools

Review

Thiruvottiyur  
Mother Plant

Cumi Direct

New business

Electro minerals

Dear Friends,

*“The secret of change is to focus all of your energy,  
not on fighting the old but on building the new”*

- Socrates

Best wishes for the festive season! We are back with a new issue of Connect to ‘Ring in the New’ and share news of the latest across CUMI – new products, forays into new markets, new initiatives, et all. An organization’s progress is dependent on how consistently it reinvents the wheel or... makes whole new wheels 😊 on an ongoing basis – in terms of product, process etc. while keeping a constant focus on responding to customer needs. Today’s marketing happens not only by addressing a customer’s needs, but by providing whole solutions to customers that meet both stated and latent needs, thus making them customers for life. Towards this objective in every way both internal and external, CUMI has been working at developing a nuanced understanding of customer needs and proactively fulfilling them.

Read on to experience the successes and challenges faced by each Strategic Business Unit as they innovate in products, marketplaces and services, in the sprint towards our 2020 goal. From strategic tie ups to revolutionary products, from inroads into never-seen-before markets to imaginative new service initiatives, CUMIans have been pushing the envelope in every way.

Scan through the Events pages to get a glimpse of happenings and celebrations across CUMI. Take a stroll down memory lane as you read an interview with the ever-spirited Mr. B. Subramaniam who retired from CUMI as Vice President and Head of CUMI – Abrasives in 2003; and the Flashback page with photographs from the Thiruvotriyur plant’s inauguration in 1955. Let’s welcome the new entrants into CUMI featured in the New Joinee page, and the youthful infusion of the GET and MT batches of 2017!

Like the great Zig Ziglar said, ‘We cannot start over, but we can begin now and make a new ending’; let us look at all we do, with fresh eyes and rekindled enthusiasm to bring in new ideas and ways of doing the work we do!

Cheers and happy reading!

For Editorial Team

**M. Muthiah**



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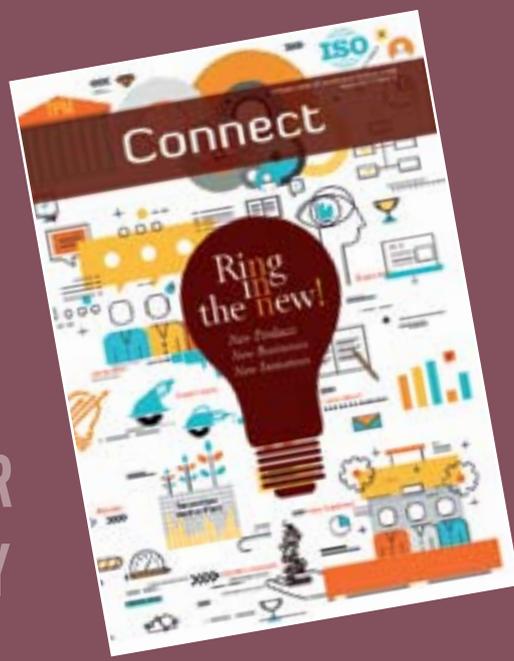
**Apshara Arul**, Corporate

For Internal circulation only

Printed & Published on behalf of **Carborundum Universal Limited**

Parry House, 43 Moore Street, Chennai - 600 001.





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WELCOME ABOARD / WEDDING BELLS



Dear Colleagues,

Greetings!

As I write this message appropriate to the theme 'Ring in the New', my thoughts go towards a wonderful person who not only gave a new technology direction to CUMI, but also guided the company with great vision, capability, utmost integrity, exemplary behaviour and above all simplicity. He was our former Chairman, Mr. M.V. Murugappan who passed away at the age of 82 after a long illness so patiently borne, true to his disposition.

MVM, as he was affectionately known, was CUMI's Managing Director and later Chairman between 1979 and 2004. He was an outstanding Civil Engineer and a Scientist at heart with a deep understanding of materials, technology and its applications. Actually MVM did trigger the transformation of CUMI by 'Ring in the New', and providing a focus on technology research and applications which form the cornerstone of CUMI's businesses.

MVM's vision helped forge partnerships with Wendt and Morgan. His quiet yet bold steps to consolidate abrasives by acquiring Cutfast Abrasive Tools and Sterling, spearheading the setting up of Maniyar Hydroelectric plant, building a strong research consortium between Materials Research Laboratory, Pennsylvania State University, Regional Research Laboratory Trivandrum and CUMI, etc. are but a few examples. From these came greater long-term competitiveness and the entire sol-gel range of products at EMD.

MVM's technological understanding paved the way for our relationship with Coorstek in the United States of America, which led to the creation of our Industrial Ceramics business. MVM was steadfast in his conviction and commitment in spite of the ups and downs in business we encountered through the initial years and when it became necessary to disengage from the technology partnership and strike out on our own. From then on the capabilities that we have developed at Industrial Ceramics, has positioned CUMI extremely well as an innovative and responsible partner to many user industries.

So as we ring in the new, let us pay a tribute to MVM's values and emulate his ideals as we take CUMI forward with an emphasis on science, technology, innovative business partnerships, strong personal connect, responsible relationships towards making materials matter and being of service to our customers in India and across the world.

With warm regards,

**M.M. Murugappan**

*Chairman*



Dear Colleagues,

Greetings!

CUMI has been a successful company all its life. For over 63 years we have grown, made profits and paid dividends. We have competed with the best in the world and have won. Herein lies the biggest threat for the company – Success!

The case of Facit AB is a fascinating one. Facit was a manufacturer of office products founded in 1922 in Sweden. They had grown to become the world leader in mechanical calculators by the '60s. At its peak in the '70s the company had more than 14,000 employees worldwide across 100 countries and was a clear global leader in the office automation business. They were efficient; they continued to make incremental innovation and had the finest of business processes. Yet they died as a company in the next three years – the end was quick. The electronic calculators that the Japanese developed ended their reign. All their accumulated success of over 50 years only meant that they just couldn't make the change that was required.

We at CUMI have a unique advantage: Most of our businesses, by their very nature, force us to develop new products. Yet at most times we do this in a reactive manner – following a competitor. This is not bad to start with; but serious long - term innovation happens only when we follow the customer and not the competitor. How can we make products that can 'wow!' our customers? How can we create new processes that will allow us to change the industry price points? How can we change the business model – the customer experience – to create more 'wow!' moments? In all this, we 'ring in a change, we bring in the new'. This is beyond incremental improvement and productivity. This is innovation at its best. We at CUMI must get to do more of this across all our businesses. We have one of the finest teams in our industry worldwide. If anyone can, then we can. Lets 'Ring in the New'. Lets become known as a company that is perpetually innovating.

Best wishes

A handwritten signature in black ink, appearing to read 'K. Srinivasan', written in a cursive style.

K. Srinivasan

*Managing Director*

There's an under P.S. under current of excitement in the air at the Electro Mineral Division's Edapally plant! New products, new projects and varied uses found for our existing product basket; have all added up to a 'new and improved' EMD. **Jayan P.S.**, Executive Vice President shares his take on the latest at EMD, and his vision for the future, with the Connect Team, especially for this issue. This article is in his voice; read on to experience the excitement yourself.

We believe in a sustainable growth philosophy focused on specialty minerals and value creation for our products. Towards this objective, in the last two years we have spent close to a hundred crores in capital expenditure. Last year, two state-of-the-art furnaces were added to the oldest manufacturing plant in EMD i.e. Plant 1, in Edapally. Both furnaces were shifted from the plant at Thukela, South Africa; and were modified for better control. One of the furnaces has been converted into a tilt furnace. This transfer was mainly effected for more efficient operations with cleaner, greener manufacturing processes. With the incorporation of these furnaces, there has been an enhancement of productivity and reduction in manual activities. The feeding system involved is automatic and the controls are SCADA driven. Today if you look at similar furnaces across the globe, these furnaces are best in class for the operations of Brown Fused Alumina and Semi Friable Alumina – a fact that makes us feel quite proud. This is also a compliment to our team that has won awards for Green initiatives and Excellence in Manufacturing practices.

Further investment has gone into enhancing regular product performance through proprietary treatment – a tremendous opportunity to create high performance material from regular minerals. Brown Fused Alumina, Silicon Carbide or White Fused Alumina are the basic fused minerals. At EMD, we enhance the properties of these minerals by specific treatments that create surface modifications. Treatments such as chemical treatment or heat treatment, create certain surface modifications that lead to better performance of the



## TOWARDS SPECIALS AND FINES!

mineral in specific applications. Beyond just performance such treatments also increase productivity and consistency of performance at the customer end, giving a unique solution to their pain points. For example, let's take the case of coated abrasives. Normal grains without any treatment will flow in a certain manner on the conveyor belt, and coat the paper/cloth. By nature if left to flow, grains will flow in a certain form where uniformity of coating will be a challenge. There could be clogging of material creating density variations in some parts, leading to variation in the abrasive property in end use and waste of the material. To avoid that, we induce a property whereby the grains flow faster uniformly. The uniform flow gives a uniform coating. Added to that, if the grains can propel faster, then the speed of the coating machine can also be increased, thus enhancing productivity and efficiency. These two specific properties give customers a far better performance by switching over to these special grains. Ultimately the performance and productivity are enhanced with significantly less need for

defect management. All these translate to significant cost savings and enhanced efficiency for the customer. This is a unique offering from our side.

Our third financial investment was in a new range of products called zirconia bubbles. This facility was originally installed in Foskor Zirconia, Phalaborwa, South Africa. While the product quality was stabilized, there was significant scope to enhance productivity, which was necessary for the viable operation of that plant. Running at 40-50% capacity for the plant did not make viable business sense and there was a pressing need to enhance or utilize existing capacity.

This being the situation, a management call was taken to shift the operations to EMD Excellent execution by the project team, with support from the commercial and finance teams created one of the finest facilities for the manufacture of Bubble Zirconia in EMD. It finds application in Abrasives and Refractories in a big way. In the case of abrasives manufacture, it feeds into the internal Alumina Zirconia plant. The AZ plant

which was put up a few years back was dependent so far on feed material from other Foskor, or from imports. Quality of the input material was very critical as it affected performance of the end product – high performance Alumina Zirconia. Having the facility for this crucial feed material under our control, has helped in ensuring better quality and less hassle and dependence. So part of the Bubble Zirconia goes into AZ, some into refractory; and the rest once combined with our expertise in contamination-free grinding, can be used in fine powders for applications such as pigments, engineered ceramic and for conversion of zirconium metal used in strategic nuclear fuel requirements.

In a nutshell, EMD has a vast range of products, from regulars such as BFA, WFA, SiC to enhanced property variants through treated minerals; to high-performance materials such as Azures and Alumina Zirconia; to Zirconia Bubbles and a variety of fine and ultrafine powders. Including the mines and the hydro power plant, there aren't many companies across the world that have such a wide range of products. We can thus safely say that CUMI has one of the largest integrated minerals complex with a wide range of products, and is moving towards more and more of value added products. Clearly in line with our vision, in the current year itself more than 50% of our total sales will come from specialty products, as compared to previous years.

#### MARKETING SUPPORT

Our expertise in manufacturing would have no value if not ably supported by marketing efforts. We have currently about 10 marketing hubs across the globe. The marketing is centrally coordinated

from the headquarters in Kochi, with marketing arms with marketing arms across the US, Europe, Japan, Korea, UK, China, and Thailand. In specific cases, we also have joint development programs with potential customers. This was initially started on a small scale with the Abrasives division, but has now been extended to encompass many large players in various countries. We now have a large joint development project running with two customers in Japan for diesel particulate filters with the tailor-made fine powders manufactured at Kakkannad. One joint project has been approved, and we have steady business with this customer. The other project is more a long-term one, as the customer is aiming for a futuristic product.

Another recent introduction in marketing is an annual international customer meet. This time, we were able to attract 70 individuals from leading companies. During the program, we showcased all major developments in the mineral business such as – migration from regular products to specialties, treatment possibilities for value creation to customers, etc. We also showcased our products and concluded with a call to opportunities for joint development product. This one meet yielded about 30 projects. This really helped boost the image and brand of CUMI and of EMD products. We are now having regular follow up meetings with all these customers, and are happy to note that our customers also recognise us as a key player in this business segment.

#### HR

In our move towards a highly mechanized plant, skilled labour is needed much more than ever before. To enhance skills, we

are focusing more on training and better hiring practices. We have moved away from intake of unskilled labour and now recruit only skilled manpower who are then taken through a 1000-day training program. This program is geared at tuning technical skills of the new entrants and setting expectations about work so that there is complete clarity by the time the worker steps into his / her actual role. In keeping with our focus on building skilled labour, we have also started a skill development centre for the youth who have had to stop their education for financial, social or other reasons. This centre offers a three-year program with infrastructure for classroom sessions in CUMI and practical classes at a reputed Technical Institute nearby. The classroom training extends for two years, and the last year is in-plant training where they receive hands on experience in machinery on the shop floor. Post assessment and certification, this batch will be ready to be employed. Though we offer no promises for employment within, we do recruit from the batch if vacancies exist at the time of graduation. These students can then work at plants anywhere as they have been given a strong vocational training. This method, helps us contribute to society by way of offering education and training, and meet our own requirements for skilled workers from time to time.

On the Corporate Social Responsibility front too, many activities have been taken up such as helping children for education by offering sponsorship etc. The 'Key Child' program is unique in that it offers a safe refuge to 'latchkey' kids with working parents who return from school to an empty house. The hours between leaving school and the parents' return is often an anxious time for parents who worry about



what the child is up to. We offer aid by providing a place for children to play, and do their homework with supervision. Both children and parents have benefited from this and feedback has been very good.

We are constantly looking for ways to help the communities around our plants. Recently while assessing the scope of CSR initiatives around the Koratty plant, we realized several women there had a strong desire to earn and gain financial independence, but had no idea what to do. We decided to address the needs of this group by facilitating a workshop offering updates on small-scale business ideas such as sewings, painting, paper bag making etc., along with statistics on possible financing and markets for these initiatives. The team of women chose paper bags as their business idea and we then helped bring in people who could provide machinery and bankers who could offer financial support. In all this, our financial outlay was minimal as we acted more as aggregators of information than actual sources of funds or machinery. The team of women then proceeded to raise funds, buy machinery, find a suitable place in a member's home to start the small-scale unit and begin the process. Our intention in staying out of the financing was to ensure that this remained an initiative entirely owned only by the women who started it. By raising awareness, and offering our contacts and network, we accomplished far more than money; we empowered the women to build their own business.

The facility has now been inaugurated and is functioning. The unit has got orders through Panchayats for hospitals around the place and in medical shops too. The

eighteen women who started it couldn't be happier, and their work makes us proud. We are hoping this initiative will have a cascading effect and inspire more such activities. We are also happy that our efforts in CSR have been nationally recognised with awards.

#### R&D TEAM

Our R&D team has been strengthened recently with the infusion of fresh talent – Doctorates with rich experience and young, passionate engineers. For a few years now, we had not recruited any new research personnel. On kickstarting the hiring process however, we found it very difficult to get researchers with experience in our business area. So we broadened the search to look at researchers from related industries and had some success in finding good talent. In the next few years, we plan to expand our business through several new products and materials utilising the expertise of this team.

Some interesting new forays of our research has been in the areas of battery material and high-purity alumina. Thanks to our facility at Koratty, we already have the ability to produce graphite for battery material using Silicon Carbide. We also recently had the opportunity to tie up with a graphite manufacturer in Sri Lanka. Thus we now have the choice as to whether to go with our own product or use the natural material available in Sri Lanka. Graphite once modified is a key ingredient for lithium ion batteries which are key to the future energy storage needs.

Our external tie-ups with reputed industries and institutes are giving promising results. The business is also progressing further to scale up and commercialize these products fast.

Another focus area for R&D is in the indigenization of raw material for Azures. We are at present, importing this expensive feed material. This material has other uses too and our suppliers have options to divert this to various other applications. Due to the increasing demand, supply is not very steady. It is often patchy and there are often delays and a loss in quality. We are trying to gain control and security of our raw material supply by putting up a plant to make this ourselves following some successful in-house research from an indigenous source.

Another opportunity is that this raw material forms part of various other specialty applications. Hence there is a business opportunity to create a range of high purity Alumina useful for various industries such as electronic substrate, battery materials, engineered ceramic, etc.

A feather in our cap is the R&D centre receiving the DSIR approval last year. Another is of the business winning the CII Industry Innovation Award. EMD was evaluated and found to be 1 of the top 25 innovative companies in India with platinum level scores of 90% and above. We look forward to doing more good work and hopefully receiving recognition of the same in national and international forums. Our progress reflects the vision and support of MCB, the guidance of BGMC as well as the efforts, ingenuity and skills of Team EMD.

*The Connect Team thoroughly enjoyed the lively interview with Jayan. Here's wishing Team EMD the very best to ring in several new initiatives – all with good results!*

## PAPER COVER & CARRY BAG UNIT



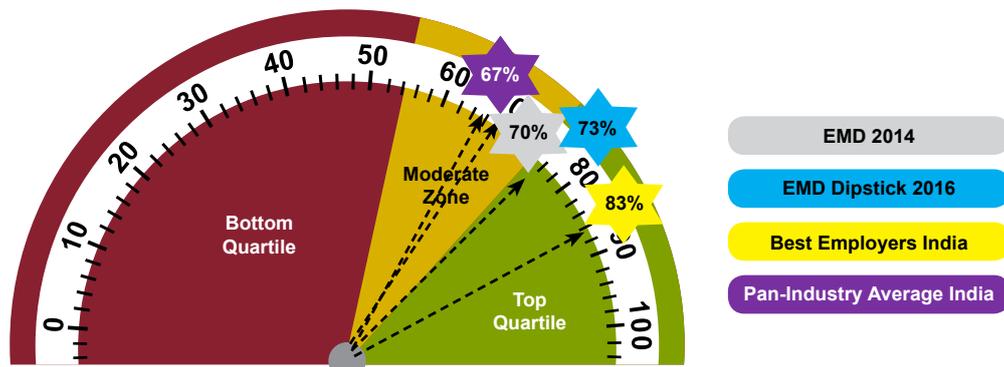
As part of Social Entrepreneurship Project - "Paper cover & carry bag unit" at Koratty has been inaugurated on 18th June 2017

# EMPLOYEE ENGAGEMENT AT EMD

CUMI Electro Minerals had scored 70% in the Voice of Murugappa Employee Engagement Survey in 2014. Based on detailed analysis and brainstorming, low scoring areas in Engagement drivers were identified and a slew of initiatives launched to improve employee engagement levels.

As result of these initiatives, the Engagement score has increased to 73% in the engagement Dipstick survey conducted in 2016.

## EMPLOYEE ENGAGEMENT 2014 & 2016 SURVEY SCORES WITH INDUSTRY BENCH MARKING



Apart from the Company level initiatives, EMD has launched several initiatives to attain and maintain high engagement scores. Some of these are described below:

### ‘YOU MADE A DIFFERENCE’ AWARDS:

This award is a half-yearly recognition at the SBU level where employees who have significantly contributed to business excellence, are formally rewarded by the SBU head. The rewards are handed out at the time of the SBU communication meeting. The significant contributors are nominated by functional heads and these nominations are evaluated by a panel of leaders. The shortlisting is based on the nature and significance of each contribution.

### BUDDY PROGRAMME:

The Buddy Programme was launched in November 2015 with the objective

of creating a better experience for new hires and improving on-boarding effectiveness. A buddy is someone who partners with a new employee during his/her first 2 months of employment. The buddy is usually a peer in the same grade and same location. The buddies were identified, both voluntarily and by selection by Heads of Departments based on the person’s experience in organization, personal attributes, etc. The selected buddies were oriented about the program, its structure and guidelines. Each time a new employees joins, a buddy employee is selected for him/her from same or functionally similar departments. The buddy is notified in advance about the new employee, which includes a synopsis of the new joinee’s profile and assigned role along with general guidelines applicable for the Buddy program in the first two months. The Buddy then meets

the new joinee on the date of joining and welcomes him / her into the organization. The buddy may also offer encouragement and knowledge resources, as they help to familiarize the new employee to CUMI’s culture. The buddy programme has helped the organization to inculcate a human touch in the on boarding process by extending slightly more informal support and care to the new joinee.

### LET’S TALK:

Let’s Talk is aimed at motivating the Team Member staff in EMD and to improve the engagement levels of young employees. Through this programme, top leaders spend time with individual Team Members in interactive session organised at all units. Jayan PS., EVP - EMD, started the programme with an interaction with one of the team members in March, 2017, and now several rounds

## ENGAGEMENT

	Engagement Behaviors	EMD Dipstick 2016	EMD 2014	Best Employers India	Pan-India Average
Say	I would not hesitate to recommend this organization to a friend seeking employment	68%	62%	88%	75%
	Given the opportunity, I tell others great things about working here	82%	81%	88%	75%
Stay	It would take a lot to get me a leave this organization	68%	62%	76%	60%
	I rarely thing about leaving this organization to work somewhere else	56%	64%	71%	54%
Strive	This organization inspires me to do my best work every day	81%	85%	86%	73%
	This organization motivates me to contribute more than is normally required to complete my work	68%	64%	83%	67%



*Let's Talk Session by P.S. Jayan, EVP-EMD*



*Health is Wealth session by Dr. Vinod Thomas on Hypertension related cardiovascular issues*

have been completed. This initiative gives an opportunity for team members to interact with senior leaders, gain wider business perspectives, provide feedback on operational issues etc. The inputs from 'Lets Talk' sessions have helped the organization to come up with new initiatives for the career progression of Team Members.

### VITALITY INDEX:

Vitality index showcases the health profile of employees in the organization based on the life style diseases/trends in the annual health check up and helps to initiate specific activities to improve health and engagement. This initiative was rolled out in all units from April 2016 and the objectives were -

- To enable employees to arrest further deterioration of health from current levels
- To bring all the Red and Amber category employees into the Green category

It is facilitated through periodic monitoring and advice by Factory Medical Officer, awareness programmes, and Health related activities or programmes like 10K challenge.

### 'HEALTH IS WEALTH' SESSIONS:

Quarterly Health and Wellness awareness sessions titled 'Health is Wealth' have been initiated last year, aiming to improve the Vitality Index. These were conducted at Edapally by eminent physicians covering particular ailments such as Fatty Liver, Diabetes, Cancer and Blood Pressure. The session format has an expert talk followed by Q&A session with the audience. The feedback from employees is considered while selecting the topics to be covered.

### KNOWLEDGE TRANSFER & KNOWLEDGE REPOSITORY:

The knowledge base of the organization is often hit by separation of key employees. To address this HR came up with a solution to build a knowledge

Category	Group	Action Plan
Normal	A (Green)	Involvement in Awareness Sessions
One Life style disease	B (Amber)	Consultation with factory medical Officer one in 6 months + Awareness Sessions
More than on life style disease	C (Red)	Consultation with factory medical Officer one in 3 months + Awareness Sessions

repository for the division. In management and middle-management levels, any employee leaving the organization has to prepare a detailed presentation on his/her previous assignments, contributions, challenges and learning and deliver the same in one or two full day session to peer group and superiors. The presentation is followed by detailed discussions and the entire meeting is captured using video / voice recorder. The presentation documents and recorded data are stored as a repository for future training material or for reference by successors and peers.

**SIP N SHARE:**

Sip N Share is a quarterly programme of EMD HR to address the learning aspirations of employees. The objective of Sip N Share is to tap and share the critical knowledge available in specific areas of the organization to all employees. Internal and external experts will take sessions on Critical Knowledge areas of the organization which will be recorded on video for future reference. Sip N Share sessions will also cover topics on common development areas for the organization. The recorded data will be later developed to a central knowledge repository with access regulation. The Sip N Share programme was kicked off by Jayan P.S. on the topic ‘Innovation Story of EMD’ in October 2016. During this one-hour session, he shared the various aspects of Innovation, how to commercialise an innovation and described the innovation story of EMD that helped develop and launch major products.

**DEVELOPMENT CERTIFICATION PROGRAMMES:**

EMD has initiated training programmes with customized training modules for specific employee groups. The customized modules are handled by internal and external subject experts. The development certification programmes launched last FY were - Supervisory Development Programme for Junior Supervisors in partnership with SCMS Engineering College covering class room and lab training on customised modules; Future Forward - Technical Trainee Development Programme conducted on quarterly basis for the continuous technical and behavioural development of Technical Trainees; ‘Together we progress’ - skill enhancement program for identified employees of Plant 2 to address their technical and behavioural skill upgradation and Together Towards Progress – Programme for employees to develop competence in new furnace technologies and practises in sync with the technology upgradation projects.



*Sip N Share session by P.S. Jayan on Innovation Story of EMD*

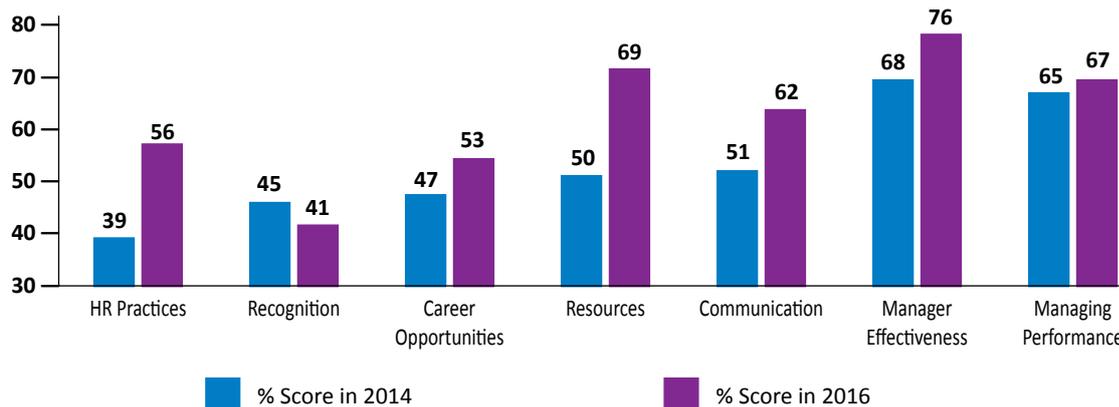


*Sip N Share by N. Krishnadas on Grinding Wheel Applications*



*Learn, Lead & Grow- Supervisory Development Programme for Junior Supervisors*

**CHANGES IN ENGAGEMENT DRIVERS SCORE**





# NEW ON THE GRIND

on Design Thinking and will handhold the teams and ensure that the whole process is institutionalized.

The underlying approach stems from creating lasting and exciting solutions for users and not just products!

### Core approach

At the core of NPD however, the focus is on creating high performance products. In particular, we have looked at product participation at the top of the pyramid by using premium abrasives, and high-performing binders and backing. To this effect, the Abrasives NPD team has started working on several joint development projects with vendors, including EMD and suppliers of vitrified bonds, resins and treated cloth from across the world. We are working with them to specifically customize input materials for us, thus trying to create a win-win situation for both teams.

The Technology team is also working with other divisions of CUMI - SR and Wendt, to see how the technology platforms they operate on, can be used to improve Abrasive products and applications. Aiming to create synergy by using complimentary technologies available internally to create new products / applications, these joint projects have resulted in developing some interesting concepts. One project with SR using their competency in making fiber-reinforced composites, was on creating a fibre core centre to make lightweight high-speed wheels with the advantage of less power drawn during grinding and with a possibility of recycling as well – thus offering the customer compelling reasons to use this product! Another project running with the Jabalpur Technical team, uses their expertise to make improved resin bonded wheels. Projects with Wendt India pools in the knowledge of Vitrified bonds at both sides to create high performance Super Abrasives. The team works closely with Sterling as well, to create adjacent products for the Food industry.

Another joint development project in progress outside of India, is with Volzhsky Abrasive

*The Abrasives NPD team has been busy over the past months. In developing their application for the CII Innovation Awards, they realized they have been working on 45 new or improved products almost simultaneously! The Connect team met with **Ramesh Kalyanaraman**, Senior AVP – Technology, to hear from him about the NPD team’s progress and the slew of new products hitting the Abrasives market. Ramesh begins by talking about the approaches to NPD which honed over time, are now two pronged – one focussed on specific customer related development and the other on mass market products sold through distribution channels.*

### Specific Customer-related products / Customized products

In this segment the NPD team follows a systems thinking approach involving the following stages: Mapping of Customer application, Simulation in the lab, Ideation process, Design of experiments, Product trial and Establishment. In the past year we have roped in a consultant – Dr. Subramanian who aids us with his technical expertise and also systematically reviews all NPD Projects taken through his approach.

Development of F-type wheels, Roll grinding wheels, IR track wheels, Bore grinding wheels are other products which are going through this process.

The Application Technology and Sales team have been trained on how Technical Output (trial approval report) can be converted to Systems Output and presented better to customers, to showcase the actual gains.

### For mass market products

Products developed for broad applications will go through a design thinking approach. As it is difficult to capture customer insights in areas where there are wide range of users, the plan is to use this approach extensively to capture varied customer voices and look at their stated and implied needs.

MDC along with CUMI L&D has trained the entire Technology and Application team



Works, Russia. They have primarily been dealing only with bonded abrasives, but have now invested on conversion equipment for coated abrasives. This project aims at developing a complete range of high performance Coated Abrasive products in Zirconia and Ceramic range for the Russian market, to compete against European imports. This project gives us scope to benchmark against the best European suppliers, and the initial results have been very encouraging! Similar projects are running with the CUMI teams at USA and Middle East for development of high-performance Bonded and Coated Abrasives.

Deeper understanding of science (Know whys) are achieved through interaction with Academic Institutes. Projects with IIT and PSG help CUMI in not just looking at new concepts in Material Science, but also in IoT (Internet of Things) where inter-networking of computing devices with the grinding machines and the tools can help in predicting behavior and thereby offer 'intelligent' solutions.

### Improvements and Exciting Solutions

There are two streams of developing new products. One is to undertake development where we lag competition and try to create better performing products than those existing in the market and be competitive on price or performance. The other is to understand trends and develop breakthrough solutions that are difficult to replicate. At the Abrasives NPD, we do both. Sometimes we go behind competition, benchmark great products for specific applications. However the danger always lurks that by the time the product goes to the market, competition has launched

something better. Or sometimes the user / application could have changed. So to avoid such costly mistakes, spending quality time understanding customer requirements and creating exciting solutions.

The team now will consciously look at not just creating products, but how customer experience can be enhanced significantly

### Products

Here's a quick overview of some of the key products being developed right now:

#### 1. For International markets

- high performing Aluminium oxide, Silicon Carbide and Ceramic for American Aerospace industry
- reinforced cutting wheels for Super Alloys
- Range of grinding wheels for cutting tools industry for US market
- Thin wheels – CUMIFLEX Gold range with improved product performance
- Range of high end coated abrasives for hardwood flooring for US market
- Range of high end coated Abrasives for Russian market for metal grinding application.

#### 2. For domestic market

- Development of best-in-class ultra-thin cutting wheels
- Development of crankshaft wheels with less induced stress and improved dressing.
- Upgraded rice polishing / whitening wheels for OEM
- Development of high performance snagging wheels for high chrome grinding
- Rubber fine grit wheels for shock absorbers - establishment and extension.
- Development of high-end Latex waterproof paper for mass market
- Development of range of Velcro / PSA discs for wood and metal application

- High-performance cotton based products for flap wheels and bore mops
- Range of polyester and polycotton based products for metal applications
- Range of polyester and polycotton based products for metal applications
- Film backed Abrasives for various applications
- 'Chamak' range of Kitchen scrub pads; high-performance industrial products - pads, disks and wheels. Industrial NW products – pads, discs and wheels.

### People

People are our single most important resource, their knowledge and skill helping the company innovate and stay ahead of the curve. In keeping with our quest to maintain product and process excellence, the team regularly undergoes training to improve their technical skill sets.

The Abrasives Technology team travels widely across India and International markets to understand trends, customer needs and works closely with the Product Managers to support the Sales team to win customers over.

To ensure we learn more about our customer needs, we are strengthening the Product Application team in the field to ensure that at any time, there are CUMI engineers talking to a customer to empathize and attain deep insights. By adding more youngsters with varied skill sets from various geographies, we hope to bring in a diverse culture where Innovation is always on top of everyone's mind. Everyone in the team actively learns from each other and celebrates successes of other team members.

*The Connect team wishes this dynamic team luck with their award application and hopes they win many laurels!*



# SHOWCASING OUR BRANDS IN

# GLOBAL MARKETS



*In conversation with Vipin Malik (Sr AVP – International Business), we learn about CUMI Abrasives’ foray into new global markets through the medium of exhibitions and trade fairs.*

## IMTS Chicago

Showcased capabilities of Abrasives and Super Abrasives for the precision tools market



USA

## CIMT

Exhibited gear grinding wheels, ball wheels, cutting tools and other precision items to create interest in a new market



CHINA



## CAMBUILD

First time participation to showcase products for construction and fabrication industry



CAMBODIA

## ABRASIVES EXPORT MARKETS



DUBAI (SHARJAH)

## Steelfab

Showcased offerings for fabrication and construction industry – such as flap discs, thin wheels, fibre discs, non-woven material, etc.

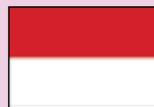
## SRILANKA



## Construction Expo 2017

Joint participation with a key dealer there. Focus was on building brand awareness and products showcased were tool room wheels, general purpose products and products for fabrication industry

## INDONESIA



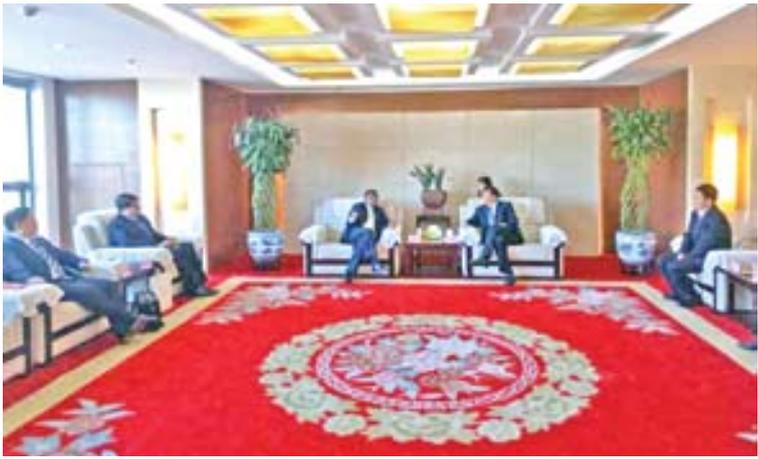
## Big 5

To build platform in the mass market segment, showcased several products for construction, fabrication industries and general purpose items.

One large distributor was finalized

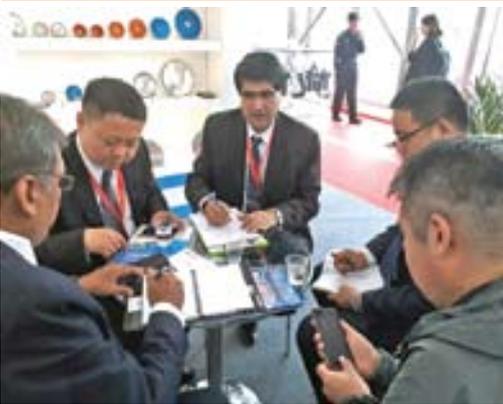


*M.M. Murugappa  
with Lu Jin (Chairman  
CMGB, China) & Team*



*M.M. Murugappa with Ding Hongxiang –Vice President Sinomach Group*

### CIMT, BEIJING



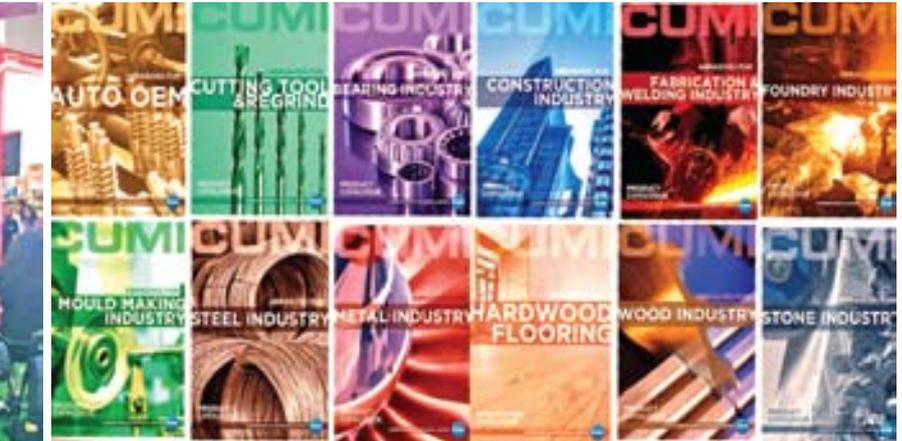
### IMTS CHICAGO



**BIG 5, INDONESIA, 9-11 November 2016**



**CONSTRUCTION EXPO 2017, SRI LANKA**



**CAMBUILD, CAMBODIA**



**IMTS CHICAGO**



# Gunning Ahead!

## New products in the Super Refractories basket

*In conversation with **Ranjan Dey** (Senior Associate Vice President – Technology and Projects), we learn about the latest products launched from Super Refractories, and their journey from the lab to the clients.*

### **Mud Gun Mass**

The technology for Mud Gun Mass (Tapholeclay) was received from Sheffield Refractories in 2012-13. Our foray into this product came when we were looking to grow our share in the iron and steel business. At that point, other than castable refractory products, we did not have many consumable products to offer that sector. Incidentally, during that period we were looking into new applications for the power plant sector, particularly for CFBC boilers. In connection with this, we received information that an installer from Europe along with Sheffield refractories, was keen to work

Application of newly developed dry ramming mass for induction furnace in a client's plant





with an Indian partner in this sector. While in discussions with them and Sheffield, we learnt that Sheffield had a good track record and experience in blast furnace consumable products. We identified blast furnace material, taphole clay and a few other products that if added to our product basket, could substantially impact our business volume. This led us to an agreement with Sheffield to make taphole clay products in India.

Initial product trials for Taphole Clay were successful in large steel plants, 2500 cubic m to 4000 cubic m in size. However as we progressed, we realized that the raw material – iron-ore caused certain operational issues. This changed the operational parameters and impacted product performance. Thus the taphole clay which worked initially, failed to work as efficiently later. We started modifying our clay, however it took nearly one and a half years to re-establish.

Typically, once we get clearance from the customer for trials, we manufacture the clay which requires an aging time of one - two months, then do the trial, and receive feedback after a few weeks. Based on that we receive further clearance to manufacture or modify. Overall a four – six month long cycle. All of this has contributed to the long time for reestablishment. This has been completed in 2015-16 with satisfactory results. Though potential is high, bulk supply has not started yet because of the customer decision making process and the continuing price cut from international players.

The number of small furnaces in the country are very high, as well. To address this market, we have associated with an Indian partner and launched product trials in number of mini to midrange plants. This is in the process of stabilization. In the last year, we have done a few

trials. Now in 2017, we hope to gain a good share in the furnaces consumables business.

### **Metflow**

Another new launch for us, are the slide gate plates branded as Metflow products. This was started with technology from our South African acquisition, which was later moved to Jabalpur in 2015. Product trials are progressing. The plant is now in good shape, processes have been streamlined. The focus has thus shifted to looking for a distribution channel through dealer networks to sell this product. We are also looking to expand the product line, there is scope to take this to more customers to generate more revenue. Metflow is targeted at the Iron and Steel industry where it is of use in the continuous casting process. This year the plan for Metflow is to achieve INR 8 crores in sales. The market for this product is both competitive and price sensitive, thus cost pressure is strong. We now need to take up the challenge to reduce cost and increase productivity for the new product line. Competitors in this space are Orient Refractories India (now part of RHI), MPR refractories and recently IFGL who is a major player for large slide gate and accessories, which has also come into this segment.

The Scope for both products – Taphole Clay and Metflow - in a 3 year period is around 30 crores or more.

### **New Product Development and Services**

Other than these two new products, we also meet customer requirements for new products for various applications each year, to the tune of approximately 20 crores. Most are project based, one time requirements; thereby not leading to continuous new product sales.

For example, in the last year we have made INR 12 crores of castable sales to CIRIA India. In this figure, a new range of insulation castable products contributed to nearly 8 crores. However this may not repeat in subsequent years.

On an average NPD sales stand at a steady figure of 25-30%, including new, derivative and customized products supplied to various industries. This year, besides taphole clay and metflow, we have taken up around 15 crores of customized products for glass / cement / iron and steel industries primarily. Currently our team is also working on a new product which can be a breakthrough for the carbon black industry in India. This magnesia – alumina spinel based product is for the carbon black reactor, and can withstand temperatures around 2000 degrees C and above, resulting in much higher yield for customer.

### **NPD applications and Service**

We have recently seen success of grouting material developed by us, in Iron and Steel plants. Our products for blast furnace stack as well as hearth grouting supplied to SAIL plants in Bokaro, Bhilai, Durgapur, IISCO-Burnpur are working satisfactorily. Together with our application services, we are doing fairly well and hope to do much better business in the coming years. Our target is around INR 5 crores from applications and service, currently we are at about 1 crore. We aim to scale up in two years time.

### **R&D**

Given our renewed focus on long-term research for business growth, our R&D team is being strengthened. We gained DSIR approval in 2016-17 and are taking up a few long term innovative R&D projects and inter-divisional joint projects. For long term sustainability, we are aiming at a balance between supporting the business with quick development as per industry requirement, along with innovative solutions for better mileage in the long run.

*The SR team is upbeat about the new products and so are we! Here's wishing them well to storm new markets.*

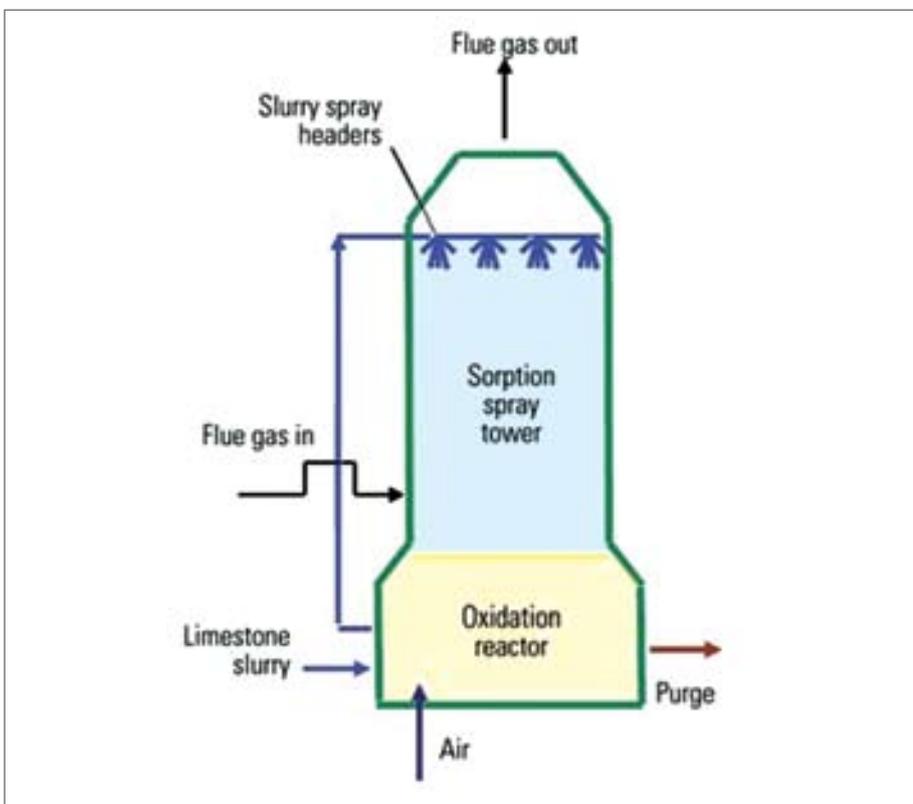
# BUILT TO LAST - FRP PIPES

– Article by *Ranji Varghese* (Head – Prodorite) and *Safraz Gadkariy* (AGM – Manufacturing & NBD – Prodorite)

Globally, governments are becoming increasingly concerned about air. Regulatory agencies are aggressively implementing air pollution control (APC) standards, which require sophisticated scrubbing equipment for flue gases emitted by energy generating boiler systems.

The world is indeed waking up to the need to protect air as a scarce resource for generations to come. One area that has received a considerable amount of attention is the potential for acid rain that results from the generation of sulphur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) during the combustion of fossil fuels. Particularly notable in this area, is the focus on flue gas desulfurization (FGD) technologies that has been researched in a number of countries.

In power plants, flue gas is often treated with a series of chemical processes and scrubbers, which remove pollutants. Fossil fuels such as coal and oil contain a significant amount of sulphur. When fossil fuels are burned, about 95% or more of the sulphur is converted to sulphur dioxide. Such conversion happens under normal conditions of temperature with oxygen present in the flue gas.



*Flue gas desulfurization*

*Due to the corrosive nature of the scrubbing process, the selection of the material is vital to successful operation of the power plant.*

## Flue Gas Desulfurization (FGD):

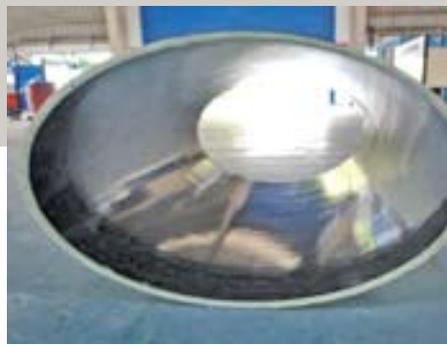
Flue gas desulfurization commonly known as FGD, is the technology used for removing sulphur dioxide (SO<sub>2</sub>) from the exhaust combustion of flue gases of power plants that burn coal or oil to produce steam for the turbines that in turn drive electricity generators. The most common type of FGD relies on an alkaline sorbent such as lime or limestone.

Most FGD systems employ two stages: one for fly ash removal and the other for SO<sub>2</sub> removal. Attempts have been made to retain both the fly ash and SO<sub>2</sub> removal systems in one scrubbing vessel. However, these systems experienced severe maintenance problems and low removal efficiency. In wet scrubbing systems, the flue gas normally passes first through a fly ash removal device, either an electrostatic precipitator or a wet scrubber, and then into the SO<sub>2</sub> absorber. However, in dry injection or spray drying operations, the SO<sub>2</sub> is first reacted with the sorbent, and then the flue gas passes through a particulate control device.

## FRP as the preferred material:

A variety of materials have been successfully used in wet FGD systems including rubber-lined carbon steel, flake glass filled epoxy vinyl ester resins, high nickel alloy clad carbon steel, nickel based alloys, and Fiberglass Reinforced Polymers (FRP) that are based on epoxy vinyl ester resins and epoxy novolac vinyl ester resins.

FRP was selected as the preferred material of construction based on the cost-effectiveness, ease of installation and performance under the severe conditions created during the scrubbing process. One of the many advantages of using FRP is that they can be formulated to be corrosion resistant. The type and thickness of this corrosion barrier/liner will depend upon the specific service environment. Corrosion resistance of FRP is a function both of resin content and the specific resin used in the laminate. Generally speaking, the higher the resin content, the more corrosion resistant the laminate. Fly ash and other



*Wearshield Pipe*

abrasive slurries can now be handled with FRP piping and tanks through the introduction of fine particles of minerals into our standard corrosion barrier. The minerals incorporated in a corrosion barrier layer can be of various thickness. This combines abrasion resistance with the proven corrosion resistance of the thermoset resin used.

### Features:

- Excellent Wear Resistance demonstrated in high speed slurry conveying processes
- Maintains the corrosion resistance feature of FRP composite pipes
- Wear Shield pipes weigh as little as 1/6th of steel pipes & 1/20th of concrete pipes.



*Wearshield Flange*

- Ability to design seamless inner surfaces for trouble free flow over long distances.
- Demonstrated to provide superior benefits in flue gas desulfurization (FGD) systems and in abrasion slurry conveying application.

### Application:

These are used for coal fired power plants in conveying coal ash slurry; for limestone slurry which is used in flue gas desulfurization (FGD) systems, where it reacts with the flue gas thus removing the SO<sub>2</sub>; and in spray bank and other spray system in absorber.

## CUMI WEARSHIELD:

To provide a long-term solution to Power industries especially those using Coal as a fuel, CUMI with its own technical expertise and with its Technology provider in USA provides a total solution for Handling slurries and Ash in FGD in particular and Power plant in general.

### The Technology:

Prodorite Division had acquired technology from USA for manufacturing of Abrasion Resistant FRP (AR FRP) products targeting the upcoming Flue Gas Desulphurization (FGD) market in India. The spray system and the piping which handles Lime slurry are essentially made of AR FRP and had been a success in US and Europe for the last 40 years. Since the technology of FGD is new in India and there is delay from GOI to implement it across the nation and hence delay in closing orders. However we see significant progress in last month and we expect to receive orders by end of the year.

### Product development for Alternate market:

Since we had the technology to manufacture Abrasion resistant products, we started looking for other areas where this product can be utilized, one of them was Tio<sub>2</sub> manufacturing units where there is an issue with abrasive slurries.

One of the applications in such industry is charging and discharging of material in Digester which comprises of Ilmenite, HCL and Steam. Thus the pipes and

fittings are subjected to Abrasion, Corrosion and temperature.

The product used there were rubber-lined and Teflon-lined pipes. Having a superior technology however, we started providing composite samples to address various application.

All these products are consumables and though they provide twice the life cycle it eventually wears out, thus providing repetitive business.



*AR fittings*



*AR Sleeves*

# Ceramics and more!!!

The Research & Development team at CUMI-Industrial Ceramics are now housed in a new setup that is DSIR certified. This technically advanced, new centre was recently inaugurated by our Chairman, Shri. M.M. Murugappan along with the Director of CSIR- NAL and the Associate Director of SAC- ISRO. The Connect team met **Dr. Santanu Mandal**, Senior General Manager-R&D, and listened as he described the fascinating journey of the department and the recent innovation projects taken up.

Tracing the history of the R&D in ceramics, he explains how it all began with the acquisition of platform technology from Coorstek. Initially the focus was on standardizing the Coorstek process, which took till 2007 to stabilize. At that point IC was supplying products for certain specific applications in India and Australia. However it was clear that we needed to go beyond and develop further formulations, further platform technology to support other applications and meet the stringent standards of the European Wear Ceramic Market. The first platform technology of CUMITUFF 92 (92% Alumina) was developed with 25% better performance than that of the existing CUMITUFF 90 formulation, for addressing the requirements of European and Latin American markets. Over the years, the R&D of CUMI- IC developed and standardized three more platform technologies for serving different applications, such as CUMITUFF 92CSP for wear and corrosion protection, CUMITUFF 90SP for high impact applications (e.g. dry grinding) and CUMITUFF 96 for premium wear & thermal applications.

Once the newly developed CUMITUFF 92 and CUMITUFF 92 CSP were

stabilised in the existing manufacturing process, IC began to expand territory to the adjacent area of thermal and thermal shock applications. We began the process by addressing the market for the non-ferrous molten metal handling industries through the reaction sintered Aluminium Titanate product (CUMITHERM) which has been developed and launched in 2011. The product is now well established, both in European and Indian markets as well as in the Middle East. IC also developed, standardized and launched Zirconia products for thermal applications (CUMITHERM-Z) in 2016 for addressing the market for handling molten ferrous metals, noble metals and super-alloys. Among the various products IC makes, zirconia nozzles are being made and supplied to the Super Refractory Division, Jabalpur, where the same is being assembled and supplied to mini steel plants for controlling the flow of molten steel from tundish to casting mould. This product integrates the entire value chain of IC, EMD (which supplies the raw materials) and SR. The same platform technology has further been extended for thermo-mechanical applications.

We also began to explore the field of Non-Oxide Ceramics. In 2012, we acquired a Japanese technology of making reaction bonded silicon carbide products. It has been successfully up-scaled and standardized in-house and also most of

the raw materials have been indigenized through the Electro Mineral Division. Going forward we have plans to develop other non-oxide ceramics such as Sintered Silicon Carbide, Dense Silicon Nitride for Structural and Thermal applications, Aluminium Nitride for Substrates and Boron Carbide for Ballistic Application. We have also started working on development of Metal Matrix Composite





products to improve the reliability of Ceramics and filed a Patent for the same. The development of various zirconia products is on to address structural and functional applications for diversified markets and industries.

### Networking and Development of New Technology:

Since 2015 we have started working on developing and establishing entirely new technology. There is a global need for high Alumina substrates in the electronics and telecommunication sectors. We have developed the formulation for the same in-house with best-in-class mechanical performance through sub-micron grained microstructure. It is capable of producing high surface finish ( $< 0.05 \mu\text{m}$ ). In order to speed up the development process we have collaborated with CSIR- NAL to develop the tape casting process for making thin ( $100 \mu\text{m} - 635 \mu\text{m}$  thickness) Alumina and fully stabilized Zirconia ceramic tape products. Till date we have a wonderful technology for thick film metallization on ceramics and it has helped us establish ourselves as a leading player in the global market. In March 2016, we had a technology transfer and buy-back agreement with Space Application Centre - ISRO for Cr-Cu-Au metallization process on alumina substrates using magnetron sputtering technique for MIC fabrication. This is a physical vapour deposition process of thin film metallization for high-reliability applications. This will help us enter a completely new business with higher value addition. We are going to commission and establish the complete technology by Q4, FY 2017-18. Subsequently, with our new tape casting technology and existing thick film

metallization process, we also have plans for development of Multilayer Co-fired Ceramics (HTCC & LTCC) for other functional applications.

### Joint Development Projects:

In order to integrate the entire value chain of CUMI, we are participating in inter-SBU projects. At present, we are working closely with CUMI-EMD in order to develop Zirconia raw materials for our newly developed formulations. Another joint development project is for making ceramic mini media products. We are also working with the R&D team of SR for various new product developments with our CUMITHERM and CUMITHERM-Z products which will be beneficial to both of us. A joint Patent has been filed with SR for an innovative launder for conveying molten non-ferrous metal. We are also working with Wendt India Limited for the development of the grinding and machining process for various critical ceramic components. Another joint project with Wendt, is on the development of metal matrix composite products by both electric-pulse sintering and stir casting processes. So we are actually trying to integrate all the facilities and capabilities available in CUMI in order to enlarge our footprints in global market by offering better value-added products.

Another area of joint development projects is with top educational institutes, research Institutes and CSIR laboratories for breakthrough innovations. We have collaborated with Indian Institute of Technology, Madras, for development of Functional Nano- ceramic powders and Specialized Nano-crystalline diamond coating. Recently we initiated

a collaboration with DEBEL - DRDO for the development and standardizing various grades of ceramics for ballistic armour applications.

### WENDT R&D

As Dr. Santanu also heads the R&D for WENDT, he explains how the focus there is on providing total grinding solutions for Super-abrasives Customers by improving and customizing grits, bonds and grit-bond combination. The WENDT team is working with suppliers on customizing grit. Previously, the team did a fine job under Dr. Kulkarni, previous Technology Head of WIL in indigenizing 59 new bonds. It was a move taken towards self-reliance in bond supplies as well as better control in bond manufacturing process for Wendt India Limited. As on today almost all 59 bond system have been standardized and are being made in-house under close supervision and control of R&D. The team has also been working to commission and establish glass-grinding wheel manufacturing facility using an entirely new technology. The team has successfully developed and launched double-disc fine grinding wheel. Various other projects like, new toughened vitrified bond system for CBN, Fine Grit Super-Finishing stone, improved metal and resinoid bonding system are in progress.

*Connect wishes IC R&D the very best at creating several futuristic products to increase our market share and position us as a world leader in Industrial Ceramics! Best wishes to the Wendt team too, towards becoming a leader in providing Total Grinding Solution through Super-Abrasive and Machine Products!*

# New on the L&D Anvil

In keeping with the theme of ‘Ring in the New’, Connect will also feature new initiatives in the Services functions at CUMI. In a freewheeling chat with **Sivakumar V.**, General Manager - HR, the Connect team listened as he described the many fascinating new initiatives taken in Learning & Development across the organization.

The starting point was the setting up of the L&D Calendar based on overall development plans. This was developed by the Corporate L&D teams, with the SBU HR representatives taking the responsibility of executing the activities as per the plan. Released earlier this year, the calendar has helped keep L&D activities prioritized in the midst of busy work schedules.

While working on the calendar though, it became apparent that there were a number of areas where SBUs needed specific individualized support for better organizational performance. Tapping into this need, learning interventions were identified SBU wise and launched as projects. Some of the key projects that are currently running are described below -

## SR - Metaorbit

The Super Refractories division has been experiencing a series of changes, with the leader retiring soon and changes in structure. The team had to rally around to tackle business, but there were issues of resistance to change, working in silos and lack of collaboration. Functional domains tended to keep to themselves and it was necessary to regroup as an organizational entity working towards overall business performance. Several consultants were interviewed and Raja Krishnamoorthy’s expertise in the field of organizational behaviour, made him the best choice. He also brought the expertise of a model of organizational performance driven by organizational differentiators and a

team effectiveness checklist. Offering the granular specificity we needed in terms of actions needed at the organizational and functional level, this fitted in perfectly.

The program kicked off with a residential three-day program at Hudson, followed by weekly reviews. While there was some momentum, not enough was happening particularly when it came to actions based on strategy. Thus it was decided to jump start this initiative using Franklin Covey’s Four Disciplines of Execution. 4DX simplified challenges, with Wildly Important Goals, Lead and Lag Measures making actions easy to undertake and accomplish.

There is now a greater awareness in the team, about how these measures can help them benefit themselves. The participants in this program were the first and second line reports of the SBU Head. The program will run for the duration of a year, and is currently at its halfway mark. With weekly reviews and reports, traction has been built up and the SBU should be a different place by the year end.

## ABR - Komban

Leadership development was identified as a core need at the Area Manager level. This group was found to have a significant contribution to business efficiency and productivity, but lacked an effective leadership pipeline. The mix of first-time managers and long-timers added to the complexity. After much brainstorming on whether a behavioural or a functional intervention would work better, feedback pointed at a behavioural approach offering



better results both in the short and longer term. We began with a 360-degree feedback and an outbound program to assess capability and potential for managing sales as well as sales force.

The bedrock of our methodology was the sales force management model, which focused on team management, customer centricity, self awareness and development, and market and business knowledge. The Murugappa Management Development Centre aided us with their 360 feedback online tool which helped collect data on these four competencies from peers, superiors, subordinates, along with a self assessment. The feedback reports were quite revealing. We looked at a two-pronged approach based on this

- Strengths that needed to be built on individually
- Improvement areas which were identified by looking at a pattern of low scores across all respondents for each individual

From this exercise, three areas were picked per person that would have maximum impact on the individual’s performance at the current role or team level. These were converted into individual development plans and charters. Development charters were also created. Once implemented this should significantly impact leadership behaviour and sales effectiveness.

The feedback reports were shared with participants in one-on-one meetings with participants by Srikanth C. (Senior Vice President – Sales and Marketing, ABR) and Sivakumar together. The individuals were involved in creating their own development charter. The managers of each individual are responsible for ensuring the development plan is successfully implemented. This is supported by review mechanisms of fortnightly, monthly and quarterly reviews

with senior leaders. The focus of the reviews is on team management – how does the individual handle his team, how does he develop team members, how does he handle his role as leader in team meetings/ reviews etc?

The training is being done partly online using modules created by MDC and certificate courses from Coursera; and partly by classroom training such as the First Time Manager Program. This intervention will go on through this year, till May 2018.

**Tech NPD - Abrasives**

For the Technical team in Abrasives, the challenges were with New Product Development. There were issues of speed and scale, of lack of a common language for the research team and individual competency issues.

These were addressed by using design thinking as a methodology which works on building creativity and then applying it to product development. We initially worked with an external consultant to fine tune the discussion, but later shifted to working with the Management Development Centre. A complete

program flow was designed including pre-work, workshop content, review mechanisms, etc. The facilitators were Shivkumar, Meghna and Dr. Raj from MDC, while the process was owned by Ramesh Kalyanaraman. Started in July 2016, this program will run till March next year.

**SuperAppu - Supervisors**

The SuperAppu program for the entire supervisory grade staff of CUMI came from the realization that supervisors typically stand alone in the system. They are responsible for front-line productivity, but the amount of managerial time spent with them is limited. So this employee group witnesses a lot of restlessness, helplessness, and have no idea about their growth path within the organization.

Our mandate in L&D was to make them more capable in their roles as supervisors. The challenge was on how to execute the program. We began by first developing and standardizing a competency profile for supervisors. Then a training schedule was developed with terrific customized courseware, and weekly hour-long webex sessions. Subject Matter Experts from

inside and outside CUMI were brought in to give more diverse insights. The list of topics covered in the program are chosen basis issues faced typically by supervisors. For example, manpower deployment is a planning competency, teamwork is a managerial competency etc.

The review mechanism for this workplace learning methodology, includes weekly discussions on learnings with the reporting manager, thus must be recorded and signed off. For this group of 80 supervisors, we are aiming to bring in new energy and motivation, ‘SuperAppu’ style!

**Corporate**

The training calendar and dashboard is part of every monthly review. Data shows the number of days covered, penetration rates, participant feedback, et all. This organized capturing of data has made it easier to track progress.

*The L&D cauldron is bubbling with new ideas and programs, and the Connect team is delighted to have sampled some of these. Here’s wishing Sivakumar all success with SuperAppu and all the other learning interventions.*

*A workshop on AIMING HIGH by Raja Krishnamoorthy*



*Welcome address by Muthiah M. (EVP - HR)*

*Context setting by MD - K. Srinivasan*

*Through this workshop the team looked very closely at various factors that contribute to the effectiveness our DIVISION- towards its work culture, result orientation, economic health, dynamism of change etc. Now our collective efforts will lead us to Transformational Leadership and Orbit Shift in our achievements.*



# Meet the MTs of 2017!

The new batch of CUMI Management Trainees kicked off their MT training stint on May 8th with a nineteen-day long induction program. This batch drawn from premier institutes – IIM Bangalore, National Institute of Technical and Industrial Engineering (NITIE), Great Lakes Institute of Management, IIM Raipur and DG Vaishnav College - has representation from specializations in Strategy, Operations Management, Marketing and Human Resources. Most of the batch comes with past work experience prior to their post graduation, and are taking up roles in the Abrasives, Industrial Ceramics and WENDT businesses.

The group induction for this lively bunch of youngsters began with joining formalities at the Corporate office, an introduction to all businesses in the Murugappa Group, a session on Corporate Theatre, meetings with seniors and a plant visit to the TI Cycles unit.

A new element was introduced into their CUMI induction this time, with the novel experience of dining and dialoguing in the dark. Dialogue in the

Dark - an internationally acclaimed unique program, is based on the concept of German - Jewish philosopher Martin Buber's work which states: "The only way to learn is through encounter". The workshop aimed at experiencing extraordinary and powerful emotions that are mentally challenging; helps participants engage with empathy and experience common challenges in teamwork and communication through a series of activities performed completely in the dark. The debriefing sessions explore the emotions experienced and help crystallize insights and learning, in the context of the CUMI culture. The group of 9 new recruits thoroughly enjoyed the sessions and the lunch thereafter, that was served and savoured in complete darkness. The workshop was anchored by DID COO and co-founder in India, Sudha Krishnan.

The induction continued with classroom sessions on policies, campus to corporate transition and business etiquette. Each of the businesses were introduced to the participants by senior leaders from the SBU, followed by an interactive session with our Managing Director –

K. Srinivasan on CUMI's history and targets for 2020. M. Muthiah (EVP – HR) ran a workshop on 'Life at CUMI', followed by a session titled 'Metaphorically Speaking' by Akash JP (Executive – HR) which explored the trainees expectations of CUMI using images as a metaphor. Raja Mukherjee, Sr GM – Internal Audit & Strategy, gave a bird's eye view of CUMI's business strategy and market positioning across all businesses in his session on CUMI's Growth Story. This session was a huge hit with the MTs who had several questions on the businesses.

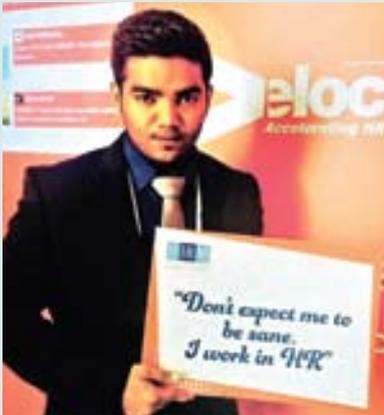
Post plant visits to SBUs and a visit to the CUMI Centre for Skill Development, the MT's made individual presentations on their experience and learning from the induction. They have now moved to posting locations and started their projects. To aid the process of settling into their roles, a senior mentor has been assigned to each MT who can offer guidance on professional and organizational queries, along with a peer buddy from the same location for informal interactions. Join us in wishing this group a wonderful start with CUMI and a fulfilling career ahead!



From L-R - Denesh Kumar, Shivam Goel, Prashik Meshram, Pradeep Kumar, Ritam Dasgupta, Srisnigdha, Sreshtha Sunilkumar, Unnamalai, Manish Tewari

# The First Year

We asked the MT batch of 2016 about their first year with CUMI and this is what they had to say!



I am **Akash J.P.**, working in the HR team at the Corporate Office.

In my current role, I report to Sivakumar V. (General Manager - HR).

I joined CUMI, soon after my Masters Program in Human Resources Management from D.G. Vaishnav College.

In my free time, I love reading and playing snooker.

What I loved most about my training period was the unhindered access to various knowledge sources such as books, people, experiences, training programs etc.

I look forward to playing my part in making CUMI a learning organization and win various awards in the field of Learning & Development.

What I love most about working in CUMI is the freedom to work at my own pace.

I shall always carry the memory of the surprise birthday party organized by my colleagues.

I am **Skand Kumar Gupta**, working in the HR team at the Abrasives Division, TVT.

In my current role, I report to Brahmanand V.

I hold quite a few degrees, thanks to my love of learning; counting among them a Bachelor in Arts, a Masters in English Literature, a few courses on computer applications and an MBA from IIM Kashipur.

In my free time, I like working the stock market, reading, travel and quizzing.

What I loved most about the MT training period was the different assignments that gave us a well rounded exposure

I look forward to playing a part in developing and implementing strategies, policies and programs that will make CUMI an aspirational employer brand, and place CUMI among the league of top 10 Indian manufacturing companies to work for.

What I love most about CUMI is the freedom and the ability to pick up projects and execute them under the seasoned leadership and support from colleagues.

I shall always carry the memory of the first 3 months of pan-India induction. For most new employees, the induction lasts about a week or two. I was privileged to have a very special induction under the direction of Mr. Muthiah, and my induction lasted for about three months, which included visiting all manufacturing locations across India and spending a week there, to get a hang of day to day operations and the work culture. That has been instrumental in developing a broad understanding of HR operations across CUMI.



I am **Apshara Arul**, posted at CUMI Corporate in HR

In my current role, I report to Mr Muthiah M.

I graduated in Electronics and Communication Engineering from Anna University, and followed it up with a Masters in Social Work from D.G. Vaishnav College

In my free time, I fence. Fencing and boxing are my passions and I have won awards at the National and State level. On a more personal front, I love social work and try to take part in community initiatives whenever possible.

What I loved most about my MT training period is probably the fact that I was rarely labelled as an MT, be it in the roles assigned to me or in the freedom to execute it. I was not treated any differently from a regular employee and was challenged to bring my level of knowledge and skill up.

I look forward to being a leader in my own right. Not only from the sense of the traditional career ladder but from the sense of the positive impact I make in my role.

What I love about CUMI is the culture of the company. A strong Murugappa - CUMI aura extends across the organisation and bonds all beyond just Mission and Vision. I shall always carry the memory of the TPM Presentation I made to our beloved Chairman Mr. M.M. Murugappan, and the joy of hearing him mention my work in his closing speech. Another special moment was when I won a medal at MGTC. It rekindled my passion for sports, and reminded me anew that that passion can be pursued at CUMI.

# MT interviews



I am **Shantanu**, posted at the Electro Minerals Division in Kochi. In my current role, I report to Abhijeet K. (AVP – Sales & Marketing, EMD).

I hold a Masters Degree in Marketing from IIM Raipur

My hobbies are working out at the gym or playing chess

What I loved most about my MT training period was that it was a new experience everyday, with unlimited potential to explore and superb team of seniors guiding me.

I look forward to generating as much revenue for the company as possible. It gives me tremendous job satisfaction when I add value to such a big organization. I believe that the world gives you what you put in, and as I play my role in CUMI's business development, CUMI will take care of me.

What I love most about CUMI is the freedom of making mistakes and learning from them.

It is difficult to pick on one memorable moment in the one year training period, there were so many. But I would say the induction period was really memorable. Interaction with seniors as well as the ice breaking sessions were really amazing.

I am **Nidhin Thomas Mathew**, posted at the Electro Minerals Division in Kochi. In my current role, I report to Abhijeet K. (AVP – Sales & Marketing, EMD).

I hold a Masters Degree in Marketing from IIM Raipur

In my free time, I love watching movies

What I love most about my MT training period was the freedom I was offered at EMD in choosing a project to work on.

I look forward to playing a pivotal role in the establishment of new products from EMD in the coming years

What I love most about CUMI is the openness with which one can communicate with senior management

I shall always carry the memory of the trip to Pondicherry that the MT batch made organized by Corporate HR. It was a great exercise in bonding and we enjoyed it thoroughly.



CUMI welcomes  
GET batch of 2017-18



# The day I got introduced to **Metaphorically Speaking**

- Akash J.P.

It was another usual day at work, trying to finish up tasks when my colleague suddenly called out to me and asked, “Have you heard about this tool called ‘metaphorically speaking’?”. That was my introduction to this phrase and I was both confused and curious. Confused about how a tool can be developed from a figure of speech, and curious about the behavioral science behind such a tool.

I quickly registered with the institution which offered this program and landed up in Bangalore shortly thereafter to get trained. There were some deeply insightful revelations I experienced during the workshop and several new learnings. Allow me to explain what this beautiful tool can do.

Metaphorically Speaking is a tool to help individuals and groups think and dialogue with pictures. It provides an alternative to using words as default means of thinking and expression, combining our verbal and visual minds so that we can discover and share perspectives in a whole new way.

The tool contains 75 stunning and varied images that serve as metaphors. A metaphor, as we all know, is basically an implied comparison that brings together two dissimilar things. The participants pick up pictures as metaphors in response to questions, and assign meaning to them. This helps them to collectively create a new perspective by which they view and interpret a situation. Which in turn increases the potential for developing new insights and solutions. Isn't it interesting?

When we initiate oral discussions, participants may not be aware of their deep-seated motivations or beliefs. To access some of this knowledge, we need to access the subconscious. To access the subconscious we need an approach that can circumvent the limitations of a verbal centered approach.

Choosing a picture in response to a question often captures this implicit motivation. The response will be a projection of their conscious or unconscious attitude, personalities, motivations and beliefs.

Using this approach will help a group to get to the core of issues or ideas quickly, reducing verbal noise and allows problems to be solved in unimaginable ways. By picking a picture in response to a primary question, they use both parts of their brain, and gain a more in-depth understanding of subjective, felt experience.

Let me portray the methodology of using the tool with the help of a scenario with our current batch of Management Trainees. Before conducting the session, a key task is to identify and craft a “Question that matters”. The purpose of the dialogue or discussion needs to be defined in the form of a question. The question needs to be simple without being simplistic. Yes, that's what the trainer said when I got trained 😊. Questions that are complex or double-barreled tend to make the discussion uncoordinated. Open ended questions lead to discovery and should be chosen over closed ended questions.

The question we decide to choose for the MTs was - What commitments will you make for CUMI? What are the enablers you seek from CUMI to fulfill your commitments?

As you can see it was an evocative question which helped the participants stretch their imagination and plumb a range of answers. I also added a second contrast question to add some depth to the discussion. Contrast questions are questions that are complementary to explore a subject comprehensively. Eg. Causes and consequences, Opportunities and threats, Challenges and solutions etc...

Before the session I had already spread the images in a way that all of them could take a look at the pictures and pick ones that resonated with them. After everyone had assembled in the room and a bit of an opening discussion, we moved on to the heart of the matter.

The “question that matters” was presented to the audience and they were asked to focus on the first thought which came to them on hearing the question. People were then invited to choose images

that resonated with their thought(s). While they were going around to have a look at the pictures, we asked them to observe which pictures they were drawn to intuitively. This made them pay attention to the first thought, feeling or reaction that occurred while picking an image. This works because our first impressions are usually loaded with intuitive insight, because our egos/minds haven't had a chance to jump in yet.

After the exercise of picking the images was done, and the MT's settled into their seats, they were asked to share their perspectives using the pictorial metaphor. In the process, we inquired into their metaphors with questions such as -

- What in the picture spoke to you?
- What/who in the image stands out to you?
- What do you see happening in the image?
- What do you feel the image conveys?
- What connection do you see between the image you picked and the question that was asked?

This tool really works when we look for patterns, insights and deeper perspectives that the participants share. So things we tried to notice were what was the common theme that occurred, were the experiences of each MT similar or different, what were the feelings and reactions, were there any revealing insights, any deeper issues that surfaced?

The points presented when asked about commitment had almost similar patterns though each person presented differently - give creative solutions, ‘never give up’ attitude, get out of comfort zone, self-responsibility, grow with the company, learn continuously and upgrade oneself. Surprisingly there were some common points which arose in the enablers they presented too, like Freedom to act, visible growth, Guidance from management, Trust and motivating teamwork.

Thus works this insightful tool, deepening the quality of reflection and dialogue through pictorial metaphors. Looking forward to having more opportunities to use this for multiple groups across CUMI!

# Beyond CSR: Shared Social Responsibility

## An Initiative By CSS Since 2011

– Skand Kumar Gupta

When the government mandated the CSR spends in the year 2014, many corporates started engaging in a wide spectrum of activities. But people with grit and goodwill never needed funds to be mandated by law to carry out social responsibilities. One such example is CUMI Shared Services which since its inception in 2009 has been involved in a wide range of activities to create value for its stakeholders.

One evening in the year 2011, Sudhaman (now an ex-employee) was describing the adverse conditions of a government high school in his locality, at Athipattu village in a poor and socially backward area beyond North Chennai. This school was in a place where no industry was located and the dwellers were largely daily wagers. Parents did not send their children to school regularly and due to the lack of seriousness the students could not perform well in the exams and later had to drop out. Team CSS decided to pay a visit to the school. What they saw was truly appalling - facilities were lacking, the mid-day meal was prepared in the open in unhygienic conditions and hardly half the students were present. Upon interacting with the teachers it was observed that other days were no different and students did not understand the importance of studies and lacked guidance.

That very day Ashokumar, Ayyappan, Chandramouli and Sundaresan among others, decided to engage with the community and make changes in the lives of these students by helping them prepare for exams, and enabling them to write their own future. And hence the journey of **DROPLET** began in 2011, with the CSS team visiting the Government High School at Atthipattu village atleast twice a year, and interacting with the students there.

The first visit usually takes place in December-January, before the exams to provide support to 10th standard students

in the form of stationery, model question papers and guidance on how they should approach the exam.

The second visit happens in July-August to recognize the efforts put in by the students for the exams. Students who scored 400 marks or more, in the board examinations are felicitated with a cash award of Rs 1,000/- each. Iyappan .C has been driving this project successfully, from its inception.

### THE VISIT - 9TH AUGUST 2017

This year by virtue of being in Thiruvottiyur, I came to know about this initiative and decided to tag along during their visit.

This was the 7th consecutive year that CSS was visiting, to award 6 students who had scored more than 400 marks in their Mar-17 board examination. All the 6 students are pursuing their HSC +1 in different schools and the school management made a special effort to invite them to participate in this program. The program was conducted in front of the current 10th standard students (batch 2017-18) to enhance awareness on the

urgency and importance of scoring high marks.

Chandramouli delivered a motivational speech highlighting the importance of studies, and presented an anecdote of a handicapped person who despite all difficulties came into the mainstream only because of his reliance on education. He highlighted that a sound mind resides in a healthy body so they should adopt a healthy lifestyle from a very young age and Yoga can help them in achieving the same. Going further he also touched upon the types of light diet plan to be followed during exam times. The students discussed the various pressures they were undergoing during this time namely academic pressure, parental pressure and peer pressure, and how these could be countered to boost their academic performance.

In this gathering a student named Ms. Devi Bharathi who also was one of the recipients of the award, shared her emotional success story which brought tears to everyone's eyes. Her speech was inspiring and motivated fellow students to face real-life challenges like her,





overcome them and be successful in their aim. Teachers, in their vote of thanks mentioned that this is one motivating factor that pushes students to perform better every year. The event was well received by the students and teachers alike and they looked forward to our next visit.

**CANDID CONVERSATIONS:  
LATER THAT EVENING**

As a first time visitor to the school I was very much moved by this initiative where individuals pooled in resources personally and ensured that students get more than monetary appreciation. Ayyappan shared that in future the aim is to enable them to help each other in the community, get

important career related documents and organize career counselling to choose a profession linked to their interests and abilities.

In a candid conversation with Chandramouli and Ashokumar later in the evening, they pointed out that money is something that anyone can provide but help in inculcating knowledge and a vision for the future, is a much more sustainable approach which many others do not have to offer. They said they would consider their efforts fruitful, if the light of education helped in bringing even one student into mainstream society. It was then that I understood,

“Social responsibility is not in the hands of only corporates or governments. As human beings everyone should look after another - in that spirit lies human social responsibility.”

**WANT TO BE A PART?**

Over the years CSS has been doing this humble act not because they needed someone’s appreciation, but because it provided them a sense of meaningfulness and satisfaction. If you want to be a part of this noble initiative or have some suggestions, you can reach out to [AyyappanC@cumi.murugappa.com](mailto:AyyappanC@cumi.murugappa.com).





## *A Gentle, Diminutive Giant he was!*

Recently, I lost the person I loved and respected the most in the Group. To me he was the personification of the Murugappa Group. I had spent an evening with him a few weeks back and realized that he was fading away; yet the enthusiasm for what we were doing at CUMI and the genuine affection for CUMI was still shining strong – undiminished by the physical discomfort that he was going through.

I still remember vividly; it was 1991 and it was just after MVM had led the first successful hostile takeover in Indian corporate world by buying out the Khataus in the Wendt India through a public offer. He walked into Wendt and spoke to us softly and ever so gently on what we could do together to build the company. There was no bravado, there was no gloating over the acquisition. That one 15-minute interaction taught me a lesson of a life time in humility and organizational purpose. The next 10 years I worked closely with him. I traveled with him in India and abroad, visited customers with him, worked with him on new ideas and initiatives. It was great learning; great fun.

There are several things that MVM did that are folklore at CUMI. Let me recall a few:

MVM was always a visionary. He realized the importance of getting into ceramics. He went to Golden in Colorado to meet the CEO of the largest US company in this space – Coors. Looking at the quiet, gentle and polite 'Indian', the CEO, in a typical American way, told him, "If you have a million dollars, let's talk." MVM, thanked him & came back. And the CEO thought he had 'scared' him off! In a week's time, MVM had a million dollars sent. The CEO was taken aback. The Coors deal was done. The Industrial Ceramic business, which is today at the cutting edge of CUMI's global competitiveness owes its origin to this visionary's faith and belief.

Nearly 20 years back when no one was thinking of setting up power plants in the private sector, MVM did so. Not an easy project – it was in Kerala; it was a hydroelectric plant and it had a tunnel running under a private estate! With all our current resources and skills I don't think we can do a similar project now. It was engineering excellence and organizational skills at its best.

In the years after he retired, I always kept in touch with him. The last function that he attended was as the Chief Guest at the Silver Jubilee celebrations at IC, Hosur. For all of us it was an emotional moment to have him come and see the plant that he had been instrumental in starting and nurturing through its troubled infancy.

A lesser known side of MVM was his great sense of humor and fun. In CUMI for many years we always had this firm belief that if we could get MVM to inaugurate a plant, it would succeed and make money. Simple! Once I wanted him to inaugurate a new plant for machine building at Wendt. The date was set, but we could not receive all the imported machines. We still went ahead and requested MVM to inaugurate the near empty plant. MVM said, "Srin, I will do it; but this is really testing my luck." I must add that his luck didn't fail: Machine building in Wendt has grown to be nearly a third of the Company.

Today as we bid him farewell, we are proud to have worked with him. We salute this Gentle Giant.

Sir, we learned so much from you; had fun working with you; laughed with you and today we cry... I am sure that as you move from Finite to Infinite, your unseen hand on our shoulder will ever so gently guide us in all that we do. We are blessed to have worked with you. Thank you, Sir.

MAY YOUR SOUL REST IN PEACE.

– K. Srinivasan,  
Managing Director - CUMI



Mr M V Murugappan, one of the senior members of the Murugappa family has departed from this worldly life on 19th September 2017, at 10:45 PM, after a brief illness, at the age of 81.

MVM as he was called within our Group, was a multifaceted person with an uncanny ability to predict the future of the industry accurately. He had the rare skill of combining his knowledge in multiple areas and spotting industry trends well before they appeared. A role model for generations across CUMI and the Group, his initiatives during his tenure at CUMI have laid the foundations for the company's growth till date. So many of our businesses and products were based on pioneering ideas that stemmed from him, such as MMTCL, Industrial Ceramics, Prodorite, SEDCO, the hydro power plant at Manniyar, our first robot – a 6 axis Motorman in 1985 etc. He also had a special interest in employee welfare, and always came across as humble and kind, touching with gentleness the lives of all who met him. Though simple in demeanour, he was an outstanding industrialist and highly respected in professional circles.

I was always awestruck by how he found the time to also pursue his interests. Passionate about organic farming, MVM read a lot about it. Post retirement, he used his knowledge to initiate several projects at the Murugappa Chettiar Research Centre on rural technology such as low cost stoves, biofertilizers and so on. He was a keen ornithologist and speaking of birds always brought a sparkle to his eye. A sports enthusiast, he followed and played tennis, and loved mountaineering. Spry and fit, all through the time I've known him, his ability to do all this and still find time to read voraciously and volunteer for the Olive Ridley turtle conservation efforts, always staggered me.

He had completed his education in Civil Engineering in England, at a time when it was rare to study abroad; yet he rarely ever spoke of his many achievements. MVM was a very skilled leader, with very strong problem solving skills. He is irreplaceable, and his loss shall be forever felt. As far as CUMI is concerned, he is still remembered by many as a dynamic MD. When I worked with him on a few assignments in MCRC, I used to admire his forthrightness in dealing with issues.

We pray that his soul should rest in peace, and that his family gain the mental strength to accept his loss. We miss you Sir...

– M. Muthiah  
Executive Vice President - HR

To me he was The Futurist of the Group. Jonathan Swift said, "Vision is the art of seeing things invisible to others". MVM fit's this description perfectly. Many may not know that the first robot in CUMI and possibly in the group was the 6-axis Motoman in the Plasma facility in TVT in 1985. The Plasma project itself was way ahead of it's time and was also a testimony to the courage MVM had, to invest big in an uncertain future. I also rue the fact that I was later responsible for the dismantling and selling off the assets when as "a professional" I could not see the opportunity it was providing in "Engineering Surfaces"!

The Maniyar project was another classic example of investing ahead of time. Conventional wisdom said there was no need for this project when the cost of generation was far higher than the cost at which KSEB supplied power. Today I dread to think whether EMD would have existed without Maniyar.

As a youngster in this company, he was an inspiration to me. His humility and ready smile and his approachability was legendary. My early interaction with him was when I was to go on my first overseas visit and as custom then, I had to meet him and brief him on my visit objectives. The half hour he spent with a one year old in the company is an education in humaneness. He did not bother with the official stuff, but spent the time advising me on how to manage in a foreign county, instructing his secretary to inform my contacts that I am a vegetarian, listing the shops in Chennai which sells warm clothing and even advising me on sartorial choices – "buy a brown blazer with small checks and a leather elbow patch.. the creases will not show up and it will keep your elbows clean". And in parting he said, "Do not worry about what you will achieve on this trip.. the first visit itself is educational.. enjoy the experience"

My passion for the outdoors was again fuelled by his exploits. His stories about the treks in the Himalayas or to Manasarovar made me all the more determined to do them. His knowledge on birds was amazing. Once in the Edapally guest house we saw an yellow bird flit among the tree branches.. and his immediate response was, "That's a golden oriole!"

After his visit to Serengeti he told me – if you are a Hindu, you have to visit Varanasi.. if you are a Christian, Bethlehem..if you are a Muslim, the Mecca..but if you are a human being, you must go the Serengeti and Masai Marra. That's on my bucket list!

They don't make men like you anymore, Sir. Rest in peace!

Regards

– **Ananthaseshan N.**  
President - ABR

Shri MVM was a great visionary. He was very unique with his humble but determined nature and always commanded respect from his nobility and wisdom.

Spotting and connecting right capabilities was another strength which he always showcased very well. These may be technologists, advisors (Dr. Rusthom Roy, Dr. Sheshadri, Dr. SRR), institutions or leading businesses. All these transformed our business into futuristic diversifications. Many were pioneering efforts for the country and on top of that he believed in the internal strength to create and excel on each of those initiatives.

Personally I was fortunate to have several close interactions with him. Initiation of my career in research and development was by Shri MVM. This was way back in 1987 when I was handling manufacturing in MMCF (MMTCL) when he happened to visit us in the factory. After the plant rounds and a short meeting he asked me to take up a development project on Ceramic Fibre rope. He believed in others capabilities and gave ample freedom. He was always positive about numerous possibilities. He used to tell everyone to keep experimenting, even if one out of ten experiments succeeded, it was going to create a big change. In another occasion in 1992, I got a Telex message informing me to be available to pick up his call on the next day at 3 pm. This was to prepare myself for my first trip to USA. He was asking me about my food habits and advising about what kind of vegetarian food I could expect and the clothes what I should carry for this trip, etc. It is amazing to find someone of his stature finding quality time to groom a young engineer. In 1994, I could also visit Dr. Rusthom Roy and his team at MRL, Penn state with Shri MVM. Shri MVM is the co-author of three of our US Patents on sol gel Abrasives on which we have now built a business.

During his last visit to Kochi, he had mentioned that I should visit Murugappa Research Centre to see what is happening there, possibly there would be opportunities to network and support. I shall do this.

My prayers for his soul to rest in peace...

Regards

– **Jayan P.S.**  
Executive Vice President - EMD

I knew him from the day I joined and he knew me only after 5 years. It was in an aircraft, he came a bit late and sat next to me. I introduced myself, as a sales engineer. He did not allow me to have the dinner given by Indian Airlines as felt it was not healthy, and asked for more bread. After getting down, he dropped me at Karol Bagh and then left for the guest house. No one will believe the humility of such a great man.

Once he received a complaint from Ennore Foundries, on our ramming mass – they were doubtful about the percentage of alumina in our product. The MD of the Foundries was close to him and the complaint was directly made to him. R. G. K. Pillai, GM marketing asked me to look into the issue. I sent the product to EMD and then gave the results to Ennore Foundries with a copy to Mr M.V. Murugappan and said all is okay with the product. The next day, I was called and fired by him! He felt the EMD results were not acceptable, I still remember him saying, "You bought Brown Fused Alumina from them, they are also party to this". Finally I approached IIT Madras to draw a sample directly and they tested and proved that we were not at fault. The following day he called both Mr Pillai and me, and explained how when we resolve complaints - quality must be the best and spec must be same anywhere the customer tests.

I acted in many plays at CUMI. Both MVM and his wife used to participate and encourage us. He used to call me "enna Bhagavadare".

I have many such memories, I miss him. I pray for his soul to rest in peace

– **R. Rajagopalan**  
Executive Vice President  
Refractories & Prodorite

I am grieved and shocked to hear about the demise of Sri MVM

It is indeed unfortunate. The Murugappa Group has lost today a very humble and visionary man.

I can well imagine the agony and trauma the entire Murugappa family and the Group have been engulfed in due to this loss

My team at Wendt and CUMI IC joins me In extending our heartfelt condolences to the bereaved family.

May god give the strength and fortitude , to bear this irreparable loss

May the holy soul rest in peace

– **Rajesh Khanna**  
CEO – WENDT and  
President - Industrial Ceramics

**W**e are very sorry to hear about the loss of Mr. M V Murugappan, the senior member of Murugappa family.

On behalf of Sergey Kostrov and me, we express our deepest sadness and condolences to you and to the whole Murugappa family.

We are proud that Mr. M. V. Murugappan was a Chairman of Carborundum Universal Ltd few years back and led the company to great success!

We remember, we met him once, when we were on a trip in India, and he was smiling...

May the sorrow you feel in your heart lighten by the love that surrounds you.

**– Sergey Kostrov  
Sergey Petrosyan  
Volgograd – Moscow,  
20th September 2017**

**A** person who was a few years ahead of times. Saw nano technology before India could think. Great believer in fundamental research and technology. An epitome of humility and tenderness.

Personally I shared a very warm relationship with him. We used to have lunch together. Sometimes he used to send word for me to join him. He took my dad and also my wife for treatment to Sanjeevani TVM. Came with me stayed there ensured we are well taken care off. Finally when my dad was in the hospital and passed away, he kept visiting and monitored his treatment. Truly a noble soul. RIP.

**– P.P. Sukumaran  
– Ex Group Vice President - HR  
(Murugappa Group), and formerly VP and  
Head of HR – CUMI (2000)**

**V**ery sorry to hear about the sad demise of Sri.MVM. We pray to the Almighty to give the strength to all the family members to bear this irreparable loss. May his Aathma attain Moksha.

**– R Anantharaman  
(ex Plant Head – TVT)**

**A** great and simple personality with patience style of behaviour. I still remember he called me at sixth floor of TIAM house to travel to Trivandrum with Central Cabinetry Minister for energy during inauguration of Maniyar. He had loved CUMI HO recreation club activities. Let his soul RIP

**–T.C.Sivasankaran  
(ex- Mgr Accts, ABR TVT)**

**M**r. MVM was such a gentle and gracious leader, inspiring everyone around him in his own unique way.

At least he will not suffer pain anymore. May his Atman attain Shanthi. My sincere condolences to the entire CUMI Team.

Sadly,

**– T.L. Palani Kumar  
Director in CUMI Board**

**S**orry to receive the sad news of passing away of Mr. M. V. Murugappan .

I came to know Mr M.V. during my association with CUMI. His soft spoken Leadership of the Board, the focus on 'environment' and his commitment to various social issues and values was most inspiring. Our Prayers for grant of Peace to the noble departed soul.

Please do convey our deepest condolences to Murgu, Subbu and other members of the family and the 'Murugappa' Group.

**– Subodh Bhargava,  
Ex-Director & Chairman of Audit  
Committee on CUMI's Board**

What a great person he was and a visionary for CUMI. Many memories of his interaction keep floating in me. May his soul rest in peace.

**- Deepak Dorairaj,  
ex-Sr Vice President – Intl Business & Exports - ABR (2014)**

Salute the contributions he had made to Cumi, Murugappa group, industries and society as a whole!! He is a great example for many to follow!!

**– N.Kishore, ex-President – Abrasives & Technology (2010)**

Memories of Ranipet SR project guided by MVM still green in my mind. Wonderful person. Very kind and practical. May his soul rest in peace

**- John Devadasan, ex-Mfg Manager - TVT**

He was a great person, very humble and humane to the core in dealing with people. Had the opportunity to work him personally a great loss to the Murugappa group. My deepest condolences to all the loved ones he leaves behind. May his soul rest in peace. He has passed away on mahalaya amavasai

**- Chandra, ex-Accounts Mgr, ABR**

Passing of a great human being. I will remember him for his love of nature, humility, sense of purpose and interest in almost all subjects.

**– Prem Thomas, ex-HR, Corporate**

My heartfelt condolences. Man of great humility. Maniyar Hydrel was his Visionary project. A man of detail but simple in his living style.

**– B. Subramanian, ex-VP, ABR**

I have worked very closely with him throughout the Maniar project implementation.Great personality. Humility was his special characteristic.

**– Babu Abraham, ex-HR, EMD**

Great leader and human being. I still recall his sharpness during Cimcool project reviews. Praying for his soul to RIP. Not in Chennai unable to pay respects in person

**– B. Sunder, ex-Mfg TQM, ABR**

# CSS on a Roll

After a look at the scintillating video created by Chandramouli G., Senior General Manager - Accounts on the CSS team's journey from 2009 till date, the Connect team was keenly interested in hearing about the new projects taken up by CSS. CUMI's Shared Services has come a long way from its humble beginnings in 2008 when then CFO – V. Ramesh broached the idea of creating a central team that would handle all financial support processes in the annual Finance meet. This fledgling idea gradually took shape and was formally launched in April 2009. All of CUMI's manufacturing locations and branches spread across India were connected with a strong ERP and an integrated central team.

CSS has always had a very systematic approach, because of the rigor set in place by Sridharan Rangarajan, and his organized review on the progress of each of the projects and required course corrections. Each project selected for the year is guided by a clear Project charter which includes details of the project leader, deliverables, team members,

current scenario, target and timelines. This is signed on and reviewed by management team and project leaders every month. Issues arising, if any, are resolved with the support of senior management.

## IN THE PAST YEAR, SEVERAL KEY PROJECTS WERE TAKEN UP SUCH AS -

- Statutory remittance through workflow – All statutory remittance payments such as PF, ESI etc for all units across India, are now routed through the workflow and final payment is handled by CSS. This makes the records easily available both for the Board to view and for statutory purposes. In case of late payment of any statutory remittance, the Board has to be notified. The rigor this system has brought about is evident that 100% remittance of statutory dues are now made in a timely manner.
- MMTCL payroll has been brought under CSS purview and is now being managed centrally from CSS.
- Workflow for CAPEX fund management – Ernst & Young in their audit had given a recommendation that workflow should be introduced for CAPEX fund amendment. This was taken up and now mandatorily EAs are raised via the system, with checks on timelines and costs. If the cost exceeds the set value, the system will automatically stop the purchase order. Earlier in such situations, email approvals would be sought from the management and funds released based on authority. Now that there is a workflow for fund amendment as well, everyone knows when a project value is amended. There can also be questions raised then, regarding delays and excess cost.
- Workflow for capitalization of asset – In accounting, there are a set of rules to follow before capitalizing the assets, one of which is fixing on the 'life' of every asset. Each asset depreciates in value over a period of time. For example life of a laptop is fixed as 3 years, and depreciation is calculated at 33.3 % each year till it reaches



zero. Similarly all major machinery is componentized and categorized for different useful 'life' in line with the companies act. Though CSS handles this workflow, this process requires some professional opinions in deciding the useful life as well tax class and tax rate etc. from experts in corporate finance. Hence we have now introduced a system where besides a CSS team member, a technical / tax expert's opinion is also taken into account through the work flow before capitalizing the assets. This was an important project from the company perspective with significant procedural impact.

- In the case of direct expenses, payments were earlier cleared based on the approval in the invoice copies. For the categories rental and retainers, payments were made on the basis of agreements. To have better financial control, through a project CSS has introduced purchase order concept for all such cases. This improves traceability and controls risks of error in payments.
- Automatic process of payroll based on report given by Attendance Recording system – Earlier there was a disconnect between Attendance Recording system and payroll process, and only basis HR inputs payroll would be processed. Now that most of our offices have proper attendance recording systems – either biometric or face recognition, the inputs from this system are automatically linked to payroll to speed up the process.
- Process flow for important CSS activities – We have nearly 30-35 processes in Shared Services that are sequential and have a definite set of activities. These processes have been recorded in flow charts in Excel with base documents embedded as objects. This has ensured standardization of process, besides offering the benefits of making the training process for new entrants easier; and showing standard protocols in audits. This process documentation also clearly lists system controls and possible risks for each process. This has at present

been completed for 22 processes and is uploaded on the Synergy site.

- Inventory verification for all of CUMI – This was a massive project involving every member in the CSS team, wherein the entire inventory including Raw Material, Work In Progress and Finished Goods across every CUMI unit and location was physically verified against the stock values maintained in RVW. There was 100% coverage and all team members travelled across India to check every manufacturing unit, warehouse, and branch office to verify stock down to the last unit. Senior members of the CSS team took responsibility for each unit, and worked with their team members to complete this. C. Ayyappan was the leader for the entire Abrasives SBU, Ashok Kumar for IC and SR and Sundaresan for EMD. This involved coordination with the manufacturing team, stores team and the team burnt the midnight oil making their reports. There is substantial benefit out of this project that variance between physical stock and book stock has now come down to 1.17 % in the last year. For every movement of stock, there should be a record on RVW and going forward we would prefer to make the variance nil.
- Implementation of Fixed Assets in CRIL–When Cellaris Refractories India Limited (CRIL) merged with CUMI in 2015, its assets were still being maintained in excel. This was migrated to RVW and completely accounted for.
- Intercompany reconciliation across Globe – This activity has been completely taken up by CSS and now is done on a quarterly and year end basis in nearly 47 combinations - India vs China, US vs China, Middle East vs India etc. This is currently done via Excel because inputs from each country are in different formats.
- Payment reconciliations – Payment made to any MSME vendors across CUMI, need to be done within 45 days as per government rules. For other parties, payments can be completed within timeline described

in the pay terms in the purchase order. Any deviation from this rule for MSME payments attracts a penal interest of 18%. The project team from CSS worked on setting in place controls and have ensured that there is 100% adherence to this rule in all payments.

- PAN number verification for all vendors for all CUMI vendors have had their PAN verified and updated in the system. We made it an online activity at the time of creating a new vendor generation request itself and have begun asking for PAN proof to incorporate correct data in the system.

Apart from the above, several other smaller projects have been completed. All in all, 109 projects have been taken up by the CSS team since inception and nearly all have been successfully completed.

There are a few major projects lined up for completion by March 2018 such as the absorption of MMTCL and Wendt India AP processing, base accounting onto RVW, 100% quality clearance for all payment bills, dashboard for CSS activities, Internal audit, inventory verification 4th year in a row etc.

The team has also begun to publish and release a CSS report in the form of a yearly newsletter in the BGMC meeting every November highlighting the projects completed by CSS and the goals ahead.

Chandramouli credits their success to the young energetic team. Each member handles quite a large workload but their passion to achieve has made the team accomplish objectives year on year. He mentions the example of the GST implementation in July where team members clocked in 17 hours at a stretch to complete the accounting in time, without complaining and with a smile on their faces. The thrill of getting it all done was a big high!

*Let's all give a loud cheer for this small team with a large impact and here's wishing them more successes in future!*

## SAFETY WEEK CELEBRATIONS

### SUPER REFRACTORIES I



Safety Week began on 4th March 2017. Nandagopal N, Jr Officer - Maintenance welcomed the gathering



Safety Flag hoist and Chief Guest address by Velappan S, AVP - Mfg and Commercial.



Special address on Importance of Safety by Inbaraj S., Head - HR, Ref and Narayanasamy R., AGM - TQM



### SUPER REFRACTORIES II



Safety Week celebrations began on 4th March 2017. Safety Flag hoisted by Muralidoss M., Senior Mgr - Maintenance



Safety pledge by Kumaresan



Chief guest address by Suresh Kumar, GM - Operations and Sathianathan - Manager - Safety, Coromandal International Limited, Ranipet



### SUPER REFRACTORIES - JABALPUR



Shop Floor safety Meeting where Q-Man and Best Suggestion awards were given out

**ABRASIVES - UTTARAKHAND**



Safety Flag hoisting by S.P. Murugesan, (Consultant), Anuj Garg (GM - Mfg) and Denny Xavier (Mgr. Maint.) on 3rd April 2017

Conducted Quiz and general knowledge competition for NMS during Safety week on 3rd August 2017

**ELECTRO MINERALS - KAKKANAD**



Safety Day celebrations at Kakkannad on 24th March 2017

**ABRASIVES - HOSUR**



**INDUSTRIAL CERAMICS - HOSUR**

Safety week celebrations started with flag hoisting on 4th March 2017. Till 11th March 2017 various events like training programs, competitions such as drawing, suggestion, kaizen, photography were conducted.



## MOCK DRILL AND FIRE SAFETY TRAINING

### ABRASIVES - MARAIMALAI NAGAR



Safety Month Vaedictory Function, Chief Guests : OM Prakash (Plant Head), Venkataramanan (Mgr - Mfg)

### ABRASIVES - UTTARAKHAND



Conducted fire safety training for NMS, Flexi and NTTF on 16th March 2017

### ELECTRO MINERALS - KAKKANAD



Mock drill at Kakkanad on 29th April 2017

### ABRASIVES - UTTARAKHAND



Mock drill for fire safety conducted on 18th April 2017, under the guidance of A. Murugappan, GM - Safety

### ELECTRO MINERALS - EDAPALLY



Fire Fighting Training on 11th March 2017

ABRASIVES - HOSUR



Fire Fighting Training on 5th May 2017

FIRST AID TRAINING

ABRASIVES - HOSUR



First Aid Training on 3rd April 2017



ABRASIVES - SRIPERUMBUDUR



First aid Training by Green Global Institute on 10th June 2017. 31 employees participated.

PPE AWARENESS AND PPE EXHIBITION

ELECTRO MINERALS - KAKKANAD



PPE Awareness and PPE Exhibition on 17th March 2017



TRAINING

UTTARAKHAND



Safety training for NMS and NTTF delivered by Sanjay Mishra (AGM-Comm.) on 3rd September 2017



Awareness session by PF officer (Mahesh) on newly launched scheme from EPFO for housing loan on EPF amount. Conducted for NMS and Flexi. on 29th June 2017

## WORLD HEALTH DAY

**SUPER REFRACTORIES I**

7th April 2017



In view of World Health Day, Anbu Suresh of Scudder Memorial Hospital, Ranipet was invited for an awareness session on Orthopedic and Lifestyle disorders. Around 100 employees and contract workmen have benefitted.



World Health Day was celebrated by conducting an awareness session on Dermatology by Dr. Rose Mary from Scudder Memorial Hospital, Ranipet

## SAFETY CONCEPTS AND PRINCIPLES

**ELECTRO MINERALS - KORATTY**



Training on 'Safety Concepts and Principles' at CUMI Koratty on 8th May 2017

## SAFETY DAY VALEDICTORY FUNCTION

**ABRASIVES - SRIPERUMBUDUR**

35 employees who won prizes in the 5 Safety Day competitions



## QUALITY CIRCLE COMPETITION

NAGPUR

18th June 2017



Quality Circle Competition - the team of Rajeshwar Shukla and Hemant Tiwari won first place

## ANNUAL Q MAN AWARD

UTTARAKHAND

5th-6th June 2017



ISO AUDIT conducted and completed successfully for continuation of ISO 9001:2008 certification.  
ISO auditor (P. M. Chandrasekharan) was welcomed by Anuj Garg (Plant Head)

SUPER REFRACTORIES - JABALPUR



Ajay Dahayat received the Annual Q Man award for the year 2016-17 on 10th May 2017

## CUMI CARES AND ACHIEVER'S GALLERY

SUPER REFRACTORIES I & II

5th April 2017



CUMI CARES, an employee engagement framework was released by M. Muthiah (EVP - HR)



The framework was handed over by K. Srinivasan (MD) to S. Velappan (AVP - Mfg & Commercial)



HR LITERACY, quarterly magazine of SR & PD division covering all HR activities for the quarter was released by R. Rajagopalan.



Achiever's Gallery - A platform to recognize achievers on a monthly basis. All category of employees are recognized through this forum. The gallery was inaugurated by K. Srinivasan

ABRASIVES - HOSUR



Inauguration of Achiever's Gallery on 31st March 2017



17th May 2017

## INTERNATIONAL CUSTOMER MEET

ELECTRO MINERALS - KOCHI

18th March 2017



K. Srinivasan, Managing Director - CUMI addressing the EMD International Customer Meet



M. M. Murugappan, Chairman - CUMI addressing the gathering



LONG SERVICE AWARD CEREMONY - 2017

6th May 2017

ABRASIVES - TIRUVOTTIYUR



**35 Years of Service Awardees**

From left to right: C. Ramanathan - Operative; V. Vadivelu - Operative; M. Manivanna - Staff; G. Manickam - Operative; M. Ramaswamy - Staff; M. Thiruvavukkarasu - Junior Officer; A. Murugappan - GM, Manufacturing; TVT; V. Raghupathy - AGM - NPD, SPR; K.M. Manivannan - Deputy Manager, CSS

**30 Years of Service Awardees**

From left to right (MS):  
Sridhar R. - Supervisor, MMN; James M. - Jr. Officer, TVT; Raghuraman S. - Manager, TVT; Ramanathan R. - Manager, TVT; Suresh K. - GM, Systems, TVT; Ashok Kumar SWA - Senior Manager, CSS; Sridharan T.S. - Junior Officer, EAL



**20 Years of Service Awardees**

From top left to right (Operatives): Dhavedu K.; Srinivasan P.; Ramesh D.; Moorthi D.; Murugappan M.R.; Baskeran S.; Narayanan K.; Palani V.; Mandhar R.; Kasiviswanathan R.; Ramesh Babu P.S.; Rajamurugavel N.; Anbu D.; Murugan S.; Ramasamy K.R.; Annadurai K.; Govindaraj A.N.; Subhakaran G.; Selvaraj M.; Munusamy E.; Thiyagarajan A.R.; Vedananthan T.

**20 Years of Service Awardees**

From left to right (Operatives)  
Krishnamurthy R.; Arulmohan K.; Senthilkumar S.; Parimalam P.; Elumalai D.; Eswaran A.R.; Suresh E.R.; Krishnamurthy R.; Subramanian A.L.; Senthamarai Kannan S.



**20 Years of Service Awardees**

From left to right : T. Murugesan - Supervisor, TVT; N. Ramkumar - Manager, TVT; N. Gurubaran - General Manager, TVT; C. Ayyappan - DGM, CSS; M. Munuswamy - Supervisor, TVT; P. Gunasekar - Supervisor, TVT; M. Parthasarathy - Deputy Manager, MMN

## INTEGRATED ELECTRO MINERALS COMPLEX

EDAPPALLY



*Inaugural Address by A. Vellayan, Group Chairman at the inauguration of the Integrated Electro Minerals Complex at Edappally, Kochi on 23rd March 2017*



*Unveiling the inauguration commemorative plaque*

## INAUGURATION OF FUSED BUBBLE ZIRCONIA PLANT

EDAPPALLY



*Inauguration of Fused Bubble Zirconia plant by A. Vellayan, Group Chairman*



*Inauguration of Alumina Fusion Plants by A. Vellayan, Group Chairman*

## ELECTRO MINERAL COMPLEX

EDAPPALLY



*Dignitaries visiting the new facilities in CUMI Electro Mineral Complex on 23rd March 2017*



## PRESS MEET AT KOCHI

EDAPPALLY



*Press Meet at Kochi on 22nd March 2017 by M. M. Murugappan, Vice Chairman - Murugappa Group & Chairman - CUMI*

## JIPM TPM FIRST STAGE ASSESSMENT

### ABRASIVES - MARAIMALAI NAGAR



President welcomes Masayoshi Sugiura San with sandalwood garland



## MOU SIGNING OF 'LEARN, LEAD & GROW'

### ELECTRO MINERALS - EDAPALLY



MOU Signing of 'Learn, Lead & Grow' - Supervisory Development Certification Programme for Junior Supervisors in partnership with SCMS School of Engineering & Technology, Kochi

## EMD PERFORMANCE PLANNING MEET

### KOCHI

26th April 2017



'You made a difference!' awards distribution

## SMED COMPETITION

### INDUSTRIAL CERAMICS



ABK – AOTS DOSOKAI, Tamil Nadu Centre organized a 2nd SMED competition on 11th March 2017 at Chateau D Ampa, Chennai. 6 teams from IC participated in this competition & won 3 Platinum and 3 Gold Awards.

## ISO 9001-2008 QMS - AUDIT

## ABRASIVES - HOSUR



ISO 9001-2008 QMS Surveillance Audit by TUV Nord - 11th April 2017

## CIRCLE CHAMPION

## ABRASIVES - HOSUR



Circle Champion Competition on 20th May 17

## EXTERNAL AUDIT STAGE-1

## ABRASIVES - SRIPERUMBUDUR



EMS 14001:2015 – External Audit – Stage 1 done by TUV Nord on 17th -18th July 2017 at SPR plant for all the abrasive locations (IVT, Hosur, SPR, MMN) All locations cleared stage-1 audit.

## EMS &amp; OHSAS INTERNAL AUDIT

## ABRASIVES - SRIPERUMBUDUR



EMS (New Version 14001:2015) & OHSAS Internal Audit on 7th July 2017

## TECH TALK

## ABRASIVES - HOSUR



Tech Talk - Burner Principles on 17th May 2017



## MGTC 2017

## INDUSTRIAL CERAMICS



MGTC conducted various events last year and the prize distribution was held on 18th March 2017, at Chennai HO. IC won the following prizes

Name	Event	Prize
Karthiban S.	Rangoli	1st Prize
Kavitha N.		
Sharmili Jeba Rani J.		
Thilagavathi	Rangoli	3rd Prize
Nithya		
Rajagopal		
Vignesh kumar	Individual Talent / Solo Dance	3rd Prize
Iyappan	Marathon - Athletics	3rd Prize

TRAINING

JABALPUR



Training on transition to new ISO 9001:2015 on 6-7th March, 2017.

SUPER REFRACTORIES I



Training on Industrial Safety was given to all contract labours by Salomi (Jr Officer - TQM) on 24th June 2017

SUPER REFRACTORIES I



5S training for Contract labours conducted by Narayanasamy R. (AGM - TQM) on 13th April 2017



SUPER REFRACTORIES II



Training on FRP – Mould Maintenance was organized for Team Members and Contract Workmen by Sarfraz Gadkariy (AGM - Mfg & NBD) on 30th June 2017

ELECTRO MINERALS - KORATTY



Think Beyond' - Team Building Programme for Koratty Unit on 21st January 2017

ELECTRO MINERALS - EDAPALLY



Personality Development sessions as per Behavioural Curriculum for CCSD-EMD students - was conducted by Rajeev S.R. (Director - Rajaqiri Skill Development Centre)



Mobile Safety Training - 'Suraksha Radham' by Factories & Boilers Department was conducted at Edapally on 23rd-24th May 2017

**SUPER REFRACTORIES II**



*Training on Effective Process Approach was facilitated by R. Narayanasamy covering 28 participants on 4th April 2017*

**SUPER REFRACTORIES II**



*Training on Process and Product was organized for Team Members of SR and PD. The session was handled by K. Suresh (Mgr - Mfg) for SR and K. Dhanapal (Mgr - QC) for Prodorite on 17th April 2017*

**ABRASIVES - HOSUR**



*7 QC Tools training on 8th May 2017*



*ETP & STP Procedures on 10th May 2017*

### JH STEP 4 WORKSHOP

ELECTRO MINERALS - EDAPALLY



JH Step 4 Workshop on 27th March 2017

ABRASIVES - HOSUR



TPM - KBI KMI KPI Workshop on 19th April 2017

### MANAGEMENT TRAINEE 2017

SUPER REFRACTORIES

26th May 2017



Management Trainee 2017 batch induction

### IMS RISK MANAGEMENT

INDUSTRIAL CERAMICS

13th March 2017



IMS Risk Management Training Program was conducted at MDC. 27 CUMI IC employees participated in this training program conducted by Mr.G.Sundareswara, Six Sigma Consultancy, Bangalore

## WORLD ENVIRONMENT DAY

## SUPER REFRACTORIES I

5th June 2017



The celebrations included a welcome address delivered by Yuva Prasaad P. (DM - HR), Environment Day Pledge by Nandagopal N (Jr Officer - Maintenance), and a speech on medicinal plants by Ravindran R (Jr Officer - Stores). Saplings including that of Guava, Gooseberry and Pomegranate were distributed to all employees.

## SUPER REFRACTORIES II



The event began with a welcome address by Hemanth Kumar (DM-HR), Environment Day Pledge by Kumar L (Team Member), and speeches on the environment. 110 Saplings of Guava, Gooseberry and Pomegranate were distributed to all employees

## JABALPUR



Sapling distributed to workmen by Biswajit Acharya (GM - Mfg)

World environment day inauguration by Aditya Garg (DM - HR)

Saplings planted by employees and workmen

## ABRASIVES - UTTARAKHAND



Tree plantation by MS & NMS

## ABRASIVES - SRIPERUMBUDUR



At Environment Day Celebration - Special address by P. Sunil Kumar (Plant Head)

WORLD ENVIRONMENT DAY

ABRASIVES - MARAIMALAI NAGAR



Saplings were given to all employees in order to create awareness regarding environment on 5th June 2017

ELECTRO MINERALS - KORATTY



Sapling Distribution by DFO Ms. Keerthi to Senior Employee.

ABRASIVES - HOSUR



Planting of saplings at Hosur during Environment Day Celebration. Quiz Competition and Poster Competition organised

WOMEN HEALTH AWARENESS PROGRAM

ABRASIVES - SRIPERUMBUDUR

23rd June 2017

Dr. Geetha M.D, D.G.O gave an expert talk. Ananthasheshan (President - ABR) honoured her with a memento.



ENVIRONMENT QUIZ COMPETITION

SUPER REFRACTORIES - JABALPUR

29th June 2017



Environment Quiz Competition winners - M/s H.L. Shukla, Siyaram Patel, Devendra Tiwari, Surendra Rajak

Environment Quiz Competition

## BLOOD DONATION CAMP

ABRASIVES - THIRUVOTTIYUR

21st April 2017



Ananthasheshan (President - ABR) giving welcome address, M V Sivakumaran (VP - Mfg), Natarajan (AVP - Mfg) inaugurated the Blood Donation Camp

ABRASIVES - SRIPERUMBUDUR



At Government General Hospital on 23rd June 2017, totally 81 units of blood were donated by employees

## WORLD BLOOD DONATION DAY

SUPER REFRACTORIES I &amp; II

14th June 2017



Blood donation camp was organized in view of World Blood Donation day

## EYE CAMP

SUPER REFRACTORIES I

23rd June 2017



Eye Camp was organized for school children in association with Dr. Agarwal Eye Hospital, Vellore in Govt. High School, Sipcot, Ranipet.

DIRECTORS VISIT

ABRASIVES - HOSUR



Board of Directors visited the Hosur Plant on 14th June 2017

NEW DEALERS MEET

ABRASIVES - HOSUR



Karnataka State New Dealers Meet at Hosur on 14th June 2017

INTERNATIONAL YOGA DAY

SUPER REFRACTORIES I AND II

21st June 2017



Celebrated International Yoga day in association with ISHA Yoga Centre, Arcot



ABRASIVES - MARAIMALAI NAGAR



Employees felt relaxed after the yoga session. Yoga master from ISHA Yoga foundation gave several tips to employees during the Yoga session.

### KILN POOJA AFTER REVAMP

#### SUPER REFRACTORIES



*Kiln pooja after revamp on 8th May 2017*

#### ABRASIVES - HOSUR



*Kiln 200 RUN  
Completion Pooja*

### FIRST DESPATCH POOJA

#### CUMI KAKKANAD



*First Despatch Pooja, KKD  
Team and SBU Head on  
5th April 2017*

### 10 CRORE PRODUCTION

#### ABRASIVES - HOSUR



*10 Crore Production by Bonded Abrasives during 31th March 2017*

INTERNATIONAL WOMENS DAY

SUPER REFRACTORIES I & II



International Womens Day was celebrated on 8th March 2017 at Super Refractories I & II. Chief Guest Dr. Bhooma Parthasarathy M.A., Ph.D., Director-Trustee, was welcomed by Ranji Varghese (Head - Prodorite). She was honoured by a poem on Motherhood by Inbaraj (Head HR, SR). She is a social worker heading the Thirumalai Charity Trust since 1983. Conducted comprehensive community health programme with the involvement of over 500 Family Care Volunteers, besides setting up three schools in Ranipet and Walajapet of Vellore District.



ABRASIVES - UTTARAKHAND



Celebrated Womens day on 3rd August 2017.

INDUSTRIAL CERAMICS - HOSUR



Womens day was celebrated in IC with various games and cultural events to engage all women employees.

ABRASIVES - HOSUR



Celebrated Womens day on 12th March 2017

**BIRTHDAY CELEBRATION**

**ABRASIVES - UTTARAKHAND**

Combined birthday celebration on  
1st day of every month,  
Cake cutting with NMS & MS



**RETIREMENT FUNCTION**

**ABRASIVES - HOSUR**



Irudhayanathan (Operative) 31st March 2017



Ramakrishna Reddy (Junior Officer)-  
31st March 2017



R Selvaraj (Operative)  
28th April 2017



*Academic Achievers*

**+ 2 PUBLIC EXAMINATION**



**S. Kirubhakar**  
S/o Mr A. Shanmugam,  
ABR – Hosur  
Scored 1180 / 1200



**G. Manoj**  
S/o Mr R. Gunashekar,  
ABR – Hosur  
Scored 1134/1200



**Pooja**  
D/o. Balaji S.  
Manager – Account,  
SR - Ranipet  
Scored 10/10 GPA



**S. Varshitha**  
D/o Mr V. Subramani Reddy  
Senior Executive - Production,  
WENDT - Hosur, Scored 556/600  
in PUC Examination 2017



**P. Pushpa**  
D/o Mr P. Parasuraman  
Abrasives – Hosur  
Scored 1085/1200



**A. Sasirekha**  
D/o. G. Annadurai – Operative  
Super Refractories, Ranipet  
Scored 1079/1200



**B. Priyanga**  
D/o. E. Babu  
Super Refractories, Ranipet  
Scored 1001/1200



**R. Jeevika**  
D/o Mr S. Rathina Kumar  
Executive - CDM, WENDT - Hosur  
Scored 100% in Science  
in SSIC Examination



1982 - MVM awarding Subramaniam the Muthiah Memorial Best performer award

I still remember my interview with CUMI for the role of Process Engineer in Palghat in 1976. The Manufacturing process involved an Electric Arc Furnace and the interviewer had decided I should be grilled on all things electrical. I was questioned on electrical connections and the temperatures reached in the Arc furnace. As a Metallurgical Engineer, I didn't know all the answers. I asked the interviewer if he could share the answers so I may learn, he declined citing that he could only ask questions. Surprisingly, I cleared this round and went on to the next round with the Late P.Z. Abraham who was heading the Division. I had asked for Rs.1000 as

# A Walk down Memory Lane

*In continuation of our series on CUMIans who have retired after a long stellar career, this time the Connect team met with B. Subramaniam, who retired as Vice President and Head of CUMI – Abrasives in 2003. A person with many facets and interests, Subramaniam completed his Metallurgical engineering degree from REC Trichy and worked at Canada in a zinc plant, before joining CUMI. After 27 years with us, he retired at the tender age of 51 to pursue his wide-ranging interests in sports, travel and music. From doing cricket commentary on All India Radio, to serving as the President of the Rotary Club, Palghat and President of the Palghat Table Tennis Association, winning the title of Master in Bridge in 1974 in Canada (conferred by the American Contract Bridge League) - he has done it all. Read on to follow the interesting twists in his career.*

1984 - taking over from KHV Reddy as Palghat Plant Manager



salary (it was a good salary in 1976) and he said that kind of salary was only given to IIT graduates. I asked him to test my knowledge and capability, and then decide. After the interview, he said that he would not like the company to lose me, and thus began my journey at CUMI.

I have cherished all of my 27 years in CUMI and there were many unforgettable moments. One such was in Palghat, when I was in charge of the plant. M.V. Arunachalam who was then Chairman and MD of the Murugappa Group, was visiting Lakshmi Machine works in Coimbatore and decided to also visit our plant. I was escorting him around the plant, when he asked "What is the value addition at every stage of the product?" I responded in a technical manner saying – 'From this stage to that, this is the recovery' and so on. He listened patiently and then said one thing which I never forgot. He said, "I am sure you know your job and you have explained the process well. But as Head of Operations you are in charge of profit, so you should talk in financial terms – Rupees and paise." That shook me. If people need to grow and take responsibility, they must think differently. So I worked on it and

learned, with his words spurring me on to learn business finance well.

Another memorable moment, was when I was awarded “The Muthiah Memorial A award for the Best Performer” in 1982. The next instance was when I was picked for the First Business Leadership program launched by the Group in 1990/91 for “young leaders under 40 years of age”. This gave me the tremendous opportunity to network with people across Group companies, and it was a wonderful learning experience. Now, as I sit and reflect, I feel very happy to see that youngsters who

worked with me such as Ananthaseshan , Jayan, John Devadasan, Appa Rao etc., have grown to leadership positions in and outside of CUMI. I am happy to have played a small role in their growth stories.

In the course of my stint with CUMI, I have worked in the

Refractory, Electro Minerals and Abrasives Divisions and across many functions such as Production/Manufacturing, Customer interface, Technical, Projects/ Commercial etc. In Palghat, I asked for a smattering of sales / customer interface and was immediately given permission to accompany the sales person on customer visits. At other times in my career, the management planned for job rotation. As an open-minded and strongly optimistic person, I looked at these transitions as opportunities to learn something new and prove myself. Thankfully, this faith was rewarded. As I moved into positions of leadership and responsibility, I came to appreciate the experience these job rotations gave me in gaining new perspectives and understanding various aspects of business. I must thank the company for giving me this planned exposure to various functions as it prepares a person to handle greater responsibilities.

This has not been without its share of challenges. I came to Palghat straight from Canada, and landed in Kanjikode where the plant was based, to find nothing but homes, and a lone ramshackle tea shop. My wife yearned to be anywhere else but

there, for entertainment opportunities were nonexistent. We decided then that in a choice between cribbing and feeling unhappy about the current situations; or accepting it and making the best of it – we would do the latter. By the time we left Palghat, several years later, we actually missed being there. When you always look for the positives and the silver lining, life is much happier.

The working environment in CUMI is a big positive. It is informal, friendly and by and large devoid of ego issues. It is easy to access the top Management in times of need and one can be certain the issues will be addressed, if genuine. The respective SBU Heads and people like M.M. Murugappan, K. Srinivasan and M. Muthiah are always available and accessible and are very people focused. This is one of CUMI’s big differentiators vis-à-vis other companies. The greatest attribute of CUMI and indeed, the Group is the Value systems (the 5 Lights, as they are now called) and the strong commitment to be morally and ethically right. The Group is known for this, even though this may have contributed to their conservative approach. On a personal front, integrity and passion are values that resonate with me and luckily for me, CUMI shared these values. This sync between personal and professional values increased my rapport and comfort with my employer.

The other major thrust area is quality. Not just quality of products and services, but quality in all aspect of systems and processes. Towards this, the journey of “transformation of CUMI” started in the nineties. This led to various structured interventions such as small group activities, Cross Functional Teams, 5S, kaizen etc. This was further institutionalized through CUFEST which acted as a forum to share success stories and best practices. TQM and Business excellence model were cultivated as a habit that has today resulted in CUMI succeeding and bagging various awards such as the JIPM TPM awards, Golden Peacock etc. in national and international forums.

My only concern with CUMI would be in the area of New Product development. While that is undoubtedly a strength, it has also become a weakness over time. I feel that we are expending energy on continually

improving our products or matching globally available products; rather than making game changer products or coming up with disruptive technologies. My wish for CUMI is for such products and ideas to come through, that will catapult this company into the big league.

## TAKE 5

### ON LEADERSHIP:

- 1) Have a clear Vision. Share and communicate clearly to people to buy into the Vision and own it.
- 2) Be transparent, consistent and honest in all dealings.
- 3) Be fair and firm in decision making. Do not delay decisions.
- 4) Encourage risk taking and remove fear of failure. Don’t breathe down people’s shoulders. Allow them a free hand to perform but monitor progress and guide them when needed.
- 5) Have an eye to spot talent and groom them for higher responsibilities.

### MY ADVICE TO THE YOUNGSTERS:

- 1) Be passionate about one’s job and whatever task one undertakes in life. Job satisfaction comes out of being passionate. It is this same passion that drives us towards attaining excellence.
- 2) Always keep abreast with the latest knowledge in your area of work. Unlearn old things which are no more relevant.
- 3) Welcome and accept transfers to various functions. Look at change as a positive enabler and as a learning process. It will definitely benefit career progression.
- 4) Have interests outside of work, and participate in sports and extra-curricular activity. This shapes a person’s personality, perception and outlook in life.
- 5) Be fit and healthy. A healthy mind and body is a must to deliver quality results and to enjoy life.

Mr Subramaniam signed off by saying ‘Plan your retirement’. He says this is crucial to leading a life of meaning even after you move out of a traditional job and smiles when he says he has never missed the office after retiring.



*Inauguration*



# FLASHBACK

TVT plant's inauguration in 1955...



*Garlanding of Guest, L-R Jayachamaraja Wodeyar, A Ramasamy Mudaliar, Sri Prakasa - Governor (L-R) of Madras in 1955*



*Mr Peterson addressing the gathering*



*Presentation of photo bouquet to guest. (L-R) Jayachamaraja Wodeyar, A Ramasamy Mudaliar, Sri Prakasa - Governor of Madras in 1955*



*Chief Guest unveiling the Foundation Stone*



*Welcome address delivered by Sri AMM Murugappa Chettiar*



*Lady VIPs at the Inaugural function. (L-R) 1st row, 3rd is Mrs Valliamma Murugappan, 4th Mrs Meyammai Muthiah. 2nd row - 1st is Mrs Lakshmi Arunachalam, 2nd is Mrs Annapoorni Arunachalam, 3rd is Mrs Sivagami Aachi, 4th is Mrs Meenakshi Arunachalam*

*These sepia tinted photos are a small slice of CUMI's history! Pore over these pictures of the TVT plant's inauguration in 1955, to see how much has changed and how much is still the same. The chief guests at this event were all VIPs. Sri Jayachamaraja Wodeyar was the 25th and the last ruling Maharaja of the Kingdom of Mysore from 1940 to 1950. He was a noted philosopher, musicologist, political thinker, and philanthropist. Padma Vibhushan Diwan Bahadur Sir Arcot Ramasamy Mudaliar, was an Indian lawyer, diplomat and statesman who served as a senior leader of the Justice Party and in various administrative and bureaucratic posts in pre-independence and independent India.*



*Guests visiting the Coated plant - L to R - Sri AMM Murugappa Chettiar, Sri M Muthiah, Sri Jayachamaraja Wodeyar, Mr Ivorman*



*Sr Prakasa - Governor of Madras in the plant with Mr. Peterson*



*Chief guest viewing the coated jumbo racks*



*At the plant - L-R - Sri Jayachamaraja Wodeyar, Mr Ivorman, Sri A Ramasamy Mudaliar*



*Chief guest viewing the coated finished products*



*Chief Guest Viewing the kiln - Sri Jayachamaraja Wodeyar and Mr Ivorman*



*Chief Guest and other delegates at dinner*

# WELCOME ABOARD



**Gopalakrishnan B.K.**  
Executive – Maintenance  
ABR - Sriperumbudur



**S. D. Suthir Raj**  
Executive – Commercial  
ABR – Maraimalai Nagar



**Kavitha C.**  
Assistant General Manager - Legal  
Corporate Office



**Rakesh R.**  
Deputy Manager - Accounts  
CORP - CSS



**Chavan Gajanan Madhukar**  
Application Engineering  
ABR - Indore



**R. Gopalacrishnan**  
Executive - E-Commerce  
ABR – HO Marketing



**Sreekumar T. G.**  
Deputy Manager- Marketing  
ABR - Cochin



**Lakshmana Kumar S.**  
Executive -HR  
ABR - Tiruvottiyur



**Pradeepraaj S.**  
Manager - Process Development  
& Product Quality Assurance  
SR - Ranipet



**Arun Babu K.**  
Executive – Engineering Services  
EMD - Maniyar



**Upendra Kumar Singh**  
Deputy Manager – Marketing  
ABR - Odisha



**Vivek Ganesh Sarvankar**  
Deputy Manager – Marketing  
ABR - Mumbai



**Somesh Uniyal**  
Executive – Application Engineering  
ABR - Haryana



**Uthira Kumar K.**  
Manager –Manufacturing  
ABR - Hosur



**Thennarasu K.**  
Manager –Design  
ABR - Hosur



**Avadh Kishor P.**  
Executive – Customer Service  
CUMI DIRECT - Uttarakhand



**Anuj Garg**  
General Manager–Manufacturing  
ABR - Uttarakhand



**Anto Vimal Anand L.**  
Deputy General Manager–  
Manufacturing, ABR - Hosur



**Apoorva Prakash**  
Management Trainee - Accounts  
CORP - CSS



**Gopalakrishnan C.**  
Deputy Manager –R&D  
ABR - Sriperumbudur



**Rajesh N. B.**  
Senior Manager –HR  
IC - Hosur



**Adithyanath P.**  
Deputy Manager – Accounts  
EMD - Edapally



**Sathiyamoorthi D.**  
Executive– Marketing  
IC - Hosur



**Karthikeyan C.**  
Executive – HR  
IC - Hosur



**Vipul K Mandanka**  
Deputy Manager – Application  
Engineering, ABR - Ahmedabad



**Manish Singh Bartwal**  
Executive –Marketing  
ABR - Delhi



**Duraimurugan A.**  
SET - Marketing  
HO, SR



**Patel Anilkumar Rameshbhai**  
Executive –Marketing  
ABR - Ahmedabad



**Kalaiyarasan P. G.**  
Executive –Manufacturing  
ABR – Maraimalai Nagar



**Navinit Kumar**  
Executive –Manufacturing  
IC - Hosur



**Suman Bharti R.**  
Executive –Marketing  
Hosur



**Muralidharan R.**  
Manager – QA  
Sriperumbudur



# Wedding Bells



Manibharathi, Team Member, SR – Ranipet tied the knot with Jaijanagi on 6th March 2017



Ravikumar G., Supervisor – Thin Wheel Module, ABR - MMN married Mamatha on 11th August 2017



Perumal J., Team Member, ABR - SPR wed P. Varalakshmi on 14th July 2017



Rajasekaran V., Associate - QA, IC - Hosur, married Pavalakodi on 30th April 2017



Sasikumar, Team Member, SR – Ranipet wed Anu on 4th June 2017



Sampath, Team Member - Electroplating, WENDT - Hosur married Chitra on 26th June 2017



B Suresh, Team Member, ABR - SPR wed N Gajalakshmi on 9th Feb 2017



Govindarasu B., Deputy Manager - Technical, ABR - SPR wed G. Revathi on 4th June 2017



Surendran M., Team Member, ABR – SPR wed Dr. B. Nirmala on 30th April 2017



Murali Shankar V., Executive – Quality Assurance, ABR - MMN and Vinita tied the knot on 14th June 2017



Nitin Mangesh, Deputy Manager - Sales & Marketing, WENDT married Gayathri on 29th June 2017



Naveen D, Senior Associate – Commercial, IC - Hosur wed Ashwini on 19th June 2017



Suresh B, Supervisor - Machine Services, WENDT - Hosur wed with Malathy on 29th May 2017



Silambarasan P, Team Member - Vanes, WENDT - Hosur, wed Selina on 04th June 2017



Chinnasamy, Team Member – Dressers & Shape Tools, WENDT - Hosur, married M. Kalaivani on 29th May 2017



Valeppa G., Team Member - Hones married Harshapriya on 11th June 2017



Mahimai Jones, Team Member, SR – Ranipet Hones, WENDT married Jansi on 30th April 2017



Rose Ann Titus, Executive Projects, ABR - SPR married Kevin on 17th May 2017



M. Muthu Kumar, Jr. Officer – Commercial, ABR – Hosur wed M. Anitha on 30th June 2017

Hiring Graduate Engineering Trainees

Industrial Ceramics

Future Leaders

Strategy

Mentee

Mentor

Design thinking

Super Refractories

Knowledge transfer

Brainstorm

