Dr. KV Raghavan: A man of substance, a visionary, a kind soul and a Director who has departed!
Dear Doyens and Members of the Indian Leather Fraternity; Colleagues from CSIR; Mentors and Teachers, Colleagues and Friends! It gives us great pleasure in sending you our October 2017 edition of The LEATHER POST.

This edition features reports on many endeavours and outreach programmes organized by CSIR-CLRI in the last four weeks. A hectic period indeed with one motto: reaching out ‘Science & Technology’.

CSIR-CLRI has been reaching out to the Industry in every sphere with its technologies and services. We hope to live up to the expectations of the Indian Leather Sector at all times.

We must walk hand-in-hand in our journey ahead!

I wish to thank you all for your unstinted support and kind co-operation at all times.

We will strive to make this magazine informative and interesting and welcome your feedback for improvement.

27th October 2017

Dr B Chandrasekaran
Director, CSIR-CLRI
“Waterless Chrome Tanning Technology (WCTT)” is a distinctive innovative lead from the CSIR-CLRI’s 12th Five Year Plan project namely “Research Initiatives for Waterless Tanning”. Annually about 10 million tons of raw hides and skins are processed into leather all around the world. Chromium is the most sought after tanning agent with about 16 billion sq. ft. of leather being made out of it. Every year, about 200 thousand tons of chrome tanning agent is discharged in the wastewater globally. In addition to the economic loss of about 200 million USD annually, the environmental impact associated with this emission is very challenging. According to the WCTT, which has been patented by CSIR-CLRI in India and abroad, chrome tanning is carried out without water. Apart from addressing the issue of chromium discharge totally, this technology also brings about the benefits of reduction in total dissolved solids load. The quality of leathers thus produced is also found to be better than the leather produced in the conventional manner. It is a breakthrough alternative from CSIR-CLRI for the century old practice of chrome tanning.

This game-changing technology has now found PAN INDIA acceptance, with tanners in all clusters enrolling for its adoption. Efforts are now on to translate this technology both nationally and globally. Several countries, including Ethiopia and Sri Lanka, have evinced interest in this CSIR technology. WCTT has now been selected for CSIR Technology Award for Innovation – 2017 from one of the best technology lead emanated out of the 38 constituent laboratories of CSIR. Team-CLRI received the award from His Excellency Ram Nath Kovind, President of India on 26th September 2017 on the occasion of the CSIR Foundation Day which also marked the conclusion of CSIR’s Platinum Jubilee year. The President dedicated this technology to the Nation for widespread usage by the tanning industries.
Director, CSIR-CLRI interacts with the President of India

The President of India, Shri Ram Nath Kovind at the CSIR-CLRI pavilion on the occasion of the conclusion of the Platinum Jubilee Celebrations of CSIR in New Delhi on 26th September 2017. Dr B Chandrasekaran, Director, CSIR-CLRI explains the CLRI endeavours to the President. Dr Harsh Vardhan, Vice President, CSIR; Shri YS Chowdary, Hon’ble Minister of State for Science & Technology and Earth Sciences and Dr Girish Sahni, Director General, CSIR & Secretary, DSIR also present during the occasion.
CSIR & CLRI Family congratulates Dr Mecca Rafeeque Ahmed on this prestigious honour!

PROFILE OF MR. MECCA RAFEEQUE AHMED
Mr Mecca Rafeeque Ahmed is a pioneer in Leather Industry and he is the spokesperson for leather sector not only in India but also at the Global level. He was instrumental in making the leather industry more organized and disciplined industry in India.

He has taken numerous steps for implementation/improvement of Integrated Development of Leather Sector for technology upgradation which enable the domestic players to compete with the global giants in the same platform. Government of India has notified the Ambur and surrounding areas as Leather Cluster on account of Mr Rafeeque Ahmed’s continuous and unstinted efforts which helped the area to get more and more infrastructure benefits.

Apart from Leather Sector, during his tenure as Chairman of FIEO, he has taken up the grievances of the Exporter community at large and strived for the benefits/incentives to promote exports of the country. He has lead a delegation to IRAN to ease the payment problems which enabled the government to create a separate channel to receive/effect payments to Iran overcoming the US sanction.

Mr. Rafeeque Ahmed is the Chairman of Farida Group which generates an invaluable foreign exchange of about $320 Million per annum. The provides direct employment to around 22000 individuals and out of which nearly 95% are women employees.

Currently he is holding the following positions of public interest.
1. President, The South India Chamber of Commerce & Industry.
2. President, All India Skin and Hide Tanners Merchants Association.
4. Vice-President, Federation of India Exporters Organization.
5. Director, Apollo Hospital Enterprises Limited.

He also held the following positions at various periods.
1. President, Federation of Indian Exporters Organization (Twice)
2. Chairman, Council for Leather Exports (Thrice)
3. President, Footwear Design and Development Institute.
4. President, Federation of Indian Chamber of Commerce and Industry-Tamil Nadu Chapter.
5. Director, Export Credit Corporation of India Limited.

As part of Corporate Social Responsibility, he has taken keen interest in servicing the local populace in Ambur and the surroundings by providing free Medical Camp, Tuition Centre, Drinking water for the public with the support of Local Administration, etc.

In recognition of his services to Trade and Commerce, the Government of India has conferred on him the Civilian an Award “PADMA SHRI”
The reconstituted Research Council (RC) of CSIR-CLRI under the chairmanship of Dr Paul Ratnasamy, former Director CSIR-NCL, Pune met on 27 September 2017. This was the 67th meeting of the Research Council of CSIR-CLRI. The RC is the highest-level think tank of the laboratory that provides it with directions and vision to help it design a road map to achieve it.

RC Members, Shri Mukhtarul Amin, Chairman CLE, Prof AG Samuelson, IISc Bangalore, Dr Amitava Das, Director CSIR-CSMIRI attended the meeting. Special invitees to the meeting included Shri MM Hashim, Shri Habib Hussain and Shri Ramesh Kumar.

Commenting on the research at the institute, Shri M Mohamed Hashim remarked that he had been closely associated with the R&D of the institute from when he was 18 to now when he is 80. Looking at the R&D activities during the last decade, he has witnessed that CSIR-CLRI technologies were on par with industrial needs. Technologies like waterless tanning, dry tanning, zero liquid discharge etc. developed by the institute are revolutionizing the industry. He had special words of appreciation in the speed with which CSIR-CLRI worked along with CSIR-CSMIRI to tackle the RO salt reject problem. He suggested that product technologies from the institute should be Indian company friendly.
Shri Habib Hussain recalled that a few years back while speaking to the alumni of the institute, he called for technologists to come forward with game changing technologies for the industry. He was happy that a couple of game changers have now been introduced by the institute. He called for R&D on productivity enhancement.

Shri Mukhtarul Amin appreciated the interventions of CSIR-CLRI in Kanpur region. The technologies from the institute would help the industry address the pollution of Ganga issue, he added. He promised a greater role for CSIR-CLRI in the implementation of Technology Mission program of Leather Sector that would be shortly launched by the Ministry of Commerce. Other members of the council and invitees expressed their happiness in being involved with the activities of the institute that were every close to the industry and has been able to translate technologies to the industry in a very speedy and efficient manner.

The Chairman, RC, Dr Paul Ratnasamy said that he was privileged and honored to serve as the chairman and guide the institute through the coming years. He wished that the institute would continue to be a model organization for other CSIR laboratories. Based on the needs of the industry and as highlighted by the industrial representatives in the meeting, the Chairman said that research initiatives in CSIR-CLRI would have to address issues like salt management, S&T led methods for growing skin in the laboratory etc.

Dr B Chandrasekaran, Director CSIR-CLRI made a presentation on the salient achievements of the institute and Dr KJ Sreeram, Member Secretary RC presented the administrative agenda and proposed thanks to the members.

Dr KV Raghavan: a man of substance, a visionary, a kind soul and a DIRECTOR who has departed!

Dr. K. V. Raghavan is a Fellow of the National Academy of Engineering, Indian Institute of Chemical Engineers (IIChE) and A.P. Akademi of Sciences (APSA) and a Distinguished Fellow of University of Grants Commission (UGC). He did his B.Tech from Osmania University in 1964; M.S. and Ph.D from the Indian Institute of Technology (IIT), Madras.

He joined CSIR service in 1964 and worked in three national laboratories. He was appointed as the Director of Central Leather Research Institute (CLRI), Chennai in 1994. He took over the Directorship of Indian Institute of Chemical Technology, Hyderabad in 1996. On successful completion of this tenure, he was appointed as the Chairman of Recruitment and Assessment Centre of DRDO, Ministry of Defence, Government of India in May 2004. Dr. Raghavan has taken up INAE Distinguished Professorship in October 2008 at IICT, Hyderabad. His research group is engaged in reaction engineering studies pertaining to green processes. Chemical process development and design, reaction engineering, simulation and modeling and chemical hazard analysis are his areas of specialization. His basic research contributions cover simulation of complex reactions in fixed bed reactors, hydrodynamics of multiphase reaction systems, envirocatalysis for clean processing, zeolite catalysis for macromolecules, thermochemistry and kinetics of charge transfer, polymerization and modeling of chemical accidents. His current research activities are in process intensification of water gas shift reaction, catalytic CO₂ decomposition, analysis of CO₂ capture technologies and characterization of the reactivity of ionic liquids.

He published more than 120 papers, filed 45 patents and edited 3 books. His applied research efforts, covering a time span of over four decades, contributed to the successful development of more than 25 chemical processes with
high industrial impact in bulk organics, specialities, oil field chemicals and fluoroorganics. He made significant contribution to the technological upgradation of leather, agrochemical and drugs/pharma sectors. Dr. Raghavan is currently the Member of Atomic Energy Regulatory Board and the Director of Heavy Water Board (Govt. of India), Mumbai, Godavari Biorefineries Ltd., (Mumbai) and Suven Life Sciences (Hyderabad). He is the Chairman of Project Review and Monitoring Committees of DRDO on catalytical ethanol reforming, nanofluid systems and other strategic projects. He is the member of the Apex Committee for R&D in the Ministry of Environment and Forests, Government of India. He was the Principal Scientific Investigator (2009-11) of INAE Project on “R&D Impact on Indian Chemical Industry”. He was the member of PMC of multi-institutional programme (2002-12) of CHT-CSIR-DRDO for the successful development of India’s first synthetic aviation lubricant system. Dr. Raghavan is currently the Chairman of the Research Council of CLRI, Chennai, and BITS, Pilani was represented on the Senate and Academic Councils of Anna University and School of Chemistry of Hyderabad University. He served as Honorary Professor at Anna University and Indian Institute of Technology (Kharagpur) and as member of the Research Councils of GAIL, IOC (R&D), NCL (Pune), RRL (Bhubaneswar), CFRI (Dhanbad) and CPPRI (Saharanpur). He successfully coordinated the India’s unique Biotechnology Incubation Centre established at Genome Valley, Hyderabad.

He was the member of Scientific Advisory Committee of the Ministries of Petroleum and Natural Gas and Health of Government of India. He was represented on the high level committees of Govt. of A.P on natural gas utilization and establishment of pharma research and development fund. He was the past President of Indian Institute of Chemical Engineers and A.P. Akademi of Sciences. Currently, he is the Vice President (Academic and International Cooperation) of Indian National Academy of Engineering (INAE) and Federation of Asian Biotechnology Association (FABA). Dr. Raghavan visited more than 25 countries in North and South America, Europe, Russia, Caribbean, Africa, Middle East, Far East and South East Asian regions under bilateral and multilateral programmes with NSF (USA), European Commission (Brussels), Hungarian and USSR Academy of Sciences, UNDP, UNIDO, Commonwealth Science Council, Japanese Institute of Chemical Research and Asia Pacific Council for Chemical Engineering. He very recently represented INAE at the CAETS working group meeting on low carbon energy technologies at Zurich, Switzerland. Dr. Raghavan is the recipient of the Hindustan Lever Award of the Most Outstanding Chemical Engineer, NRDC Invention Promotion Award, Pilot Officer D V Ranga Reddy Gold Medal, J N Sinha Roy Memorial and ChemTech Foundation Awards, Nayudamma Gold Medal of AP Akademi of Sciences (2010) and Institution of Engineers Award of Outstanding Chemical Engineer (2010).

A meeting of the industry, academy and institute to pay tributes to Dr KV Raghavan who expired on 12 October 2017 was held on 17 October 2017. Leaders of the industry, academy and research attended this meeting. In his remarks, Dr Rafeeqeque Ahmed described Dr Raghavan as a highly knowledgeable, soft spoken person who was more than willing to provide directions to the industry. A message read out on behalf of Shri MM Hashim, described the simplicity of Dr Raghavan, who spent time in the industry itself to solve the problems of the sector. Shri A Sahasranaman, members of the Ranipet tanners body etc. spoke of the various forums through which Dr Raghavan worked closely with the industry. Retired colleagues of CSIR-CLRI described Dr Raghavan as a kind, simple and soft person who addressed even the minute issues directly when dealing with complex matters. Dr Ramasami, suggested that the institute could come out with an annual lecture on industry-institute interaction on the birthday of Dr Raghavan, in tribute to his efforts to foster such collaborations. About 50 people attended the meeting and about 20 colleagues and industry leaders forwarded their messages and condolences to the family members, which was read out at the meeting.
Platinum Jubilee Foundation Day Celebrations of CSIR at CSIR-CLRI

The Platinum Jubilee Foundation Day celebrations of CSIR at CSIR-Central Leather Research Institute (CLRI) commenced with a formal invocation at 11.40 am on 27th September 2017. Dr B Chandrasekaran, Director, CSIR-CLRI welcomed the gathering with his Welcome address.

In his welcome address, Dr B Chandrasekaran extended a warm welcome to the gathering and expressed his gratitude to all for being a part of the celebrations. Then the guests were felicitated by the Director with angavasthra and bouquets. Felicitation of guests was followed by the lighting of the ‘Kuthuvilaku’ (Indian Traditional Lamp) by the dignitaries on the dais.

Shri Mukhtarul Amin, Chairman, Council for Leather Exports (CLE) presided over the function. In his presidential address, he commented that CSIR is the nodal research organization in the country and achieved many accomplishments in varied areas. He told that CSIR-CLRI is the driving force for the technologies used by Leather sector and the technologies developed are technically and commercially viable. He also appreciated CSIR-CLRI for its game changing technologies and wished CSIR-CLRI for many more feathers in its cap.
It was followed by a video display on “Waterless Chrome Tanning Technology (WCTT)” - the technology that has bagged the CSIR Technology award for the year 2017 under Innovation category. The team WCTT received the award from His Excellency, Shri Ram Nath Kovind, the President of India on the occasion of CSIR Platinum Jubilee Foundation day celebrations at CSIR, New Delhi on 26th September 2017.

The Chief Guest of the function, Padmashri Dr Paul Ratnasamy, Chairman, Research Council, CSIR-CLRI and Former Director, CSIR-National Chemical Laboratory (NCL), Pune presented his Foundation Day Lecture on “CSIR in a New Avatar! (From Self Reliance to Globally Competitive R & D)”. In his lecture, he elaborated on how and why CSIR was formed and its evolution over the years. He elucidated some of the key achievements of CSIR and related its performance against other globally competitive research institutes. He stated the objectives of the government funded R & D laboratory and suggested his options for a new avatar of CSIR.
Shri Habib Hussain, Chairman, Leather Sector Skill Council (LSSC) addressed the gathering as a guest of honour. In his address, he expressed his gladness being a part of this function and applauded CSIR-CLRI for its game changing technologies for the advancement and development of the leather sector. He thanked CLRI for its backing to the fraternity of leather sector through all times. He solicited CLRI to extend its support in the productivity improvement of the sector as well.

In his guest of honour address, Dr Amitava Das, Director, CSIR-Central Salt & Marine Chemicals Research Institute (CSMCRI), Bhavnagar expressed his happiness being a part of this celebration. He stated that CSIR-CSMCRI in association with CSIR-CLRI has come up with the solution for the RO Reject salts by separating and purifying the same to make it saleable. Shri Ramesh kumar, Executive Director, CLE, in his address expressed that CSIR-CLRI had been a pillar of support for the leather sector and greeted Dr G Thyagarajan and Dr T Ramasami for their motivation in promoting the leather exports of the sector.

The biennial report of CSIR-CLRI for the years 2015-2017, Special edition of News magazine of CSIR-CLRI for the month of September 2017 and Technology profile booklet (updated version) comprising the details on all the technologies of CSIR-CLRI were released by the dignitaries on the dais during the occasion.

It was followed by the presentation of awards to the wards of CSIR-CLRI for achieving more than 90% in three subjects and the winners of young scientist seminar and general quiz competitions. The retirees of CSIR-CLRI of the year 2016-17 and the staff of CSIR-CLRI who have completed 25 years of service in CSIR were felicitated by the Director, CSIR-CLRI. Director, CSIR-CLRI presented the mementoes to the dignitaries on the dais and the function ended with the formal vote of thanks proposed by Shri Md Sadiq, Chief Scientist and Chairman, Steering committee of CSIR Foundation day celebrations.
To commemorate the 75th CSIR Foundation day celebrations, Drawing and Painting Competition was conducted for wards of CLRI staff in Kendriya Vidyalaya School, CLRI on 15th September 2017. The event witnessed young enthusiastic participants from LKG to 12th Std categorized into six groups. This event was organized with the key objective of bringing out hidden talents from children. The theme for competition was given “On the Spot” by judges for children from 6th Std to 12th Std.
CONGRATULATIONS TO ALL OUR WINNERS!

The drawings were so amazing that the children once again proved that they not only excel in academics but also shine in other extra-curricular activities. The judges for the event were Shri. G. Swaminathan, Retd. Chief Scientist CSIR – CLRI and Ms. Gnana Pushpambigai, Artist, Dessin Academy.

The criteria for judgement were creativity, colour combinations, accuracy in sketching and overall presentation. The winners were given cash awards by our Director, CSIR – CLRI in a ceremony organized in Director’s office. It was indeed a successful and a memorable event.
On the occasion of 70th CLRI foundation day celebrations (throughout the year program) a competition was arranged for the school students of Chennai to get their own new and innovative ideas on the theme “sustainable technologies for making a better world”. Among close to 350 received abstracts of ideas, around 50 ideas from students spread across almost 40 schools of Chennai have been shortlisted and the respective students were called for the personal interview/presentation at CLRI. A panel of elite judges (external) comprising professor and senior level scientists interviewed those shortlisted students on 23rd September 2017 at the AcSIR Office, CLRI. A separate demonstration of scientific experiments for those school students were performed by Scientists/PhD Scholars of Polymer and NMR labs of CLRI to effectively utilize the spare time and ignite the scientific tempers of those young and motivated minds. An interactive lunch was also arranged where students, their teachers and parents interacted with some of the famous scientists of CLRI like Dr. Gupta, Dr. Bala Kameswari, Dr. Purna Sai, Dr. Sujoy Das, Dr. Lobo, Dr. Phanikumar and others.
Concluding and prize distribution ceremony was organized in the BM Das hall at CLRI which was guided and presided over by the most respected Dr. B. Chandrasekaran, Director; Dr. Muthukrishnan, Sr. Controller of Administration (Sr. COA), Dr. Gupta, Chief Scientist and Dr. Subramanian, Sr. Principal Scientist of CSIR-CLRI. In his opening remarks, Director expressed his happiness in receiving so many good ideas in science and technology from the school students. He further directed to explore the possibility of taking up some of the ideas and proceed further. Sr. COA pointed out that brilliant invention may come from youngest minds with good motivations. Dr. Gupta, pointed out the usefulness of this kind of competition. Dr. Subramanian suggested some of the avenues the students can take to implement their ideas. He further extended his invitation to the students for the effective participations in many upcoming student-centric events of CLRI. Professor Natchimuthu from Madras Institute of Technology congratulated the students for submitting so many good and innovative ideas.

As a token of appreciation, a certificate and souvenir made of leather, designed by Scientists of CLRI (Mr. K. Karthikeyan and Dr. Md. Sayem Alam) have been awarded to all shortlisted students by Dr. Sugunalakshmi, Sr. Principal Scientist; Mr. D V S. Sastry, Admin. officer; Dr. Jaisankar, Principal Scientist; Professor Natchimuthu; Dr. Muthukrishnan and Dr. Gupta. Finally, 10 students from junior section and 10 students from senior section were separately awarded with winner trophies by Director and Dr. Subramanian.

The program was coordinated by Dr. Debasis Samanta, Sr. Scientist and Dr. Md. Sayem Alam, Scientist with the guidance and motivation of Shri Md. Sadiq, Chief Scientist, chairman of 70th CLRI foundation day celebrations committee and Shri Arun Manikanda Bharathi, Section Officer, Recruitment section with the active participation of other Scientists and Staffs of CLRI like Dr. Murugan, Dr. S. Das, Dr. Kiran, Dr. Lobo, Dr. Phanikumar, Dr. Jaykumar, Dr. Bala Kameswari, Dr. Purna Sai, Dr. Jaisankar, Dr. Sugunalakshmi, Dr. Gupta, Dr. Subramanian, Dr. Mani, Dr. Rai, Dr. Ramkumar, Mr. Sadasiva Sastry, Staffs of canteen, civil section, electrical section, AC section, security section and students like Mr. Md. Siddiq, Mr. Nagaraju, Mr. Murugan, Mr. Ramar, Ms. Gayathri, Mr. Ashok, Mr. Dipak, Ms Dipika, Mr. Venkatesh, Mr. Prakash, Mr. Rajsekhar Reddy, Ms Priyadarshini, Ms Sumitra and Mr. Ravikanth

**Spring Summer 2019 season ‘showcased’**

A CSIR-CLRI / CLE / ISF / IFLMEA endeavour in association with Arihant Dyechem | BASF India Ltd | Colourfast Tirupati Dyes & Intermediates | Colourtex Pure Chemicals | Stahl India Ltd

A ‘PREVIEW’ of leathers/ colours for the MODEUROP Spring Summer 2019 season was held on Wednesday, 27th September 2017 at the India Fashion Studio, (Eastern Wing of Shoe & Product Design Centre), CLRI.

18 Tanners had developed 456 leather/ colour proposals that were showcased at the event. A presentation covering: The Evolution of Colours, Colour Groups, Key Points and Key Materials was made on that day.
Participating Tanneries

ALINA I AXAI I ATHI I BASFI I CKC I CLF I DRISH I FORWARD I GENUINE I GOOD I KH EXPORTS I MATHI I PAF I SHOEBERRY I SURA I TATA I VEERA

"India Fashion Studio"
re-dedicated to Members of the Indian Leather Fraternity
Coinciding with the conclusion of the Platinum Jubilee Celebrations of CSIR held in CLRI on 27th September 2017
India has made significant progress in the field of science and technology and is endowed with potential opportunities in several key sectors which will lead to substantial economic growth. India International Science Festival is conducted every year to cultivate an inquiring mind among the young generation’s minds to nurture innovations and sustainable growth. IISF 2017 will provide an opportunity to enlighten about the scientific and technological priorities both national and international to chart out a roadmap for Science and Technology (S&T) co-operation.

Dr. B. Chandrasekaran, Director, CSIR-CLRI, welcomed all the delegates to the Industry Academia Interaction Meet as part of India International Science Festival (IISF 2017), which brings together experts, academicians and researchers from around the country.

Dr. Asheesh Shah, Chief Coordinator, IISF 2017 gave a brief overview of the two-day fest. He shared his experiences throughout the past versions of IISF. He threw light on the IISF as one of the flagship programs of the Department of Science and Technology (DST).

Dr. Satheesh Reddy, Aerospace Scientist and Scientific Advisor to Raksha Mantri and Director General of Missiles and Strategic Systems, addressed the gathering during which he shared his valuable insights towards the theme in the context of aerospace and missile systems.

Shri Jayant D Patil, Member of the National Committee on Defence of Apex Industry Chambers, FICCI & CII and Chairman, FICCI Defence R&D committee, while addressing the gathering, termed MSMEs as a synonym to innovation.

Dr. Vijay Bhatkar, President VIBHA, Chancellor of Nalanda University is an eminent Scientist who has given the first supercomputer to our country. He quoted the example of artificial intelligence where significant investments were made few decades ago.

Dr. Rajkumar Singh, Senior Director, Kalyani Centre for Technology and Innovation, Bharat Forge recommended that R&D and academic institutions should focus more on product research to cater to the needs of MSMEs.

Prof. Santosh Kapuria, Director, CSIR-SERC proposed the vote of thanks on behalf of the organising committee. He extended his heartfelt thanks to all the delegates, sponsoring organizations, Press & Media, organizing members and volunteers from CSIR-CLRI, CSIR-SERC, NIOT, IIT-M and Anna University.

Theme: The Technology Forecasting and Changing Trends in MSME Sector

Growth of MSMEs is a significant indicator of the Indian economy and it is necessary to inculcate the preparedness to meet challenges and tap potential opportunities to meet the global standards. This can happen by developing the coping competencies of MSMEs with respect to current technological requirements and trends in the sector. First
day of the Industry-Academia-Interaction Meet witnessed remarkable lectures on the theme of “Technology Forecasting and Changing Trends in MSME Sector” contributing effectively to the focal theme of “MSME and Sustainable Development”.

- **Professor Sunita Singh Sengupta**, Head and Dean, Faculty of Management Studies, Delhi University was the first speaker of the first technical session of the day. She commenced her lecture by establishing the connectivity between spirituality and management.
- The next technical lecture was delivered by **Padmashri Shri M Rafeeqe Ahmed**, Chairman, Farida Groups, and President, All India Skin and Hide Tanners Merchants Association (AISHTMA). He is one of the doyens in the leather and leather products industry. **Shri Rafeeqe Ahmed** threw light on the status of MSEMs in the leather sector where MSEMs have a share of 65% to 70% in the leather sector. 80% of the Leather goods for India’s consumption as well as exports comes from MSEMs only.
- **Mr Sanjay Singh**, Scientist G, Technology Information, Forecasting and Assessment Council (TIFAC), Department of Science and Technology, Govt. of India delivered an exciting lecture on “Catering to Technical Needs of Indian SMEs – TIFAC model and experiences”.

Theme: Industry-Academia Partnership: Initiatives, Issues and Challenges

Industry-Academia partnership has proved to be an effective platform which can ensure sustainable development in MSMEs. In this line, it is necessary to understand the intricacies involved in effective implementation of the partnership. The next theme for Day 2 “Industry- Academia Partnership: Initiatives, Issues and Challenges” had a series of eye-opening lectures that will provide a roadmap to harness the benefits of Industry-Academia partnership.

- **Professor Bhaskar Ramamurthi**, Director, IIT Madras delivered a phenomenal lecture on “Making Academia-Industry Collaboration Happen”.
- **Mr K Ananth Krishnan**, Chief Technology Officer, Tata Consultancy Services (TCS), delivered a thought-provoking lecture on “Industry- Academia Partnership: Initiatives, Issues and Challenges”.
- **Professor Nalinakash S. Vyas**, Department of Mechanical Engineering, Indian Institute of Technology Kanpur, Chairman of the Technology Mission for Indian Railways (TMR) delivered his talk on Mission mode of technology development in Indian Railways for self-sustainability and up-gradation.

Theme - Zero Defect Zero Effect (ZED)-Roadmap for improving India’s manufacturing quality

MSMEs, to be sustainable in the longer run, should incorporate the mantra of quality in product as well as process. While product quality will help them to target international markets, process quality will ensure their responsibility towards maintaining the quality of the environment. Hence the concept of Zero Defect in product and Zero Effect on environment is gaining significance. The first session of technical lectures of Day 2 in the Industry-Academia Meet was based on the theme of “Zero Defect Zero Effect (ZED)-Roadmap for improving India’s manufacturing quality”.

- **Shri T. Muralidharan**, Chairman, TMI Group and MD, C&K Management Limited shared his experiences of working with MSMEs and explained the concept of ZED through the same.
- **Dr. Ramanand Shukla**, Director, Quality Council of India, delivered an exemplary speech explaining in detail about the ZED concept.

Theme: Innovation Led Incubators and Startups-SSR and CSR

MSMEs are entrusted with the major responsibility of Scientific Social Responsibility (SSR) and Corporate Social Responsibility (CSR) through a series of projects and research activities in several fields.

- **Professor Dr D K Sriram**, Medical Director, Hindu Mission Hospital stated that development of MSME sector holds great promise for inclusive growth and development of the country.
- **Mr Ramanan Ramanathan**, Mission Director, Atal Innovation Mission, a national innovation initiative, NITI Aayog (National Institution for Transforming India) set up by the Government of India. His lecture was on “Creating a Vibrant Ecosystem of Innovation & Entrepreneurship in India leveraging SSR/CSR”.
- **Mr Baksheesh M Khamar**, Executive Director- Research, Cadila Pharmacy delivered an informative lecture on the theme of Innovation Led Incubators and Startups-SSR and CSR.

Theme: Industry-Academia Building Bridges

The previous sessions of the Industry-Academia Interaction meet had endowed the participants with the needed understanding about Industry-Academia trilogy and had enlightened them about the current premise of the same in Indian scenario. The fifth technical session was structured to go one step ahead towards bridging Industry and Academia.

- **Prof Jammi Srinivasa Rao**, President, Emeritus BRCORP is the Chief Science Officer (consulting), Altair Engineering Bangalore and the President of the Vibration Institute of India. He delivered the first lecture on the theme “Industry-Academia building bridges”.
- **Mr Shhaladipti Saha** is the Vice President and Head, Design Division, EDRC (Engineering Design Research Centre) of Commercial Buildings & Airports SBG of Buildings & factories IC in L&T Construction. He delivered a detailed lecture about the various ongoing and completed projects of L&T.

Theme: Energy and Environment

The last technical session of day 2 focused on one of the contemporary themes of today “Energy and Environment”. The theme has been coined to complement the concept of maintaining the quality of environment by providing optimal energy solutions to the industry.

- **Mr Ashwin C Shroff**, CEO, Chairman and Managing Director EXCEL, in his lecture encompassed several useful business concepts including overview on global economy, dumping of non-moving goods, fluctuation in goods price, climate changes, flow of goods and human mobilization.
- **Shri V Sandeep, DGM**, Product Applications Group, Jindal Steel and Power Limited (JSPL) delivered his lecture on Indian Steel Industry “Current scenario and way forward (Energy & Environment perspective)”.
- **Shri S S Mani**, Additional General Manager, Engineering Air Quality Control Systems, BHEL, Raneipet explicated about the theme of Energy and Environment with special reference to electrical energy.

The technical session on Energy and Environment was followed by the valedictory session of the Industry-Academia Interaction meet. “Poster presentation session” was held as part of the Meet and around 50 posters on various aspects relevant to the focal theme were displayed in the session. The posters were evaluated by an eminent panel of judges including Dr. Puja Chhabra Sharma, Professor, Ansal University, Gurugram, Dr. Gunmala Suri, Professor, Punjab University, Chandigarh and Shri V Prasanna, Eminent Leather Technologist. 7 best posters were awarded during the session. The event was a grand success with about 279 delegates participating from all over the country.
BLOOD DONATION CAMP in CSIR-CLRI

Sri Lankan contingent interacting with M/s KKSK Leathers, Erode and M/s Barath Enterprises, Ranipet about the CLRI technologies. Sri Lankan Leather Industry to invest in CLRI Technologies soon!

Dr G Saraswathy, Scientist making a presentation on “Gait Analysis and Rehabilitation through Corrective footwear” during Workshop on Gait analysis and Rehabilitation by Dept. of Medical Electronics, ECE, Anna University

Engineering Division delivered a talk on CSIR - CLRI Environmental technologies to industries in CSIR industry interaction meeting held during IGCW, convention.
New batch of “Leather goods design programme” for the industry sponsored candidates commenced during last week of September 2017.

Team CSIR-CLRI at the factory of M/s VISTA Shoes to discuss: Design & Development of Children’s Shoes and setting-up of manufacturing line for production.

Swachh Bharat Abhiyan Cleanliness Drive on 05-10-2017 at CLRI.

CSIR and Hiroshima University join hands to leverage translational research in cutting edge technology domains.

CSIR-CLRI participated in the SHOE SALE organized by the Indian Shoe Federation at the Guild of Service, Egmore, Chennai. CSIR-CLRI had put up its STRAIT outputs for SALE.

CSIR PLATINUM JUBILEE CAPSULE EXHIBITION & CSIR-CLRI OPEN DAY (25-09-2017)

Students of Kendriya Vidyalaya, Thiruvannamalai at the JIGYASA 2017, Scientist-Student interaction program on 22nd September 2017.

Students of Kendriya Vidyalaya, Dharmapuri at the JIGYASA 2017, Scientist-Student interaction program on 23rd September 2017.
Good Leather Group launched a multi-brand shoe outlet “CORIUM” in Chennai. CORIUM houses two levels: the classic and the sports levels. It may be recalled that Good Leather Group is already retailing its own brand “KETHINI” in the Indian domestic market successfully for over a year now and has two flagship stores in the city besides selling online. CORIUM, a multi-brand outlet would be a new shopping experience for the discerning shoe lovers says Mr KR Vijayan, Managing Director of the Group.

Bangladesh Minister and Team visits CSIR-CLRI

The Minister of Science & Technology from the Government of the People’s Republic of Bangladesh, Arc. Yeafesh Osman, accompanied by Dr Md Sarwar Jahan, Chief Scientific officer, Pulp and Paper Research (BCSIR), Eng. Md. Zafar Ullah, PS to the Hon’ble Minister, Mr Md. Hemayet Hossain, Additional Secretary; Mr Md Golam Rabbany, Additional Secretary visited CSIR-CLRI on 14th October 2017 coinciding with their visit to India International Science Festival 2017 held in Chennai.

The Team interacted with Director, CLRI and his colleagues and later visited the Core Areas of Excellence in the Institute.

Senior Technician Mr D Dileep Kumar’s name is synonymous with Leather Garments design in CSIR-CLRI

CLAD design studio (CDS) – now re-christened as SPDC was set up in the year 2011 at Center for Leather Apparel & Accessories Development (CLAD), CSIR - Central Leather Research Institute (CLRI) to cater to design services in leather Life Style Accessories for National and International organizations as well as startup companies.

CLAD Design Studio aims at delivering world-class design solutions to leather products industry and designing products with latest Trends & Forecast- “Design for all” by focusing on user-centric product design.

It’s lead apparel/ leather garments designer superannuates on 31st October 2017
An APP to access trends and fashion
‘India Design Club’
was launched on 27th September 2017

Dr B Chandrasekaran, Director, CSIR-CLRI launched the App in the august presence of Chairman & Members, Research Council of CLRI and leading Members from the Indian Leather Industry. App is available on both Android and iPhones for download. Stay tuned for ‘ideas ahead of time’.

MODEUROP flash: Spring Summer 2019 season

At the MODEUROP Roundtable and Colour Club Meeting held for the Spring Summer 2019 season in Alfeld, Germany during 17-18 October 2017; 15 out of 22 colours selected in the ‘Shoes & Accessories’ category and 8 out of 10 colours selected in the Leather Garments’ category feature from India.

The Colours for Spring Summer 2019 season are presented in three colour groups: Earthiness, Eccentric and Endlessness. CSIR-CLRI will endeavour to release the MODEUROP Colour card for the Spring Summer 2019 season ‘first in Kanpur’ on 28th November 2017.
11th Edition

MEET ATagra

3 | 4 | 5
November 2017

BSNL Ground
Mall Road, Agra

Leather, Footwear
Components &
Technology Fair