

The Leather Post

"News that you can use"

CSIR-Central Leather Research Institute

Great show, Dr. Chandra. We need CSIR outreach or liaison centers in Africa and a few other potential client bases.

Ethiopia and/or Rwanda could be our gateway for establishing capacity building and consultancy services in most of the East African countries.

Let's consolidate our capabilities and technologies for optimal connectivity with Africa. All CSIR labs should coordinate with Dr. Chandrasekaran for this. Regards.

Dr G Sahni
Director General, CSIR



Dr B Chandrasekaran,
Director, CSIR-CLRI

Dear Doyens and Members of the Indian Leather Fraternity; Mentors and Teachers, Colleagues and Friends!

It gives us great pleasure in sending you our March 2017 edition of The LEATHER POST.

This edition has a special focus on our endeavours in Africa. Continuation of our work in Ethiopia, visit of the Honourable Minister of Ethiopia to India during Leather Week 2017, presentations made to the African delegation that visited under the SITA umbrella, CSIR-CLRI's presence in Rwanda and Uganda and Kenyan Ministry seeking CSIR-CLRI's Technical Advisory.

Our Waterless Chrome Tanning Technology continues to create waves in every centre and this time we have reports on our outreach in Ranipet and Ambur. There are several in-house programmes, our efforts to reach out to start-up companies and our passion for staying ahead in fashion.

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

I wish to thank you all for your unstinting support and kind co-operation at all times, We will strive to make this magazine informative and interesting and welcome your feedback for improvement.

24th March 2017

CREDITS

Editor-in-Chief: **Dr B Chandrasekaran**, Director, CSIR-CLRI

Content Editor & Design: **Md Sadiq**, Chief Scientist, Industrial Liaison & Publicity, CSIR-CLRI

Editorial co-ordination: **Mrs M Bharathi, Mrs Shakila Shobana, Dr Nishad Fathima**

Shri N Vasagam, Smt Geethalakshmi Balaji, Shri K Dayalan

Printed by: **Global Printing Press**

Visit: www.clri.org for the digital version of **The LEATHER POST**

For Feedback and Comments: theleatherpost@outlook.com

To advertise in The Leather Post: theleatherpost@outlook.com

Federation of Indian Chambers of Commerce and Industry (FICCI) organized Indian Innovators Business delegation visit to Rwanda between 19th Feb 2017 and 21st Feb 2017. Council of Scientific and Industrial Research (CSIR) had been invited to be part of the business delegation visiting Rwanda. CSIR delegation was represented by Dr B Chandrasekaran, Director, CSIR-CLRI and Dr B Madhan & Mr P S Suresh Kumar, Scientists of CSIR-CLRI. The visit of the business delegation had coincided with the visit of His Excellency Shri Mohammed Hamid Ansari, Honorable Vice President of India, CSIR delegation to Rwanda. A series of bilateral agreements signed between India and Rwanda during the visit of High Level delegation from India.

India is forging strong partnership with various African nations. The Indian bilateral partnership with Africa is beyond any strategic considerations. India is committed in contributing towards the capacity building of various industrial sectors for inclusive growth of developing and under-developed economies in Africa. Republic of Rwanda, is a sovereign state in central/east Africa and one of the smallest countries in Africa. Rwanda has committed itself for steady economic development introducing a series of reforms facilitating the ease doing business in the country. It now takes less than 6 working hours to register a business in Rwanda. The GDP of Rwanda is primarily dependent on agriculture and tourism. The main object of the Indian Innovators business delegation visiting Rwanda is to boost various industrial sectors. This report briefly covers the participation of CSIR as a part of Indian innovators business delegation to Rwanda.



Indian High Commission Meeting

On 19th February 2017 evening, honoring the Vice President of India, His Excellency Shri. Mohammed Hamid Ansari, Indian High Commissioner, dinner meeting was hosted by Indian High Commission at Hotel Serena, Kigali. The dinner meeting was attended by Indian residents in Rwanda, Indian Innovators, CSIR Representatives headed by Dr. B. Chandrasekaran and FICCI members.



No	Description	
1.	CSIR @ INDIAN INNOVATORS BUSINESS DELEGATION TO RWANDA	3
2.	Republic of KENYA seeks CSIR-CLRI's Technical Advice	6
3.	SITA Technical Workshop for supporting Indian Trade and Investment for Africa Team	6
4.	Ethiopian Minister at INDIA LEATHER WEEK 2017	7
5.	Centenary Celebration of All India Skin and Hide Tanners and Merchants Association	8
6.	CSIR-CLRI reaches out "Waterless Chrome tanning Technology" in Ranipet & Ambur	10
7.	Service to Start-up companies'/design houses	15
8.	S&T for sustainability of leather XXXIV IULTCS CONGRESS	16
9.	Go Green	18
10.	"DESTINATION NORTH EAST"	19
11.	OPEN DAY celebrations	20
12.	Kolhapuri: moving forward	22
13.	SHOWCASE: MODEUROP Autumn Winter 18/19 season	23

Indian Innovators Expo at Kigali Convention Centre

FICCI along with Rwanda Development Board organized Innovators expo at the Kigali convention centre on 20th February 2017. About 20 innovators from India and Rwanda had exhibited their innovations. The expo was inaugurated by Indian Vice President H. E. Shri Hamid Ansari and Rwandan Prime Minister H. E. Mr. Anastase Murekezi.

CSIR technologies covering a wide spectrum viz., Aerospace, Agro & Food, Water, Energy, Environment, Health, Leather and other industrial sectors had been displayed as the part of the expo. Indian entrepreneurs in Rwanda, Rwanda Development Board members, young entrepreneurs in Rwanda visited the CSIR theme pavilion.

Dr. B. Chandrasekaran made a presentation to the Indo Rwanda delegation highlighting the technological contribution of CSIR. A business meeting between National Industrial Research and Development Agency (NIRDA) and CSIR took place at the Kigali Convention centre. Director General of NIRDA, Dr. Joseph Mungarulire requested Dr. B. Chandrasekaran to facilitate strong partnership and support from CSIR.

During the visit of Vice president H.E. Hamid Ansari to CSIR theme pavilion, he appreciated efforts of CSIR for ages in India to Rwanda Prime Minister H. E. Mr. Anastase Murekezi. Prime Minister of Rwanda appreciated the efforts of CSIR for leather sectors in African nations and he wished for CSIR's support in capacity building of Rwanda Industrial Sector. Member of Parliament, Smt Kanimozhi made enquiries about CSIR technologies during her visit as a part of high level delegation from Indian Government.

VISIT TO RWANDA DEVELOPMENT BOARD

On 21st February 2017, FICCI had organized a visit to Rwanda Development Board (RDB). The RDB was set up for the entire investor experience under one roof. This includes key agencies responsible for business registration, investment promotion, environmental clearances, privatization and specialist agencies, which support the growth of industrial sector in Rwanda.

Dr. B. Chandrasekaran, Mr. P S Suresh Kumar and Dr. B. Madhan had meeting with Director General of NIRDA, Dr. Joseph Mungarulire and his colleagues. Organizational structure of NIRDA was briefed by Dr. Joseph and requested for support of CSIR in capacity building of NIRDA.

Dr. Joseph Mungarulire requested Dr. Madhan to establish cooperation with Ms. Annoncee Kuradusenge who is heading Agro-processing & Biotechnological Research Division of NIRDA for creating road map for leather sector in Rwanda.



Vice President of India at CSIR Theme Pavilion



Prime Minister of Rwanda at the Theme Pavilion

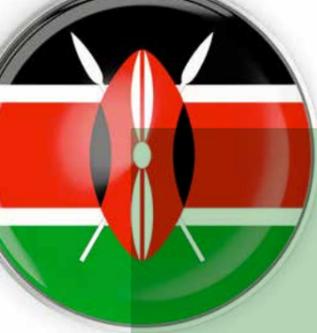


Smt MK Kanimozhi, Member of Parliament, Rajya Sabha at the Theme Pavilion

VISIT TO MASAKA INCUBATION CENTRE

Ms. Annoncee Kuradusenge of NIRDA organized the visit of CSIR delegation to MASAKA incubation centre on 22nd February 2017. The objective of Masaka incubation centre is to support entrepreneurial development in Leather, Bamboo, Fruits and dairy products. Internet facility and training in entrepreneur development is being offered to youngsters from the region. The incubation centre is located at the outskirts of Kigali. The centre is established to promote entrepreneurship in the region. The centre offers technical support, mentoring in business performance, marketing and accounting. Entrepreneurs can choose to learn fruit processing and produce jams, juices, concentrates and other products from the facility available at the centre. In the dairy workshop, entrepreneurs can work on dairy products. Leather workshop allows entrepreneurs to utilize the facility for design and development of leather goods and footwear. The bamboo workshop teaches the art of transforming raw bamboo into products ranging from toothpicks to baskets to boxes to furniture.





Republic of KENYA seeks CSIR-CLRI's Technical Advice

Republic of KENYA seeks CSIR-CLRI's Technical Advisory for Leather Park, Curriculum Development for Skill Development, Modernization, Design & Development and Production of Small Scale Leather Products. Mr Julius K Korir, Principal Secretary, Ministry of Industry, Trade and Cooperatives, Republic of Kenya and Mr Rajeev Arora, Advisor to Cabinet Secretary, Kenya in discussion with Director, CSIR-CLRI. Director's Technical Cell Members; Area Leader, CHORD and Team PPBD joined the discussions on 13th March 2017 at CLRI.



Ethiopian Minister at INDIA LEATHER WEEK 2017



SITA Technical Workshop for supporting Indian Trade and Investment for Africa Team

Supporting Indian Trade and Investment for Africa (SITA), a technical assistance project implemented by International Trade Centre (ITC) and funded by the UK Department for International Development, had approached CSIR-CLRI for one-day training programme focusing on International Trends in Leather Technology, Markets and Environmental Compliance.

The participants consisted of Tanners from Kenya, Uganda, Tanzania, SITA and CLE representatives. One-day workshop was conducted on "Technology Trends in Leather and Leather Products and its Role in Growth and Sustainability in Africa" on 31st January 2017 at CSIR-CLRI.



The objective of the training programme was to train the participants in the recent trends in leather processing which included the following:

- Providing exposure to newer concepts and trends in leather manufacture, leather chemicals, cleaner leather technologies and leather products
- Exposing the participants to recent trends and developments world-wide in solid and liquid waste management of leather sector
- Exposing the participants to human resource organisation, forecasting of global demand, supply chain and marketing trends





The Centenary Celebrations of AISHTMA was held on 9th march 2017 at the LITE Auditorium in Chennai.

The celebrations began with the recitation of Qirath followed by Tamil Thai Vazhthu.

Shri M Rafeeqe Ahmed, President, AISHTMA extended a hearty welcome to one and all to the centenary celebration function of All India Skin and Hide Tanners and Merchants Association, popularly known as AISHTMA.

Mr Ahmed said that since its foundation in 1917, AISHTMA has had a long and remarkable journey. Started as an association catering to requirement of tanners in South India as SISHTMA, the association expanded itself into Pan-India role and transformed into AISHTMA. Today, it has ventured into global tie-ups with overseas Tanners associations, particularly in Africa. The growth of AISHTMA reflects the huge potential offered by the leather and footwear industry for growth both at the domestic level and exports and also employment generation. Not only this, the leather industry has the distinction of providing employment opportunities to economically weaker sections of the society, thereby playing a major role in espousing the cause of Social Justice.

Tanning Industry in Tamil Nadu has achieved several milestones. Apart from being a leading supplier of high value finished leathers in the country, the industry has distinguished itself as a front runner in adopting

strict environment norms by implementing Zero Liquid Discharge (ZLD) technology in majority of the CETPs across Tamil Nadu. By virtue of this, the industry has ensured that not even a drop of industrial effluent is let outside. Despite the high costs involved in establishing and implementing ZLD technology, we have adopted this technology and this shows our commitment to ensure Green Tanning, he said.

Today, the leather and footwear industry in Tamil Nadu has grown to be an industry with a total turnover of Rs.40,000 crore thereby contributing to about 50% of total production of leather and leather products in the country. Besides, the Tamil Nadu leather and footwear industry also exports goods worth Rs.12,000 crore per annum, thereby contributing about 30% of total exports from Indian leather industry. The industry in Tamil Nadu also has the distinction of having high women worker concentration of about 60%, as compared to national average of 30%.

The Government of India and Government of Tamil Nadu have played a significant role in the overall development of the leather industry in Tamil Nadu through their support measures for capacity modernization, infrastructure development and training of workforce. The Tamil Nadu Government has contributed about Rs.3.5 crore for training 2300 unemployed youth in Tamil Nadu for placements in the leather and footwear sector.

Though we are firmly on the path of development, the tanneries in Tamil Nadu are operating at only about 50% of their capacities. They can operate at 100% capacities only if the CETPs are upgraded. The Central Government provides 50% grant for such upgradation and matching 25% grant is also requested from the Government of Tamil Nadu so as to upgrade the CETPs. If such grant is extended, I am sure that the Tamil Nadu tanning industry can double its output in terms of leathers. Besides, there is a need to create an Integrated Production Centre in Tamil Nadu in the form of Mega Leather Cluster. The Government of India is providing grant for creation of physical infrastructure like factory sheds, design studios, etc. in these Mega Leather Clusters.

As land cost is not covered in the Central Govt. grant, I would request the Government of Tamil Nadu to allocate 200 acres of Government land at a suitable site for establishment of Mega Leather Cluster. This will result in not only enhancing our production capacities but also in providing employment opportunities to thousands of people.

The aim of the leather industry is to provide sustainable development. Towards this, we will embrace all commercially and technically viable solutions in future.



Speech of Shri M. Rafeeqe Ahmed, President, AISHTMA



Highlights of the Centenary Celebrations of AISHTMA

Presentation of Awards to 100 years old Tanneries:

- E K Hajee Md Meeran Sahib & Sons, Erode
- CKCM Khadersha & Bros

Presentation of Awards to Scientists and Special Invitees

- Dr G Thyagarajan, former Director, CSIR-CLRI
- Dr KV Raghavan, former Director, CSIR-CLRI
- Dr T Ramasami, former Director, CSIR-CLRI & former Secretary, DST
- Dr AB Mandal, former Director, CSIR-CLRI
- Shri A Sahasranaman, IAS (Retd), Hony. Advisor, CEMCOT
- Shri S Audiseshiah, IAS (Retd), former Executive Director, Council for Leather Exports

Presentation of Awards to the stalwarts of the Leather Industry

- Mr N Mohamed Zackriah
- Mr Amirchand Kapur
- Mr MR Abdul Rahman
- Mr Purshotam Nath Rallan
- Mr KM Abdul Gani
- Mr B A Balasubramaniam
- Mr NVS Manian
- Mr KV Swaminathan
- Mr P Sugunakar Reddy
- Mr SRm PL Subramanian Chettiar
- Mr K Abdul Khaliq

Awards were also presented to the past presidents, Hony Secretaries, Platinum Sponsors, Regional Tanners' Association.

An MOU was signed between AISHTMA and the East African delegation on the occasion. A souvenir and a coffee table book were also released.

CSIR-CLRI reaches out "Waterless Chrome Tanning Technology" in Ranipet & Ambur



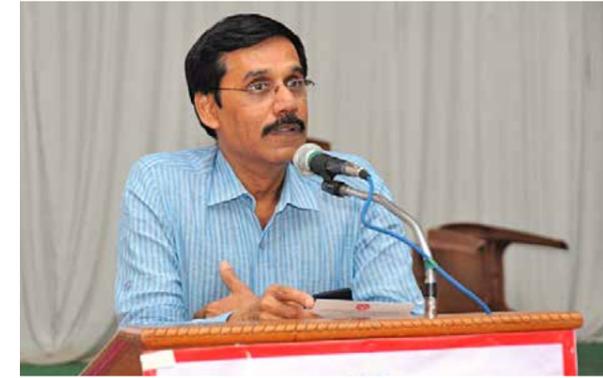
The Waterless Chrome Tanning Technology (WCTT) developed by CSIR-CLRI was demonstrated successfully at M/s Bharath Enterprises Pvt. Ltd. Ranipet during the first week of January. The demonstration was held on a batch of 250 pieces of cow hides having a pelt weight of 4500 kg. Mr Baskar, MD of the Tannery and Mr Manikandan, Production-in-charge were appreciative of the tanning methodology. They observed that the WCTT leathers are comparable with conventionally prepared leathers in respect of wet-blue colour and flatness of the grain. On the other hand, they opined that the roundness/fullness of the WCTT leathers are superior to the regular leathers. As regards to the tanning process, the WCTT process was found to be much shorter and far simpler than the conventional process.

In continuation to the demonstration, it was planned to have a workshop for the tanning cluster in Ranipet, for the benefit of the tanners in this cluster. The workshop on the Waterless Chrome Tanning Technology was conducted at Hotel ARS Regency, Ranipet on 6th of March 2017. The objective of this workshop was to share the results of the demonstration with all the stakeholders in the region

which include tanners, product-makers, technologists, regulatory authorities, exporters and members of industry associations. Thereby, the WCTT technology may reach to all the tanners and product-makers in the region.

During the workshop, leathers from demonstration held in the tannery and the leathers (wet blue, crust and finished leathers) developed in industries during earlier demonstrations in other tanning clusters were displayed in the hall. This offered an opportunity to all those present in the workshop to see the end results. In all, 140 participants from various sections of the trade participated in the workshop. They inspected the leathers (wet-blue and finished) with a lot of curiosity and expressed satisfaction over the results.

The workshop begun with a welcome address by Dr. B Chandrasekaran, Director, CSIR-CLRI. He welcomed the gathering and spoke about the various initiatives taken by CSIR-CLRI to enable Indian leather sector to attain sustainability. Director, CSIR-CLRI also spoke on the success stories from the earlier demonstrations carried out in different clusters and explained the need for the workshop.



The Chief Guest of the workshop, Shri Israr Ahmed Mecca, Chairman, Southern Region, CLE deliberated on how to make leather tanning sector sustainable. He talked about 3P's (People, Product, Process), which was spoken during IULTCS congress 2017. He also added that, this waterless chrome tanning technology would pave way for tanning industry with less pollution under one of the 3R concept (Reduce, Reuse, Recycle).

Shri Ramesh Prasad, MD RANITEC addressed the gathering and requested CSIR-CLRI to develop technology, that will have commercial acceptability. He also opined that CSIR-CLRI should develop lots of technologies that would make the tanning sector greener.



Shri M Mohammed Hashim, Doyen of Indian Leather Industry addressed the gathering. He insisted that the tanners should come out of their conventional mind set and should be ready to adapt any new technologies that would bring about significant improvements to the leather tanning sector. Appreciating the potential benefits of this novel technology, he also shared that this WCTT technology is successful in other tanning clusters in India such as Kanpur and Jalandhar. Shri Hashim added that now the Arcot people, should clinch the opportunity and make sure that the pollution is reduced from leather processing. In addition to this, he also suggested that CSIR-CLRI should call for a meeting with Leather Chemicals Manufacturing Association (LCMA), pan India and deliberate upon how to make chemicals with less or nil salt content. Shri KR Vijayan, MD Good Leather Company and Vice President, ISF addressed the gathering. He opined that these kind of initiatives should be encouraged, and the tanners should adopt such kind of cleaner technologies in their tanneries.

quality in terms of colour-uniformity, fullness and grain-flatness. The chief guest and the guest of honours were honoured with a shawl and a memento. Dr. P Thanikaivelan, Principal Scientist, CSIR-CLRI made a power-point presentation on WCTT and its transfer mode to the tanners. The presentation was well received and evoked several queries from the audience. One such query was about the duration of tanning and the workability of this technology with thicker hides. Dr. Thanikaivelan replied stating that, the WCTT technology has been validated with hides having thickness of about 14 mm in Kanpur. Shri Hashim, mentioned that he heard this WCTT technology provides a flatter grain and there is a possibility of overcoming the growth marks. He suggested that, the technology can be extended for vegetable tanning of buff calf leathers, whereby the minimization of the growth marks can be achieved.

The programme came to an end with a vote of thanks proposed by Dr. J. Raghava Rao, Chief Scientist, CSIR-CLRI. He highlighted the importance of absorbing this new technology for the benefits of both the tanners as well as society by protecting the environment. He thanked everyone for their participation and support.

Mr. Manikandan, Production in charge of M/s Bharath Enterprises, Ranipet, where the WCTT was demonstrated on Cow hides, shared his experience with the participants in the workshop. Mr. Manikandan told that this technology not only saved time, water and chromium salt, it also produced wet-blue with increased area (yield) and excellent

Waterless Chrome Tanning Technology (WCTT) Workshop held in Ambur on 6th March, 2017

Starting from the first demonstration cum workshop conducted at Erode on 5th June 2016, similar workshops have been conducted in other leather clusters of the country namely Kanpur, Jalandhar and Kolkata. In the similar lines, the workshop has been conducted at Ranipet and Ambur on 6th March 2017. Earlier, as it had been done in other clusters the waterless chrome tanning technology has been either demonstrated or translated in at least one of the tanneries of the cluster at commercial scale. In Ambur, the technology was demonstrated successfully at M/s Kenza Tanners during the last week of December 2016. The technology was demonstrated at a commercial scale of the batch size of 150 cow sides of pelt weight of 1500 kg. Mr. Hyaz, MD of the Tannery and the technical team were appreciative of the tanning methodology. They observed that the WCTT leathers were better than conventionally prepared leathers in respect of wet-blue color and flatness of the grain. Also, they opined that the roundness/fullness of the WCTT leathers was superior to the regular leathers. The process of WCTT was found to be much shorter and far simpler than the conventional process.

In continuation to the demonstration, as stated the workshop has been conducted in Ambur for the benefit of the tanners in the cluster. The workshop on the Waterless Chrome Tanning Technology was conducted at Ambur Trade Center, Ambur on 6th of March 2017. The objective of this workshop was to share the outcome of the demonstration with all the stakeholders and to enthuse the tanners to opt for WCTT technology. During the workshop, leathers produced following the WCTT process have also been displayed. About 250 participants from various sections of the trade have participated in the workshop. The displayed leathers were assessed by the participants and queries of the participants have also been answered.



The workshop began with the welcome address by Dr. B Chandrasekaran, Director, CSIR-CLRI. He welcomed the gathering and highlighted the various initiatives taken by CSIR-CLRI to enable Indian leather sector to attain sustainability. He asked the tanners of the cluster to opt for cleaner technologies and become a technology-driven industry to attain sustainability.

The Chief Guest of the workshop, Shri PR Aqeel Ahmed, Vice Chairman, CLE while delivering his address stated that the tanners should positively consider implementing the technological measures suggested and propagated by CSIR-CLRI.

Shri M Rafeeqe Ahmed, President AISHTMA addressed the gathering. He was very appreciative of the scale in which the workshop was organized and hailed CSIR-CLRI for the professional approach demonstrated.

Shri N Shafeeq Ahmed, Chairman IFLMEA, addressed the gathering. He emphasized the need to take all the possible in-plant measures to successfully address the pollution issue. He also stated that CLRI should disseminate the technologies widely to all the tanneries in this region.



Mr. Ethizham, Technical Personnel from M/s Kenza Tanners shared his opinion on to the participants. He expressed that the leathers produced following WCTT were of good body and improved roundness. He also added that there was hardly about 2 or 3 liters of spent liquor after chrome tanning. He mentioned that M/s Kenza tannery is following this process for their own production and in the process of convincing the buyers and the job workers to follow this WCTT process. The chief guest and the guests of honour were honored with a shawl and a memento.



Dr. B Madhan, Principal Scientist, CSIR-CLRI made a presentation on WCTT and mechanism of transfer of the technology. He also presented other technological measures including electro-oxidation, gelatin manufacturing from raw trimming, compost from hair waste. The presentation was well received and evoked several queries from the audience.

The program concluded with the vote of thanks by Dr. J. Raghava Rao, Chief Scientist, CSIR-CLRI. He highlighted the importance of absorbing this new technology for the benefit of both the tanners as well as society. He thanked everyone for their active participation and support.

Service to Start-up companies'/design houses by SPDC, CSIR-CLRI

Automotive upholstery development for M/s NIZCITA DESIGN STUTIO

NIZCITA DESIGN STUTIO is a leading Automobile customization studio in India. They approached SPDC, CSIR-CLRI for developing Leather upholstery for their new client vehicle. They made use of the workshop facility for development of the automotive upholstery. Automotive upholstery requires skilled labour for the pattern making as well as professional stitcher for the construction. In this activity, the leather upholstery was done for all the seats and the door trims. It is a good learning experience for the staff at SPDC and gained confidence in executing similar activities in future.



Belt making service for M/s Pasion Kraft Private Limited

Pasion Kraft Private Limited, a recently started company venturing in to Manufacture of Leather Accessories with special focus on belts approached SPDC, CSIR-CLRI for making of various kind of belts. These belts were intended for export by the manufacturer. They made use of the facilities at CSIR-CLRI for developing international class products and were excited with the support in the development process. Various operations that were carried out includes Strap cutting, splitting, clicking and punching for various models of belts.



Development of leather goods collection for M/s Raza International

Raza International was founded recently to manufacture high-quality products such as Handbags, Wallets and other lifestyle accessories. They have a long history in leather processing, by their principal company Maideen Leathers exporting finished leather to all over the world, including European countries such as Italy, Spain, Portugal, Germany and Asian countries such as Japan, Korea and Vietnam. They approached SPDC, CSIR-CLRI for making an exclusive collection for a specific market segment. Based on their requirement, CSIR-CLRI has designed ten different collections of Travel wallet & Passport wallet. The designs were handedover to M/s Raza International by Director, CSIR-CLRI.





XXXIV IULTCS Congress

S&T for sustainability of leather

An ambience for strong linkages among the intelligence of the academia, research and industry to pave way for science led sustainability of the leather sector was set at the inauguration of the XXXIV IULTCS Congress. Leaders of the leather sector hoped that the three days of deliberations would lead to newer thoughts, consolidation of existing models and establishment of feasible S&T processes and systems for the sustainability of the Leather sector. A total of 634 stakeholders of the sector including over 300 students participated in the Congress. His Excellency Bogale Feleke, State Minister for Ministry of Industry's Textile and Leather Sector, Dr T Ramasami, President, XXXIV IULTCS Congress, Shri Rafeeq Ahmed, Patron, Shri Arnab Jha, President ILTA, Dr S Rajamani and Shri NR Jagannathan, Working Presidents, Mr. Dietrich Tegtmeier, President IULTCS, Dr NK Chandrababu, Coordinating convener, Dr B Chandrasekaran, Director CLRI, Shri Mukhtarul Amin, Chairman CLE, Shri N Shafeeq Ahmed, Chairman IFLMEA and Shri PR Aqeel Ahmed, Vice Chairman CLE and Shri Israr Ahmed Vice President & Regional Chairman CLE were present at the inauguration.

The Heidemann lecture delivered by Prof. John A M Ramshaw of the CSIRO Australia urged the younger generation to understand the processes involved in Fibril and Fibre bundle formation, organization of collagen in tissues etc.

Dr AD Covington, delivering his keynote lecture on Fundamentals in Leather Science made a clarion call for rethinking of manufacturing. Leather processing involved a three-component system, viz., substrate, reagent and solvent and any change to the system should involve a strict monitoring of the unintended consequences such as formation of harmful chrome tanning to avoid transformation of Cr(III) to Cr(VI). He presented examples of best practices that tanners could replicate. The papers presented in the session included real time leather defect detection systems, analysis of odor by GC-MS and GC-olfactometry, optimizing fatliquor uptake and substances.

"The future of leather science would bank on the availability of leather scientists from a changing cohort of supporting researchers. India and China needs to focus on publishing science based articles than technology related ones. A closer involvement of industry in education is an imminent need"

AD Covington

The papers presented in this session ranged from molecular level understanding of protein – polyphenol interactions, measuring skin traits, use of modulated temperature differential scanning calorimetry for measuring shrinkage, the significance of molecular weight of naphthalene sulfonic acid derivatives on post tanning and significance of drying conditions on surface area gain.

Delivering the keynote lecture in the session on Advances in chemicals for smart and intelligent leathers, Dr HP Germann presented a case study on a wet-green tanning technology based on olive leaf extract. The technology had the advantages of reduction in salt content in effluent, elimination of pickling, savings in retanning products and dyes. Other approaches such as using goat head skin for glue production, preparation of antibacterial casein based ZnO nanocomposites for finishing, stabilizing and destabilizing potential of ionic liquids, chrome-melamine syntan devoid of HCHO, polymerizable surfactants from renewable sources and galic acid- cationic ester based tanning were presented as promising science leads for leathers of the future.

The session on Innovation and value addition for leather had Dr Cannot of CTC presenting a keynote lecture on the need for mastering the process of chrome tanning to avoid transformation of Cr(III) to Cr(VI). He

"Industrial workers today needs to master the art of leather making to ensure that the restricted substances are not formed. Critical care to monitor and optimize chemical uptake is also the need of the hour"

Cannot, France

presented examples of best practices that tanners could replicate. The papers presented in the session included real time leather defect detection systems, analysis of odor by GC-MS and GC-olfactometry, optimizing fatliquor uptake and determining optimized uptake to reduce ETP inflow, increasing collagen fibril orientation in ovine to match that of bovine, chrome free tanning based on rural vegetable tanning and the effect of binder selection on retention of topcoat properties during accelerated weathering was presented.

The session on strategies for sustainability was the key for this year's IULTCS Congress. More than 10 different topics that could gain sustainability in leather processing were presented. Delivering the keynote lecture, Dr Michael Castello explained how polyurethanes with higher biocontent and higher

"The concept of sustainability requires a holistic approach. It is not a new concept, but one where the perception has been changing since 1900s. What is required is that the new processes for sustainable leather should consider social, economic and environmental sustainability"

Anne Lama, UK

performance could be the future for the leather sector. Enzymatic processes, preparing auxiliaries from wastes, recycling technologies for beamhouse, pre-treatment options for chrome tanned wastes to increase biogas production, similarities and differences between formaldehyde and acetaldehyde in processing, eliminating effluent from liming acid/salt pickling, probiotic solutions, biopolymers for leather, benchmarking chrome tanning through mass balancing and a waterless approach to chrome tanning were presented.

In the session on Emission Control Technologies, Dr Jurgen Christner from TFL presented the keynote lecture. He highlighted significant developments made in developing countries. Dr Scholz from Austria spoke on recovery of clean salt through nano-filtration and

"Leather processing is highly complex involving solid, liquid and gaseous emissions. Designing the best process is not easy, especially when one has to comply with local, national and international regulations and eco-labels. The most efficient and technologically satisfying future regulatory need has just one goal – sustainable leather, which is marketed as a premium product".

reverse osmosis. Options such as using white rot fungi for biodecolorization, developing formaldehyde scavengers based on hyperbranched polymers containing active methylene group, an analysis of the ZLD concept implemented in Tamil Nadu, simultaneous recovery of nitrogen and organic carbon, fuel cell technology for waste treatment, TDS management in Asian leather sector were presented as papers.

Through the session on Design innovation for lifestyle leather products, Mr Md. Sadiq of CSIR-CLRI introduced the efforts during the last two years in the area of developing children shoes that were benign, safe and comfortable. Other papers in the session highlighted how the therapeutic footwear design benefited from the analysis of dynamic plantar pressure profile and how a matching between visual assorting and spectral photo meter usage was possible in leather apparel production. Significantly the data collected by Japanese researchers since 1996 indicated that the incidence of skin disorders due to HCHO from leather consumers was decreasing – a trait indicating the adoption of cleaner technologies and formaldehyde free products and scavengers by the industry.

"A mechanism to sustain healthy competition, in which academic and research institutes could leverage on each-others strengths is the order of the day"

S Sadulla, India

The session on enriching human capacity and building global alliances for research was one of the highlights of XXXIV IULTCS Congress. In his keynote lecture Dr Sadulla suggested the need for cooperative competition or Co-opetition amongst leather engineering institutions. Dr Ivan Kral introduced the concept of e-learning and blended training as developed by UNIDO – through a recent course on how to deal with hydrogen sulfide gas. Mr Wondu Legesse from Ethiopia highlighted how the partnership between LIDI and CSIR-CLRI could become a role model for future capacity building of institutions and industrial growth. Ms Kanimozhi of CSIR-CLRI highlighted the enriching experience of the institute in primary level human resource development through artisanal skill development. Her lecture presented a good case for world wide institutions to replicate.

On the Sidelines

While the mornings were for technical lecturers, the evenings provided for a glimpse of India. At the Kalakshetra – an institution for art education since 1936, involved in imparting to the young the true spirit of art, the congress participants were taken through an enriching experience Indian art, folk dance and music. The one hour program provided a glimpse of India, and how the Indian village folk would get together to relax, and enjoy themselves through dance and music. In yet another program the combination of a leather scientist in Dr T Ramasami and renowned mridangam (a percussion instrument) artist Dr Umayalpuram Sivaraman, introduced to the leather technologists the relevance of leather. Through live performance Dr Sivaraman introduced the tone and nadham that arise because of the parchment leather and also the relevance of the black patch at the centre. Dr Ramasami described the significance of tanning on the tone and also the nature of the raw material.

The IUE Commission meeting held on 5 February, ahead of the Congress deliberated and accepted the IUE 12 – Minimum acceptable environmental standards. At the executive committee meeting, it was decided that the AICLST would be held once in 4 years as against the current two years. In his presentation to the Executive Committee, Dr Sreeram highlighted that 43 papers would be presented in the Oral format and about 150 papers in the poster format at the congress.

Dr Gutierrez Soares received the IULTCS Merit award, the 7th in the series on 7th February 2017. His Excellency Bogale Feleke, State Minister for Ministry of Textile and Leather Sector participated in the XXXIV IULTCS Congress throughout. Earlier on 5th February, Ethiopia was selected to host the IULTCS Congress in 2021 after Dresden, Germany. The State Minister welcomed the leather fraternity to Ethiopia in 2021.

The highlights of the proceedings of the XXXIV IULTCS Congress was brought out as newsletters every day. In the newsletter, Dr Campbell Page, the Secretary of IULTCS remarked that the influence of the brands with their zero discharge of hazardous chemicals program would grow further with more extensive testing and auditing. Dr Li Yuzhong, the President of CLIA remarked that China and India should not only cooperate in research but also in leather trade for the benefit of both the countries.

The authors of this report are Dr KJ Sreeram & Dr N Nishad Fathima from the XXXIV IULTCS Congress Secretariat.

XXXIV IULTCS Congress



GO GREEN

Out of over 1500 trees on the CLRI campus, nearly 250 trees were uprooted during the recent wind and rains. CSIR-CLRI Horticulture Department led by Shri Ara Kalaimaran and his Team of Gardeners made every step to replant most of the fallen trees.

What you see in the images are trees with green leaves from such trees that had fallen. Kudos to CLRI's Horticulture Department



Dr Dietrich Tegtmeier, President IULTCS and Congress President XXXV IULTCS gave an overview of the Dresden Congress 2019. Shri Israr Ahmed, Regional Chairman CLE, Shri Habib Hussain, Chairman LSSC, Shri Ramesh Kumar ED CLE and other industrial delegates were present during the congress to chair various sessions.

As a part of the Congress, the organizers also carried out a survey on the congress proceedings and the organization and the general remark has been very good.

Overseas delegates also visited CSIR-CLRI on 8 February.

The congress concluded on the 8th February with the valedictory remarks of the Coordinating Convener Dr NK Chandrababu, who also handed over the IULTCS flag to Dr Tegtmeier. Earlier, the President ILTA acknowledged the generous contributions of the CLE, IFLMEA, LSSC, industrial partners etc. for making this congress a great success by way of their financial and kind support. A specific mention on the support received through the Directors of CLE – Dr Sunanda Santappa, Shri Md. Jamal, Shri Fayaz Ahmed was also made.



“Destination North East”

6-8, MARCH 2017, CHANDIGARH

The biggest ever north east show 'Destination North East-2017' was organized by Ministry of Development of North Eastern Region (DoNER) to showcase North East as a potential destination for investment and highlight the rich traditions and customs of the region. The venue for the event was Parade Ground, Sector 17, Chandigarh, India. The Union Minister of State for Development of North Eastern Region (DoNER), MoS PMO, Dr. Jitendra Singh inaugurated the 3-day event. The core theme of the festival was to highlight the use of appropriate technologies in all sectors of development for North Eastern Region.



CSIR THEME PAVILLION – “CSIR- Touching Lives in North-East”

The DG, CSIR, Dr. Girish Sahni and senior officers from CSIR also participated in this mega event. Team from RCED, Jalandhar comprising Mr. Shisir K Misra, Dr. P. Sudhakara, Mr. Sakattar Lal and Mr. K. Karthikeyan from Shoe & Product Design Centre, CSIR-CLRI, Chennai represented the Institute. The CSIR pavilion had a separate stall for CSIR-CLRI in which the ethnic and leather combination products, designed and developed by CLRI were displayed along with the catalogue and brochures.



Shri. Navin Verma, Secretary, Ministry of D.NER visit to CSIR Pavilion



Hon. Minister Dr. Jitendra Singh during his visit to the CSIR Pavilion

Technical session – Appropriate technologies from CSIR

In the afternoon of day 1 a technical session was organised titled “Appropriate Technologies” that emphasised the role of various CSIR labs contribution in the support and enhancement of lifestyle of various north-eastern states. On behalf of CSIR-CLRI, Mr. K. Karthikeyan elaborated the various activities that had been carried out in the past by this institute at North East and explained the design and development activity in “Ethnic textiles and Leather combination products as an eco-friendly approach towards innovative product design and socio-economic sustainability”. The session was chaired by DG, CSIR, Dr. Girish Sahni.

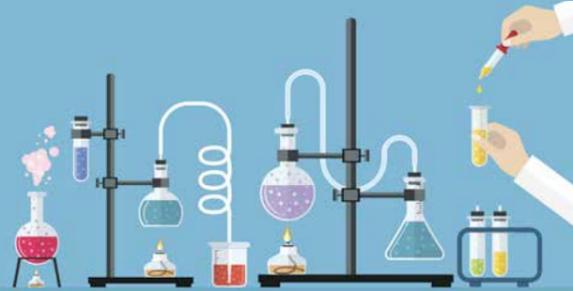


During his visit to the CSIR-CLRI stall Shri. Navin Verma, Secretary, Ministry of Department of North Eastern Region very much appreciated the design and requested the team to visit and discuss the further possibilities in taking forward these products in the north-eastern states. Mr. Dhiraj Thakuria, MD, North Eastern Handicrafts & Handlooms Development Corporation Ltd, Guwahati, Assam also visited and discussed on further collaboration with CSIR-CLRI for product design and development. Many visitors showed interest in taking the designs made out of ethnic and leather combination products to their states and would entrust new entrepreneurs as this was a niche market and the approaches were new in the north eastern market. They also mentioned that these products would attract many tourists visiting during the festival seasons.



OPEN DAY

held at CSIR-Central Leather Research Institute
on 28-02-2017



National Science Day and OPEN DAY (as part of India International Science Festival and CSIR Platinum Jubilee celebrations) was held on 28-02-2017 at CSIR-CLRI, Chennai for college students (B.Sc. level). The National Science Day and OPEN DAY was inaugurated by Dr. B. Chandrasekaran, Director, CSIR-CLRI



In his inaugural address, Dr. B. Chandrasekaran, Director, CSIR-CLRI explained the importance of C V Raman's discovery and highlighted the reason for making the day open for students. He said that the main aim in inviting the students from different colleges is to give them exposure to science and technology activities covering basic sciences as well as institute R&D activities. He also stated that since CLRI is entering into 70 years, from April 2017, monthly activities involving students and institute scientists would be planned. The scientists would go to schools for giving the demonstration or the student would be invited to the institute for interaction with scientists.

These kinds of exercises are important in inculcating scientific temper in students who would be the future scientists of the country. This was followed by National Science Day lecture on Raman Spectroscopy by Prof. P. Ramamurthy, University of Madras. He highlighted the scientific achievements of Sir C. V. Raman and dwelt in detail about Raman's experimental facts. He explained the difference between elastic and inelastic scattering and the role played by Raman spectroscopy for detecting the narcotic drugs. He further described different kinds of Raman spectrometers emerged out of his discovery which are used for every day research activity.

After the talk, the registered 400 students from different colleges were divided into 12 batches and facilitated them to have demonstration of science experiments. Among the 400 participants, ~ 115 are from Kanchipuram and Vellore districts and for them, state transport bus was arranged keeping in view the convenience of students. As many as 12 experiments were shown to them covering chemistry, biology, engineering as well as leather processing. The 10 experiments were demonstrated at the lawns of the main building of CLRI where stalls for each experiment were arranged. These experiments cover chemistry, biology, physics and engineering streams and accordingly, shape control synthesis of gold nanoparticles, optical microscope and viscosity of liquids (chemistry stream), osmosis, isolation and quantitation of DNA and separation of nucleic acid by

provided registration kit with a booklet consisting of brief description of experiments in three languages i.e. Tamil, Hindi and English.

At the Tannery Block, experiments dealing with the leather process were demonstrated which includes from batch operations from skin/hide to final leather product. Also variety of leather related products were displayed at the venue. The students were exposed to other CSIR-CLRI activities through e-poster, accordingly 11 e-posters were displayed and each poster was explained by CLRI student volunteers.

In the evening, with the valedictory function, the event was concluded. Prior to the valedictory function, the students were asked to provide their feedback related to all aspects of the event. Students representing



agarose gel electrophoresis (biology), Meissner effect (physics) and activated sludge process for the removal of organics from wastewater, biogas generation from organic fraction of solid wastes and degradation of toxic organics using photochemical reactor (Engineering sciences) were demonstrated.

different institutes were given opportunity to express their views. All the students expressed their happiness and suggested more such events in the future to nurture the interest in science among young minds. Later, Dr. B. Chandrasekaran, Director, CSIR-CLRI, in his concluding remarks, assured that the Institute is planning many activities as part of the outreach keeping in mind the enthusiasm of the participating students. He stated that in coming months as CSIR-CLRI entering 70th year, there would be monthly events between the colleges and the Institute with clear agenda of popularization of science. Director, CSIR-CLRI handed over the certificate of participation to all the college students. The National Science Day and OPEN Day-2017 concluded with the vote of thanks by Dr. S. N. Jaisankar, Principal Scientist of the Institute.



Kolhapuri:

moving forward



Athani, in the State of Karnataka, is well known for the artisanal legacy for the manufacture of vegetable tanned "Kolhapuri" Footwear. CSIR-CLRI in association with Asian centre for entrepreneurial Initiatives (ASCENT) had worked hand in hand in the development of Artisans from the villages of Athani by standardization of manufacturing method by training and up-gradation of skills; introduction of design for lasts that were modelled and fabricated; increased productivity and market accessibility; enhanced quality of Kolhapuri footwear; creation of vibrant designs; creating an identity of their own and overall increased earning and standard of living.

VISIT

Dr. MK Panduranga Setty, Chairman, ASCENT, Mr. Srikanth M. Chatrapathy, President, Food Associates Bangalore and Ms. Madhura Chatrapathy, MD ASCENT had visited CSIR-CLRI and had thanked CSIR-CLRI for all the endeavours as discussed above and upholding the livelihood of the artisans in the village of ATHANI. Ms Madhura Chatrapathy was reminiscing the rich relationship of the two institutions in upholding and developing the lives of these artisans. She sadly shared the struggle and battle fought and lost in getting the creative Artisan training college and how she had to return the entire fund received for the same as the land belonged to LIDKAR and building to be constructed by PWD. Her passion for the hand made ethnic products, Toe Hold the brand and the legacy she created in the villages of Athani was discussed by her.

REQUEST FROM CSIR-CLRI

Ms Madhura Chatrapathy wanted to expand this

legacy to not only footwear but also to the manufacture of small leather goods based on the demands from the international leather markets as the goods manufactures buy them under the clean leather manufactured products. She was also looking forward for the help and support from CSIR-CLRI for the development of nearby villages of Nippani as well and requested CSIR-CLRI to support them by training and hand holding as done in the case of upliftment of Athani. A special request was made by her to support the artisans with vegetable tanned leathers. She requested CSIR-CLRI for identifying the bag tanned leather manufacturers for some of their immediate needs of their international clients.

RESPONSE FROM CSIR-CLRI

Director CSIR-CLRI was humbled by her gesture on the reminiscence of the past support that CLRI has given to ASCENT. He also assured her the fullest cooperation in not only getting the trainees trained for the manufacture of small leather goods but also the development of Nippani Artisan Leather Cluster in line with Athani cluster development. He had request Dr. Swarna Kanth, Head, CHORD to look into the possibilities of support from NSFDC and NBCDFC for training and cluster development models. Team CSIR-CLRI will visit ASCENT and come out with appropriate models for the artisanal development of Nippani Villages.

The meeting ended with Dr. MK Panduranga Setty, Mr. Srikanth M. Chatrapathy, and Ms. Madhura Chatrapathy thanking CSIR-CLRI for all the needful support and long term relationship to be shared for all the future endeavours.



SHOWCASE

MODEUROP

Autumn Winter 18/19 season

In preparation for the MODEUROP Roundtable and Colour Club Meeting for the Autumn Winter 18/19 season, **18 Tanneries had developed 528 leather/ colour proposals** that were showcased at the India Fashion Studio, CSIR-CLRI Shoe & Product Design Centre on **Thursday, 9th March 2017**.

A presentation covering:

1. **MODEUROP Forecasts: Spring Summer 2018 season**
2. **First from LINEAPELLE: Spring Summer 2018 season and**
3. **First Look: Autumn Winter 18/19 season** was made that day.



The Leathers/ Colours for the MODEUROP Autumn Winter 18/19 season were presented in three colour groups:

- **Performance: A mix of retro sport and future, in addition some folk aspects**
- **Passion: Richness and darkness, luxury and mystic**
- **Reflection: Metals with Patina. Colour between gold and silver, bronze, copper and platinum**

A CSIR-CLRI | CLE | ISF | IFLMEA endeavour
in association with

Arihant Dyechem | BASF India Ltd | Colourfast | Colourtex | Pure Chemicals | Stahl India Ltd



To Oxford. Whole-cut.



Featured Shoe
Latina Oxford

This Oxford is made with a single piece of leather and has a brogue detail. This stylish steel grey shoe is extremely comfortable as you spin from a boardroom to a dinner meeting. Wear it with a tailored suit for work or denim and a blazer when you're a man about town.

At H&S, we source the finest leather from around the world and our tanneries are one of the biggest in Asia. We obsess about quality at every stage- from the thread, to the stitching to the sole. In fact, the pure leather sole alone goes through over 40 processes before it even touches your feet.

Not surprising hence, that out of a set of 50 designs presented by our finest designers, only a handful is picked to reach our shelves.

What's rare is that our luxe leather shoes are bespoke. Every one of them. Once you come into our outlet and let our one-of-a-kind Foot Scanner scan your foot, a 3D image of your foot is generated and we then make a shoe that fits you perfectly, up to the millimetre. You also have the option of choosing the colour, adding a weave or adding your initials! This can be made plain, small, medium or large mesh, single or dual colour...made with or without tassel...can be made with or without a trim. Come over. Our showroom has no salesmen, only consultants, who will guide you on how to choose your leather.



Do come over to our exclusive showroom. Allow our consultants to guide you on your choice of luxe leather bespoke shoe. Step into the world of leather art.

H&S CUSTOMISED
LEATHER
ART

15/2, College Road, Nungambakkam, Chennai 600006.



Open on Sundays from 11.00 a.m. to 9.00 p.m.

Shoes | Bags | Belts | Wallets