CSIR-CLRI
“Enabling the Indian Leather Industry”

70
Years
"In Enabling Leather"
24 April 1948 – 24 April 2018
Celebrations on 24th April 2018
Looking Back, it was a landmark decision of the country to invest into leather research by founding the Central Leather Research Institute on 24 April, 1948. In 1947, the export basket of India included mostly raw hides and skins. There remained an untapped opportunity for India in leather sector for economic development, employment generation and export earnings. The missing link was addition of technology to the manufacturing base of Indian leather sector. CLRI was founded to develop an internal strength in the country to generate, assimilate and innovate technologies for leather sector. CLRI in 1948, made an initiative with foresight to link technology system with both academy and industry. CLRI assumed the role of being a part of the University of Madras in imparting education in leather technology. The seed sown in 1948, has now grown into a tree with nearly 60% of the industry in India being manned and managed by the Alumni of CLRI. CLRI, today, is a central hub in Indian leather sector with direct roles in education, research, training, testing, designing, forecasting, planning, social empowerment and leading in science and technology relating to leather. CLRI maintains very close links with the industry – both decentralised and organised sectors and has been playing a vital role in the transformation of the industry from predominantly being exporters of finished leathers to products. It has an advisory role to Government in framing the industry-friendly policies and helping the industry by extending all technical advice and necessary technologies and technical manpower. The Institute has been extending the required help to the industry in major areas such as leather process technology, leather chemicals, effluent treatment, product design and quality standardization, value addition to by-products and improving/supplying the trained manpower required for different sectors of the industry. CLRI has Regional Centres to meet the regional requirements of the industry at Kolkata, Kanpur, Jalandhar and Ahmedabad.

As early as 1964, the Institute took initiative in organising International Leather Fair and a Fashion Parade within CLRI campus. These two major events had become annual features in CLRI calendar until 1985 when Indian Trade Promotion Organisation took over the responsibility of organising the trade fair and fashion show.

CLRI has been closely associated with many International Organisations like UNIDO; FAO; UNDP; TNO (The Netherlands); British School of Leather, Northampton, UK; the British Leather Confederation (BLC), UK; CTC, France; CESECA, Italy; Hamburg Water Research, Germany, IRDLAI, Indonesia; SATRA, UK and IDRC, Canada, CSIO, Australia, University of Amsterdam to name a few.

Many CLRI Scientists/Technologists were deputed to other developing countries like Sudan, Nigeria, Iran, Sri Lanka, Bangladesh and more recently to Ethiopia, to help the local leather industry. This Institute played a key role in establishing Leather Research Institutes in both Nigeria and Iran. The Institute has been closely associated with other Leather Research Institutes in UK, China, Indonesia and many other countries. The Landmark events have been the more than four decades of sustained institute-industry meets, the foresight to sow the seed for the India Leather fair for linking manufacture to markets, the hosting of the IULTCS in Chennai, the hosting of the Modeurop Round Table in India and providing a Landmark solution to an industrial crisis following closure of all tanneries in Tamil Nadu. One pointed goal for CLRI is to establish global leadership and to provide technological support to the world’s leather industry, gaining for CLRI, CSIR and the Nation prestige, pride and economic benefits as well as reverential power in the global scientific industrial research for the leather sector.
CSIR-Central Leather Research Institute, a constituent laboratory of the CSIR, established in 1948 is entering into its 71st year.

Recent technologies from CLRI

The research theme of the institute is the “Sustainability of the leather industry”. Leather sector makes a significant contribution to the GDP and also provides direct and indirect employment to people in the lower strata of income. To turn the industry from one, which used to consume large quantities of water and discharges a variety of liquid and solid pollutants, paradigm changes in the processing methodologies are required. Some of the developments in this area, which have been validated at industrial scales and also have been / will be translated to the industry, are:

- Water free chrome tanning technologies
- Zero wastewater discharge process
- Cocktail of enzymes for bioprocessing
- Development of syntans devoid of toxic chemicals
- Developing soles for footwear from solid wastes of leather industry
- Operational cost reduction and sludge minimisation in treatment plants
- Hitherto unexplored exotic raw materials for Leather Life style products (Chicken feet skin, fish skin, ostrich skin etc.)
- Children footwear for the growing feet
- Footwear for diabetic and obese
- Collagen and Collagen-Peptide based Biomaterials for Tissue Engineering Applications
- Pharmaceutical grade gelatin from tannery wastes

Game changing technologies for leather processing

Waterless Tanning Technology

Chromium is the most sought after tanning agent with about 2.0 billion sq. ft. of leather being made in India. About 20 thousand tons of chrome tanning agent is discharged in the wastewater. CSIR-CLRI has a basket of technologies by which chromium uptake by the leather could be increased. Amongst these, the recent technologies, viz., the waterless chrome tanning technology and a product for facilitating dry tanning have made giant strides.

The waterless tanning technology has now found PAN INDIA acceptance, with tanners in all clusters enrolling for its adoption. This is truly a game changing technology that has emerged from the CSIR-CLRI. Significance of this technology is that a) it completely eliminates two processes before and after tanning, b) eliminates the use of water in tanning, c) reduces the total dissolved solids in wastewater from this process by 20% and also d) brings down the usage of chromium by 15-20%, resulting in material saving.

Efforts are now on to translate this technology both nationally and globally. Several countries including Ethiopia, South Africa, The Netherlands, New Zealand, Vietnam and Brazil have evinced interest in this CSIR-CLRI technology.

First of its kind chemicals for leather processing

The institute from its beginning has been contributing to the indigenous development of syntans and fatliquors. This process continues even today with the introduction of a chromium based product free of formaldehyde and specifically suited for poor quality raw materials to increase the per square feet value realization from leather.

Generating wealth from tannery solid waste

Through the decades’ sustainability of the sector has gained more and more attention. The institute has addressed the problems associated with the large solid wastes generated by this industry in a holistic manner. Today technologies that generate value, almost equal to that of leather itself have been developed by the CSIR from the leather wastes. Some of these technologies that have caught the attention are:

a. biofuels from wastes
b. hair composts for vegetation
c. shoe soles from limed flesh wastes
d. regenerated leather from leather trimmings and fabrics from leather wastes

Towards environmental sustainability

Technologies for end-of-pipe treatment of wastes and increasing the efficiency of the common effluent treatment plants have been addressed through the institute. CSIR-CLRI technology for chrome recovery/reuse has been implemented in all tanneries in the country. Under the Namami Gange program, the institute has provided a detailed plan for waste management in tanneries at Ajama, Kanpur. Institute closely works with various central and state government bodies in ensuring the environmental compliance of the leather industry. The highlight of the technology support of CSIR-CLRI is in

a. State-of-art technologies for recovery and reuse of water by adopting membrane systems to control pollutants and meet water demands of the industry in Tamil Nadu.
b. The indigenously developed decentralized secured landfill setup has contributed to the environmental compliance by the industry.
c. Keeping in mind the need to control greenhouse gas emissions and sludge generated by effluent treatment plants, the institute has developed a series of advanced oxidation treatment processes that reduce the greenhouse gas emissions by 50% and sludge
generation by 80%. This technology has found acceptance not only by the leather industries but also by other industries as well as for municipal sewage treatment.

d. Technologies for biomethanisation of wastes using high rate anaerobic treatment process have been implemented not only in tanneries but also for pharma, agro and other industries.

e. Electro-oxidation technologies for zero wastewater discharge with negligible sludge generation. These technologies have also found acceptance in many of the manufacturing nations.

**Heath care products impacting society**

Collagen, the predominant constituent protein of skin, has been one of the strong research points of CSIR-CLRI. While modulating collagen structure and crosslinking for tanning, the institute has also developed a range of health care products based on collagen and other proteinous material like gelatin and keratin. Some of the products from the institute such as:

- wound healing materials
- surgical sutures
- burn dressing materials
- high grade gelatin and
- demineralized bone

have been commercialized and are finding acceptance globally.

**Planning for future leather sector**

The institute had prepared and submitted to the Government, a Technology Mission plan for Leather sector and the same has been approved at a cost of Rs. 2600 Crores. Through this plan, it is envisioned to provide proactive measures to upgrade and expand the technologies and thus the capacity of CETPs, along with skill development required. CSIR-CLRI would be the implementing agency for the above development plan.

As a part of the TIFAC led initiative to develop a roadmap for the manufacturing sector in the country for 2035, the CLRI has prepared a roadmap for the leather sector. Through this roadmap an innovation led transformation of the industry has been envisaged.

**CSIR-CLRI alignment to National Agenda**

CSIR-CLRI through leather developmental initiatives has contributed significantly to the national agenda laid out by our Hon’ble Prime Minister in the following manner:

<table>
<thead>
<tr>
<th>Swachh Bharat Abhiyan</th>
<th>Technologies for treatment of solid &amp; liquid wastes and value generation from them</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean and renewable energy</td>
<td>Bioenergy - Biogas from tannery wastes</td>
</tr>
</tbody>
</table>
| Namami Ganga | Safeguarding Ganga: CSIR as an enabler  
Enhancing CETP capacity  
Improved collection/conveyance of wastes  
Secure landfills |
| Game Changer | Sustainable Manufacture: CSIR-CLRI Technology  
Zero Chromium discharge, Waterless Chrome Tanning Technology, Dry Tanning |
| Make in India | Doubling value from Indian Leather by 2020  
CSIR as an enabler – Technology Mission  
Quantum jump in R/M collection  
Augmenting tanning capacity  
Matching CETP capacities  
Benchmarking and Branding |
| Innovate in India | Enzyme based fibre opening  
Leather goods from Ray fish, Chicken feet leathers  
Leather + Natural fibre based products |
| Swasthya Bharat | Footcare solutions for obese and arthritic  
Wound/burn dressing materials/sutures  
Benign and aesthetic children shoes |
| Samarth – Sasakth Bharat | Academy-Industry-R&D  
CSIR-CLRI as an enabler  
Min. of skill development training programs  
Capacity building in Africa |
CLRI's emergence as a global leader in Leather Research and as one of the topmost laboratories of the Council for Industrial Research owes considerably to a very able and supportive ADMINISTRATION wing. The Controller of Administration, the Section Officers and their staff are alive to the dynamic needs of the Scientific personnel and ensure that processes and clearances are expeditiously cleared. The Accounts officer and his personnel also move in sync with the needs of the entire CLRI fraternity and are very adept in handling all financial matters. Their support and help goes a long way in facilitating professional delivery of consultancy and research projects undertaken by the scientific staff. The Stores and Purchase Officer along with his staff are also very cooperative and ensure that the procurement process is smoothly carried out and this results in cutting edge research with sophisticated instrumentation. The Hindi department is also an important wing which helps translate documents and carries out training of the staff helping them pass examinations in Hindi which significantly enhances their career progress. The Hindi officer and his staff are very enthusiastic and this rubs on the CLRI personnel, making learning of the new language such an enjoyable experience. The CLRI dispensary is a boon to all the staff and their families and the credit for its efficient running must go to the Staff Doctor and his able medical team. Their competence and willingness to attend to the medical needs of the staff and their families at all times are indeed a blessing and helps them stay healthy and happy. CLRI is a green haven amidst the concrete jungle that the city has become. With its beautifully manicured gardens and the proliferation of greenery throughout the vast expanse of its campus it provides lung space for all its residents and draws appreciation of all visitors. The entire credit for this must go to the Horticultural section and the Lab maintenance who are so diligent in their work. CLRI is secured by a Team of alert and a dedicated band of security personnel. The interface of CLRI with the outside world is the Public Relation Department and with their cheerful attitude they have managed to harmoniously integrate the liaising with external agencies with the Institute. CLRI believes in keeping its employees happy at all times and in addition to the excellent campus it provides to its residents, it also provides for other important amenities like a full-fledged school on its campus and a large playground for the benefit of its employees.

A healthy mind in a healthy body indeed.

WAY FORWARD

- Forming national and international consortia for science, design and technology marketing
- Broaden, strengthen and enhance the stake holder base in leather products including non-leather inputs
- Enable the sector to gain technology/innovation driven status
- Optimizing stake holder base and value
- Increasing the ratio of where we are to where we could be
- Forming synergies, new entities and new networks for outreach mechanisms and increase efficiency
- Optimizing coupling constants with different stake holder bases

FROM THE EDITORIAL TEAM

It has been a proud privilege to have been given the opportunity to bring out the 'SPECIAL EDITION' of The LEATHER POST coinciding with CLRI 71. The task was onerous yet challenging. An Institute of this eminence with multi-faceted glories is difficult to capsule in a compendium. We remain inspired by our Directors, past and present. We sincerely acknowledge all the inputs received from our well-wishers, friends and colleagues and thank them graciously. It was indeed a pleasure!
Unforgettable

Adhar Sahni
Adesh Gupta
Anita Manohar
Aqeel Ahmed P R
Aruna Dhathathreyan
Balachandra Unni Nair
Bhaiya B D
Chandramouli D
Gautham Gopalakrishna
Gnanasekaran C S
Gopalakrishnan P
Habib Hussain
Iqbal Modi S
Javed Iqbal
Jayanta Das
Mandal AB
Manfred Junkert
Manoj Tuli
Marga Indra Heide
Mohammed Hashim M
Motilal Sethi
Muhammad Yavar Dhala
Mukhtarul Amin
Nari Kalwani
Naser Ahmed A G
Noushad VKC
Rafeeqe Ahmed M
Ramjee Yogasundaram
Sadulla S
Sahasranaman A
Sankar Dawn
Senthil Kumar A R
SriHarsha M S
Srinivasan K
Srinivisan S
Taj Alam
Thyagarajan G
Tuncay Deriner
Vijayan K R
Vimalan V

The Leather Post
Congratulations on achieving the grand milestone of completing 70 years as an institution par excellence! CSIR-CLR today is the very backbone of the Indian Leather Industry and has been one of the game changers in placing India in the international leather scenario. One can proudly say, if Indian leather industry is the hardware - CSIR-CLRI is the software that ENABLES the industry. CSIR-CLRI, through its innumerable research and developments, has given us ‘clean and safe’ leather manufacturing techniques which makes Indian leather “skin friendly” and compliant to stringent international norms, which ENABLED us to transform from a raw and wet blue cottage industry to a provider of high fashion finished products to internationally famous brands. A true harbinger of MAKE III INDIA initiative! ILPA is especially proud to be associated with CSIR-CLRI all these years. To achieve and ENABLE our common vision of SWATCH BHARAT, CSIR-CLRI is currently lending ILPA commendable technological support for setting up a Sewage Treatment Plant in the ILPA Leather Goods Park, Calcutta Leather Complex. To achieve and ENABLE the common vision of SAMARIH - SASAKHST BHARAT, CSIR-CLRI is partnering with ILPA to impart Skill Development Training Programs to financially challenged candidates - currently such a 6 months training course is going on in the state - of - the - art prestigious ILPA Tech School in Bantala - Kolkata. The aim is to develop skilled man power for the growing leather goods industry in West Bengal. CSRI-CLRI- MODEUROP has always been one of the most awaited programmes by our members every year. Its initiative of ‘fashion forecasting’ for the Indian Leather Industry. ENABLES us to engineer design development, colour forecasting, range building and retail analysis and therefore to stay ahead in fashion in Leather. ILPA members find the MODEUROP Fashion Trends very useful for their export business, which CSRI-CLRI conducts in Kolkata.

Wish the entire team of CSIR-CLRI great success for the future and many more accolades and milestones.
As CSIR-CLRI step into the 71st year of Foundation, we at NIFT feel proud and honoured to be a leading strategic partner with CLRI in successfully steering through the education, training and research programmes, design projects which sustainably created value for all the stakeholders of leather, footwear and allied industries. Central Leather Research Institute, India was founded on 24 April, 1948 which was a land mark decision of the country to invest into leather research. The untapped opportunity remained for India in leather sector for economic development, employment generation and export earnings were exploited and implemented into the reality with the active contributions of CLRI.

We are extremely fortunate that we will together witness a great moment of pride in the history of the Nation building, as CLRI attains a unique milestone that would be etched in golden letters. Our journey has been a long one, since 1993, from the inception of Leather Design programme in NIFT Delhi then expanded to Kolkata, Chennai and Rae Bareli and this incredible journey of ours is a testimony of the vision, entrepreneurship spirit and commitment of the founders and Leaders of CLRI and NIFT. As CLRI is celebrating its Foundation Day on 24th April 2018, NIFT takes this moment to pay homage to the Founders of CLRI, appreciate the successors and reminisce those noteworthy accomplishments that created an institution which prides on its diversity and contributions for Nation building.

CLRI, today, is a central intelligence hub in Indian leather sector with direct roles in education, research, training, testing, project planning, social empowerment and leading in science and technology relating to leather. As CLRI is vying to emerge a global leader in leather research and technology development, we at NIFT join hands with CLRI for strategic and symbiotic relationships to transform the Indian leather Industries to greater heights with innovative pursuits and in tandem with the Global business trends.

I am happy to know that CLRI has reached another milestone in its eventful history – 70 years of leadership in leather. CLRI is serving as the hub of technology and innovation for the Indian leather industry. Not only this, CLRI has been in the forefront in the area of Industry – Institute tie-ups, by receiving constant feedback from the industry on its requirements in line with global market trends and in developing appropriate technologies to suit the needs of the industry. This is perhaps the vital aspect that has helped CLRI in adapting itself to the ever changing fashion requirements in the global leather market.

Thanks to the efforts of CLRI, India has been a front runner in every edition of Modeurop Congress, by winning maximum colour selections. Not only this, development of enzymatic products for tanning industry and healthcare items from plant/animal by-products, environment friendly tanning technologies and also development of value added products like fleshing meal, glue/gelatin, parchment like material etc., from tannery wastes stand as a testimony to the diverse contribution of CLRI.

The annual LERIG Conference of CLRI serves as a platform for discussions on new technologies and products useful to the leather industry.

I am sure that in future too CLRI will continue play a crucial role in developing three Is namely Intelligence, Innovation and Improvement, which will lead to sustainable growth of the Indian leather industry.
My association of 29 odd years with CSIR-CLRI means that I have been associated with it for nearly half of the 70 years, of course the later half!

Reminiscence or nostalgia promotes self-continuity, linking who you were in the past with who you are now.

I am giving this message as a lifelong researcher, now semi-retired, and still associated with CSIR-CLRI as an emeritus scientist! In that sense, I have seen great stalwarts heading the Chemical Lab, guiding the R&D efforts of the lab. and now I see the third generation of leather technologists carrying on with the same fervour and intensity as I saw it in the 90s.

As a researcher who came into the arena of leather technology for the first time at the Chemical Lab of CLRI, I saw first-hand the development of Syntans, development of new methodologies for chrome recovery and related leather process technologies with the Lab members interacting with the industry intensely. As a non leather researcher, I was proud to be associated with programs that involved intense efforts in Surface and Interface chemistry. The Industrial Organic Lab. (then called the Leather Auxiliary Lab.) and Chemical Lab. developed new experimental tools that were much sought after by many industrial partners – Elf Atofina project on Fluoropolymers for leather applications, Foaming agents and surface active agents with Balmer Lawrie, Personal Care products with Cavinkare were some of the projects where I was proud to work with the leather technologists. I was happy to be associated with IULTCS of 1999 and later also attended IULTCS 2017 organized by CSIR-CLRI in Chennai.

Looking back at my own career in the Lab., I started off as a basic science researcher and later many associations, led to an explosion of collaboration, which brought with it a lot of mutual excitement and just plain fun! Our synergistic effort between Basic sciences and Leather technology has shown that joint effort is greater than the sum of the several contributions and has been undoubtedly of tremendous value: The lesson I learnt was that collaboration can be a great joy.

I wish CSIR-CLRI at least another 75 years of great interaction with the Leather Industry. I wish all the members of CLRI family great success!
My association with CLRI has been the most pleasant part of my life and career. The serene campus of CLRI - ninety acre spread, greenery, imperial buildings, staff quarters, school, playground – always fascinate me. It has become a major landmark in the sprawling science city of Chennai. The Laboratory facilities are most sought after not only by Leather Industry but also by the researchers and students of the city. Because, it is so unique in every respect. Its forte of knowledge is comprehensive – from animals to fashion markets of the world. I am fortunate to be a part of this great Institution for about 35 years – half of the 70 years of CLRI. It moulded my personality and I consider it to be my thought builder.

In the saga of my association with CLRI - there are many great moments – working with illustrious Directors of CLRI, interactions with industry and trade, participation in LERIG/ TGTs, team spirit for carrying out projects, teaching for academic courses, sharing of management responsibilities. The list goes on.

In the initial years of my career – 70s and 80s – I had thrilling encounters with senior scientists/technologists who have made strong foundation for CLRI through illustrious leadership of Prof Nayudamma. The pilot tannery was the centre of focus with intense enthusiasm to carry out the work all through the day. I have no hesitation in saying that they are instrumental in shaping the modern leather industry in India. The footprint of CLRI is seen and felt wherever I travelled including the remotest parts of North East Region. It is largely due to the work of dedicated leather technologists in the form of technologies, training and field demonstrations.

The Economics Division has provided me opportunity to work almost throughout my career in externally funded projects. It has enabled me to formulate and execute the work as a team and deliver the output on time. In carrying out surveys, I had versatile experiences while working with leather technologists – particularly of those from Regional Centres. The land mark surveys on hides and skins, tanneries and footwear have provided interesting insights into nature and operational character of these industries at macro level. The most striking experience is the subsequent policy formulations based on outcome of these surveys. The IDLS Project has given me a great source of inspiration to work directly with the tanning industry across the country. The annual event of LERIG/TGT has been the most visible effect on my understanding of leather sector. It was conceived (1964) and nurtured by great visionary scientist Prof Nayudamma and sincerely followed it up till date with the same vigour and commitment. Personally I learnt a lot from this forum by listening to the presentations, views of industry, trade, policy makers and those of CLRI. Even now (after retirement), I make it a point to be at LERIG every year. Such is my fascination for CLRI and leather.

Another unique feature of CLRI is disseminating the knowledge base through education and training. I am so happy to be a part of this activity for almost twenty years and continue to do so now. Students are great ambassadors for CLRI. I get elated wherever I happen to meet the students.

Let me conclude by saying that CLRI is a true place for R&D. It continues to be a great place for learning with freedom of expressing ideas, exploring through science, applying through technology and enabling to make the product. To me – CLRI reflects Dictionary for Leather.
It is a matter of great joy to learn that CLRI is celebrating ‘70 years of leadership in leather’ on the occasion of its foundation day. I have very pleasant memories of the times that I spent in CLRI and am extremely grateful to the successive Directors of this great Institute who gave us complete freedom in pursuing Research and S&T projects with the avowed intention of making the Indian Footwear industry more competitive and place it in the vanguard of the global footwear trade. I fondly recall the successful outcomes in delivering the projects on ‘DIASTEP’ - an off the shelf footwear for low risk Diabetics; the setting up of a state of the art CAD Studio for pattern engineering of footwear styles; the setting up of a movement analysis laboratory; Benchmarking and Productivity improvement in Footwear factories both Nationally and Internationally and many more such initiatives.

CLRI has always been at the forefront of developing cutting edge technologies and has earned for its Scientists recognition at the highest levels and I also have been fortunate to bask in the shadows of the respect bestowed on CLRI and have been the recipient of peer recognition in my research area of Biomechanics and have served on the editorial board of high Impact Factor journals as well as on important National and International committees to frame guidelines and develop standards for implementation in the industry.

My humble salutations to my mother Institute CLRI and best wishes for completing 70 glorious years of leadership in leather.

My congratulations to the Director and best wishes for the success of this event.

Right from the day one of its inception in 1948, CLRI has been considered as a guiding star by every one of the Indian Tanners. Even during the days of E.I.Tanned Leather production, transition from traditional pit tanning to rapid method of drum tanning, CLRI has played a vital role in guiding the tanners to reduce time and labour without impairing the quality and character of the leather.

When Government of India imposed a restriction on the export of semi finished leather in 1973, the leather industry looked upon CLRI for technology transfer for production of high quality finished leather. The CLRI took up the challenge and guided the Indian Tanners to switch over to finished leather production on par with the international standard. When requirements arose for production of high performance leathers with stringent physical properties, CLRI came to the rescue by formulating the right testing methods and providing technical aid to meet with the standards required.

The Indian Leather Industry had to face a mighty task of ecological problem which threatened the industry to the extent of closure of tanneries. The CLRI with their team of high technical expertise evolved methods of effluent treatment and helped the industry to put up individual as well as common treatment plants and helped the industry to tackle the herculean task.

To motivate the industry to meet with fashion requirements, CLRI took to participate in the Modeurop Congress conference. Thanks to the efforts of CLRI in this approach which geared up the Indian Leather Industry to develop new colours and textures to the extent, India has become the major stake holder in the Modeurop shade card development.

Not only Indian Leather Industry but tanneries worldwide must be thankful to CLRI for their role in the development of highly competent leather technologists. It is a matter of great pride that technologists from CLRI are recognised worldwide and are monitoring the leather production in every part of the world. It is pertinent to state here that HRD for this highly challenging industry is considered as the primary activity of the institute.

Thus CLRI has played a vital role in the sustenance of the industry worldwide and is looked upon as a pinnacle among the world leather scientific research laboratories. With a close rapport with the industry, CLRI is entering into the eighth decade of its glorious technical service and is bound to achieve many more laurels in the years to come and will be looked upon as a source of knowledge for anything and everything about leather.
It is a grand celebration and joyous occasion in the history of world renowned central leather research institute has successfully completed a long journey of 7 decades of leadership in science and technology of leather and to step into 71st year, by celebrating its foundation golden day in Chennai on Tuesday 24th April 2018. CLRI India, was founded on 24th April 1948, immediately after the independent India was born, with the great vision of our Father of the Nation to realize the value addition, export earnings by developing our own tanning technologies and eventually generating employment for our villagers.

CLRI was founded to develop an internal strength in the country to generate and innovate technologies for the leather sector. CSIR-CLRI is now one of the top most leading research institute in the field of leather science and technology of the global order.

CSIR-CLRI is an unique amalgamation of leather research institute and University of Madras in imparting education of leather technology. A remarkable opportunity to learn from few of the greatest scientists with competence in practical processing was exclusively available only for leather technology students. As on date more than 1400 B.Tech, M.Tech and research scholars in total have acquired in depth knowledge in the art of leather manufacturing serving all over the world, with nearly 70% of the industries in India being well managed by the Alumni of ALFA, CLRI.

With pride, we graduated from the exceptional institute CLRI, which was a Gurukulam for us. Many leather technologists from this institute have emerged as successful entrepreneurs and technocrats serving the global leather industry.

CLRI’s technological development have contributed products for the global leather industry, which include:

- Waterless chrome tanning, advanced leather processing, enzymatic products, environmental technology and health care products.

It is a fascinated achievement for the CSIR-CLRI, that the world color concepts are decided and presented by our MODEUROP- FashionColor CLUB

Our hearty congratulations to all, who served as main pillar of support & contributed for the successful completion of seven decades in leather. Our best wishes for stepping into the 71st year in enabling leather with more vigor in providing solution to numerous technological challenges, to develop eco friendly chemicals, to serve the industry in all aspects of policy decision, for the survival of sustainability of the Indian leather industry.

We are confident that the present visionary and dynamic Director of CLRI, will steer the institute to competitive positioning in global leather research. We trust CSIR-CLRI will extend the best guidance to the Global leather industry as always, emerging as the pioneer.

“CLRI is today the finest organization of its kind in the world and is the foundation on which the leather industry in India has been built. My best wishes for the 71st anniversary.”

Shri Habib Hussain
Chairman, Leather Sector Skill Council

I am indeed delighted to note that CSIR-CLRI is 70 years young, and is celebrating its founders day on 24th April 2018. I have been a visitor, student and entrepreneur subsequently, one thing common all these years I vouch is that CSIR-CLRI has always been on top in research and guidance to the leather industry under all past and present director. Team CSIR-CLRI you are the pride of India.

I wish the occasion a great success.

LN’S IQBAL MODI
FOUNDER PRESIDENT AFCAMMI
CLRI Leadership

CLRI has been bestowed with a strong and dynamic leadership from its inception. Prof. B.M. Das, the founder Director of this Institute made tremendous impact and laid a very strong foundation. He was succeeded by Prof. Y.Nayudamma, a visionary who has contributed a lot for the growth of the Institute by establishing close linkages with the Indian leather industry on one hand and International agencies on the other. Prof. M. Santappa, Dr. N. Ramanathan and Mr. T. S. Krishnan have not only consolidated the gains but also made remarkable impact for the growth of this Institute. Dr. G. Thyagarajan added new strength both in terms of infrastructure and expertise and brought greater visibility to the Institute. He was succeeded by Prof. R. B. Mitra and followed by Dr. K. V. Raghavan. Both followed the footsteps of their predecessors and made significant contributions for the development of the Institute. Dr. T. Ramasami, took the leadership of this Institute during January 1996 and gave a new thrust and vision to the Institute’s activities. His Vision was to make CLRI a Global Leader in Leather Research. His strong leadership made this Institute an international name in the leather research. Dr A B Mandal consolidated the gains of the previous Directors and provided the vision for CLRI to adapt emerging technologies to provide cutting edge solutions in the area of leather. Dr B Chandrasekaran, the current Director of CSIR-CLRI is taking CSIR-CLRI to greater heights in all spheres of basic research, technology developments, human resource development, environment protection and design of leather products. It is to the credit of these luminaries that CLRI is considered...
I am pleased to note that CSIR-Central Leather Research Institute (CLRI) is celebrating its Foundation Day on 24th April 2018. It is a matter of pride for the entire leather fraternity to be part of the celebration and commemorate the milestone crossed by CSIR-CLRI- 70 years of Ascendency in Indian Leather Industry. The CSIR-Central Leather Research Institute has enormously served the leather industry for achieving industry goals and nurture the skilled manpower required for the leather sector at global level. The institute has been involved since many decades on formulation of various policy development and had transformed into a global hub for innovative technology and playing vital roles in technical education, research, testing, project consultancy, designing, colour forecasting and zero waste water discharge system for tanning segment.

On this gracious occasion, I would like to convey my warm gratitude to entire CLRI team and wish for a great success of CSIR-CLRI Foundation Day.

I also wish for hand holding association and contribution in the field of technology innovation, skilling manpower and research activities towards entire growth and development of the leather industry.

CLRI during its seventy years of existence has created history. It is no exaggeration to state that the Central Leather Research Institute is one of the most important in the chain of national laboratories run by the Council of Scientific & Industrial Research (CSIR).

CLRI has good infrastructure by way of laboratories in physical & chemical sciences, tannery machinery, economics and pollution control, leather products-design and training to name a few. However, there is always a necessity for additional areas, particularly in the face of global challenges. I foresee enzymes playing a big role in the area of Leather processing and the Leather products area gaining in strength. The industry has been a major stakeholder and a well-wisher of the Institution. The partnership between CLRI and Industry is vibrant, enriched and mutually beneficial. The academy-research-industry alliance in leather sector is an example for the country to emulate. On the whole, CLRI has been a jewel in the crown of Indian Leather sector.

It is matter of great satisfaction for all of us to learn that CLRI, having realized the urgency and the needs of the changed circumstances in the wake of global developments, has reoriented its activities to explore global opportunities.

In conclusion I once again say that we should recall the services of all who have contributed, and pay tribute on this occasion of the 71st Foundation Day of CLRI and wish CLRI success in all ventures. My salutations to CLRI.

I am pleased to note that Central Leather Research Institute (CLRI) is commemorating “70 years of leadership in Leather” on its Foundation Day on 24th April 2018. The milestone achieved by CSIR-CLRI is unique. It has been a long journey for CSIR-CLRI, which was founded to develop an internal strength in the country to generate, assimilate and innovate technologies to the manufacturing base of the Indian leather sector.

I am also happy to know that CLRI, today is the central hub in the Indian leather sector with direct roles in education, research, training, testing, designing, forecasting, planning, social empowerment and leading in science and technology relating to leather.

ITPO’s association with CSIR-CLRI is more than three decades old now. Both are constructively and effectively associated in the successful organization of ITPO’s mega event in leather sector namely India International Leather Fair, Chennai; India International Leather Fair, Kolkata and International Footwear Fair, New Delhi.

I extend my Best Wishes to CSIR-CLRI on their achievement and its commemoration on their ensuing Foundation Day on 24th April 2018 and wish them success in their efforts to emerge a global leader in leather research.
Heartiest Congratulations to CSIR-CLRI for reaching this milestone. Leather Garment Fraternity is so very thankful to this partnership which has been a catalyst in promoting the Exports. I admire the entire team of Scientists & Technicians for their contribution to our Sector. I personally wish them success & good luck for many more achievements in the coming years.

Shri Manoj Tuli
Leather Garments Convener & COA, C.L.E.

It is a pleasure, honour and my gratification to be a partner in fashion trend-research and vision of Your institute and to know CLRI as the most established network for leather business in India for such a long time.

With Mr. Sadiq, his department and his team, You have a professional representative, who build up a strong and settled partnership with European and global leather business. Up to Your anniversary I send You my appreciation and my thanks for the many years of exchange and performance and wish You all the best for the future.

Congratulations

Mrs Marga Indra Heide, FASHION TREND POOL

It is heartening to note that Central Leather Research Institute (CLRI) is celebrating its 71st Foundation Day. The Indian Leather Sector Salutes one and all associated with CLRI for their commendable efforts and tireless services, guidance and endeavours to bring the Industry to this globally recognized level. CLRI, being the apex Leather research institute of the country, has always been with the Industry to tackle its problems and create initiatives and drives for its upliftment.

On this occasion, we cherish the support and association of CLRI while incorporating ILGA and recall that the inaugural lamp of ILGA was Lightened by Dr. Ramasami, the then Director of CLRI. His encouragement and guidance to ILGA in jointly organizing various seminars, presentations, group discussion, Analysis, forecast will always be remembered by our members. We record our appreciation of CLRI’s efforts at the crucial times of negative growth of Leather garments sector when CLRI did a comprehensive study of World trade of Leather Garments through value addition in order to make leather apparels more competitive in the world market, offered the technique of making leather garments with other fabrics and discussed various plans of this sector in every LERIG.

While CLRI is celebrating its 71st Foundation Day, it has immense responsibility to analyze the growth pattern of leather exports and formulate strategies/interventions needed with a view to enhance the export. Resultantly, this would create additionally jobs in the sector. While congratulating you once again, we rededicate our support and wish all at the CLRI more successful and prosperous years ahead.

I once compliment and applaud all the efforts of dedicated team of CLRI under the leadership of present Director, Dr Chandersekar and assure all the support of Industry in implementation of CLRI’s future plans for the growth of leather sector.
Let me, at the outset, congratulate CLRI on the conclusion of its 70 glorious years. My memory goes back to the days of Dr. Y. Nayudamma, when he was the Director of CLRI. My association with CLRI started in those early days of 1960’s when I was also new to the industry. Over the past over 58 years, I have been in close and constant touch with the CLRI. I have indeed been witness to an era of growth, modernization and development in the CLRI. In the early days, when the industry was traditional, with bulk of its output being EI tanned leather, CLRI endeavoured to introduce to the industry simple but effective technologies to improve processes and products. Scientists of that era including Mr. Ganesan, Mr. Venkatachalam, Dr. KS Jayaraman, Dr. Ranganathan and Dr. Krishnan were dedicated to the cause of modernization of the industry.

Dr. Nayudamma was an institution and his extraordinary contributions cannot be easily forgotten. Following Dr. Nayudamma, Dr. Santappa became the Director and later Dr. Ramanathan and Dr. Krishnan. CLRI continued to work with the industry. The CLRI-industry linkage owes its origin to the strong foundation laid in the early years.

The 1970’s were tumultuous years for the industry. Dr. Sitaramiah committee’s recommendations to reduce export of semi processed leather and increase export of finished leather and value added leather products came as a major challenge to the industry. Though CLRI did come forward to help the industry, yet, the growth of the industry during this phase – particularly between 1974 and 1984 – was aided by many foreign buyers who were earlier taking semi processed leather from India.

When it appeared that the industry was overtaking CLRI in terms of technology, in came Dr. G. Thyagarajan as its Director in 1984. During his stewardship of the institute, remarkable transformation came about in CLRI. The entire approach of CLRI changed. Within a span of 10 years, Dr. Thyagarajan was able to reshape the CLRI in terms of focus, equipment, personnel and competence. Soon, the industry started flocking back to the CLRI. Dr. Thyagarajan was followed by two able and eminent Directors – Dr. KV Raghavan and Dr. T. Ramasami. Though Dr. Raghavan was the Director only for two years, Dr. Ramasami remained at the helm of CLRI for 10 years. This period, right from the stewardship of Dr. Thyagarajan, should be considered the golden period of CLRI. After Dr. Thyagarajan, both, Dr. Raghavan and Dr. Ramasami, not only continued with the policy of modernization of CLRI but took special efforts to take new technologies to the industry with a view to increase productivity and quality consistency of products. Particularly they were able to understand the needs of the industry from time to time and to effectively respond to them both in terms of technological inputs and policy support. I must specifically mention the following significant contributions of CLRI to the industry during its transformation in the 1980’s and 1990’s.

Establishment of computer aided design and product development in footwear and leather goods by CLRI paved the way for many private sector factories following suit. The training provided by CLRI in these areas was invaluable. Modern training facilities for footwear, garment and leather goods, established in CLRI, under the UNDP-assisted National Leather Development Programme, came at a critical phase of industry’s development. It helped the industry meet its requirement of trained personnel. The testing laboratory established, again under the NLDP, by the CLRI, in collaboration with SATRA, UK, was a major initiative. It has helped the industry test its products to meet the exacting standards of buyers of developed countries. CLRI’s becoming a member of MODEUROP and subsequent annual publication of colour forecasts for leather are important developments. When the industry was faced with the problem of pollution, CLRI along with NEERI, came forward to assist the industry to face the myriad challenges.

Many initiatives taken in this period have helped the industry significantly in overcoming the problem of pollution. One can go on and on with narration of many more achievements. Suffice it to say that the CLRI was always ready to read the needs of the industry and come up with appropriate responses. That has enabled CLRI to remain young, even at 70. LERIG, Leather Research Industry Get Together, an annual three day event of CLRI, has become a very popular occasion when the industry from all over the country converges in CLRI for not only learning about new research results but also discuss its current problems. The popularity of LERIG is an indication of CLRI’s close linkage with the industry.

CLRI is now a mature institution. With Dr B Chandrasekaran as its Director, it continues to render useful service to the industry. This should continue in the years ahead. I wish the CLRI all success in its future endeavours.
I am extremely happy to note that Central Leather Research Institute is celebrating its 71ST Foundation Day. My warm greetings and wishes to you and your team of professionals for flying high the flag of CLRI in scientific and research domains. CLRI has become a nodal point for references not only to leather entrepreneurs but also to a vast student community. The quantum of scientific papers that are produced and published from this institution speaks volume of knowledge and skill that is available with your team. The contributions made by this institution includes managing critical incidences when industry was facing pollution threats. With your support, the industry could at last demonstrate to the world, its willingness to adapt newer technology - even if it means additional cost to mitigate the pollution. I am sure the research activities initiated in the institution would redress some of the challenges faced by the leather sector in future. I also wish that the stature, reputation of the institution rises year after year in the minds of the stakeholders and public at large. I have no doubt the institution will achieve this feat.

It gives me great pleasure to have an opportunity to share my reminiscences about CLRI in the event of CLRI stepping towards 71 years on 24th April,2018.

If we look back in 1947, the export of leather from India included mostly raw hides and skins. There were an unexplored opportunity for India in Leather sector for economic development, employment generation and export earnings. With the objective to connect the missing link between technology system with both academy and industry, CLRI was founded on 24th April, 1948. Today , CLRI is a central hub in Indian leather sector with direct roles in education, research, training, testing, designing, forecasting, planning , social empowerment and leading in science and technology relating to leather.

On this auspicious moment, we must remember the stalwart Scientists like Prof. B.M. Das, who was the first Director of CLRI , the man of action and man of ideas and Prof. Y. Nayudamma, who was an institution, followed by Prof. M. Santappa, Dr. N. Ramanathan, Shri T.S. Krishnan, Dr. Thyagrajan, Dr. R.B. Mitra, Dr. K.V. Raghavan, Dr. T. Ramasami, Dr. A.B. Mandal, Dr. Satish R Wate and presently Dr. B. Chandrasekaran, whose untiring efforts, dedication and hard work has brought CLRI to a nationally and internationally accredited institution.

I congratulate CLRI on its glorious seventy one ‘commemoration’ and I wish the CLRI all success in its future endeavours.

British science fiction writer Arthur C. Clarke said “Any sufficiently developed technology is indistinguishable from Magic”. Persistent adoption of technological innovations by the Indian leather industry has created Magic by transforming the industry from a mere supplier of raw materials to a leading supplier of high quality value added products. Not only this, growth of the leather industry with the aid of Technology has helped in providing employment to thousands of people from economically weaker sections, particularly in rural and semi-urban areas. In short, Technology has enhanced the stature of the Indian leather industry in the global market.

Being the torch bearer technological innovations in the Indian leather industry, CLRI has played a significant role in the overall development of the Industry in various spheres. Whether it is colour and fashion forecasts, tanning technology, environment management or human resources development, the role of CLRI has always been more pronounced.

In order to achieve our objective of consolidating and significantly enhancing our share in the global and domestic market, we need to capture the imagination of the requirements of the market through innovations in the field of product design and development, marketing and branding. I am sure that CLRI will continue to guide the industry in these focus areas to ensure sustainable growth.

Father of the Nation Mahatma Gandhiji said “Be the Change you wish to see in the World”. In line with this, the Indian leather industry has to become the hub for innovation and a source for evolution of new trends in fashion and design. I am sure that we will be able to achieve this with the help of CLRI.

As CLRI celebrates 70 years of leadership in leather, I wish to thank the CLRI family for its strenuous efforts for the overall development of the leather industry and for being a “Partner in Progress”.
Naser Group takes pride in felicitating CLRI on completion of 71 successful years of service to leather industry. Industry has gained enormous support from CLRI. It is great to be associated with CLRI with its advanced technological services. CLRI has worked immensely in evolving new advanced technologies towards protection of ecology. One such technology innovated by CLRI is called Dry Tan which accomplishes to ameliorate tanning methodology resulting in alleviation of environmental issues. We have adopted this technology and many more to follow this technology in the near future. We are grateful to CLRI for providing revolutionary technologies to Leather Industry.

CLRI is coordinating with International institutes like Modeurop to keep the industry abreast of the Fashion Trends across the Globe

We wish the CLRI and its entire team great success in their endeavours and look forward to continued support from CLRI in the future as well

With CLRI stepping into its eighth decade of fruitful existence, it stands testimony to the grand vision that led to its establishment for development of leather and footwear industry. We as an active business participant of the industry have benefitted substantially with the design and testing expertise that was offered by CLRI. The experts of CLRI have always been a source of guidance on various matters that we as a business encountered during our growth - a case in point would be the support from Design club when we commenced production of DIP footwear. CLRI - Footwear division team had been a source of great support in operationalizing the Footwear Design and Development Centre (FDDC) at Kozhikode. Personally, as a student of Polymer Technology at IIT Chennai, I was a big beneficiary of the polymer lab and the resourceful library at CLRI. We place on record our appreciation for all the support offered to us by CLRI. We have no doubt that CLRI will constantly evolve ahead of the industry needs and will always be a source of expertise for businesses. We offer our fond greetings to Team CLRI on its Foundation Day.

Warm Greetings to CLRI on the occasion of 70 years of its fruitful voyage in the service of Leather Sector. The name of CLRI is so popular among various facets of Leather Sector because of its unique working relationship. It spans across the areas of not only technology but also training, testing, policy, information and so on. Over a period of time, the bonds between CLRI and Industry have strengthened so much that Govt of India always looks forward wise counsel of CLRI to address the issues of Indian Leather Sector.

The most last longing impacts are created by CLRI for the benefit of the industry. These cover – India International Leather Fair to showcase our business – Leather Research and Industry Get Together to provide an interactive forum between researchers and industry professionals- Academic courses for the human resources of leather industry. Equally gratifying to note the presence and role of CLRI in the international bodies such as UNIDO, IULTCS. The recent assignments of CLRI in Africa are noteworthy, particularly from the point of view of building business relationship with the emerging African Leather sector.

Personally, I am an admirer of CLRI for its easy access to tap the knowledge and talent. The industry friendly atmosphere is well nurtured over a period of time in this Institute. Regularly, I participate in the events of CLRI which enrich me to broaden my horizon of understanding of leather with latest technology developments. On my own as well as on behalf of Indian Leather Products Association (SR) felicitations to CLRI for a long and fruitful association with the Indian Leather Industry in the years ahead.
The Central Leather Research Institute (CLRI), Adyar is celebrating its 71st year of its eminent existence on the 24th of April 2018. It is fitting that the Leather Industry which has been a singular beneficiary of CLRI rejoices over the occasion. The Leather Industry is tradition bound and in its over 200 years of existence has been mostly operating on conventional lines with limited product mix of EI and Crust leather. The establishment of Research labs for different areas of scientific application by the apex body of CSIR resulted in CLRI being established in a sprawling Complex in Adyar, Chennai (the then Madras Presidency) which was the main centre of the leather industry. Fortunately for the leather industry, the CLRI from day one of its establishment set upon itself a path of leadership for modernizing the industry. It is said institutions are shaped by men and man in turn are greatly motivated by the aims and goals the institution has set for itself. CLRI realized from its inception that its functioning can be meaningful only if its identifies itself with the problem and future growth of the leather industry. It can be said without contradiction that CLRI is one of the best examples of Research – Industry Co-operation. The modernization of the leather industry bought in its vogue challenging problems which appeared insurmountable. It is the spirit of identify that made CLRI assume the challenges as its own and came to the succor of the industry. Whether it be problem of pollution with its various manifestations including the intractable problem of TDS, use of optimum level of chromium and recovery of its excess in the waste water, usage of chemicals in an economical way, avoidance of chemicals banned by International Governments, whatever be the challenge, CLRI tackled the issues as its own and found a viable solution. It has been a trend setter in modern tanning practices by having a tannery of its own in its complex. The modernization of the tanning industry is no small measure due to the efforts of the CLRI. It has played effective roles in areas of research of world standard, producing Leather Technologists of World Standard, Training to upgrade the skills of not only trained technicians, but also that of traditionally skilled artisans and effectively disbursing funds of the Government of India for the betterment of the industry. In short CLRI is a unique institution of Worldwide celebrity and a leader among Leather Research Institutes. The institution has grown over a period of 70 years and holds still more promise for the future.

It is at this point of time we should gratefully remember the great scientists who have moulded the institution and the Research Council which guides its activities. From the first Director, Dr. B.M. Das, followed by the great visionary by Yelavarthy R. Nayudamma, dedicated Dr. G. Thyagarajan, Dr. M. Santappa, Dr. K.V. Raghavan and various Directors among when Dr. T. Ramasami has a pride of place, let us salute the CLRI and all those who have made it great. Under the leadership of the current Director, Dr B Chandrasekaran the Institute is making giant strides.

70 + years of dedicated research and training in the ever exciting field of Leather--- that is Central Leather Research Institute (CLRI). From a humble beginning in 1948 to a meteoric rise of widely acclaimed Institute of international name and fame, an exciting, challenging and exhilarating journey thanks to the significant contributions of CLRI staff in its formative, take off, development, modernization, repositioning and sustaining phases. Myself, in CLRI's age group, feel proud to be associated with this great Institute since 1964, first as a student and later as a Scientific Staff shoudering research, academic and management responsibilities. From a Provider of Solutions for problems of industry and Guide Philosopher at Home, CLRI has spread its wings covering technology transfer to other countries by means of expert consultancies, dovetailed international training programmes onshore and offshore, twinning programmes, fashion forecasting, international standardization for leather and footwear etc. 21st century has ushered in further vibrant interaction and cooperation with R&D institutions, academies and industries throughout the world and I could foresee CLRI addressing the interests of the world leather industry in the long run.
I am delighted to know that Central Leather Research Institute (CLRI), Chennai, will be celebrating its 70 years of service to the industry in April this year. Congratulations to CLRI and all those who make it such a vibrant and successful research and development organization of India!

My association with CLRI goes back to 1984 when I joined the leather industry as the first Executive Director of Council for Leather Exports. I have, since then, been watching with admiration the tremendous changes that have come about in the industry and the role played by CLRI in engendering and promoting such changes. CLRI itself has undergone tremendous changes, thanks to the visionary leadership provided by first Dr. G. Thyagarajan, who converted CLRI from being a tanning focused institute to one addressing all aspects of leather sector including the various downstream industries such as footwear, garments and leather goods; and later by (late) Dr. KV Raghavan who contributed a great deal in consolidating the achievements of Dr. Thyagarajan; and by Dr. T. Ramasami who was instrumental in taking CLRI to every nook and corner of the country through various schemes including the Leather Technology Mission. Doubtless all these extraordinary leaders have been very ably supported by a band of dedicated and committed scientists. The current Director, Dr. B. Chandrashekar, is carrying on the excellent traditions of the institute with great aplomb.

The industry of 1984 was dominated by tanneries and leather making. Subsequently, consistent with the policy of Government of India of adding value to leather before export, there was massive diversification of the industry with hundreds of factories for making footwear, garments, assorted leather goods etc. sprung up in different parts of the country. This massive diversification and growth needed support in the shape of trained manpower, testing and quality control, design and product development capacity, environment control and management, etc. It is in these spheres that the CLRI played a key role, often with substantial support of the industry, Government of India and international organizations such as United Nations Development Programme sponsored National Leather Development Programme, UNIDO's Regional Programme for Pollution Control in Tanning Industry in South East Asia, etc. Today CLRI is counted as perhaps the most leading research and development organization for leather industry as a whole in the world and many developing countries derive benefit from the strengths of CLRI.

I hope that CLRI will continue to reinvent itself in the years ahead to keep pace with the needs and aspirations of the industry in India and globally and deliver to the industry whatever it needs whenever it may need.

My very best wishes to Director and all members of CLRI for successful celebration of the completion of 70 years of service to the industry and for their bright future.

I am glad to know that CSIR-CLRI has completed 70 years has stepped into the 71st year. To mark this grand occasion CSIR-CLRI is observing ‘70 years of leadership in Leather’. The Leather Industry of India has completed a long journey and today holds a place of prominence in the Industrial Landscape of India. This has been achieved with the active support and hand holding of CSIR-CLRI. The Premier Leather Research Institution extends support in R & D to provide sustainable solutions for the Leather Industry. CSIR-CLRI contributed immensely during the last 70 years in Environmental protection, Innovation in Technology & adoption by the Industry, Human Resource Development, Productivity Enhancement & Design Development. CSIR-CLRI helped in the development of the entire value chain of the Leather Industry.

On this August Occasion I extend my heartfelt thanks to CSIR-CLRI and I am sure the bonding with Leather Industry will grow in strength in the years to come.

Shri A Sahasranaman
Patron, ILIFO

Shri Sankar Dawn
Convenor-Leather Goods Panel
Council for Leather Exports Eastern Region
It’s my privilege and great pleasure to share certain nuances about CLRI. With regard to CLRI 71, let me use this note to express my sincere gratitude about your long services.

With an objective of implementing new areas in Science and Technology and to play the role of an organizing and promoting, technology and research, CSIR have major responsibilities and have been formulated 38 national laboratories in the country. Its expertise embedded on the wide array of departments. CLRI has been proven to be one such research organization.

CLRI has been established its benchmark amidst leather industry for over a period of more than seven decades. It is a centre of excellence dedicated to leather testing and research. It was entrenched mainly to co-operate other leather firms on their extraordinary services. Central Leather Research Institute has been represented for all kind of technological aspirations since 24 April, 1948.

CLRI has served its members and been an effective force in the leather industry of India. It provides education, research, training, testing, forecasting, and have created innovative technologies pertaining to leather industry. For its specialization in the knowledge of leather technology, CLRI enables to interpret quality and product development. CLRI colleagues and work force should take great pride on their focused expertise and experience which they must possess.

With pride and pleasure I wanted to proclaim your important services such as Waterless Chroming, Tanning, Leather Processing, Leather Chemicals, Environmental Technologies, Rural Technologies etc, with which your organization carrying out diligently with an impeccable manner.

I also take this opportunity to appreciate recent MODEUROP color card, which has really created its way in leather industries. It is vibrant and refreshing; your team spirit must be laudable for this achievement.

Your support and services become part of our ongoing journey and you have taken our firm to new heights. You have been our source of motivation; and we are able to drive our way efficiently with your unconditional support. We appreciate all you have done for the industry, and look forward to continued success with your organization in the future.

I am happy to learn that CSIR-CLRI is going to commemorate “70 years of leadership in Leather”, by celebrating its Foundation Day on 24th April 2018.

On this occasion I would like to share some of my fond reminiscences associated with this great Institution and its eminent scientists since more than two decades. I still remember the much needed hand holding, unstinted support, guidance and cooperation given to a new comer like me who knew nothing about the leather processing, yet was dreaming to establish a vegetable-cum-chrome tannery way back in 1994. Everything from lay-outing of the plant to the selection of appropriate machinery and from setting-up of cleaner technology process to the effluent management was given to me on a platter, for which I would ever be grateful to CSIR-CLRI.

Later, we were amongst the few fortunate tanneries in the north India which was chosen by CLRI for the implementation of Computerised process control system and Chrome Recovery Plant, under the Leather Technology Mission. These project demonstration units had not only strengthened our infrastructure, but gave us an edge over the established tanneries of this region.

I am also extremely privileged to have been associated with this great Institution as its Research Council Member for a period of two years during the tenure of Dr. T. Ramasami, which gave me an opportunity to closely study the diverse activities and the contributions made by CLRI to the Indian Leather Fraternity. It was a wonderful learning experience for me.

CSIR-CLRI is the pioneer Leather Institution in the world with maximum number of patents. Its contribution in the growth and development of domestic leather industry is immense. Its competence and excellence is acknowledged world over which has enabled it to bag several international projects in the global leather sector.

I congratulate the Team CLRI and convey my good wishes for the success of the 71st Foundation day. I also take the opportunity to extend my support and co-operation in all your endeavours.
Congratulations to you and the entire CLRI family for this wonderful thought to release a special edition on the completion of 70 years for CSIR-CLRI in guiding the leather industry.

All the best for you continued interest and dedication in developing the research institute to work closely with the industry fraternity to bring in more innovative technologies to service the global fashion leather.

Shri MS Sriharsha
Managing Director, Supreme Overseas

I am extremely happy to note that Central Leather Research Institute is celebrating its 71st year. My warm greetings and wishes to you and your team of professionals for flying high the flag of CLRI in scientific and research domains.

CLRI has become a nodal point for references not only to leather entrepreneurs but also to a vast student community. The quantum of scientific papers that are produced and published from this institution speaks volume of knowledge and skill that is available with your team. The contributions made by this institution includes managing critical incidences when industry was facing pollution threats. With your support, the industry could demonstrate to the world, its willingness to adapt newer technology - even if it means additional cost to mitigate the pollution. I am sure the research activities initiated in the institution would redress some of the challenges faced by the leather sector in future. I also wish that the stature, reputation of the institution rises year after year in the minds of the stakeholders and public at large. I have no doubt the institution will achieve this feat. I once again wish you and your team all the very best during this celebration of diamond jubilee.

I take pride in saluting my Alma mater

“CLRI comes closest to Prime Minister Nehru’s vision of applying Science for betterment of the Society” said Dr. C V Raman at the inauguration of the Institute in 1948. Those inspirational words have been since then a principal driver of CLRI’s forays in leather science and technology. The consequent impact on leather industry growth, employment generation, education and training, and as well, the wider social sector has been positive, profound and pervasive. Successive directors, supported by research advisory bodies of their times, have taken the Institute to newer and greater heights. Today CLRI is an international name in leather research, and the largest institution of its kind in the world. Having been a key actor for several years during its Silver Jubilee to Golden Jubilee phase I am thrilled to be able to witness the fruition of its Diamond Jubilee. This highly successful six decades journey has been possible because of CLRI’s hand holding partnership with the academic and industry sectors, and the abundant trust and support from the governments of the day. Times ahead are going to get tougher and tougher. Manufacturing competitiveness will come under increasing stress and turbulence as global trade generates new demands and dynamics, and new players arrive on the scene. CLRI’s preeminence can only be sustained by delivering breakthrough innovations in tanning and products design and development, and by gaining new insights into the structure, properties and functions of that fascinating Triple Helix Collagen. All the best.

Shri K SRINIVASAN
Managing Director, Prime International, Ranipet

Dr G Thyagarajan
Former Director
CSIR | CLRI

Shri MS Sriharsha
Managing Director, Supreme Overseas

I take pride in saluting my Alma mater

“CLRI comes closest to Prime Minister Nehru’s vision of applying Science for betterment of the Society” said Dr. C V Raman at the inauguration of the Institute in 1948. Those inspirational words have been since then a principal driver of CLRI’s forays in leather science and technology. The consequent impact on leather industry growth, employment generation, education and training, and as well, the wider social sector has been positive, profound and pervasive. Successive directors, supported by research advisory bodies of their times, have taken the Institute to newer and greater heights. Today CLRI is an international name in leather research, and the largest institution of its kind in the world. Having been a key actor for several years during its Silver Jubilee to Golden Jubilee phase I am thrilled to be able to witness the fruition of its Diamond Jubilee. This highly successful six decades journey has been possible because of CLRI’s hand holding partnership with the academic and industry sectors, and the abundant trust and support from the governments of the day. Times ahead are going to get tougher and tougher. Manufacturing competitiveness will come under increasing stress and turbulence as global trade generates new demands and dynamics, and new players arrive on the scene. CLRI’s preeminence can only be sustained by delivering breakthrough innovations in tanning and products design and development, and by gaining new insights into the structure, properties and functions of that fascinating Triple Helix Collagen. All the best.
“I am very happy to know that CLRI has completed 70 years and stepping into 71. CLRI has contributed to the economic development, export earnings and employment opportunities over the years and continues to do so, besides innovating technologies for the leather industry. The research division of CLRI needs a special mention. Stahl India is honoured to have associated with CLRI on many projects earlier and the recent one being the signing of a MOU with CLRI Research Institute to collaborate in various avenues of research, technology transfer, consultancy, training and other avenues of mutual benevolence in the field of Leather Chemicals.

I wish CLRI all the best as it steps in to the 71st year and continues its good work for the benefit of the leather sector and the Country as a whole”.

Tuncay Deriner
Managing Director – IPB Region
Stahl India Private Limited

It is the good fortune of the Indian Leather industry that we have an institute of the caliber and eminence of CLRI in our midst. It has guided us through thick and thin, helped us through our difficulties and contributed to its many triumphs. It is said that a true champion shows its mettle during an adversity and CLRI displayed this in ample measure when the environmental crisis was engulfing our industry.

With proactive and expedient measures, the CLRI scientists fanned to all tanneries across the state and helped overcome the crisis. This was indeed a huge feather in its cap. The quality and content of the presentations at the annual Leather Research industry (LERIG) get-togethers are of top quality and every year I go back enriched and educated about the advancements in the technological area related to the leather and footwear sector.

We, at the Indian Shoe Federation cherish the support given to it since its inception to help plan its activities and also jointly carry out far reaching initiatives to benefit the Indian footwear industry.

It is a pleasure to participate in and wish CLRI on its 71st birthday and look forward to many more years of fruitful and inspiring relationship.

“It is the only Institution in India, which works together with the Industry and it is acknowledged by CSIR and the Ministry also”.

Thanks and Best Regards

Shri V Vimalan
Managing Director
Ayyappa Enterprises

Congratulations to the entire team of CLRI for its hard work & success and we wish all the best to reach its 100th anniversary.

Shri K R Vijayan
President, Indian Shoe Federation & Managing Director, GOOD Leather Group
INDIAN LEATHER INDUSTRY - STRIDING WITH CONFIDENCE