



PRESS NOTE

47th Leather Research Industry Get-Together (LERIG 2013)

28 – 30 January, 2013

Theme: Global Alliances with Integrated Networking to GAIN value for Leather



Organized by



CSIR- CENTRAL LEATHER RESEARCH INSTITUTE
(Council of Scientific and Industrial Research)

in association with

**ALFA, AISHTMA, CLCTA, CLE, IFCOMA, IFLMEA, ILGA, ILIFO, ILPA, ILTA, ISF, ITPO,
LCDA, LCMA, SISMA, TALTEIA**

Press Meet

Venue : B.M. Das Hall

Thursday, 24th January, 2013

Time : 11.30 Hrs.

About LERIG

CSIR-Central Leather Research Institute (CSIR-CLRI) was established to develop the capacity to innovate and assimilate novel and green technologies for the leather sector in the country. Since its inception in 1948, CLRI is in the forefront of technology forecasting, developing appropriate technologies, Human Resource Development, and planning and policy formulations for the leather sector. To forge an active partnership with leather industry and academia, an annual event of *Tanners Get-Together (TGT)* was conceived in 1965, by the then Director, CLRI, Prof. Y. Nayudamma. The scope was later expanded to include product industries and it is now known as *Leather Research Industry Get-Together (LERIG)*.

The world scenario

Constrained by the shortage of raw material and manpower and environmental protection concerns, the international leather industry, especially tanning industry, has been shifting its base from Europe to Asia. The industry is also growing in Africa. The developing countries, which originally supplied un-finished and finished leather to product manufacturers in the West, are augmenting their capacity for value added products to derive maximum benefit in addition to creating employment opportunities.

Some of the major issues confronting the leather industry are the need for reducing water use, pollution control and value addition, cost reduction to remain competitive in global market as well as finding potential new uses to obtain the best value for leather. Emerging non-leather substitutes for use in footwear poses a great challenge to leather industry. In such a scenario, sustainability of the industry will depend on projecting and preserving the natural character and properties of leather for varied use through innovative technologies. The solutions for these challenges require an integrated approach by various stake holders of global leather sector. Nations with abundant raw material, qualified people, expertise in design engineering, machinery development and thriving fashion industry need to come together for gaining the maximum value for leather.

LERIG theme for 2013

Recognizing global alliance as an imminent need for the leather sector for accomplishing value, the 47th Leather Research Industry Get-together (LERIG 2013), organized by CSIR-CLRI in association with the stakeholders of the sector, is scheduled to deliberate during January 28-30,2013, on various issues of relevance to leather sector under the theme *Global Alliances with Integrated Networking to GAIN value for Leather*. With an equal mix of discussions on technology and policy issues, GAIN seeks to build a global partnership to share technological advancement and synergise trade and policy issues to gain maximum value for leather.

The discussions at LERIG 2013 will focus on the strategies to integrate world's best practices in leather sector. LERIG 2013 will have four technical sessions where global partnership in leather and environmental technologies, networking of trade bodies/associations for catalyzing the growth of leather sector, leather processing and product manufacture will be discussed. LERIG 2013 will also draw expertise from all over the world, for exchanging country specific experiences for strengthening the technology base and up-gradation and HRD needs. LERIG will provide a platform for networking of trade associations for partnership on issues relating to policy, investment and trade.

Events during LERIG 2013

Monday the 28th January, 2013

Inauguration and Awards ceremony: 4 - 5 pm, Triple Helix Auditorium, CSIR-CLRI, Adyar, Chennai.

LERIG 2013 will be inaugurated amidst galaxy of national and international experts in leather sector. Inauguration will be followed by presentation of Hajee Educational awards, Modeurope awards for 2013 and CLE's Design awards 2013.

Dr A L Mudaliar Oratorical Contest awards will be presented to school and college students. The contest was instituted as a mark of respect to Dr A L Mudaliar, Former Vice-Chancellor, Madras University for his efforts in establishing CLRI and starting academic programmes in leather science.

Dr B M Das Memorial Lecture: 5. 30 pm, Triple Helix Auditorium, CSIR-CLRI, Adyar, Chennai.

Dr B M Das Memorial Lecture is organized every year by the CLRI on behalf all the stakeholders of the Indian Leather sector to pay tribute to the Founder Director of CLRI.

Speaker: Dr T Ramasami, Secretary to Govt. of India, Department of Science and Technology.

Topic: "*Horizon of Leather: In Tribute to BM Das*".

Tuesday the 29th January, 2013

Technical session 1: Global academia – Institute - Industry networking.

In this session networking of education and training institutes for strengthening technology base in developing countries, best practices in leather and footwear, capacity building in Tanzania, CLRI-Vietnam collaborations will be discussed by an international team of experts. A summary report on the on-going project for developing Technology base in Ethiopia through Twinning Project between CSIR-CLRI and Leather Industry Development Institute (LIDI), Ethiopia will be presented during this session. The experience of UNIDO-IFLMEA-ISF-CLRI in introducing best practices in MSME sector in Leather industry will also be discussed.

Technical session 2: Positioning of Leather over Substitutes

This session will have presentations on non-leather footwear, high-end leather applications, adding value through design and texture innovation. A futuristic plan for the leather- '*Leather Vision 2035*' by CLRI will also be discussed in this session.

Demonstrations

The following companies will be participating in the demonstration: Tex Biosciences (P) Limited, Clariant India Pvt Ltd , GG Organics Exports (P) Ltd, Premier Colorscan Instruments Pvt. Ltd, Sellam Chemicals (P) Ltd, .

Wednesday the 30th January, 2013

Technical session 3: Technology and Environmental challenges

Sustainability and environmental footprints, latest finishing technologies and environmental technologies will be discussed by various experts in the field.

Technical session 4: Panel discussion on Networking of Trade bodies/Associations for catalyzing the growth of leather sector.

Dr Y Nayudamma Memorial Lecture and Valedictory function: 2.00 pm onwards, Triple Helix Auditorium, CSIR-CLRI, Adyar, Chennai.

Dr Nayudamma Memorial Lecture is organised in recognition of the valuable contributions of Prof Y Nayudamma for the Indian Leather Sector.

Speaker: Prof G Padmanaban, Formerly Director, Indian Institute of Science, Bangalore on "*Biotechnology-Innovation and Entrepreneurship*".

The lecture is followed by an Exhibition at CLAD (Centre for Leather Apparels/ Accessories Development) Building, CSIR-CLRI

As a part of the concluding session, there will be a presentation on 'Leather Vision 2035' by CSIR-CLRI based on the Forecasting exercise of TIFAC.

Success stories – at a glance

The year 2012 has been quite eventful for CSIR-CLRI. The Year has been the year of accomplishments for the Institute, especially in respect of not only extending outreach on international platform but also in reinforcing the same, thereby portraying its technical capabilities as well as expertise to the global leather sector.

Empowering user industry through Knowledge leads

The technologies that gained much prominence during the year 2012 are indicated below:

Century old tanning process revolutionized by CSIR-CLRI Lead

The century old conventional chrome tanning methodology implicates employing acidic conditions in water medium which necessitates use of salt to prevent swelling of the proteinous tissues. While addition of the salt in the above process helps in retaining the strength and quality of leather, it leads to high amount of Total Dissolved Solids and chlorides with respect to pollution standards in the effluents during treatment at a later stage. Even after a huge financial investment to treat effluent systems, the present tanning industry has been struggling on for years to meet the proper regulatory standards of TDS in effluent systems. Efforts made hitherto to remove or replace salt used for this operation have not produced successful results.

The common salt free tanning technology, developed by CSIR-CLRI, not only eliminates the usage of salt in the tanning process but also shortens it by avoiding the steps of acidification and then again basification to make the medium neutral. This technology provides an enabling solution to address the issue of TDS through a change from a century old process.

The technology has been transferred to multiple beneficiaries for commercial application in Tamil Nadu, India and Saudi Arabia as well as Qatar.

FICCO Design –an enabling solution for waste water treatment

The Fluidized immobilized Carbon Catalytic Oxidation (FICCO) process, developed by CSIR-CLRI, employs mesoporous activated carbon as the immobilization and fluidization matrix. The salient features of the FICCO technology lie on the high reaction rate contributing towards low detention time, less energy for excitation contributing towards

operation at ambient conditions, low cell yield contributing to low sludge generation and closed type reactor contributing towards minimum odor emission. The waste water treatment process ensures minimum odor emission because of the closed type design of the reactor. Moreover, the reactor design ensures less energy consumption. The technology has already gained acceptance among the user industries. It has been translated to multiple clients both in India and abroad.

DBM – A novel Bone substitution material

Demineralized Bone Matrix (DBM) is envisaged to be an immensely useful bone substitution material innovation not only for surgical application, but also for relieving pain by avoiding additional surgeries. The product provides, as a potential osteoinductive material, an excellent indigenous option for maxillofacial surgeons to treat dental as well as facial defects and also for other orthopaedic surgeons to treat such ailments as spinal injury, filling the voids and gaps in the bone resulting from surgical defects or the traumatic injury to the skeletal system. The technology has been licensed to a client in India.



❖ Licensee within India

| SI | Knowledge base | Licensee |
|----|---|---|
| 1 | Pickle free Chrome tanning Process (Indian Patent application no.s 177Del2002 and 2108DEL2008) | M/s KSK Tanning Co. Pvt Limited, CETP of Ambur and Ranipet |
| 2 | Demineralized Bone Matrix | M/s Cologenesis Healthcare Private Limited, Salem – 636 140 |
| 3 | FICCO (Fluidized Immobilized Carbon Catalytic Oxidation) reactor for treatment of waste water (Indian Patent application no. 2728Del2012) | M/s J&K Economic Reconstruction Agency |

❖ Licensee abroad

| SI. | Knowledge base | Licensee |
|-----|--|------------------------|
| 1 | FICCO (Fluidized Immobilized Carbon Catalytic Oxidation) reactor for treatment of waste water (Indian priority Patent application no. 2728Del2012) | M/s PT NALCO Indonesia |

Licensing of FICCO Technology to M/s Cosmo Seafoods Co Limited, P.O. Box TT 581, Tema, Ghana is at an advanced stage of undertaking.

Design Innovations – Newer Frontiers

CSIR-CLRI teamed up with CSIR- North East Institute of Science and Technology (NEIST), Jorhat to tap the ethnic base of the North Eastern part of India towards developing a range of novel designs for export oriented Indian Leather goods industry. A comprehensive documentation of ethnic designs has been made through extensive field survey. Thirty out of a total of 200 designs have been screened out for potential application. A resource hub has been created at Imphal for ethnic design development. Fourteen different products have been made at CSIR-CLRI with the novel designs developed. Capacity building programmes are being undertaken for usage of modern tools such as CAD, digitizer, plotter, etc. for developing new designs. The project has been implemented through NEIST regional centre at Imphal.



Technological Empowerment for MSME sector

Considering the importance of the technological intervention in MSME sector for the overall benefit of the people at the base of Economic pyramid, CSIR-CLRI has launched an innovative initiative by identifying fourteen socially relevant knowledge leads, as indicated below, for possible transfer on 'as is where is basis' to potential micro and small scale beneficiaries without any license fee under CSIR 800 scheme.

- Leather board
- Parchment like material
- Bio-organic manure from proteinaceous solid waste
- Enzymatic process for leather making
- Salt free preservation of hides/skins
- Direct Chrome liquor recycling
- CLaRI Processor, an improved tanning device
- Transportable Device for lifting of Carcass
- Transportable Device for lifting and flaying animals
- Sprinkler
- Making of Leather Kolhapuri Footwear
- Shoe making using simple tools and techniques
- Making of Ethnic footwear (Leather Mojari/ Jooti)
- Making of Sandals /Chappals

All the knowledge leads are proposed to be licensed on non-exclusive basis with an objective of widest possible commercialization, thereby ensuring maximum possible strengthening of our societal matrix.

Enhancing outreach on International platform

The contribution of CSIR-CLRI for the global leather sector has been quite significant. There have been several success stories for this Institute in handling several international projects in collaboration with agencies such as European Commission; UNIDO; CSIRO, Australia; in transferring wound care technologies to user industry in Malaysia and also in offering consultancy expertise to user industries in different

countries including Sudan, Bangladesh, Sri Lanka, Nepal. The year 2012 has witnessed reinforcement as well as extension of the base of outreach on the global platform.

Reinforcement of vibrant platform in Ethiopia

Ministry of Trade and Industry (MoTI), Federal Democratic Republic of Ethiopia (FDRE) had enrolled the services of the CSIR-Central Leather Research Institute (CLRI) by invitation for the Bench Marking Program aimed at the Technology Upgradation of selected Ethiopian tanneries. The benefits of technological interventions from this Institute in terms of two consultancy projects have been glaring with the graduation of Ethiopian tanneries into exporters of finished leathers, thereby enabling the Ethiopian Tanning Industry to emerge as reliable suppliers of quality finished leathers in the International Market.

As an outcome of the overall success as well as appreciation achieved in connection with handling two important consultancy projects relating to Technology upgradation for the Ethiopian Tanning industry, the Institute has been awarded another contract by the Govt of Ethiopia towards the Twinning arrangement for capacity building for the Ethiopian Leather Institute, Leather Industries Development Institute (LIDI). An International consultancy Agreement was accordingly signed to undertake the project on *Expert Intervention towards capacity building of Leather Industry Development Institute (LIDI) Ethiopia* through a twinning programme, thereby strengthening the vibrant relationship forged with the Govt of Ethiopia.



It has been recognized that LIDI needs to undergo a major transformation on its way to emerge as a globally competitive centre of excellence in the field of leather. CSIR-CLRI gave a comprehensive proposal for enabling LIDI to become a globally competent centre envisaging a twinning period of three years. The TWINNING project is structured, planned and being carried out essentially to capacitate LIDI towards the same. The major areas covered under twinning are strengthening academic programmes of LIDI, providing industrial consultancy in the areas of leather and products through applied research, establishing testing services and in the area of human resource development for the product sector through vocational programmes. The ultimate transformation would enhance LIDI's capability to offer all the needed services and support for the whole leather value chain. The project is successfully underway.

Linkage established with South Africa

A high level South African delegation headed by Her Excellency Ms Elizabeth Thabethe, the Deputy Minister, Govt of South Africa, visited CSIR-CLRI on the 24th August 2012 to get familiarized with the on-going R&D activities in the Institute. The response of the delegation has been immensely positive towards forging linkage with this Institute in connection with developing the leather sector in South Africa. A possibility of technology transfer to South Africa may also be a reality.

All African Leather Fair 2012

The Fifth All African Leather Fair (AALF 2012), which was organized as an multi-organizational effort in Addis Ababa, Ethiopia during March 1-3, 2012, received significant response from the members representing tanners, footwear and other leather

goods manufacturers, equipment and technology suppliers, chemical and inputs suppliers, manpower training institutions, trade promotion organizations, etc from around 38 countries all over the world. CSIR-CLRI participated in the Fair to showcase its technical capabilities as well as expertise in the area of Leather and allied sector. CSIR-CLRI stall attracted visitors from various African countries and those looking for technical assistance related to Leather Processing, Environmental concerns and other issues including capacity building.



India-Africa Technology Partnership Programme, New Delhi

CSIR-CLRI participated in the Team CSIR effort to highlight the technical expertise and on-going activities with African countries towards exploring possibilities of extending the base as a potential technology provider for the benefit of African countries at the above programme organized by CII-EXIM Bank during March 2012. The on-going programme of this Institute with the Govt. of Ethiopia gained significant appreciation during the programme.

UNIDO - CLRI Centre for Salt-free Tanning Launched



Based on the immense success of the salt free tanning technology in India and abroad, UNIDO, Vienna has come forward to join hands with CSIR - CLRI to establish **UNIDO-CLRI centre for salt free tanning** in order to disseminate the technology across the Indian Leather Sector. Based on the outcome, a major initiative will be taken up by UNIDO and CSIR-CLRI for dissemination of the technology at global level.



11th SAARC Trade Fair 2012, Dhaka, Bangladesh

CSIR-CLRI participated in the 11th SAARC Trade Fair & Tourism Mart 2012 at Dhaka, Bangladesh and organized appropriate display of the expertise as well as different knowledge leads available in this Institute with bromide display and representative samples. Indian High Commissioner in Bangladesh visited the stall and appreciated the contributions of this Institute for the leather sector. The response from the visitors was very encouraging.



CSIR-CLRI Team visits major Leather and Product Fair in Italy

In continuation to the invitation from the Italian Trade Commission, a 4-member team from CSIR-CLRI led by the Director Prof. Dr. A.B. Mandal, visited SIMAC/TANNING TECH 2012 Fair in Bologna, Italy to interact with the Italian Designers, Design Schools, Tanners and Machinery Manufacturers and lay the ground to forge collaborative efforts in the area of Design and Development especially in view of the proposed "National Design Studio" to be set up in CSIR-CLRI. A meeting was organized in this connection by



UNIDO with the Italian Tanners Association to discuss the collaboration between the Indian Tanners and the Italian Tanners. Presentations on technologies made by CSIR-CLRI attracted immense attention.

Partnership forged with LSRI, Vietnam

In continuation to the interest evinced by Leather & Shoe Research Institute (LSRI), the leading leather research organization in Vietnam, in seeking technical intervention of CSIR-CLRI towards promoting the growth of Vietnam leather sector, a 2-member delegation from this Institute comprising Prof. Dr. A.B. Mandal, Director and Dr. N.K. Chandra Babu, Chief Scientist, visited Hanoi in September 2012 to have detailed discussion regarding the possible areas of cooperation between CSIR-CLRI and LSRI. A Letter of Intent (LoI) was accordingly signed on the 14th September 2012 between CSIR-CLRI and LSRI at Hanoi to take the collaborative relationship further in the areas mutually identified for possible assistance and collaboration from CSIR-CLRI.



Subsequently, a 3-member team led by the Director General, LSRI, visited CSIR-CLRI in November 2012 with an objective of capacity building of LSRI by way of undertaking joint collaborative research project with the funding obtained from the respective Governments. An Agreement was accordingly signed between CSIR-CLRI and LSRI. A joint research proposal has also been submitted to the DST, Govt of India. The funding due from the Govt of Vietnam has already been received by LSRI.

Societal empowerment – Cobbler livelihood rendered comfortable

CSIR-CLRI has been a recognized centre for Human Resource Development. A report published in the Metroplus edition of the The Hindu, Chennai dt. 22nd October 2012 bears a glaring testimony of the immense societal contribution of CSIR-CLRI for the under-privileged section of the society.

Shri Theresanathan obtained cobbler training as well as tool kits for footwear making from CSIR-CLRI and started earning his livelihood by opening a footwear repairing shop around 25 years back in the posh Besant Nagar area of the South Chennai. Today, he is an experienced cobbler earning good money to support his family and his four sons are well educated. His youngest son, who has been pursuing final year Engineering, has an aspiration to become an IAS officer. But he has no plan to quit the profession even after his sons are well settled.

The newspaper report, as provided herein, gives an excellent overview of the contribution of CSIR-CLRI in helping the cobbler to get established in life.

8 METROPLUS

I am...

K. Theresanathan

Occupation
Mends shoes, bags and umbrellas

The new moulded shoes and slippers need to be glued as well as stitched

Photo: M. Karunakaran

It won't stick, Raja," Theresanathan patiently tells a customer who wants his slipper repaired immediately. "It needs to be stitched, it will take time." When the customer walks away, Theresanathan tells me that footwear technology has changed in the last 27 years; the new moulded shoes and slippers need to be glued as well as stitched. "Look at this shoe," he shows me branded sneakers with the sole hanging open. "When I'm done with it, it'll look perfect. The stitches will be invisible."

Theresanathan set up his shop 25 years ago in Besant Nagar, having trained to be a cobbler at Central Leather Research Institute (CLRI), Chennai. "CLRI gave me all the tools; I bought this shop from a relative who was very unwell. This area was so quiet then," he says of the broad 7th Avenue. But the early days were very hard, and he barely earned Rs. 7 or 8 daily. "I was paid 50 paise or Re. 1 for mending slippers. Sometimes, I got Rs. 2 for polishing shoes. It was very difficult to support a family," says the 53-year-old. Over the years, he hand-made shoes, bought and sold slippers, but now he gets a steady income mending footwear, bags and umbrellas. As we speak, an old man drops off a pair of slippers with a request "first class-a panni kodu," readily agreeing to the quote of Rs. 80. "I charge about Rs. 200 to 250 for pasting and stitching a shoe, using the best quality materials," he tells me.

Besant Nagar has lots of walkers, so I get plenty of shoe-repair work," says Theresanathan, showing me different kinds of leather and their uses. "I work every day till 10 p.m. I never rest in the day-time, not even during monsoon; I get umbrella repair work then!" His customers have remained loyal, and sought him out, even if they had moved elsewhere. And it was one of his customers, Shanti Krishnan, who helped with his sons' education. "I have four sons. My wife - Malaimary, and I are not very educated. But we wanted a good future for the boys. Since we couldn't afford tuitions, we made them sit here (he points to the pavement behind his shop) and studied by kerosene lamp. My wife made sure they studied, while I earned money for the family. Today, our first son, Kirupakaran, is a B.Com, M.B.A graduate; he's married and works in a company in Besant Nagar. My second son, Albert, scored 1,050 in Class XII; but we didn't know how to guide him in the Engineering counselling. It was Shanti amma who helped him (he's now a BEE graduate) and my two other sons. The third one, Martin, works in a cell phone company; and the youngest, Alexander, is in final year Engineering. He wants to be an IAS officer," he says proudly.

But even with his sons well settled, Theresanathan has no plans to quit working. "As long as I'm able to use my hands and legs, I will work hard," he says, adding that he wants to support his sons financially, until they have paid off their educational loans. "I need to lead by example, don't I?" he asks, with a smile.

APARNA KARTHIKEYAN
(A weekly column on men and women who make Chennai what it is)

Technology Vision 2035 for Leather Sector

Technology Information, Forecasting and Assessment Council (TIFAC) initiated the process of preparation of a Sectoral Road Map/ Scenario for the “Materials and Manufacturing Technologies Sector” (TV 2035). CSIR-CLRI has been assigned the task of preparing a Chapter on “A Scenario Analysis on Leather as a Material and Changing Technologies for Manufacturing” under TECHNOLOGY VISION 2035. This task has been successfully completed and report submitted.

12th Five year Plan Research Projects of CSIR-CLRI

The 12th Five year plan projects of CSIR-CLRI include 1) “Science and Technology Revolution in Leather with a Green Touch” (STRAIT) for value engineering of leather to meet the targets set by the leather sector during the plan period; 2) “Research Initiatives for Waterless Tanning” (RIWT) towards identifying alternative green solvents for leather processing as an approach to water conservation; 3) “Zero Emission Research Initiatives for Solid Wastes for Leather” (ZERIS) with an objective of developing technical options for conventional solid waste into value added products by wealth from waste approach and 4) Design innovation for smart material transformation yearning leather life style products (D’STYL). In addition, CSIR-CLRI is partnering with other sister laboratories in eleven projects during the 12th Plan period.

Mega Leather Cluster sub-scheme under ILDP, Govt of India

A sub-scheme titled *Mega Leather Cluster* (MLC) with an allocation of Rs. 600 crores has been approved by the Govt of India under Indian leather Development Programme (ILDP) for implementation during the 12th Plan period. The scheme targets industrial clusters/locations with high growth potential, that require strategic interventions by way of providing infrastructural support. While DIPP (Department of Industrial Policy and Promotion) is in the process of steering the sub-scheme through the participation of identified Special Purpose Vehicles (SPV) constituted by the interested beneficiaries, CSIR-CLRI has been appointed as the Project Management Consultant (PMC) for the above MLC to assist DIPP in monitoring its implementation.

Looking Ahead :

The trinity networking of academia - Industry - institute partnership, forged by CSIR-CLRI, has enabled India emerging as a global leader in leather. CSIR - CLRI today supplements global trade through knowledge products and services. The Institute today foresees an opportunity to promote a global academia - Institute - industry networking for gaining value to leather.

LERIG 2013 strives to offer a sound platform towards the attainment of this.