

The Leather Post

CSIR-Central Leather Research Institute

News you can use



Significant Research Outputs of CSIR-CLRI presented and reviewed at the 70th Research Council Meeting



Dr B Chandrasekaran
Director, CSIR-CLRI

24th April 2019

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 April 2019 edition of The LEATHER POST.

This is a very special edition for more than one reason. The first reason is that we celebrate 72 years of Leadership in Leather on 24th April 2019 which happens to be the Foundation Day of CSIR-CLRI. The next reason is that the Director General of CSIR, Dr Shekar C Mande will be on his maiden visit to this laboratory as 'Director General and delivering the Foundation Day Lecture'.

This edition of the LEATHER POST carries the relections of the members of the Research Council of CLRI who have made a clarion call for transition of Central Leather Research Institute to Global Leather Research Institute: a rich tribute to this Institution that is strong on its foundation and this foundation is the wealth of knowledge and the opportunity to be associated with the Industry it serves: the Indian Leather Industry.

Lastly, I take this opportunity to bid farewell to one and all as I superannuate on 30th April 2019. I carry fond memories of my work and association and hope to stay in touch.

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



Dr GOWTHAMAN M K
Senior Principal Scientist
BIOLOGICAL MATERIALS LABORATORY



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**70th Research Council Meeting of CSIR-CLRI
makes a clarion call for transition of
Central Leather Research Institute
to
Global Leather Research Institute**



Attended by almost all the members of the council, and amidst the presence of special invitees such as Shri P R Aqeel Ahmed, Chairman CLE, Shri N Shafeeq Ahmed, Chairman IFLMEA and Shri Habib Hussain, Chairman LSSC, the 70th RC meeting of CSIR-CLRI looked at the aspects that could pave way for the institute becoming a global institution rather than being India centric. The RC recommended that institute should serve as a benchmark organization that works to solve the issues that are of concern to the sustainability of the industry, globally. The council wanted the institute to ensure that it leveraged the benefits out of its patents. For this, the institute had to demonstrate to the industry that its intellectual property was worthy of investment. In the modern days, research has to lead to profitable business.

Collaborations between CSIR-CLRI and stakeholder bodies such as CLE, IFLMEA, AISHTMA and LSSC were bringing out the best out of Indian leather sector. In the next five years, industry would see challenges of different nature, where environmental concerns would be overshoot by needs for becoming cheaper and beautiful. Footwear would turn into a lifestyle product and technology that would fetch more revenue out of the product would be sought after. CSIR-CLRI needs to support the industry as the domestic market also grows in tune with the export market. Research in areas such as reducing the weight of the leather, value addition to suede etc. needs to be taken up on Indian raw material.

Industry members recommended that the institute should look towards institutional models found in Taiwan – which was a PPP model and the Italian model where the institute enables a holistic certification of the industry. The council suggested that Staff of CSIR-CLRI should be a part of Indian delegations to various countries that CLE was undertaking frequently.

The council also reviewed all the research projects that were being carried out in the institute and expressed

its satisfaction on the progress. RC recommended that every technology should undergo a thorough cost-benefit analysis and also an effort to understand the features associated with the product that would attract global customers.

The institute also presented its Business plan for 2019-20. The Council appreciated the efforts of Dr B Chandrasekaran, who in his term as the Director of CSIR-CLRI had taken the institute globally, ensured large scale successful implementation of skill development programs and also assisted the industry in its various developmental programs. Council and the industry hoped that CSIR would make available the services of Dr B Chandrasekaran to the industry, in the years to come as well.

The Director ensured the council that the institute would move in the advised path and ensure that the wish of the Council and the Industry to see CSIR-CLRI turn to be CSIR-GLRI is made to come true by the institute.



*Centre for Analysis, Testing, Evaluation and Reporting Services
at CSIR-CLRI surging forward for
Ensuring Global Standards in Testing Services*



The name CSIR-CLRI has remained synonymous with the quality of testing that it has been providing for over three decades. The reports from the footwear testing laboratory that has remained accredited by SATRA, UK for over two decades and the reports of the EXCEL on restricted substances have always been welcomed by the industry, globally. With changing times, the institute has had to ensure its global supremacy by complying with international standards such as the ISO 17025:2017 - General requirements for the competence of testing and calibration laboratories. Towards this, the CSIR-CLRI has taken efforts such as a) single window operation of all its testing services under the banner of CATERS, b) calibrating all its equipment by accredited laboratories, while maintaining a significant number of equipment calibrated by the national standard agency -CSIR-National Physical Laboratory, c) carrying out interlaboratory comparisons and participating in proficiency testing programs. Based on

the competence of its staff and the rigorous standards that it maintained in testing, the SATRA, in their annual audit of 2019 commended the organization for its quality in testing services and noted that it did not find any non-conformity issues in the testing services of CATERS. The CATERS has also filed its papers for accreditation as per ISO 17025:2017, by NABL, an agency under the Quality Control of India.

CLRI-CATERS now looks forward to serving as a Testing and Certification Agency for industries seeking excellence in quality. The institute through 2019-20 would also be developing its own certified reference material based on which analytical laboratories within the industries can perform primary quality assurance programs themselves.

The various services offered by CLRI-CATERS can be assessed through: testing.clri.org or <https://www.analyticsir.in/search/Labs/leather>

Report on Science Seminar



Prof. Jiri Militky, Dr. Michal Petru and Dr. Rajesh Mishra from Czech Republic visited CSIR- CLRI, CHENNAI on 11th April 2019, to explore the possible collaboration and future interaction between Technical University of Liberec Czech Republic and CSIR- CLRI, India in the field of nanotechnology. All the delegates and scientists from Polymer Science and Technology and Biotechnology Divisions met the Director, CSIR-CLRI.

Prof. Jiri Militky, who is a Senior Professor of Textile Engineering at Technical University of Liberec (TUL), briefed about the University and his scientific activities in the areas of textile physics, textile material engineering, nanocomposites and statistical data treatment mainly. Currently, the university has 10,000 students and 1000 faculty. Dr. Rajesh Mishra is an Associate Professor at the Technical University of Liberec, Czech Republic. His research areas include textile structural composites, green composites, nanocomposites, biomechanical engineering of fibrous structures, thermo-mechanical characterization of materials etc. To his credit, Dr Mishra has about 150 publications in International journals and about 200 presentations in International conferences. He is responsible for Internationals students' education and research at the Faculty of Textile Engineering at TUL, Liberec. Dr. Michal Petru is an Associate Professor with specialization in design and machine parts, in the Faculty of Mechanical Engineering, TUL, Liberec, Czech Republic. He is also the Head of the Department of Machinery Construction at the Institute for Nanomaterials, Advanced Technology and

Innovation. He has authored or coauthor of numbers scientific and professional publications in the area of numerical modelling and optimizing design machine.

Dr. B. Chandrasekaran, Director, CSIR-CLRI, enlightened the research activities, International projects, publications, patents and social responsibility committed by the CSIR-CLRI to the visiting delegates from Czech Republic. Prof. Jiri Militky and his team also visited the Shoe & Product Design Centre (SPDC) and interacted with the scientists. Prof. Militky appreciated the products from the SPDC, and he agreed to send some of the flexible plastic optical fiber materials (line illumination containing especially embedded side emitting POF) materials to apply on the SPDC products.

Dr S. N. Jaisankar, from Senior Principal Scientist of Polymer Science & Technology Division welcomed the delegates from Czech Republic and Faculties form CSIR-CLRI for the science seminar. Dr Jaisankar narrated about his bilateral research projects with the Institute of Macromolecular Chemistry, Czech



Republic and other cooperation between the Czech Republic and CSIR-CLRI.

Prof. Jiri Militky delivered the lecture on “Material engineering activities at TUL with special focus on nanotechnology”. Prof Militky highlighted the interaction programs; projects oriented to applied research and selected proposals for Czech-India projects with a special emphasis in Material Engineering connected with TUL, Czech Republic. His lecture also focused on i) carbon functionalization, by surface functionalization through physical-chemical treatment of carbonaceous materials obtained from textile wastes, ii) hybrid flame retardant systems (HSFR) based on a combination of different additives, iii) new nanocomposite particles (NCFR) from layered-double hydroxides (LDH) on a hard template such as

microcrystalline cellulose (MCC), iv) preparation of conductive carbon nanoparticles and their subsequent applications as odour absorption materials, filters and sensors in polymers, textiles, health care industries.

The lecture was concluded and acknowledged that the International visiting program was supported by the Ministry of Education, Czech Republic and the European Union. On behalf half of CSR- CLRI and in an appreciation of the visiting delegates a memento was presented to Prof. Militky by Dr. A. Gnanamani, Principal Scientist, Biological Material Laboratory, CSIR-CLRI. Dr S. N. Jaisankar, Senior Principal Scientist of Polymer Science & Technology Division, CSIR-CLRI proposed the vote of thanks.



CSIR-Central Leather Research Institute (CLRI) signed an MoU with Tamil Nadu Physical Education and Sports University (TNPESU), Chennai on 1st April 2019 for joint collaborative research in the Area of Sports Biomechanics/ Shoe

The CSIR - CLRI has taken up an institutional project on "Design and Development of Indigenous Athletic Shoes" from April 2018 and the project was assigned to Shoe and Product Design Centre (SPDC) for execution of the objectives as below.

- Performance evaluation of existing Domestic and International brand running shoes by biomechanical analysis.
- Evaluation of materials used in existing sports shoes especially running shoes using physico-chemical tests.
- Study of Anthropometric characteristics of Indian athletes.
- Redesigning and development of long distance running shoes exclusively for Indian athletes based on their anthropometry and biomechanics.
- Development of prototype shoes and performance evaluation with Indian athletes by biomechanical analysis.

As the success of this project is primarily based on the identification of suitable athletes and involving them effectively in the biomechanical and anthropometric studies, it has been decided by CSIR- CLRI to have joint collaboration with Tamilnadu Physical Education and Sports University, Melakottaiyur, Chennai- 600127. This university was established in 2005 and is functioning with five departments under three faculties. Each department offers various courses of study related to physical education and sports from under graduate degree to Ph. D degree. The Department of Exercise Physiology and Biomechanics is offering B.Sc., M.Sc., M.Phil., and Ph. D degrees in Exercise Physiology and Nutrition and MSc., MPhil., and PhD in Sports Biomechanics and Kinesiology. Further this university conducts annual tournaments at various levels and have strong relationship with both state and national sports academies, associations and councils like Sports Authority of India (SAI), New Delhi, Tamilnadu sports council.

CSIR-CLRI, after having identified the strengths of TNPESU in R & D as well as infrastructural facilities, has approached TNPESU during November 2018 and evincing interest in undertaking joint collaborative research in the areas of

sports biomechanics and development as well as evaluation of sports shoe for Indian sports personnel and other related research. TNPESU is convinced about the mutual benefits of undertaking joint collaborative research with CSIR-CLRI in multi-dimensional areas depending on mutual interest as well as expertise. After several meetings and technical discussions, as a prelude to such collaborative research activities between CSIR-CLRI and TNPESU, it has been agreed by both parties to sign an Umbrella MoU, which shall pave the way for undertaking specific activities later depending on specific requirements.

The scope of this MoU is limited to retaining TNPESU as one of the esteemed collaborators of CSIR- CLRI for Research & Development, as per the scope of work detailed as below.

- Foot and whole body anthropometric survey of Indian sports personnel (Minimum 500 per quarter of the year).
- Performance evaluation of existing Domestic and International brand running/ sports shoes (Maximum 10 brands) using Gait and running biomechanical analysis.
- Development of prototype shoes (Maximum 6 prototypes) and performance evaluation with Indian athlete/ sports personnel by Gait and running biomechanical analysis.

On 1st April, 2019, MoU was signed between CSIR- CLRI and TNPESU at Director Annexure, CLRI, Adyar, Chennai at 11.00 AM. On behalf of CLRI, Dr. P. Saravanan, Chief Scientist, Head, Project Planning and Business Division (PPBD) signed the agreement and on behalf of TNPESU, Dr. Sheila Stephen, Vice- Chancellor, TNPESU signed the agreement in the august presence of Dr. B. Chandrasekaran, Director, CSIR- CLRI. Prof. Grace Helena, Head, Dept. of Exercise Physiology and Biomechanics, and Dr. Rajini kumar, Assistant Professor, Dept. of Exercise Physiology and Biomechanics, TNPESU, Dr. K. Krishnaraj, Senior Principal Scientist, Shri. S Mathivanan, Senior Principal Scientist, Dr. G. Saraswathy, Senior Scientist, Shri. D Suresh Kumar, Scientist and Shri. Sathiaraj, Technical Assistant, Shoe and Product Design Centre, Shri. G. Shanmugasundaram, Senior Principal Scientist, Shri. S. Nithyanantha Vasagam, Senior Scientist, PPBD also joined for the meeting and discussed about the collaboration between CLRI and TNPESU.





Report on Training of Trainers program on Elitron CAD 2D Leather Goods for the Faculty from National Institute of Fashion Technology



National Institute of Fashion Technology (NIFT) is a premier institution in our country offering graduate and post graduate programmes in the area of fashion technology and allied domains. Based on a request from Chairperson, Leather design, NIFT Chennai a customized programme namely "Training of Trainer (TOT) on Elitron CAD 2D leather goods" was conducted at SPDC, CSIR-CLRI from 4th to 6th April 2019. Nine faculty members from across various places (NIFT Chennai – 3; NIFT Delhi-2, NIFT Kolkata-2 & NIFT Rae Bareilly-2) attended the above programme. Lead faculty from CSIR-CLRI for this training programme is Mr. G. Sathiamoorthy, Sr. Technical officer, SPDC. Mr. Aranganathan, Sr. Technician also assisted the training programme and Dr. K. Krishnaraj, Senior principal scientist carried out the overall coordination.

The topics covered during the programme includes: Introduction to CAD/CAM, Introduction to Elitron

CAD, Description of user interface, Basic concepts - Project attributes, Engineering Module Tools, Pattern design Demo, Engineering and construction of the base, Parametric Gusset, Pattern design Demo, Ladies pouch, Pattern design Demo, Ladies Bag, Nesting, Illustration of main functions, Manual nesting, Automatic nesting, Pattern design Practical, Consumption calculation, Illustration of main functions, Assignment of materials, Produce and print report, Pattern conversion, Import / Export DXF, Pattern design Demo

Discussions and concluding session was held on 6th April 2019 at 4 pm. NIFT faculty members who attended the programme appreciated CLRI faculty in conducting the training programme exceptionally well and specifically about the pedagogy adopted in conducting the sessions.

CSIR Technology Showcase at CSIR-IITR Lucknow



CLRI RCED Kanpur participated in the CSIR Technology Showcase organized by CSIR-Indian Institute of Toxicology Research and 'Club of Lucknow' on 18th April 2019. Four national laboratories namely CSIR-CDRI, CSIR-CIMAP, CSIR-NBRI and CSIR-IITR as well as the Regional Centre of CSIR-CFTRI in Lucknow also participated in the Technology Showcase at CSIR-IITR Lucknow.



The Showcase was inaugurated by Dr Anup Chandra Pandey, Chief Secretary, Govt of Uttar Pradesh in the presence of other elite members of the Club of Lucknow. He visited all the stalls and was explained about various technologies of the laboratories by their representatives.

CSIR-CLRI was represented during the event by Shri Abhinandan Kumar, SIC and Shri U K Sharma, Sr Technical Officer of RCED Kanpur. The cleaner technologies of CSIR-CLRI, alternative sources of raw material and other technologies /services were explained to the Chief Secretary and the visitor members of Club of Lucknow.



The CSIR-CLRI stall comprised of different types of leathers & leather products and posters on various technologies such as cleaner greener chemicals for leather, waterless chrome tanning, leathers from unexplored sources, foot care solutions, waste management, zero waste water discharge, skill India initiatives and health care products. A presentation was made by the Director, CSIR-IITR about CSIR Technologies and how these technologies have benefitted the common man.

Visit of Ethiopian Delegates to CSIR-CLRI



Delegation from Leather Industry Development Institute (LIDI), Ethiopia visited CSIR-CLRI during 1st to 5th April 2019 in connection with transfer of Waterless Chrome Tanning Technology for Ethiopian tanneries

Visit of delegation from West Bengal



West Bengal delegation consisting of members from MSME, WBPCB, Government College of Kolkata and Tanners visited CSIR-CLRI on 15th April 2019 to seek technological solutions for the sustainability of West Bengal tanning sector through implementation of cleaner technologies by CSIR-CLRI



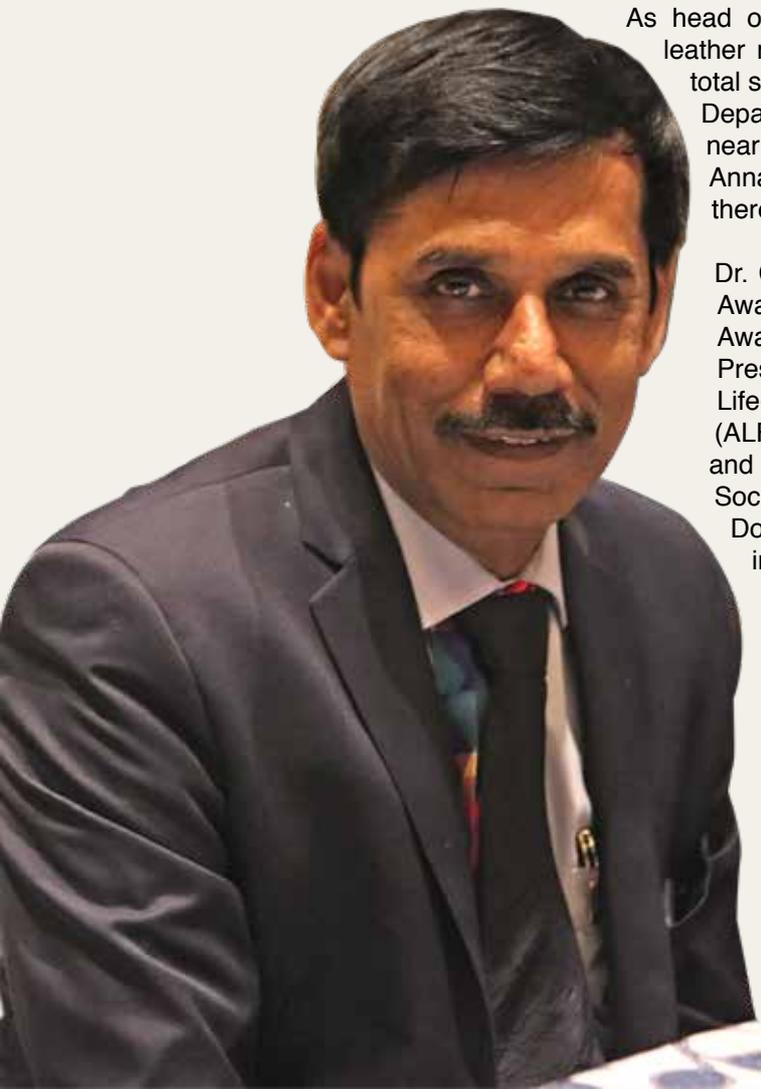
Knowing Dr B Chandrasekaran

Fondly called as Chandru by his teachers, mentors and friends, Dr B Chandrasekaran was born on 17 April 1959 to Mr Bangaru Chinnasamy and Mrs Sulochana in Cuddalore. His primary education was in the town of Cuddalore from St Joseph's Sec School. He then pursued B Tech in Leather Technology from Anna University in 1983 and went on to complete M Tech and PhD in 1985 and 1990, respectively. He joined CLRI family in 1991 as Scientist C and rose to the rank of Director, CLRI in February 2016. He held several positions in various departments of CLRI like TIL, CHORD, CLAD.

He was Chief Scientist and as Chairman of the HRD Cluster of CLRI in development of curriculum and vertical growth integrating the skills with levels of education. He specializes in Cleaner Production, Leather Education, Leather product Design & Development, CAD Techniques for Leather Product Design, Organizational Development, Consultancy in R&D and Organizational Excellence. His expertise lies in Inter- Institutional Cooperation and Global R&D Consultancy.

Dr. Chandrasekaran was the Project Coordinator for CSIR'S prestigious International Consultancy assignment in Ethiopia, which focuses on capacity building of Leather Industry Development Institute (LIDI), Ethiopia. Twinning was a landmark project in the history of CLRI. The initial phase of project involved an intervention of almost 350 man months right from comfortable stay at Ethiopia to ensuring compliance with the objectives of the project was ensured effectively by him. Coordinating such massive man power intensive project is indeed a mammoth task, which BC accomplished efficiently. This project was also awarded the "Best Project Award" from International Project Management Associates (IPMA). He was instrumental in negotiating for similar services in the metal and engineering sector in Ethiopia. He was also invited by the Ministry of Industrialization, Kenya as expert in assisting them formulate a project for establishing Integrated Leather Industrial Park at Nairobi.

He also coordinated the successful completion of a project as National Monitoring Unit (NMU) from the Min. of Ind. & Comm., GOI for monitoring HRD and Support to Artisan programmes during the XI Plan period and winning the contract for the tune of Rs. 1.80 Crores, which restored the credibility of CSIR-CLRI in serving the national cause. As the project coordinator, BC ensured the smooth conductance of this major activity with the establishment of Management Information System (MIS). CSIR-CLRI later bagged the project as NMU for the 12th Plan Period also with an outlay of Rs. 4.50 Crores.



As head of one of the largest sources of graduate engineers in leather related technology education centers in the world with a total student and training strength of over 600 per annum (Head, Department of Leather Technology, Anna University) he ensured near 100% placement for the B Tech and M Tech Students of Anna University trained at CSIR-CLRI during the last 7 years thereby setting a trend in the history of Anna University.

Dr. Chandrasekaran is the recipient of Kannammal Memorial Award for holding First Rank in the M.Tech, Sulabh International Award and the AIMO Award. Dr. Chandrasekaran is the Vice-President of Indian Leather Technologist's Association, and Life-Member, A.C. Tech Leather and Footwear Association (ALFA), ISO – Leather, American Leather Chemists Association and International Union of Leather Technologists and Chemists Society. He has guided several students for their Master's and Doctoral theses. He has to his credit several publications in international journals of repute.

Dr BC is mighty crazy about music especially "Ilayaraja" music. His passion for music comes out open in his singing abilities as well! He is a team man and always encourages youngsters. He is referred as "Apple man" as well by his colleagues as he is one of the most tech savvy persons in CLRI. During his tenure as Director He modernized the entire institute right from Auditorium to labs to library to schools run by CLRI.



Dear Chandru Sir!

F A R E W E L L



Dr G Thyagarajan, Former Director, CSIR-CLRI

You have steered the Institute through times of great change since your appointment as Director of CSIR-CLRI. You have initiated and overseen many defining moments and major developments and I have been particularly pleased to witness from close quarters the metamorphosis you have brought about in the profile of this Institute especially in delivering cutting edge technologies to the Industry with great conviction and consistency.

As you step into a new phase in your life I wish you all happiness and success in your future endeavours.



Dr T Ramasami, Former Secretary, DST; Former Director General, CSIR and Former Director, CSIR-CLRI

That Dr Chandrasekaran, Director, CSIR-CLRI is superannuating from his official service on 30th April 2019 is a fact of the day of his birth and official needs of the employing agency. His tenure as Director, though short in relative terms of length, is event filled and outcome linked. He established a style of leadership that empowers and sustains the growth of the institution well beyond his own tenure at the helm of affairs. He led from the front and performed through personal examples. His multi-dimensional leadership style added further value to CLRI in its tradition of relevant industrial research, commitment to convergence of technological solutions and penchant for excellence in basic research. During his tenure, physical infrastructure, intellectual wealth and industrial dividend got

value added. His is a service which would be celebrated for long by generations to come. As someone who mentored him through his doctoral research in his younger years, I salute him for what he has done by surpassing his own mentor as Director, CLRI through sheer performance as a leader. Long live the cherished values and service of CSIR- CLRI to the tasks of nation building through leather research. Long live the service of Dr Chandrasekaran in memory space of CLRI.



Dr AB Mandal, Former Director, CSIR-CLRI

Congratulations on a wonderful career. It has been my pleasure to know you and to work with you.

Thank you for all the support and goodwill you have shown to me over the years. The sweet memories of working with a co-worker like you will be hard to forget. Best wishes for the next phase of your life.



Shri M Mohammed Hashim, Doyen of the Indian Leather Industry & Chairman, KH Group

You are an exceptional staff member of the great CSIR-CLRI who has been dedicated to promoting excellence and making the workplace an industry friendly and output oriented place to be. Your advocacy of Research in developing path breaking Technology to help the industry especially in the area of Waterless Chrome Tanning and ZLD are really appreciated.

While we will definitely miss you, I wish you every success in your endeavours in the years to come.



Dr M Rafeeqe Ahmed, President, AISHTMA and Chairman, FARIDA Group

Let me take this moment to acknowledge with deep gratitude your unwavering support to the Leather Sector during all of these years. It was always a joy to work with such a wonderful colleague as you. Your insights and suggestions were always very profound and interesting. I wish you the best of luck and continued success wherever you may find yourself.

Shri PR Aqeel Ahmed, Chairman, Council for Leather Exports

Some people come into our lives and quickly go. Others like you stay awhile, make pleasurable imprints on our hearts and we are never ever the same. Such has been the impact of your association with the Leather Industry which has benefitted by your tremendous presence and impactful presentation in support at all fora. Your decision making skills have been inspirational to us and we appreciate your helping hand to us whenever required. Best of luck.



Shri Sanjay Leekha, Vice Chairman, Council for Leather Exports



Your guidance and encouragement have helped the Leather Sector in India thrive in a very competitive environment and especially we at the Council for Leather Exports have been so fortunate to have your expertise to rely on. Your dedication and hard work to the cause of betterment of the Indian Leather Sector has been overwhelming and we will miss a champion voice as you embark on a new journey of your life. May every moment of your life be fulfilling and full of joy.

Shri Habib Hussain, Chairman, Leather Sector Skill Council

I've really enjoyed working with a wonderful colleague like you these past years. Thank you for the good times and sweet memories that we shared together. We will miss your wisdom and experience, but most of all we will miss the encouragement you have been to us. You are an embodiment of optimism and hard work. We wish you the happiest of retirements.



Shri Mukhtarul Amin, COA Member, CLE and Former Chairman, CLE



You have made such a difference with your constant optimism, enthusiasm and willingness to stand behind the Indian Leather industry, no matter how challenging the problem. During my stint at the helm of CLE, I have always marvelled at your ability to make what seemed complicated into something we could all be excited about and get behind. I know we'll all really miss you. Thank you for everything you've done and we have enjoyed every moment of your inspiring association! Best wishes for you on retirement.



Shri Nari Kalwani, Chairman & Managing Director, Asian Leather P. Ltd. and Chairman, Indo German Chamber of Commerce.

What you achieved at leading CSIR-CLRI has made quite an impact to the image as well as performance of the Indian Leather Sector and that's a legacy we all are proud of. Thank you for being a tireless professional, a helpful co-worker and a good friend of the Industry. You have been so wonderful to work with —so many brilliant and creative ideas and suggestions that have benefitted our Industry and have helped it catapult into a vantage position in the global arena.

May the next phase of your life bring you all that you seek and more.

Shri RK Jalan, COA Member, CLE & Former Chairman, CLE

I have had the privilege of working closely with you even during my time on the Research Council of CSIR-CLRI. I could easily discern at that time that you had a very sharp and incisive thought process and you were destined for greater responsibilities in life. We were fortunate to have been the recipients of the numerous projects and proposals that emanated from your thought process which the Industry harnessed to leap frog into the vanguard of global leather trade. I have been so proud of you and your dedication.

May the almighty bless you with a very productive life ahead and best wishes for a healthy and happy future.



Shri Israr Mecca, Regional Chairman (South), Council for Leather Exports

You were one of the most industry friendly people at the helm of such a great Institute. Your leadership and vision helped the Industry overcome many challenges in its growth path. Your integrity, respect and compassion were your most likeable traits which endeared you to us. We thank you for your supporting hands for the momentum push and increased visibility of the Indian Leather Sector. Our sincere wishes for a very rich and rewarding future for you.

Shri Puran Dawar, Regional Chairman (North), Council for Leather Exports & President, AFMEC

We are deeply indebted to you for conceiving and launching initiatives that have led to newer technologies for making the Leather Industry more productive as well as competitive globally. Your attention and time devoted to the Industry in the Northern part of the country is also heartily appreciated. You've accomplished so much for the benefit of our region and we will certainly miss your guidance, support, and positive attitude.

Enjoy this new chapter of your life and we wish you all the best!



Shri Javed Iqbal, Regional Chairman, Council for Leather Exports (Central)

The Leather Industry was very fortunate to have had the benevolence of your wisdom, far reaching technical initiatives and your voice of support at various for a both at Governmental level as well as on International platforms. Your visits and constant follow ups with the Industry in all parts of India were largely beneficial in the forward march of the Indian Leather industry.

As you step into a new phase we hope that we will continue to have the benefit of your guidance and wish and pray for an active and healthy life ahead for you.



Shri Naresh Bhasin, Regional Chairman (West), Council for Leather Exports

In many new initiatives of the Council for Leather Exports as well as of the Indian Leather Sector, you have always participated and wholeheartedly contributed with the Technical mite of your Institute to walk hand in hand and deliver the outcomes successfully. You were an asset to the Indian Leather Industry and your unwavering contributions helped us a lot in treading hitherto untread paths and applying state of the art technology to become lean and globally competitive and profitable. May there be many more successful years in your life and may you continue to grow forever.

Shri Ramesh Juneja, Regional Chairman-Eastern Region, Council for Leather Exports

On behalf of the entire Leather Industry of Eastern Region, I would like to convey my sincere gratitude & thanks to Dr. B. Chandrasekaran, Director, CSIR-CLRI. The Leather Industry of Eastern Region cherishes its long association with Central Leather Research Institute. The industry has come a long way and it has been possible only because of handholding from CSIR-CLRI.

Dr. B. Chandrasekaran was kind enough to respond to the requirements of the Leather Industry & we have always received his co-operation. Dr. B. Chandrasekaran along with his team members has contributed immensely for the development of the Indian Leather industry specially for the Eastern Region. His contribution for establishing Bio Gas plant (Biomethanation for solid waste disposal) at CLC, Kolkata and contribution for promotion of waterless chrome tanning is really appreciable.

I, take the opportunity to convey my warm wishes to Dr. B. Chandrasekaran on his attaining superannuation. I am **sure**, the industry will continue to seek his guidance in future also.



Shri R Selvam, IAS, Executive Director, Council for Leather Exports



I have been fortunate to be associated with Dr Chandrasekhar since my current tenure at the Council for Leather Exports and have found him to be a very knowledgeable and affable personality whose guidance I cherish as I took my first steps into the Leather arena. His resolute decisions and Technological support have proven to be very beneficial for the members of CLE. CSIR-CLRI's partnership has also helped CLE make strong presentations to the various Government departments. The contributions of CLRI under Dr Chandrasekhar's leadership towards the successful implementation of CLE's flagship schemes have been enormous. I take this opportunity to offer my gratitude to Dr B Chandrasekhar as he superannuates after a very distinguished tenure as the Director of CSIR-CLRI and wish him a very active and productive life ahead

Shri Taj Alam, Chairman, King's International, Kanpur

We thank you for being a great mentor who has guided us at work in ways that have made us aware of the usefulness of adopting Technology in attaining a competitive edge in the highly competitive Business environment globally. Your calm demeanour and affability was very likeable and the Industry owes you a befitting Thanks for being there for us each time.

May you always be that guiding star in whatever path you choose.



Shri T Rafeeq Ahmed, Managing Director, T Abdul Wahid & Co.



It is with pride that I have watched your growth over the many years of our association. I have always felt that you are a genuine team leader with remarkable charisma and excellent ingenuity. A good leader not only inspires but also motivates his team for doing their best and I must compliment you on the Team that you have built in the Institute which is so Industry friendly and is always at the fore-front to help the Industry grapple with issues whether they be Technology related or Policy related. We appreciate all that you have done for us.

Congratulations on your achievements and may success follow you all your life.

Shri KR Vijayan, President, Indian Shoe Federation

Leaders like you are the epitome of professionalism. Thank you for bringing your best to work every single day during our joint endeavours to help the Indian Leather and Leather Product Industry leapfrog into the foreyards of global business. I can emphatically say that with your positive attitude all our endeavours became easier to execute, changes became easier to implement and problems became easier to solve. Thank you for everything you did. Wishing you a life full of success and happiness!



Shri N Shafeeq Ahmed, Chairman, Indian Finished Leather Manufacturers & Exporters Association



As you retire, remember that you have left behind a legacy of encouragement, achievement and work ethic that will always be part of your co-workers and an abiding embodiment of the Industry-Institute interaction. Congratulations. Working with you has been an immense pleasure these past few years. Your graciousness about the people with whom you work, your delight in an acknowledgment of their success and your ability to make them comfortable have always impressed me. As you start a new phase of your career, I sincerely wish you continued success in all your future endeavours.

Shri Tapan Nandi, COA Member, CLE and President, FREYA-IIDF

While your lovely presence will be missed, the great work you did, especially in the Eastern Region would ensure that your immense contribution will continue to live for a long time and set the template for future growth of our industry. It has been an honour and a privilege to work with you. You're also a wonderful friend and I appreciate your friendship and caring which has transcended our professional association. Wishing you a new heights of success in this fresh chapter of your journey, a blossom of opportunities ahead and more happiness to come your way. Happy Retirement!



Shri Motilal Sethi, Convenor, Leather Garments & President, Indian Leather Garments Association



It has been an enriching experience to work with someone like you. You are the kind of person who brings out the best in others! You have been at the forefront of supporting the cause of the Indian Leather Sector and in particular you have been a pillar of strength for us at ILGA. Thanks for encouraging and inspiring us in our activities at ILGA. We wish you a happy retirement and encouraging times ahead.

Shri Vipin Seth, COA Member, CLE and Executive Director, Versatile Enterprises

You are wonderful and your spirit and energy will always guide us to move forward. The Industry was fortunate to have your sagely counsel to chart tricky paths and be triumphant. Despite your pivotal leadership position, your behaviour towards others has always been benevolent and considerate and this is the hallmark of a great person who is so humble yet has numerous achievements to his credit. We wish you the best in your retired life.





Shri BD Bhaiya, Chairman, LCMA & Chairman - CHEMCROWN GROUP

You have been more than a Director at the prestigious CSIR-CLRI. You have been a friend, mentor and guide to the Leather Chemicals Manufacturers and we really appreciate the monumental efforts you took and left no stone unturned to make us better professionals. We sincerely thank you for the encouragement and support. We shall always cherish our association and wish you exciting times ahead.

Shri Ramesh Prasad, Chairman, PRC Leathers

A leader’s responsibility is not just to be watchful of others’ work but also inspire others and I can proudly say with all the conviction at my command that you have you have done this abundantly. Your commitment to achieving enhanced Environment compliance by working shoulder to shoulder with the Leather Industry across the country and for us especially in the South of the country is a shining example of Institute-Industry co-operation for the benefit of the country. We thank you for being there for us always.

We seek your continued guidance and pray for a happy and healthy life for you.



Shri S Srinivasan, Managing Director, Skandia Cutting Dies

Time certainly flies and watching a brilliant student metamorphose into a dynamic Director at the very same Institute at which he studied has been a matter of unalloyed joy and privilege for me. Your honesty is unsurpassed and your work has been of the highest standards. You can justifiably hold your head high at the fantastic achievements right throughout your career which have become benchmarks to emulate for the generation next. The Industry as well as I as an individual have been enriched by our interactions with you. May you tread on serene paths and best wishes for a bright and cheery future. May you have a long healthy & peaceful retired life!

Shri Asgar Ali Dhala, Chairman, FORWARD Group

You breathed life into the Institute-Industry relationship and brought energy to the joint initiatives undertaken by them. Your infectious enthusiasm filled the industry hearts with a new spirit. We thank you from the bottom of our hearts for being a flag bearer of this very important collaboration and for chaperoning the cause of the Industry at all fora.

We know that wherever you go you will make things better and spread joy all around. We wish you a happy retired life.



Prof (Dr) Anita Manohar, Director, National Institute of Fashion Technology, Chennai

It has been truly a blessing learning and working with you over the years. The co-operation between our two Institutes are a model to be followed for dynamic co-operation which selflessly put the interests of the students as well as the industry niches we support as prime objectives. Your brilliance and your guidance has always inspired us to do better. You were a good mentor and a friend and your presence will be missed.

Thank you for everything. Happy retirement.

Prof Pradyumna Vyas, Former Director, National Institute of Design, Ahmedabad

I have thoroughly enjoyed the collaborative work between CSIR-CLRI and NID. I have had the pleasure of interacting with your colleagues on many occasions and the underlining sentiment echoed by all of them is about your support and encouragement to them in all their endeavours. You motivate them and are truly a great mentor. I would like to salute your spirit of team work, diligence, efficiency and friendliness and I have been witness to it.

Thank you for being inspirational! Wishing you a very exciting journey ahead.



Smt Revathi Roy, Managing Director, RR Leathers India P. Ltd.

Right from your days at the CLAD department of CSIR-CLRI I have been enriched by your knowledge and your passion for Design of Leather Products. I have benefitted immensely as a Professional as well as a Company from the numerous value added services and consultancy emanating from your team. I have watched from close quarters how you gave directions and inspiration to your team instead of giving them instructions. You are the personification of optimism and hard work and Thank you for your support at all times.

Wishing you success and happiness in the journey ahead.



Shri A Sahasranaman, IAS (Retd) and Patron, ILIFO

It has been a pleasure to interact and work closely with you on many projects and at all times I have admired your Technical flair combined with a sharp entrepreneurial spirit to ensure that the end product and technology reaches the industry as is clearly evidenced by the number of Technology transfers to the Industry during your tenure.

Wishing you a life full of success and happiness!



Shri S Jawahar, Chairman, Khaalz International

You were among the first of CLRI Scientists with whom I have had the privilege of sharing an enduring and purposeful professional association during my time in the Leather and Leather Product industry. Having observed you at close quarters I can vouch that you have set a great example to everyone at work by being a role model especially in the way you conducted yourself through your belief in team work, diligence, efficiency and friendliness.

I wish you the best of luck and continued success in whatever path you may choose to tread.



Shri D Chandramouli, Chief Scientist (Retd) CLRI and President, CSIR Pensioners Welfare Association, Chennai Centre

It is always pleasant to recall over two decades working relationship with you in CLRI. The same spirit continues even after my retirement - as the President of CSIR Pensioners Welfare Association. I have particularly noted your dynamic leadership - being the Head of the Departments of CHORD and Leather goods. The Ethiopian projects of Bench Marking and Twinning are dearest to me. I have always looked these projects as symbols of partners in the progress of Ethiopia and India. You have truly demonstrated the goal with exemplary knowledge and wisdom for the success of Twinning Project. You carry with you most valuable virtues of team building and leadership for R & D management. I am sure your services will continue to be sought after for the benefit of the Society at large. Let me wish you good health, happiness and long life.





Shri G Swaminathan, Former Chief Scientist, CSIR-CLRI

I have known you from your early days in CLRI, and me, as a scientist who had been associated with the education and training department of CLRI, have admired you as one with intelligence, strong convictions and also a willing worker. After becoming the staff of CLRI, I had opportunities to interact with you and it was always a pleasure to work with someone who is balanced, capable of understanding any issues perfectly and come out with best suggestions. In addition, the bonhomie you extend to people around you and maintaining contact with them is something commendable. That is the reason why I am fully aware about CLRI and its growth and achievements during your leadership as a Director even after my retirement.

You have always impressed me as a best conversationalist and your interest in many other areas like music and art which are my great passions brought you closer to me as you never miss to share your views in those areas and discuss about them during our occasional meetings.

I know you are an indefatigable individual with persona of leadership and multifaceted talents; I am confident that will keep you always active and busy even after your superannuation.

Dr S Sadulla, Former Chief Scientist, CSIR-CLRI

It's hard to think that you would be superannuating soon. I was incredibly lucky to have had a close association with you right from your student days. You've been so dependable, supportive, encouraging and honest during your time here. The everlasting memory that I have of our working together is your self-effacing trait in not hankering for recognition for your achievements. Keep doing great things in your own distinctive stride.

I wish you all the best in your future engagements and endeavours post superannuation.



Shri CS Gnanasekaran, Managing Partner, C Kalyanam & Co

Words of felicitation are still fresh in my mind for Dr.B.Chandrasekaran having been selected as the Director of CSIR-CLRI. By this time, it has become superannuation due for him. I had the opportunity to interact with him during his tenure as the Director. It was a pleasant experience to move with him for his modest and simple behaviour and also his clear and vivid ideas. As far as CLRI is concerned it has been a golden period with lot of new innovations and practical demonstrations being conducted in tanneries all over India and abroad. CSIR-CLRI has received many awards, National as well as International during his tenure. He as the Director of CLRI, had the opportunity of conducting IULTCS Congress in a grand and successful way in Chennai. His diplomatic way of conducting activities of the institute has been well recognised and appreciated

by the industry. On behalf of alumni of AC Tech (ALFA) we are thankful to him for his driving zeal and enthusiasm in all its activities. ALFA as well as CSIR-CLRI are better organisations today because of his selfless efforts.

I wish he gets extension of service for few more years so that the institute as well as the industry gets benefitted by his judicious leadership. I wish him all the best.

Shri P Gopalakrishnan, President, AC Tech ALFA

I have been the recipient of CSIR-CLRI's Technical acumen in my entrepreneurial journey and I have greatly benefitted by your technical expertise and wisdom in guiding me through the many complicated pathways in this journey. Your talent and skills are greatly valued and your work ethic is worth emulating.

As you traverse the various pathways of life in the future my best wishes and prayers for a smooth and healthy journey ahead.



Dr. Gautham Gopalakrishna, Former Chief Scientist, CSIR-CLRI

You have been truly inspirational and have brought a breath of fresh air in your tenure as Director, CSIR-CLRI. I have been privileged to have been associated with you since your student days and later as a distinguished colleague. I have also benefitted by the sagacity you brought in as my mentor and guide while pursuing the Doctoral programme under your able stewardship.

Your new ideas and endeavours have helped in the growth of the sector and you need to be complimented for providing all colleagues innumerable opportunities and supporting them in all their endeavours.

Your humility and kind benevolence will ever be remembered and my enduring memory of you would be of a fine human being who was soft spoken, kind, passionate, visionary and over all a very dedicated person who took the CSIR-CLRI to great heights. I wish you good health, happiness and also the very best in all your future responsibilities.





Celebration of “72 years of Leadership in Leather”

CSIR-Central Leather Research Institute, a constituent laboratory of the CSIR, established in 1948 entered into its 70th year last April; 24th April 2018. Year-long activities and programmes had been planned to commemorate 70 years of service in enabling leather through an academy-industry-research partnership forged from the very beginning.

CSIR-CLRI nurtures the skilled manpower required for the sector at the global level. CSIR-CLRI represents the leather sector in all its planning and policy development. Over the years, the institute has transformed into a global hub for innovative technology driven development of the leather sector. Technologies for bioprocessing of leather, zero waste water discharge, value added materials from leather and indigenous chemicals for processing are some of the highlighting features of this institute. Reaching the unreached through grass root level artisanal training programmes, training of trainers etc. is an important feature of the S&T dissemination activities of the institute.

Through the institute, Indian leather sector strives to achieve economic and environmental sustainability, leading to more than doubling of the annual turnover from the present in about 4 years. The reinstatement of the tanneries in Tamil Nadu in 1996 stands a strong testimony to the contributions of this institute.

INDIAN LEATHER INDUSTRY - STRIDING WITH CONFIDENCE



COUNCIL FOR LEATHER EXPORTS

(An Export Promotion Organisation sponsored by Ministry of Commerce & Industry, Govt. of India)

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CSIR-CLRI



Striving for Excellence and
Global Leadership in Leather Technology

Global Leadership in Leather

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