JOURNAL OF INDIAN LEATHER TECHNOLOGISTS' ASSOCIATION (JILTA)

AUGUST 2017 VOL.: LXVIII NO.: 08 RNI NO.: 2839/57 REGD.NO.: ISSN 0019-5738

Contents

Hony. Editor :

Dr. Goutam Mukherjee

Communications to Editor through E-mail :

jiltaeditor@gmail.com; admin@iltaonleather.org

Cover Designed & Printed by :

M/s TAS Associate

11, Priya Nath Dey Lane, Kolkata - 700 036

Published & Printed by :

S. D. Set, on behalf of Indian Leather Technologists' Association

Published from :

Regd. Office : 'Sanjoy Bhavan', 44, Shanti Pally

3rd Floor, Kasba, Kolkata - 700 107

Printed at :

M/s TAS Associate

11, Priya Nath Dey Lane, Kolkata - 700 036

Subscription :

Annual	Rs.(INR)	400.00
Foreign	**$** (USD)	45.00
Single Copy	Rs.(INR)	50.00
Foreign	**$** (USD)	4.00

All other business communications should be sent to :

Indian Leather Technologists' Association

'Sanjoy Bhavan', 3rd floor, 44, Shanti Pally

Kasba, Kolkata - 700 107, WB, India

Phone : 91-33-2441-3429/3459

Telefax : 91-33-2441-7320

E-mail : admin@iltaonleather.org; mailtoilta@rediffmail.com

Web site : www.iltaonleather.org

JOURNAL OF INDIAN LEATHER TECHNOLOGISTS' ASSOCIATION (JILTA)

Indian Leather Technologists' Association is a premier organisation of its kind in India was established in 1950 by Late Prof. B.M.Das. It is a Member Society of International Union of Leather Technologists & Chemists Societies (IULTCS).

The Journal of Indian Leather Technologists' Association (JILTA) is a monthly publication which encapsulates latest state of the art in processing technology of leather and its products, commerce and economics, research & development, news & views of the industry etc. It reaches to the Leather / Footwear Technologists and the decision makers all over the country and overseas.

Advertisement Tariff

Full Page / per month

Black & White	Rs. 5,000.00/-
Colour (full page)	Rs. 10,000.00/-
Colour Insert (One side) (Provided by the Advertisers)	Rs. 5,000.00/-

Full Page / per anum

Front inside (2nd Cover)	Rs. 96,000/-
3rd Cover	Rs. 84,000/-
Back Cover	Rs. 1,20,000/-

Mechanical Specification

Overall size : 27 cm × 21 cm
Print area : 25 cm × 17 cm

Payment should be made by A/c. Payee Cheque to be drawn in favour of :

Indian Leather Technologists' Association
and Payable at **Kolkata**

Send your enquiries to :

Indian Leather Technologists' Association
'SANJOY BHAVAN'
3rd floor, 44, Shanti Pally, Kasba, Kolkata – 700 107
Phone : 91-33-24413429/3459, Telefax : 91-33-24417320
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JOURNAL OF INDIAN LEATHER TECHNOLOGISTS' ASSOCIATION (JILTA)

How GST will help India

Goods and Service Tax is being glorified as a system of taxation by which economy will take an upward swing and further it will ease the trade and industry with respect to the indirect tax system of the country. "Only one" indirect tax has to be paid by the trade and industry and all the other indirect taxes will be subsumed in GST.

GST is a consumption based tax levied on sale, manufacture and consumption on goods & services at a national level. This tax will be substitute for all indirect tax levied by state and central government. Exports and direct tax like income tax, corporate tax and capital gain tax will not be affected by GST. GST would apply to all goods other than crude petroleum, motor spirit, diesel, aviation turbine fuel and natural gas. It would apply to all services barring a few to be specified. With the increase of international trade in services, GST has become a global standard. The proposed tax system will take the form of "dual GST" which is concurrently levied by central and state government. This will comprise of :

- Central GST (CGST) which will be levied by Centre
- State GST (SGST) Which will be levied by State
- Integrated GST (IGST) – which will be levied by Central Government on inter-State supply of goods and services.

The GST will bring about a qualitative change in the tax system by redistributing the burden of taxation equitably between manufacturing and services. The Finance Commission had commissioned a study by NCAER to assess its impact on GDP growth and exports. The study explores the impact of GST on growth through direct cost reduction as well as cost reduction of capital inputs. Preliminary results indicate that the growth in GDP can be between 2-2.5% with the implementation of a well-designed GST. The increase in exports can be between 10-14%. It is indeed a staggering impact and demands an energetic action to usher in a well designed GST at an early date.

There appears to be agreement that the best option would be a bare minimum number of rates—at best two, preferably one. A single rate will ensure low compliance costs, obviate classification disputes, and ensure uniformity of approach amongst all players. But to be attractive, a single rate cannot be too high. At the same time, the rate must be high enough to address the concerns of states on revenue neutrality.

For GST to be successful, all states and the Centre should implement it in a similar fashion. Only then will it bring about the national common market. The GST will perhaps be the single most important reform stimulus since 1991-92. A flawless GST and the New Direct Taxes Code will put India's fiscal system on the cutting edge of the world market economies. Even a 2% reduction in costs increases profits by over 20%. This will attract investments. As tax cascading disappears, the industry will move to the lagging regions because of lower costs and thus bring these into the growth dynamics.

For some, GST may be beneficial because the GST rate might be lower than their current tax rates. Also, GST is expected to reduce logistics and distribution costs, which might ultimately result in lower prices for goods and services. GST will help create an integrated market across the country in case of e-commerce. In this context, GST will eliminate the snowballing effect of taxes in case of goods sold through e-commerce. Phone prices might become uniform across states. The same might be true for automobiles. But note that call and data charges for your mobile connection, might go up if the GST rate exceeds 16%. The same might be true for insurance policies as well as airline tickets.

GST will mainly help control tax evasion by firms and will simplify business operations. This is all expected to help add to India's Gross Domestic Product (GDP).

The benefits of GST can be summarized as under :

❖ **For business and industry :**

- Easy compliance: A robust and comprehensive IT system would be the foundation of the GST regime in India. Therefore, all tax payer services such as registrations, returns, payments, etc. would be available to the taxpayers online, which would make compliance easy and transparent.

- Uniformity of tax rates and structures: GST will ensure that indirect tax rates and structures are common across the country, thereby increasing certainty and

ease of doing business. In other words, GST would make doing business in the country tax neutral, irrespective of the choice of place of doing business.

- Removal of cascading : A system of seamless tax-credits throughout the value-chain, and across boundaries of States, would ensure that there is minimal cascading of taxes. This would reduce hidden costs of doing business.

- Improved competitiveness:Reduction in transaction costs of doing business would eventually lead to an improved competitiveness for the trade and industry.

- Gain to manufacturers and exporters: The subsuming of major Central and State taxes in GST, complete and comprehensive set-off of input goods and services and phasing out of Central Sales Tax (CST) would reduce the cost of locally manufactured goods and services. This will increase the competitiveness of Indian goods and services in the international market and give boost to Indian exports. The uniformity in tax rates and procedures across the country will also go a long way in reducing the compliance cost.

❖ **For Central and State Governments**

- Simple and easy to administer: Multiple indirect taxes at the Central and State levels are being replaced by GST. Backed with a robust end-to-end IT system, GST would be simpler and easier to administer than all other indirect taxes of the Centre and State levied so far.

- Better controls on leakage: GST will result in better tax compliance due to a robust IT infrastructure. Due to the seamless transfer of input tax credit from one stage to another in the chain of value addition, there is an in-built mechanism in the design of GST that would incentivize tax compliance by traders.

- Higher revenue efficiency: GST is expected to decrease the cost of collection of tax revenues of the Government, and will therefore, lead to higher revenue efficiency.

❖ **For the consumer**

- Single and transparent tax proportionate to the value of goods and services : Due to multiple indirect taxes being levied by the Centre and State, with incomplete or no input tax credits available at progressive stages of value addition, the cost of most goods and services in the country today are laden with many hidden taxes. Under GST, there would be only one tax from the manufacturer to the consumer, leading to transparency of taxes paid to the final consumer.

- Relief in overall tax burden : Because of efficiency gains and prevention of leakages, the overall tax burden on most commodities will come down, which will benefit consumers.

The GST will bring about a qualitative change in the tax system by redistributing the burden of taxation equitably between manufacturing and services. The Finance Commission had commissioned a study by NCAER to assess its impact on GDP growth and exports. The study explores the impact of GST on growth through direct cost reduction as well as cost reduction of capital inputs. Preliminary results indicate that the growth in GDP can be between 2-2.5% with the implementation of a well-designed GST. The increase in exports can be between 10-14%.

If we want to improve it then there are two things which could be done –

1. We have to increase the investments (from current level of 27%). I see it can be done with abolishing the income tax completely as it will boost the domestic saving rate suddenly to our advantage.

2. We have to decrease incremental capital to output ratio (ICOR from 4:1 to 3:1 which is nearly impossible for a lawyer to do). It requires tectonic shift in ways we were doing things earlier. It requires innovations not this labour arbitrage which we are good/ feel comfortable at but vision rather than coming up with this cess or that cess.

Goutam Mukherjee

Dr. Goutam Mukherjee
Hony. Editor, JILTA

From the Desk of General Secretary

67th Foundation Day Celebration of ILTA

Above is scheduled to be held at the Auditorium of Freya Design Studio, ILPA Leather Goods Park, Bantala, 24 Parganas (South) on Monday the 14th August, 2017 at 11.30 Hrs (Registration from 10.30 Hrs).

Mr. Kalyan Rudra, Chairman, West Bengal Pollution Control Board has kindly consented to deliver the prestigious B. M. Das Memorial Lecture titled "Longitudinal Disconnectivity, Diminishing flow and Pollution Management of the Ganga".

Dr. B. Chandrasekaran, Director, CSIR-CLRI, Chennai has kindly consented to grace the occasion as the Chief Guest.

Mr. Ramesh Juneja, Regional Chairman (ER), CLE and Mr. Imran Ahmed Khan, General Secretary, CLCTA, Calcutta Leather Complex, have kindly consented to be present on the occasion as the Guests of Honour.

Individual invitation cards to Members and Guests have already been posted, giving the following programme :

10.30 AM : Registration

11.30 AM : Foundation Day Celebration Programme :

- Welcome Address by Mr. Arnab Jha, President, ILTA
- Address by the Chief Guest – Dr. B. Chandrasekaran
- Address by Guest of Honour – Mr. Ramesh Juneja
- Address by Guest of Honour – Mr. Imran Javed Khan
- Presentation of B. M. Das Memorial Award
- Presentation of J. M. Dey Memorial Award
- Presentation of J. Sinha Roy Memorial Award
- B. M. Das Memorial Lecture by Dr. Kalyan Rudra
- Vote of Thanks by Mr. Susanta Mallick,General Secretary, ILTA
- LUNCH

An Appeal

Shri Subal Kumar Das, a student of GCELT during the session 1990 – 94 and a member of ILTA till 4 years ago was found some 3/4 months ago to have been suffering from cancer.

With his own resources and financial help received from other sources, treatment has already commenced but is unlikely to continue unless immediate more financial help is received. Shri Das appealed to ILTA for such help.

We appeal to all our Members to extend a helping hand and forward urgently whatever financial help is possible to the Bank Account of either Shri Subal Kumar Das or that of Alumni Association, GCELT, details of which are given below.

Bank Account details of Shri Subal Kumar Das

A/c holder's Name	:	Subal Kumar Das / Sampa Das
Bank Name	:	State Bank of India
Branch Name	:	Dharam Pukuria, North 24 Parganas, PIN – 743 235
Branch Code	:	007004
Account No.	:	33587824025
IFSC / NEFT Code	:	SBIN0007004
MICR Code	:	743002235

Bank Account details of Alumni Association of, GCELT

A/c holder's Name	:	Alumni Association of GCELT
Bank Name	:	Corporation Bank
Branch Name	:	Kolkata – NUJS Campus, Salt Lake City, Kolkata – 700 098
Branch Code	:	000663
Account No.	:	007226
IFSC / NEFT Code	:	CORP0000663
MICR Code	:	700017015

You are requested to :-

a) Kindly inform us your '**E-Mail ID**', '**Mobile No**', '**Phone No**', through E-Mail ID: admin@iltaonleather.org or over Telephone Nos. : 24413459 / 3429 / 7320. This will help us to communicate you directly without help of any outsiders like Postal Department / Courier etc.

b) Kindly mention your **Membership No. (If any)** against your each and every communication, so that we can locate you easily in our record.

(Susanta Mallick)
General Secretary

Executive Committee Members meet every Thursday at 18-30 hrs. at ILTA Office.
Members willing to participate are most welcome.

Emerging Trend in Fashion for Leather

Mr. Rahul Sethi * Associate Professor & **Mr. Sabyasachi Sengupta** Associate Professor

NATIONAL INSTITUTE OF FASHION TECHNOLOGY, KOLKATA
PLOT: 3B, BLOCK: LA, SECTOR: III, SALTLAKE CITY,
KOLKATA: 700098, INDIA

Key words: Leather, Fashion trends, forecasting, traditional, local arts

Fashion Trends and Forecasting has been a subject of immense interest amongst all related people associated with the Fashion & Lifestyle Industry. The access to this source of treasure is perceived as the key to undisclosed knowledge and wealth. It is looked upon as the ultimate tool of generating answers to all questions of the future, questions of what will sell, what to make, what to concentrate energies on and what will yield profits. It holds the perceiver in a shroud of Mystery and in the constant dilemma of what not to ignore at a high peril.

The process of Forecasting trends across the world is a complex one and the Fashion Industry has its own methods and applications. Professional Fashion Forecasting agencies across the Globe come up with periodic findings, identification and predict of Trends and provide possibilities for the various stakeholders in this industry to utilise.

Amongst the latest trends referred to which provide broad inputs for the Leather Industry are taken from reports of WGSN (Worth Global Style Network)

Part 1 – Common Ground

Author : the WGSN Vision Team
Date : 05.15.17
Category : Future Trends > S/S 19 > The Vision, Refers to an aspect under Creative called "The meaning of making "

"Traditional techniques and local materials should be used in new ways, as creatives adapt making processes to add meaning.

Everyday items should be embedded with a connection to community and craft. Israeli designer Talia Mukmel does this with her Revolve water bottles, using ancient earthenware textures on a modern bioplastic made from corn starch and sugarcane. **Fashion will deepen its interest in making for the long-term.** London studio too good accompanies its Collection 006 with a robust manifesto, stating its aim to "harness the techniques and forms of this mechanised age and return them to the people. The inherent worth of any objects lies ... in provenance and the craftsmanship of manufacture."

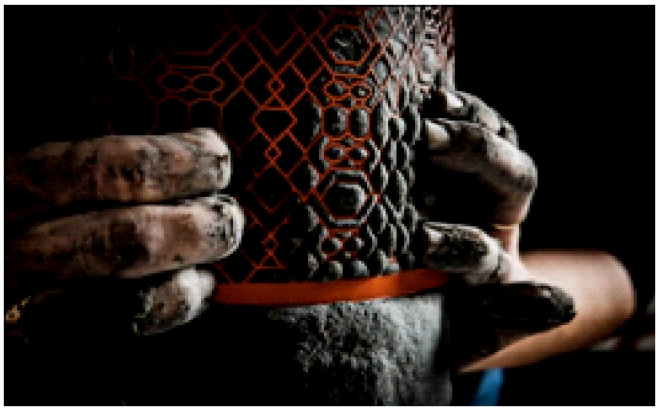
Talia Mukmel Project Terra cotta #1

"A series of bowls made of sand and flour, baked in a home oven. This project was born from the desire to explore a simpler world, leaving aside the huge amount of possibilities that technology and materials

*Corresponding Author's E-mail ID : rahul.sethi@nift.ac.in

allows us. A research after African tribes brought me to understand that by combining basic methods and basic materials, it is possible to build an amazing and inspirational culture. In attempt to track their way of life, I choose the materials, traditional techniques and workspace that modern world considers as basic and obvious. This combination led me to create a special series of bowls, each piece different from the other."

The surface treatment creating organic forms having an intriguing feel is an excellent reference to the workings which can be done on Leather utilising techniques like thread fill in.



Talia Mukmel Project : Revolve

The choice to design water bottles resulted from my desire to create an object expressing the spirit of a given historical period combined with a contemporary vision. During the process, I experimented with different techniques in order to find a way by which I could preserve the attributes found in ancient hand work, while utilizing techniques of production based on today's modern materials."

Various techniques from traditional block printing to modern Lazer cut outs can be used to achieve the desired look with Geometric motifs and their tessellations.

A good example of the usage of Traditional Techniques with Local materials in an International acceptable aesthetics has been the rise of **African** accessories brands**.**

Zashadu as its website describes "Zashadu is a leading British/Nigerian sustainable luxury brand that specialises in hand-crafted leather pieces. We work with local sustainably sourced leathers, farmed exotic skins and rough cut precious stones set in brass. All our pieces are created at our workspace in Lagos, Nigeria, by a team that benefits from traditional techniques passed down through generations by a community of local artisans. At Zashadu we love to explore the tension between quiet elegance and unabashed glamour. We avoid the use of superfluous fittings and fixtures in order to give precedence to the leathers."

Source : https://zashadu.com/pages/about-us/

The use of Local artisans and traditional working techniques to create elegant structures designs drawing influences from Architecture and Art having urban sensibilities are some features of this brand.

Source : https://oxosi.com/makers/zashadu/

Okapi is one of Africa's first luxury brands founded by South African businesswoman Hanneli Rupert in 2008. Okapi works directly with indigenous farmers and tanneries, ensuring every element of an Okapi bag is 100% traceable, sustainable and ethically-sourced.

They focus on using locally sourced organic yet sustainable materials such a horn and leather.

Okapi bags are made from the highest quality natural skins and are meant to age over time to grow with their

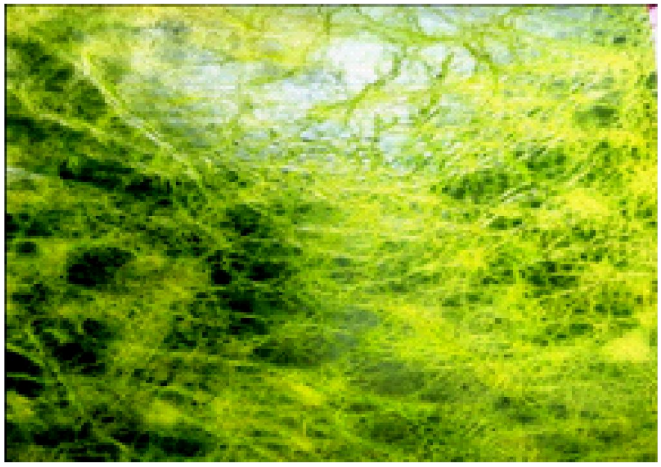
owners. There is a focus to create world class luxury products.

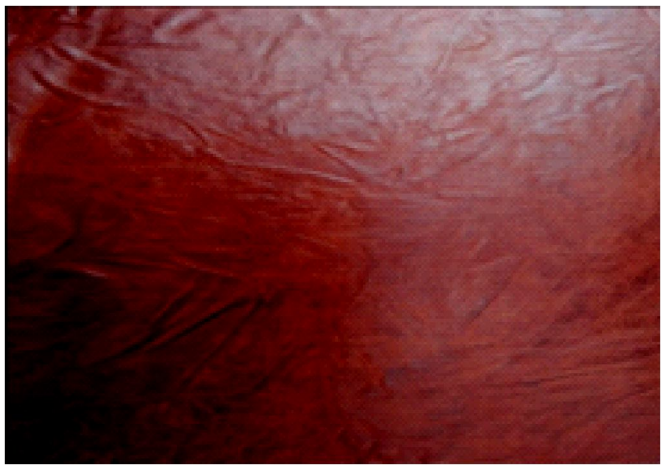
Source : https://aduna.com/blogs/aduna-world/117169860-okapi-luxury-handbags-accessories-handmade-in-africa

Common Ground S/S 19

Title : Accessories & Footwear
Forecast S/S 19 : Leather & Non-Leather
Author : Melissa Taylor, Claire Foster
Date : 06.16.17
Category : Materials & Textiles > Future Trends > S/S 19 > Accessories & Footwear

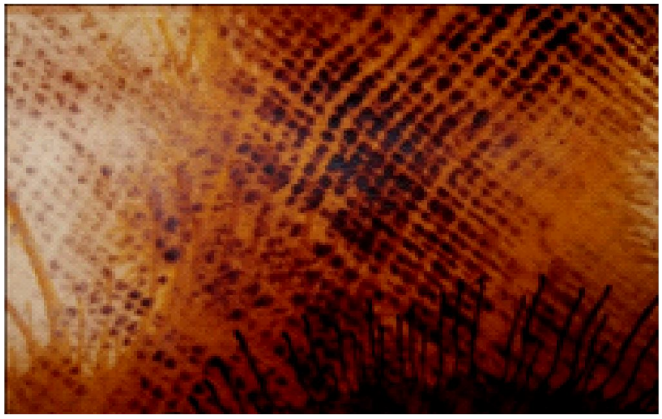
WGSN in its reports on the foresting trends S/S 2019 for Leather speaks about a return to nature and the use of decorative surfaces. An emphasis is made on cracked surfaces which can be done on leather.





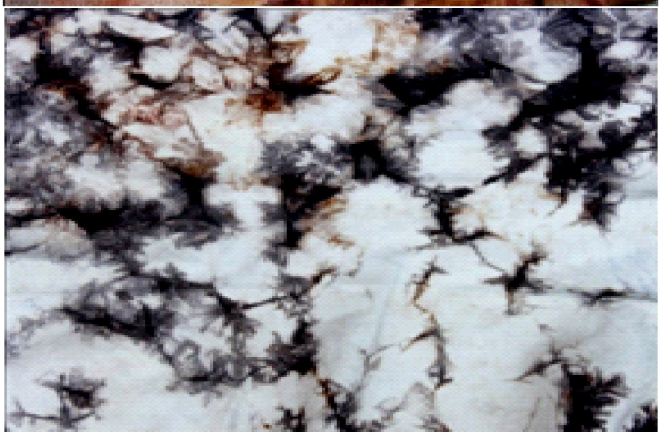
Extreme Distress Heavy-duty canvases and leathers go distressed and rugged, adding a textured and aged look to footwear and accessories. Sandblasted, scored and tarnished items have a time-worn look.

Application : men's sneakers and boots, rucksacks and holdalls, women's sneakers and totes



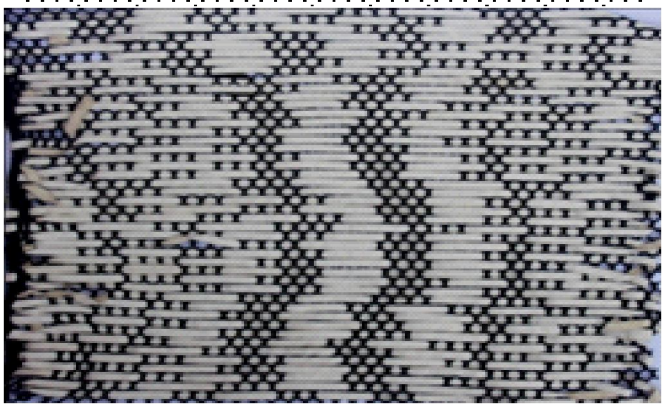
Naturally Dyed : A move towards the natural and authentic sees naturally dyed leathers and fabrics create a simple material message for footwear and accessories. Flower and vegetable-based dyes create artisanal-look organic tones that tie in with this season's pared-back message.

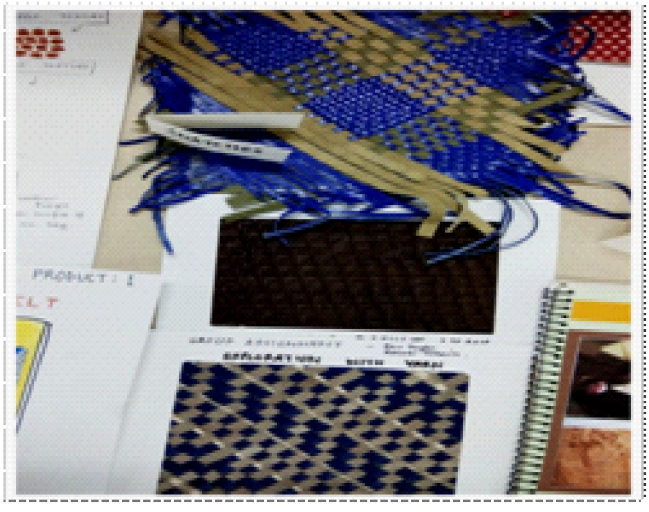
Application : casual unisex accessories and sneakers



Artisanal Woven : Leather Evolving from the A/W 18/19 season's closely woven leathers , we see an artisanal approach embrace pattern and structure in new woven surfaces. Two-tone weaves go one step further to create intricate footwear panels and decorative bag designs.

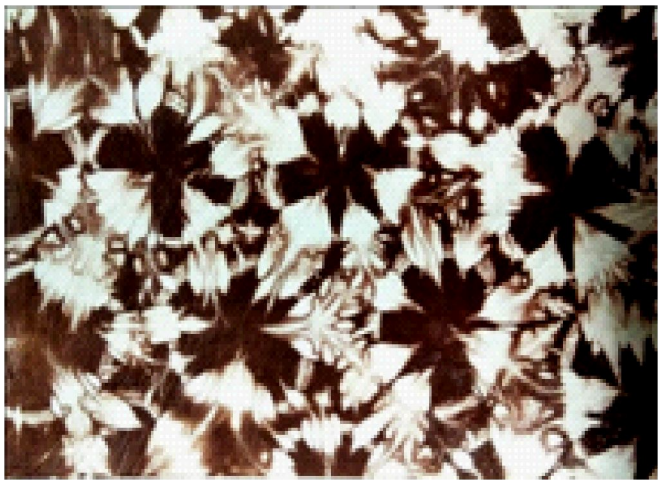
Application : women's high-summer footwear and bags, men's sneakers





Expressive Surfaces : A spirit of DIY rebellion inspires spray-painted and tie-dyed materials that embody a new dynamic energy. Expressive over-painted, sprayed, printed and dip-dyed leathers and wovens tie in with the S/S 19 Creative Manifesto trend.

Application : casual youth footwear, bags and soft accessories



In another report on the material aspect of trends for A/W 18/19 the following main points are emphasised on :

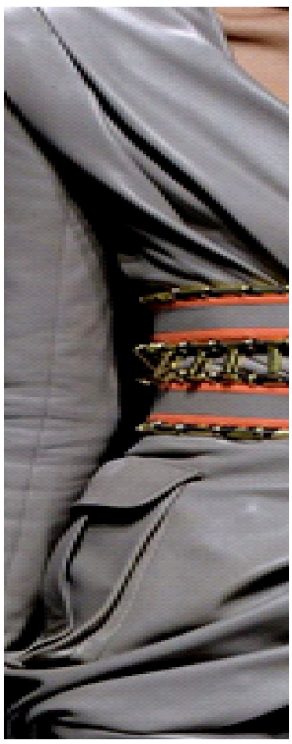
Tactility and shape are the key aspects

Stiff and Structured leathers. Leather bags evoke quiet luxury in natural colours, and carefully placed handles and considered design details offer a new focus on functionality.

Application : women's totes, men's and women's apron shoes, men's and women's rucksacks

Soft draped leathers mimic the sensual drapes of neoclassical marble sculptures, forming new fluid shapes.

Application : women's mules, boots, tote bags, loop-handle clutches, bucket bags, men's rucksacks and holdalls



Waxy Leathers : Leathers shift to a waxier, supple and tactile finish, mimicking aged leather furniture. Shiny surfaces offer a timeless look in natural tan, mulberry and dense black colours.

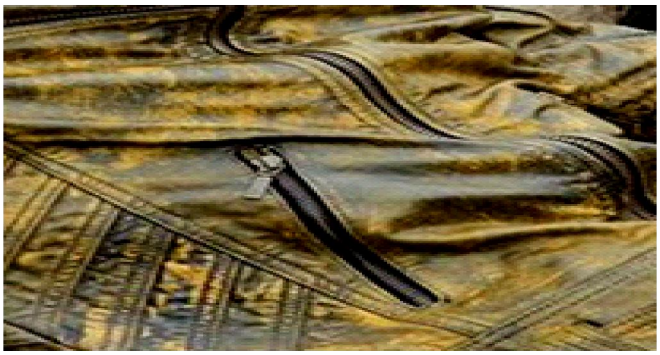
Application : women's shoulder bags, rucksacks, slip-on mules and brogues, men's sneakers, rucksacks and leather accessories.

Roughened Suedes evolve into a sanded finish, adding tactility. Surfaces appear well-worn in shades of sand, tan, concrete and warmer shades of tomato red and plum.

Application : men's brogues, ankle and desert boots, tote bags, women's boots, brogues and shoulder bags

Rub-off leathers offer a new take on formal. Saturated shades reveal lighter tones across surfaces.

Application : women's shoulder bags, cross-body bags, men's totes and rucksacks, men's brogues and Chelsea boots



Source :

Title	:	Accessories & Footwear Forecast A/W 18/19: Leather & Non-Leather
Author	:	the WGSN Accessories & Footwear Team
Date	:	01.09.17
Category	:	Materials & Textiles > Future Trends > A/W 18/19 > Accessories & Footwear

POLLUTION IN GANGA : NGT ALLOWS THREE KANPUR BASED TANNERIES TO OPERATE

NEW DELHI : The National Green Tribunal has allowed three Kanpur-based tanneries, which were releasing waste in river Ganga, to resume operations after the UP Pollution Control Board (UPPCB) informed it that they were complying with all environmental norms.

A bench headed by Justice Rahim permitted K C Tan Industries, Tajammul Ki Tannery and Sabra Leather Finishers to run their units for a period of one month after which the state pollution control board would conduct an inspection.

The three units had applied to UPPCB for permission to operate. However, the board found certain deficiencies in their units and closed them. The green panel also noted the submissions of these industries that the effluents were released, after primary treatment by them, to the Common Effluent Treatment Plant run by UP Jal Nigam where they were treated for use in irrigation.

UPPCB has no objection to allow the industries to function subject to an undertaking that instructions will be complied with, the bench noted. They should ensure that there no violation of any of the conditions imposed and not discharge effluents in a manner which is prejudicial and impact environment, it said "We therefore permit these industries to function subject to pollution control board conducting an inspection at the first instance after a period of one month for satisfying itself that these industries are compliant," the tribunal said.

If any deficiency is noticed, the board shall exercise its power to issue closure orders or any other action to be taken which is permissible under law, the bench said.

Earlier, the Yogi Adityanath-led UP Government favoured the shifting of British-era tanneries which were releasing toxic wastes into the river Ganga at Kanpur. The Up Government had told the NGT that hunt for a new site for setting up these leather units, which are a "major source of pollution" in Ganga, is under consideration and would be identified soon.

Last year, the then Akhilesh Yadav Government had opposed the idea of shifting of over 400 tanneries which give employment to over two million people, saying moving the tannery hubs to some other place was almost "next to impossible" due to paucity of land.

In a detailed report covering various aspects of contamination in the river, the CPCB had informed the NGT that the Ganga, spanning a distance of 543 km between Haridwar and Kanpur, was affected by 1,072 seriously polluting industries which were releasing heavy metals and pesticides.

(Source : P. T. I.)

BENGAL LEATHER INDUSTRY MOOTS LEGAL RECOURSE

While the representatives of leather industry in West Bengal on Sunday threatened to take legal recourse against the Centre over its notification banning sale of cattle at animal markets for slaughter, the reaction of Trinamool Congress (TMC) was a restrained one.

State's Education Minister and party spokesperson Partha Chatterjee described the notification as "violating the federal structure" and an attempt to "stroke communal passions" but said that formal reaction will come from Chief Minister Mamata Banerjee.

"The Centre issued the notification without any discussion with the State Governments. We will discuss the issue with Chief Minister Mamata Banerjee once we receive the circular," Mr. Chatterjee said.

Meanwhile, representatives of leather industry, at a press conference in the city, said that 200 tanneries which export 50,000 – 60,000 tonnes of finished leather faces the threat of shut down, which can render thousands of workers in the industry unemployed.

(Source : Hindu.Chennai – 29/05/2017)

LEATHER EXPORTERS WANT BUFFALOES OUT OF BAN LIST

India's leather exporters that have been severely hit by the environment ministry's decision to ban buying or selling of cattle at animal markets for slaughtering to prevent cruelty to animals are planning to appeal to the environment ministry to allow trading of buffaloes.

"Only the buffalo is of concern to us because that was allowed for slaughter. We are only asking for the exclusion of buffalo from the notification," said Aqeel Panaruna, Vice Chairman of the Council for Leather Exports told the Economic Times.

Global brands who depend on India for importing raw material are also worried following the ban and are closely monitoring the situation. Leather exporters fear that global brands might look to other markets like China and Bangladesh due to shortage of raw material in India.

The Federation of Indian Export Organizations took up the issue with the commerce ministry. Ministry officials said they will look into the concerns raised with regard to availability of inputs for exports.

Of the $5.66 billion leather exports in 2016-17, most were made from buffalo skin. The environment ministry's May 26 notification banned trading of cows, bulls, buffaloes, heifers, calves and camels, triggering an alarm among exporters, who said trading buffaloes should be allowed, just as it is done in the case of goats and sheep.

"The situation will stabilize if buffalo is excluded from the ban," a government official said on condition of anonymity.

A final decision on the cattle ban is expected to be taken once Prime Minister Narendra Modi is back from his foreign trip.

CPCB TO SHUT DOWN 400 POLLUTING INDUSTRIES ALONG GANGA RIVER

The Central Pollution Control Board (CPCB) has decided to close down about 400 industries, including tanneries and the dyeing units, situated near the banks of the Ganga in Kanpur for their failure to install online monitoring system for assessing the waste generated by them.

The CPCB had directed the industries to set up the system by February 28, 2017, but most of them did not comply with the directives till date.

Consequently, the BPCB has started issuing closure notices to the industries. So far board has issued closure notices to about 18 tanneries and dyeing industries.

Uttar Pradesh Pollution Control Board (UPPCB) regional officer Dr Mohammad Sikander said that since the CPCB has been issuing closure notices, action would be initiated against the tanneries and industries as soon as the UPPCB received copies of the notices from the CPCB.

At present it was not known as to which industries were issued the notices, he added.

(Source : Hindustan Times – 15/06/2017)

SC ISSUES NOTICE TO CENTRE ON IMPOSING BAN ON SALE OF COWS FOR SLAUGHTER

The Supreme Court on Thursday issued a notice to the Central Government on hearing the Public Interest Litigation (PIL) filed by a Hyderabad based Non-Government Organization (NGO) over cow and cattle slaughter ban issue.

The apex court's vacation bench, headed by Justice Sanjay Kishan Kaul and comprising Justice R. K. Agarwal issued notice to the government for July 11.

Additional Solicitor General P S Narasimha, appearing for the Centre, told the bench that intention behind bringing the notification was to have a regulatory regime on cattle trade across the country.

He also told the apex court that the Madras High Court has recently granted interim stay on the notification.

The petitioner NGO had moved the apex court challenging the Centre's notification that bans sale and purchase of cattle from animal markets for slaughter, a move that received flak since its announcement.

The petition was filed by a Hyderabad-based lawyer, Fahim Qureshi, stating that the order was discriminatory and unconstitutional, as it prevented cattle traders from earning their livelihood.

On May 25, the Centre through an order imposed a ban on the sale of cattle, including cows, for slaughter and restricted cattle trades solely to farm owners.

Minister for Environment, Forest and Climate Change Harsh Vardhan had ordered that the ministry has notified the Prevention of Cruelty to Animals (Regulation of Livestock Markets) Rules, 2017 to ensure that the sale of cattle is not meant for slaughter purposes.

(Source : Deccan Chronicle – 17/06/2017)

SC SEEKS CENTRE'S RESPONSE ON PETITION CHALLENGING BAN ON CATTLE SLAUGHTER

New Delhi : The Supreme Court on Thursday sought the central government's response on a petition challenging notification banning the sale of cattle for slaughtering and regulating the transporting of livestock.

Issuing notice on a petition by All India Jamitul Quresh Action Committee challenging two notifications issued on 23rd May, the vacation bench of Justice R K Agarwal and Justice Sanjay Kishan Kaul gave the central government two week's time to respond and directed the listing of the matter for 11th July.

The petitioner, the All India Jamitul Quresh Action Committee, moved the top court through its President Mohammed Abdul Faheem, who is also an advocate.

The bench also refused to pass any order on a plea by another petitioner, Sabu Stephan, who told the court that a very large numbers of farmers in Kerala, Tamil Nadu and other states were being affected by the ban order.

As Additional Solicitor General P S Narasimha wanted to make a statement on the intent behind the two notifications issued on 23rd May, the bench asked him to say all this in response.

Narasimha told the bench that the intent behind the notification under challenge was to bring into existence some kind regime regulating the sale of cattle for purposes other than livestock.

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STAHL Corner

Press release

Stahl opens Center of Excellence in Parets del Vallès, Spain

Waalwijk, the Netherlands, June 6, 2017 – On June 1 the chemical company Stahl inaugurated the new Center of Excellence in Parets del Vallès in Spain together with customers, OEMs, brands from the Apparel & Home Furnishing industry and other partners. The center focuses on performance coatings solutions, leather chemicals, as well as polymer technologies. "Our new Center of Excellence is the place where our experts can work side-by-side with partners to share knowledge and showcase our latest future-proof solutions, innovations and technologies," Vasco da Silva, Local Manager Spain, explains.

In Parets del Vallès Stahl shows that the best way to predict the future is to create it, together with our partners. Huub van Beijeren, CEO of Stahl, proudly says: "Innovation is part the company DNA. The opening of this Center of Excellence is an excellent example of how we use knowledge and expertise to develop tailor-made, future-proof solutions. In this Center of Excellence Stahl has invested in state-of-the-art equipment for polymer research, Leather Chemicals technology, as well as coatings solutions for the Apparel & Home Furnishing industry like the next generation STAHL EVO range of DMF-free polyurethane-coatings.

Meeting critical and specific demands

The applications and testing facilities on display enable Stahl to develop solutions that meet even the most critical and specific demands of performance, sustainability and style. Sustainability is a driving force behind Stahl's product development strategy. For example Stahl provides bio- and water-based coating solutions for polymers. In order to help tanners to reduce their footprint, Stahl has a range of sustainable beamhouse

and tanning systems, like Proviera® - Probiotics for Leather™, Stahl EasyWhite Tan™ and a full range of high performance Leather dyes. To meet and exceed the Zero Discharge Hazardous Chemicals (ZDHC) goals by 2020, Stahl offers the Stahl Neo portfolio for leather finish. The complete portfolio enables tanners to produce the full range of leather articles while accelerating the elimination of restricted substances from the supply chain at the same time.

Manufacturing site

The new Center of Excellence in Parets del Vallès is located at Stahl's manufacturing site at the same location, about 20 kms from Barcelona. With its focus on more sustainable coatings technology for the home furnishing and apparel markets, Stahl believes that a wide range of partners and colleagues from the industry can learn everything about coatings and chemicals for synthetic surfaces and leather at this center.

About Stahl

Stahl is leading in process chemicals for leather products, performance coatings and Polymers. We offer a wide range of solutions to the automotive, apparel & accessories, home furnishing and leisure & lifestyle industry and for industrial applications. With more than 1,800 employees in 24 countries at 13 manufacturing sites and 38 laboratories, Stahl realized in 2016 an annual turnover of over 650 million euro. With its innovation power, expertise and range of technical solutions Stahl is able to deliver best in class solutions and services to respond even better to client needs and secure a more sustainable future.

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Article

ENVIRONMENTAL SCIENCE AND TECHNOLOGY INNOVATIONS IN LEATHER RESEARCH TOWARDS SUSTAINABLE DEVELOPMENT IN LEATHER INDUSTRY : A SCIENTOMETRIC STUDY

Dr. V. Kasi Rao
Principal Documentation Officer, CSIR-CLRI, Chennai

ABSTRACT

The 'Scientometric study' is an analysis of literature with mathematical and statistical methods in information use and seeking pattern approaches in a particular field of Information products and services for Knowledge Indicators towards Organizational Development. The Impact of Scientific Research on Scientific Community could be testified by citation analysis. The citation analysis is an analytical methodology under Scientometrics used to evaluate research programmes. In view of this, Leather Science Abstracts (LESA) and Indexing International Periodical Publication Knowledge Resources/Information Products and Services serve as a tool for Knowledge Indicators in Environmental Science and Technology innovations in Leather Research towards sustainable development in Leather Industry.

In view of this, the LESA Digital Documentation Knowledge Resources available in the public domain on www.clrilesa.in according to the Digital India Concept, Digital India-An Initiative by the Honorable Prime Minister of India and be the Part of the Initiative for institutional and national development.

The present case study is dealt with LESA database on Scientometric analysis of literature related to Environmental Science and Technology research trends in leather research. Analyses 4500 citations appended to 331 research contributions published in Environmental Science and Technology during the period from(2001-2005) in LESA database. The design of the study is a 'Citation Analysis Approach (CAA). The purpose of the study is to investigate through citation analysis on Dissemination of Knowledge in Environmental Science and Technology innovations in leather research for sustainability of leather.

Descriptive Statistics was used in analyzing the data. About 24 Sub-fields were identified under environmental science and technology for sustainability of leather. Out of 331 citations, 48 citations (14.5%) are from 'Leather production and Pollution Control aspects in leather industry'. Based on the survey, the highest number citations/research contributions totalling 67 (20.24%) has emanated from 'Leather Institutions'.

Based on the study, the environmental science and technology research contributions are more 128(38.67%) from 'India' and stand at number one ranking under Country wise distributions of research contributions. It is evident from the study that the majority of the research papers/contributions 214(64.65%)are from co-authored pattern/collaborative efforts in leather research. The analysis indicated that the Scientists preferred to publish research papers in Joint authorship (64.65%) having 0.65 degree of collaboration.

The Scientometric Software, 'Scientosoft', technology application tool used for this purpose. The Single authored research Contributions 117(35.34%) is also well recognized feature in environmental science and technology for sustainability of leather.

The study encourages the researchers to initiate collaborative efforts for inter-disciplinary research activities particularly in Environmental Systems Design Modeling and Optimization, Environmental Monitoring, Wastewater Treatment Technology, Environmental Impact Assessment(EIA)and Environment and Health aspects in Leather Industry for sustainable development.

Keywords : Scientometric study, Impact on Environmental Science and Technology innovations,Leather Science Abstracts (LESA)database, Knowledge Indicators/ Knowledge Dissemination, Leather Research, Sustainable Development.

* Principal Documentation Officer and Head, Documentation Division, CSIR- Central Leather Research

Corresponding Author's E-mail ID : v_kasirao@yahoo.com

Institute (CLRI), Adyar, Chennai – 600 020, India. E-mail: v_kasirao@yahoo.com.

XXXIV Congress of the International Union of Leather Technologists and Chemists Societies(IULTCS), Organized by CSIR-CLRI, Chennai, held at ITC Hotel Chola, India, 5-8, 2017

1. INTRODUCTION

Information and Documentation Knowledge Management play a vital role in Content Analysis and Content Management for subject inclusion in leather and allied fields including the present paper theme concept study on Environmental Science and Technology ENVIST in Leather Science Abstract(LESA) and Indexing the International periodical publication services. The LESA Digital Documentation Knowledge Resources available in www.clrilesa.in according to the Digital India Concept, Digital India- An Initiative by the Honourable Prime Minister of India and be the Part of the Initiative for institutional and national development. The LESA periodical Publication Knowledge Resource serves as a tool for Knowledge Indicators both for Current as well as retrospective R & D supporting services towards Knowledge Access and Sharing the Information for Research Approach Objectives(KASIRAO)in leather research for Sustainable Development in Leather Industry.

2. SCOPE AND OBJECTIVES

The scope and objectives have been identified through 'Scientometric Studies' impact on Environmental Science and Technology (ENVIST) innovations for knowledge dissemination and knowledge access in leather research towards sustainable development in Leather Industry in the following respects.

- ✓ To examine the growth of 'Leather Research' published in Leather Science Abstract (LESA) and Indexing periodical publication database knowledge resource for the period from 2001-2005.
- ✓ To identify the sub-fields-wise distribution of research Contributions / Citations in ENVIST innovations in LESA database.
- ✓ To identify the rank-wise distribution of subject contributions in relation to ENVIST innovations in LESA database.
- ✓ To analyse the author-wise distribution of research contributions in LESA database.
- ✓ To evaluate the institution-wise distribution of research contributions in LESA database.
- ✓ To identify the geographical-wise distribution research contributions in LESA database.

3. HYPOTHESES

Based on the objectives, stated in the 'Scientometric Studies' in relation to ENVIST innovations in Leather Research using LESA database, the following Hypotheses were framed :

- ❋ There exists a considerable level of variation in different sub-fields in ENVIST innovations in Leather Research aspects.
- ❋ There exists a significant level of difference between Leather Research performance of Indian and other countries research contributions in ENVIST towards sustainable development in Leather Industry.

4. LIMITATIONS OF THE STUDY

The study is confined to the 'Scientometric Analysis' of literature in ENVIST innovations in Leather Research covered in LESA database for the period from 2001-2005.

5. SIGNIFICANCE OF THE STUDY

- ❋ The study of the nature brings the state-of-the-Art of the Leather Research activities in ENVIST and its (Scientometric study) application in ENVIST sub-fields for knowledge indicators towards sustainable development in Leather Industry.
- ❋ The study would pave the way to other academic and R&D institutions to provide similar services in their respective discipline towards organizational development.

6. METHODOLOGY

The study is an exploratory research and relies upon review of Literature/Data available with the Knowledge Resources in LESA data base. The LESA database source served as a tool for data collection, analysis and interpretations towards this research study.

7. LESA : A DESCRIPTIVE ANALYSIS

Leather Science Abstract (LESA) is a monthly international abstracting and Indexing Current Awareness Service (CAS) periodical publication, Published by the Documentation Department since 1968 in CSIR-CLRI, containing the subjects such as Footwear Technology, Environmental Science and Technology (ENVIST), Wool Technology, Leather Chemicals and auxiliaries, Leather finishing materials, Leather properties and quality control are under 'leather science and technology' heading and the subjects like footwear and leather goods are under 'leather products' heading for knowledge dissemination in these fields for Knowledge Access and Sharing Information for Research Approach Objectives (KASIRAO) towards sustainable development in leather industry.

8. ANALYSIS AND DISCUSSION

The Scientometric study serves as a tool for scattering of research articles over journals, growth of literature, productivity and impact of research. Based on the impact of research, the application of 'Scientometric study' serves as a tool for knowledge indicators in "Leather research with access to LESA database" on Subjects, Authors, Documents, Institutions and Geographical-wise distribution research contributions pertaining to volume 34-38, issues (1-12) and the years from 2001-2005 under survey. The research study results as discussed in the ensuing sections from 8.1-8.4.

8.1 Volume–wise and total break up of Authorship Pattern research contributions in Environmental Science and Technology (ENVIST)

Table-1 Provides the authorship-pattern research contribution in relation to ENVIST.

Table -1 : Volume–wise and total break up of Authorship Pattern research contributions in Environmental Science and Technology (ENVIST)

S. No.	Vol. No.	Year	Single Authors	Two Authors	Three Authors	More than Three	Citation from Periodical Sources	Total of Multiple Authors	Degree of collaboration	Total No. of research contributions
1	34	2001	21	19	12	10	1	42	0.67	63
2	35	2002	19	14	8	16	5	43	0.69	62
3	36	2003	15	10	7	9	5	31	0.67	46
4	37	2004	31	20	16	19	3	58	0.65	89
5	38	2005	31	11	11	13	5	40	0.56	71
Total			**117**	**74**	**54**	**67**	**19**	**214**	**0.65**	**331**

The author- wise analysis of citations indicated that the majority research papers/contributions 214(64.65%) are from co-authored pattern/collaborative efforts in leather research and the analysis also indicated that the scientist preferred to publish research in joint authorship(65.65%) having 0.65 degree collaboration in the authorship pattern.

The 'Scientosoft' Technology tool used for this purpose. The single authored research contribution 117 (35.34%) is also well recognized features in the ENVIST innovations.

The singled authored and co-authorship patterns presented in table-1 establish that the number of multi-authored research contributions ('N' marc) in ENVIST in leather research is more. The number single authored research contributions ('N' sarc) in Environmental related fields in leather research are low under study. The degree collaboration calculated using V. KASIRAO Formula invented by the author. V. Kasirao, the Formula maybe stated as follows :

$$DC = \frac{{}^{r}N^{r}marc}{{}^{r}N^{r}marc + {}^{r}N^{r}sarc}$$

Where DC = Degree of Collaboration in a particular discipline

'N' marc = No. of multi-authored research contributions in a particular discipline for certain period of study.

'N' sarc = No. of single-authored research contributions for the same period

How the Degree of collaborations (DC) can be calculated in a particular field of database source of study is indicted below :

Database Name(for example) : Leather Science Abstract (LESA) and Indexing Monthly International periodical publication services in leather and allied fields towards leather industrial development in CLRI.

Calculations : $$DC = \frac{{}^{r}N^{r}marc}{{}^{r}N^{r}marc + {}^{r}N^{r}sarc}$$

$$= \frac{214}{214 + 117} = 0.65$$

Authorship-pattern research contribution in relation to ENVIST :

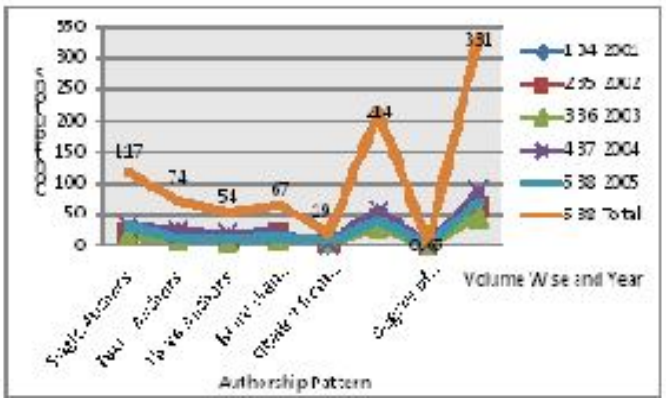

Fig: 1 Authorship - Pattern

8.2 Subject wise distribution of research contributions in ENVIST

Table -2 Provides the subject wise distribution of research contributions in ENVIST Under study.

Sl. No.	Subject Areas in Environmental Science and Technology (ENVIST)	Coverage for Total No. records n=331 (Year – 2001-2005)						Rank	Percentage
		2001	2002	2003	2004	2005	Total		
1	Ammonium and chromium removal of heavy metal in waste water treatment plant	13	2	3	7	5	30	II	9.06
2	Tannery effluent and biomass in leather industry	1	1	1	-	1	4	XVII	1.21
3	Recovery and economic utilization in leather industry	3	-	-	-	2	5	XVI	1.51
4	Chrome tanning and leather industry	4	1	1	3	4	13	IX	3.93
5	Solid and liquid waste and tannery management	4	6	2	2	4	18	V	5.44
6	Recycling system and tannery	4	2	-	1	2	9	XII	2.72
7	Environmental management and Eco system in leather industry	3	-	2	4	2	11	XI	3.32
8	Tannery effluent and tannins on soil fungi	-	3	-	2	1	6	XV	1.81
9	Design and common effluent treatment plant in leather industry	3	2	4	6	1	16	VII	4.83
10	Waste water control process, pollution control and finishing method in leather industry	5	5	5	6	5	26	III	7.85
11	Ultra filtration processing in leather industry	1	-	-	1	1	3	XVIII	0.91
12	Environmental protection in leather industry	2	3	1	3	3	12	X	3.62
13	Leather production and pollution control in leather industry	7	11	10	14	6	48	I	14.5
14	Cleaning technology, environment management and pollution control in leather industry	4	3	-	2	2	11	XI	3.32
15	Environmental legislation and finishing in leather industry	2	-	1	1	1	5	XVI	1.51
16	Biological degradation in leather industry	-	3	4	6	3	16	VII	4.83
17	Antibacterial activity in leather industry	1	4		3	-	8	XIII	2.42
18	Sewage treatment in leather industry	-	1	1	4	1	7	XIV	2.11
19	Physical and chemical analysis in leather industry	1	6	2	4	4	17	VI	5.14
20	Different dyes and toxicity in leather industry	2	4	3	4	1	14	VIII	4.22
21	Safety and Health Environment (SHE)in leather industry	2	5	-	7	8	22	IV	6.64
22	Ecology aspects and effluent in leather industry	-	-	2	4	8	14	VIII	4.22
23	Biotechnology and methanol cultured seed sludge in leather industry	-	-	4	4	3	11	XI	3.32
24	Environmental impact and development in leather industry	1	-	-	1	3	5	XVI	1.51
	Total :	**63**	**62**	**46**	**89**	**71**	**331**		

It is observed from Table 2 in ENVIST with regard to sub-field area wise citation analysis of records in LESA database in ENVIST indicate that out of 331 citations in Environmental Science and Technology(ENVIST) innovations in leather research towards sustainable development in leather industry, 48 records(14.50%) are from 'Leather production and pollution control in leather industry, 30 records/citations (12.08%) are from 'Ammonium and chromium removal of heavy metal in waste water treatment plant, 26 records(7.85%) are from Waste water control process, pollution control and finishing method in leather industry and followed by other sub-field knowledge indicators in ENVIST as stated in the above table. The research contributions are more from 'Leather production and pollution control' and stand at number one in ranking under survey.

8.3 Institution-wise Distribution Research Contributions / Knowledge indicators in Environmental Science and Technology (ENVIST) Access with LESA Database

Table- 3 Provides the Institution-wise Distribution Research Contributions/ Knowledge indicators in Environmental Science and Technology (ENVIST) Access with LESA Database under study.

Table - 3 Institution-wise Distribution Research Contri butions in ENVIST

S. No.	Type of Institutions	Coverage for Total No. records n= 331 (Year – 2001-2005)						Percentage	Rank
		2001	2002	2003	2004	2005	Total		
1	CLRI	11	12	8	16	10	57	17.22	III
2	CSIR	3	4	2	1	2	12	3.63	VIII
3	Universities	4	7	1	9	9	30	9.06	V
4	Academic Institutions	13	8	1	19	15	56	16.92	IV
5	Research Institutions	5	4	6	7	3	25	7.55	VI
6	Leather Institutions	11	13	18	14	11	67	20.24	I
7	National Research Institutions	5	3	4	10	2	24	7.25	VII
8	Others	11	11	6	13	19	60	18.13	II
	Total :	**63**	**62**	**46**	**89**	**71**	**331**	**100**	

It is observed from Table 3 indicated that Eight groups of institutions were identified under study. The number of research Contributions/Citations 67(20.24%) are more from Leather Institutions and the contributions 57(17.22%) from CLRI and followed by other institutions as stated in the above table.

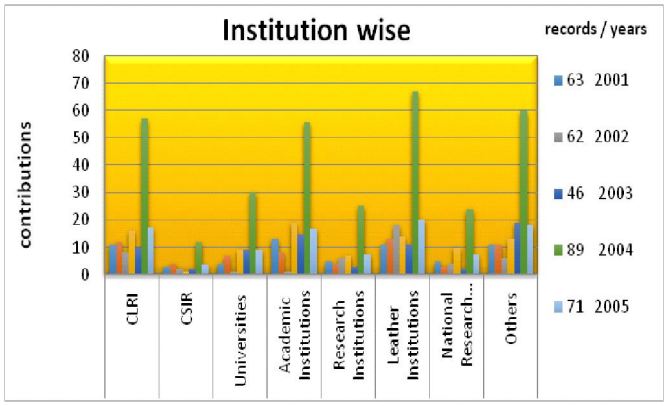

Fig: 2 Institution Wise distributions of citations

8.4 Geographical-wise Distribution of Research Contribution in LESA Database in ENVIST

Table - 4 Provides the geographical-wise distribution of research contribution in LESA database in ENVIST under study.

Table-4 Geographical-wise Distribution of Research Contribution in LESA Database in ENVIST

S. No.	Name of the Countries	Coverage for Total No. records n= 331 (Year – 2001 - 2005)					Total	Percentage	Rank
		2001	2002	2003	2004	2005			
1	UK	10	13	8	8	5	44	13.29	III
2	India	28	18	21	43	18	128	38.67	I
3	U.S.A	7	14	13	20	24	78	23.56	II
4	Germany	1	2	0	6	6	15	4.53	V
5	China	6	1	0	4	6	17	5.14	IV
6	Spain	3	3	1	1	3	11	3.32	VII
7	Australia	0	1	0	0	0	1	0.3	X
8	Canada	0	1	0	0	0	1	0.3	X
9	Italy	1	1	1	2	7	12	3.63	VI
10	Netherland	5	4	0	4	2	15	4.53	V
11	Russian	0	1	0	0	0	1	0.3	X
12	Polish	1	0	1	0	0	2	0.6	XI
13	Japan	0	1	0	0	0	1	0.3	X
14	Taiwan	0	1	1	1	0	3	0.91	VIII
15	Finland	0	1	0	0	0	1	0.3	X
16	Poland	1	0	0	0	0	1	0.3	X
	Total :	**63**	**62**	**46**	**89**	**71**	**331**	**100**	

The Geographical-wise distribution of research Contribution in ENVIST access with LESA Database Knowledge Resources indicate that out of 331 resource/citations in LESA database, 128 records (38.67%) are from India,78 records (23.56%) are from USA, 44 records (13.29%) are from UK and followed other countries as indicated in Table-6. The Contributions are more from 'India' and stand at number one in ranking.

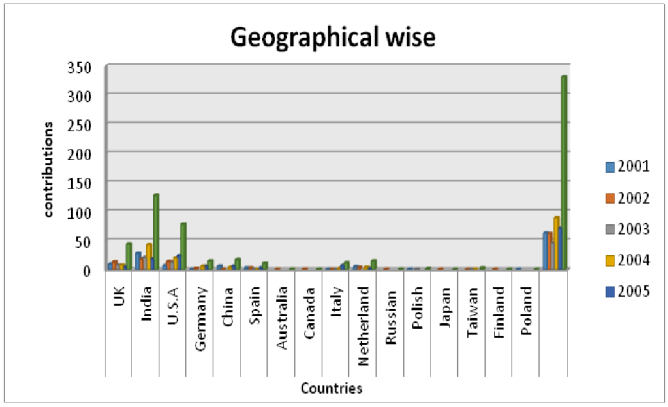

Fig: 3 Geographical Wise distributions of citations

9. FINDINGS OF THE STUDY :

- The study shows that the publication of articles/ research contributions in Environmental related fields as cited in various periodicals knowledge resources have witnessed an escalating trend from study for the period from 2001- 2005.
- The study shows that the majority of the researchers preferred to publish research papers in joint authorship (64.65%) having 0.65 degree of collaboration.
- About 24 sub-fields were identified in relation to ENVIST out of 331 Citations/ research contributions, 48 citations (14.5%) are from "Leather Production and Pollution Control" aspects in leather industry under study.
- The highest number of citations totalling 67(20.24%) has emanated from "Leather Institutions".
- The research contributions are more 128(38.67%) from 'India' and stand at number one in ranking under geographical-wise distribution of research contributions under study.

10. CONCLUSION :

The study reported above led to the following concluding remarks :

- The Leather Science Abstract (LESA) and Indexing periodical publication services play a vital in CLRI to know-how in leather and allied fields and show-how for Knowledge Dissemination and Knowledge Access and Sharing the Information for research Approach Objectives (KASIRAO) in leather research towards sustainable development in leather industry.

- The citation study approach (CSA) is an imperative measure to identity the emerging trends in Leather Science and Technology (LEAST) innovations in leather and allied fields with access to LESA towards organizational development.

- The 'Scientometric Study' would create an awareness concerned scholars regarding core authors, core journals that publish the literature, areas where more research is being conducted and areas where more research needs to the done towards organizational development.

- The abstracting and indexing services of the type covered in this study will enable other academic and R&D institutions to provide similar services in their respective fields towards organizational development.

ACKNOWLEDGEMENT :

The author is grateful to the CSIR-CLRI Director and Organization and Scientific Committees, Adyar, Chennai for the acceptance of my paper for presentation in the XXXIV Congress of the International Union of Leather Technologists and Chemists Societies (IULTCS), 5-8 February2017, CSIR-CLRI, Chennai, India.

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ENVIRONMENTAL SCIENCE AND TECHNOLOGY INNOVATIONS IN LEATHER RESEARCH TOWARDS SUSTAINABLE DEVELOPMENT IN LEATHER INDUSTRY : A SCIENTOMETRIC STUDY

Dr. V. Kasi Rao
Principal Documentation Officer, CSIR-CLRI, Chennai

ABSTRACT

The 'Scientometric study' is an analysis of literature with mathematical and statistical methods in information use and seeking pattern approaches in a particular field of Information products and services for Knowledge Indicators towards Organizational Development. The Impact of Scientific Research on Scientific Community could be testified by citation analysis. The citation analysis is an analytical methodology under Scientometrics used to evaluate research programmes. In view of this, Leather Science Abstracts (LESA) and Indexing International Periodical Publication Knowledge Resources/Information Products and Services serve as a tool for Knowledge Indicators in Environmental Science and Technology innovations in Leather Research towards sustainable development in Leather Industry.

In view of this, the LESA Digital Documentation Knowledge Resources available in the public domain on www.clrilesa.in according to the Digital India Concept, Digital India-An Initiative by the Honorable Prime Minister of India and be the Part of the Initiative for institutional and national development.

The present case study is dealt with LESA database on Scientometric analysis of literature related to Environmental Science and Technology research trends in leather research. Analyses 4500 citations appended to 331 research contributions published in Environmental Science and Technology during the period from(2001-2005) in LESA database. The design of the study is a 'Citation Analysis Approach (CAA). The purpose of the study is to investigate through citation analysis on Dissemination of Knowledge in Environmental Science and Technology innovations in leather research for sustainability of leather.

Descriptive Statistics was used in analyzing the data. About 24 Sub-fields were identified under environmental science and technology for sustainability of leather. Out of 331 citations, 48 citations (14.5%) are from 'Leather production and Pollution Control aspects in leather industry'. Based on the survey, the highest number citations/research contributions totalling 67 (20.24%) has emanated from 'Leather Institutions'.

Based on the study, the environmental science and technology research contributions are more 128(38.67%) from 'India' and stand at number one ranking under Country wise distributions of research contributions. It is evident from the study that the majority of the research papers/contributions 214(64.65%)are from co-authored pattern/collaborative efforts in leather research. The analysis indicated that the Scientists preferred to publish research papers in Joint authorship (64.65%) having 0.65 degree of collaboration.

The Scientometric Software, 'Scientosoft', technology application tool used for this purpose. The Single authored research Contributions 117(35.34%) is also well recognized feature in environmental science and technology for sustainability of leather.

The study encourages the researchers to initiate collaborative efforts for inter-disciplinary research activities particularly in Environmental Systems Design Modeling and Optimization, Environmental Monitoring, Wastewater Treatment Technology, Environmental Impact Assessment(EIA)and Environment and Health aspects in Leather Industry for sustainable development.

Keywords : Scientometric study, Impact on Environmental Science and Technology innovations,Leather Science Abstracts (LESA)database, Knowledge Indicators/ Knowledge Dissemination, Leather Research, Sustainable Development.

* Principal Documentation Officer and Head, Documentation Division, CSIR- Central Leather Research

Corresponding Author's E-mail ID : v_kasirao@yahoo.com

Institute (CLRI), Adyar, Chennai – 600 020, India. E-mail: v_kasirao@yahoo.com.

XXXIV Congress of the International Union of Leather Technologists and Chemists Societies(IULTCS), Organized by CSIR-CLRI, Chennai, held at ITC Hotel Chola, India, 5-8, 2017

1. INTRODUCTION

Information and Documentation Knowledge Management play a vital role in Content Analysis and Content Management for subject inclusion in leather and allied fields including the present paper theme concept study on Environmental Science and Technology ENVIST in Leather Science Abstract(LESA) and Indexing the International periodical publication services. The LESA Digital Documentation Knowledge Resources available in www.clrilesa.in according to the Digital India Concept, Digital India- An Initiative by the Honourable Prime Minister of India and be the Part of the Initiative for institutional and national development. The LESA periodical Publication Knowledge Resource serves as a tool for Knowledge Indicators both for Current as well as retrospective R & D supporting services towards Knowledge Access and Sharing the Information for Research Approach Objectives(KASIRAO)in leather research for Sustainable Development in Leather Industry.

2. SCOPE AND OBJECTIVES

The scope and objectives have been identified through 'Scientometric Studies' impact on Environmental Science and Technology (ENVIST) innovations for knowledge dissemination and knowledge access in leather research towards sustainable development in Leather Industry in the following respects.

- ✓ To examine the growth of 'Leather Research' published in Leather Science Abstract (LESA) and Indexing periodical publication database knowledge resource for the period from 2001-2005.
- ✓ To identify the sub-fields-wise distribution of research Contributions / Citations in ENVIST innovations in LESA database.
- ✓ To identify the rank-wise distribution of subject contributions in relation to ENVIST innovations in LESA database.
- ✓ To analyse the author-wise distribution of research contributions in LESA database.
- ✓ To evaluate the institution-wise distribution of research contributions in LESA database.
- ✓ To identify the geographical-wise distribution research contributions in LESA database.

3. HYPOTHESES

Based on the objectives, stated in the 'Scientometric Studies' in relation to ENVIST innovations in Leather Research using LESA database, the following Hypotheses were framed :

- ❋ There exists a considerable level of variation in different sub-fields in ENVIST innovations in Leather Research aspects.
- ❋ There exists a significant level of difference between Leather Research performance of Indian and other countries research contributions in ENVIST towards sustainable development in Leather Industry.

4. LIMITATIONS OF THE STUDY

The study is confined to the 'Scientometric Analysis' of literature in ENVIST innovations in Leather Research covered in LESA database for the period from 2001-2005.

5. SIGNIFICANCE OF THE STUDY

- ❋ The study of the nature brings the state-of-the-Art of the Leather Research activities in ENVIST and its (Scientometric study) application in ENVIST sub-fields for knowledge indicators towards sustainable development in Leather Industry.
- ❋ The study would pave the way to other academic and R&D institutions to provide similar services in their respective discipline towards organizational development.

6. METHODOLOGY

The study is an exploratory research and relies upon review of Literature/Data available with the Knowledge Resources in LESA data base. The LESA database source served as a tool for data collection, analysis and interpretations towards this research study.

7. LESA : A DESCRIPTIVE ANALYSIS

Leather Science Abstract (LESA) is a monthly international abstracting and Indexing Current Awareness Service (CAS) periodical publication, Published by the Documentation Department since 1968 in CSIR-CLRI, containing the subjects such as Footwear Technology, Environmental Science and Technology (ENVIST), Wool Technology, Leather Chemicals and auxiliaries, Leather finishing materials, Leather properties and quality control are under 'leather science and technology' heading and the subjects like footwear and leather goods are under 'leather products' heading for knowledge dissemination in these fields for Knowledge Access and Sharing Information for Research Approach Objectives (KASIRAO) towards sustainable development in leather industry.

8. ANALYSIS AND DISCUSSION

The Scientometric study serves as a tool for scattering of research articles over journals, growth of literature, productivity and impact of research. Based on the impact of research, the application of 'Scientometric study' serves as a tool for knowledge indicators in "Leather research with access to LESA database" on Subjects, Authors, Documents, Institutions and Geographical-wise distribution research contributions pertaining to volume 34-38, issues (1-12) and the years from 2001-2005 under survey. The research study results as discussed in the ensuing sections from 8.1-8.4.

8.1 Volume–wise and total break up of Authorship Pattern research contributions in Environmental Science and Technology (ENVIST)

Table-1 Provides the authorship-pattern research contribution in relation to ENVIST.

Table -1 : Volume–wise and total break up of Authorship Pattern research contributions in Environmental Science and Technology (ENVIST)

S. No.	Vol. No.	Year	Single Authors	Two Authors	Three Authors	More than Three	Citation from Periodical Sources	Total of Multiple Authors	Degree of collaboration	Total No. of research contributions
1	34	2001	21	19	12	10	1	42	0.67	63
2	35	2002	19	14	8	16	5	43	0.69	62
3	36	2003	15	10	7	9	5	31	0.67	46
4	37	2004	31	20	16	19	3	58	0.65	89
5	38	2005	31	11	11	13	5	40	0.56	71
Total			**117**	**74**	**54**	**67**	**19**	**214**	**0.65**	**331**

The author- wise analysis of citations indicated that the majority research papers/contributions 214(64.65%) are from co-authored pattern/collaborative efforts in leather research and the analysis also indicated that the scientist preferred to publish research in joint authorship(65.65%) having 0.65 degree collaboration in the authorship pattern.

The 'Scientosoft' Technology tool used for this purpose. The single authored research contribution 117 (35.34%) is also well recognized features in the ENVIST innovations.

The singled authored and co-authorship patterns presented in table-1 establish that the number of multi-authored research contributions ('N' marc) in ENVIST in leather research is more. The number single authored research contributions ('N' sarc) in Environmental related fields in leather research are low under study. The degree collaboration calculated using V. KASIRAO Formula invented by the author. V. Kasirao, the Formula maybe stated as follows :

$$DC = \frac{{}^{r}N^{r}marc}{{}^{r}N^{r}marc + {}^{r}N^{r}sarc}$$

Where DC = Degree of Collaboration in a particular discipline

'N' marc = No. of multi-authored research contributions in a particular discipline for certain period of study.

'N' sarc = No. of single-authored research contributions for the same period

How the Degree of collaborations (DC) can be calculated in a particular field of database source of study is indicted below :

Database Name(for example) : Leather Science Abstract (LESA) and Indexing Monthly International periodical publication services in leather and allied fields towards leather industrial development in CLRI.

Calculations : $$DC = \frac{{}^{r}N^{r}marc}{{}^{r}N^{r}marc + {}^{r}N^{r}sarc}$$

$$= \frac{214}{214 + 117} = 0.65$$

Authorship-pattern research contribution in relation to ENVIST :

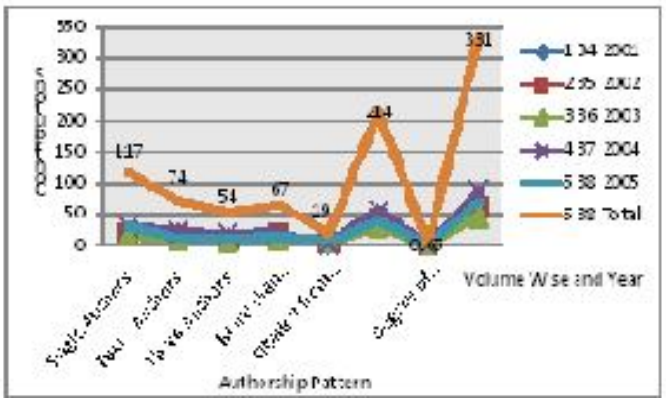

Fig: 1 Authorship - Pattern

8.2 Subject wise distribution of research contributions in ENVIST

Table -2 Provides the subject wise distribution of research contributions in ENVIST Under study.

Sl. No.	Subject Areas in Environmental Science and Technology (ENVIST)	Coverage for Total No. records n=331 (Year – 2001-2005)						Rank	Percentage
		2001	2002	2003	2004	2005	Total		
1	Ammonium and chromium removal of heavy metal in waste water treatment plant	13	2	3	7	5	30	II	9.06
2	Tannery effluent and biomass in leather industry	1	1	1	-	1	4	XVII	1.21
3	Recovery and economic utilization in leather industry	3	-	-	-	2	5	XVI	1.51
4	Chrome tanning and leather industry	4	1	1	3	4	13	IX	3.93
5	Solid and liquid waste and tannery management	4	6	2	2	4	18	V	5.44
6	Recycling system and tannery	4	2	-	1	2	9	XII	2.72
7	Environmental management and Eco system in leather industry	3	-	2	4	2	11	XI	3.32
8	Tannery effluent and tannins on soil fungi	-	3	-	2	1	6	XV	1.81
9	Design and common effluent treatment plant in leather industry	3	2	4	6	1	16	VII	4.83
10	Waste water control process, pollution control and finishing method in leather industry	5	5	5	6	5	26	III	7.85
11	Ultra filtration processing in leather industry	1	-	-	1	1	3	XVIII	0.91
12	Environmental protection in leather industry	2	3	1	3	3	12	X	3.62
13	Leather production and pollution control in leather industry	7	11	10	14	6	48	I	14.5
14	Cleaning technology, environment management and pollution control in leather industry	4	3	-	2	2	11	XI	3.32
15	Environmental legislation and finishing in leather industry	2	-	1	1	1	5	XVI	1.51
16	Biological degradation in leather industry	-	3	4	6	3	16	VII	4.83
17	Antibacterial activity in leather industry	1	4		3	-	8	XIII	2.42
18	Sewage treatment in leather industry	-	1	1	4	1	7	XIV	2.11
19	Physical and chemical analysis in leather industry	1	6	2	4	4	17	VI	5.14
20	Different dyes and toxicity in leather industry	2	4	3	4	1	14	VIII	4.22
21	Safety and Health Environment (SHE)in leather industry	2	5	-	7	8	22	IV	6.64
22	Ecology aspects and effluent in leather industry	-	-	2	4	8	14	VIII	4.22
23	Biotechnology and methanol cultured seed sludge in leather industry	-	-	4	4	3	11	XI	3.32
24	Environmental impact and development in leather industry	1	-	-	1	3	5	XVI	1.51
	Total :	**63**	**62**	**46**	**89**	**71**	**331**		

It is observed from Table 2 in ENVIST with regard to sub-field area wise citation analysis of records in LESA database in ENVIST indicate that out of 331 citations in Environmental Science and Technology(ENVIST) innovations in leather research towards sustainable development in leather industry, 48 records(14.50%) are from 'Leather production and pollution control in leather industry, 30 records/citations (12.08%) are from 'Ammonium and chromium removal of heavy metal in waste water treatment plant, 26 records(7.85%) are from Waste water control process, pollution control and finishing method in leather industry and followed by other sub-field knowledge indicators in ENVIST as stated in the above table. The research contributions are more from 'Leather production and pollution control' and stand at number one in ranking under survey.

8.3 Institution-wise Distribution Research Contributions / Knowledge indicators in Environmental Science and Technology (ENVIST) Access with LESA Database

Table- 3 Provides the Institution-wise Distribution Research Contributions/ Knowledge indicators in Environmental Science and Technology (ENVIST) Access with LESA Database under study.

Table - 3 Institution-wise Distribution Research Contri butions in ENVIST

S. No.	Type of Institutions	Coverage for Total No. records n= 331 (Year – 2001-2005)						Percentage	Rank
		2001	2002	2003	2004	2005	Total		
1	CLRI	11	12	8	16	10	57	17.22	III
2	CSIR	3	4	2	1	2	12	3.63	VIII
3	Universities	4	7	1	9	9	30	9.06	V
4	Academic Institutions	13	8	1	19	15	56	16.92	IV
5	Research Institutions	5	4	6	7	3	25	7.55	VI
6	Leather Institutions	11	13	18	14	11	67	20.24	I
7	National Research Institutions	5	3	4	10	2	24	7.25	VII
8	Others	11	11	6	13	19	60	18.13	II
	Total :	**63**	**62**	**46**	**89**	**71**	**331**	**100**	

It is observed from Table 3 indicated that Eight groups of institutions were identified under study. The number of research Contributions/Citations 67(20.24%) are more from Leather Institutions and the contributions 57(17.22%) from CLRI and followed by other institutions as stated in the above table.

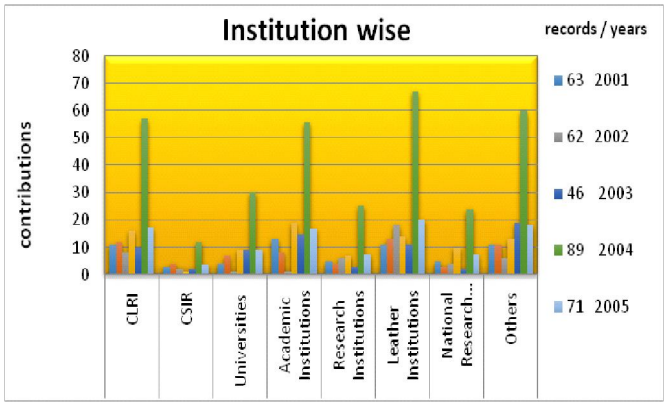

Fig: 2 Institution Wise distributions of citations

8.4 Geographical-wise Distribution of Research Contribution in LESA Database in ENVIST

Table - 4 Provides the geographical-wise distribution of research contribution in LESA database in ENVIST under study.

Table-4 Geographical-wise Distribution of Research Contribution in LESA Database in ENVIST

S. No.	Name of the Countries	Coverage for Total No. records n= 331 (Year – 2001 - 2005)					Total	Percentage	Rank
		2001	2002	2003	2004	2005			
1	UK	10	13	8	8	5	44	13.29	III
2	India	28	18	21	43	18	128	38.67	I
3	U.S.A	7	14	13	20	24	78	23.56	II
4	Germany	1	2	0	6	6	15	4.53	V
5	China	6	1	0	4	6	17	5.14	IV
6	Spain	3	3	1	1	3	11	3.32	VII
7	Australia	0	1	0	0	0	1	0.3	X
8	Canada	0	1	0	0	0	1	0.3	X
9	Italy	1	1	1	2	7	12	3.63	VI
10	Netherland	5	4	0	4	2	15	4.53	V
11	Russian	0	1	0	0	0	1	0.3	X
12	Polish	1	0	1	0	0	2	0.6	XI
13	Japan	0	1	0	0	0	1	0.3	X
14	Taiwan	0	1	1	1	0	3	0.91	VIII
15	Finland	0	1	0	0	0	1	0.3	X
16	Poland	1	0	0	0	0	1	0.3	X
	Total :	**63**	**62**	**46**	**89**	**71**	**331**	**100**	

The Geographical-wise distribution of research Contribution in ENVIST access with LESA Database Knowledge Resources indicate that out of 331 resource/citations in LESA database, 128 records (38.67%) are from India,78 records (23.56%) are from USA, 44 records (13.29%) are from UK and followed other countries as indicated in Table-6. The Contributions are more from 'India' and stand at number one in ranking.

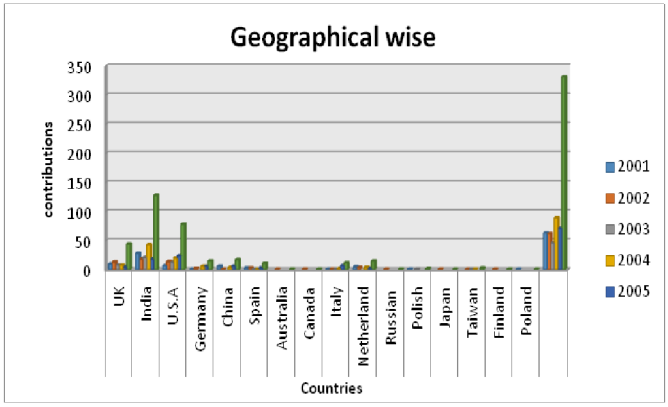

Fig: 3 Geographical Wise distributions of citations

9. FINDINGS OF THE STUDY :

- The study shows that the publication of articles/ research contributions in Environmental related fields as cited in various periodicals knowledge resources have witnessed an escalating trend from study for the period from 2001- 2005.
- The study shows that the majority of the researchers preferred to publish research papers in joint authorship (64.65%) having 0.65 degree of collaboration.
- About 24 sub-fields were identified in relation to ENVIST out of 331 Citations/ research contributions, 48 citations (14.5%) are from "Leather Production and Pollution Control" aspects in leather industry under study.
- The highest number of citations totalling 67(20.24%) has emanated from "Leather Institutions".
- The research contributions are more 128(38.67%) from 'India' and stand at number one in ranking under geographical-wise distribution of research contributions under study.

10. CONCLUSION :

The study reported above led to the following concluding remarks :

- The Leather Science Abstract (LESA) and Indexing periodical publication services play a vital in CLRI to know-how in leather and allied fields and show-how for Knowledge Dissemination and Knowledge Access and Sharing the Information for research Approach Objectives (KASIRAO) in leather research towards sustainable development in leather industry.

- The citation study approach (CSA) is an imperative measure to identity the emerging trends in Leather Science and Technology (LEAST) innovations in leather and allied fields with access to LESA towards organizational development.

- The 'Scientometric Study' would create an awareness concerned scholars regarding core authors, core journals that publish the literature, areas where more research is being conducted and areas where more research needs to the done towards organizational development.

- The abstracting and indexing services of the type covered in this study will enable other academic and R&D institutions to provide similar services in their respective fields towards organizational development.

ACKNOWLEDGEMENT :

The author is grateful to the CSIR-CLRI Director and Organization and Scientific Committees, Adyar, Chennai for the acceptance of my paper for presentation in the XXXIV Congress of the International Union of Leather Technologists and Chemists Societies (IULTCS), 5-8 February2017, CSIR-CLRI, Chennai, India.

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SEMINAR ON GST AT CALCUTTA LEATHER COMPLEX

A seminar on Goods & Service Tax (GST) was organized by Indian Leather Chemical Promotion Association (ILCPA) at Freya Design Studio (ILPA Leather Goods Park) in Calcutta Leather Complex, Bantala on 28th July' 2017.

Mr. Souvik Dutta, Jt. Commissioner, and Mr. Arunanshu Mukherjee, Dy. Commissioner of Commercial Tax Department, Govt. of West Bengal, were invited to clarify different queries raised by the Industry people.

The programme commenced with the Welcome address delivered by Mr. Mukesh Johar, President ILCPA who subsequently invited the speakers to the dais to start the motion.

Mr. Souvik Dutta addressing

Mr. Souvik Dutta, JCCT, in his address explained some new terms introduced in GST, other than VAT and some new provisions as well in GST. He also clarified the motive and vision of GST in brief and elaborated to the audience the benefit of GST.

Mr. Arunangshu Mukherjee addressing

Then Mr. Mukherjee, DCCT, in his short address clarified the system of implementation of the Input Tax Credit and process of claiming the same under the new GST rule.

A good B-to-B (Question & Answer) session thereafter took place where both the speakers answered the different questions regarding GST from the invitees, what they faced during their day to day business activities. They also explained some queries which were sent to them earlier, from the members of the Association.

The programme ended with Vote of Thanks to all concerned followed by refreshment.

ITR deadline extended; PAN and Aadhaar must be linked by August 31 for return to be processed

The last date for e-filing income-tax returns this year has been extended to August 5. The original deadline for filing income tax returns for FY 2016-17 (AY 2017-18) was July 31, 2017.

The extension is a welcome relief for a large number of tax payers struggling to meet the deadline in the face of various problems.

While extending the deadline for filing ITR, the government has also provided relief to people by allowing them to file their returns without linking of PAN and Aadhaar. However, quoting of Aadhaar or Enrolment ID in the return is mandatory as before and those filing the return without linking PAN-Aadhaar must link the two by August 31, 2017. The returns will be processed by the department only after the two ID proofs are linked.

Here's what will happen if you miss income tax return filing deadline

The finance ministry, after denying plans to extend the ITR filing deadline, has finally extended it from July 31 to Aug 5, 2017 this year. However, this only means that you have five more days to file your ITR if you have not done so already.

So make sure you don't miss the extended deadline. Here's what will happen if you do.

Can I file my income tax return after the deadline?

Yes, you can. An ITR filed after the due date is called a belated return. It can be filed before the end of the assessment year i.e. before March 31, 2018 in this case. Infact, from FY16-17 i.e. AY17-18 onwards you are even permitted to revise a belated return. However, if you file your return after the deadline you will lose out on certain benefits.

Filing a belated return

The process of filing a belated return is the same as me as if you file the return on or before the due date. The main difference would be that while filling the applicable ITR form you would have to select "Return filed under section 139(4)" in the drop down menu in the relevant box in the form. Also, remember that if you are filing a belated return for FY16-17 then you need to fill the applicable ITRs as notified for this FY only and not for any previous or later FY.

Is there is a penalty?

No, the penalty for filing income tax return after due date is only applicable from FY 2017-18. The government had introduced a maximum late fee of Rs 10,000 for delayed filing of income tax return by individuals in the last budget presented in February this year. However, this fee is applicable with effect from April 1, 2018 and will not apply for returns filed for FY2016-17 for which the deadline as of now is August 5, 2017.

However, it is important to note that if you have any unpaid tax liability, filing your return after the due date would result in a levy of penal interest on the unpaid tax calculated from the due date of filing the return till the actual date of filing. But if no tax is payable, the taxpayer won't be liable to pay this interest on unpaid tax due to the belated filing for FY16-17 only. However, if the income tax department on assessing your return raises demand for additional tax payment then you would have to pay penal interest on that tax as well as the additional tax. Therefore, it is advisable to file your return in time.

What if I have filed my returns but there is an error?

After an income tax return is filed, it is processed by the CPC, Income Tax Department. However, after processing, if an assessee realizes that some income was not reported, or some deduction was not availed of in the return computation, it is possible to file a revised return.

How much time do I get to verify my return?

Merely filing your tax return is the job half done until you verify it. As per the present tax laws, you can verify your return within 120 days of filing it.

(Economic Times – 31/07/2017)

GST impact on jobs: Here is how it will affect careers in loan industry

The credit and lending industry, otherwise called the loan industry, has seen substantial growth in the past decades.

Increased consumer spending and confidence, and innovations post the 2008 financial crisis have improved the effectiveness of our banking system in handling consumer credit, responsible lending and efficient recovery. Opportunities in the loan industry have been growing, especially since 2012-13. Post-GST, there will be changes in the way industries conduct business. This positively or negatively affects career scope in all industries. A change this huge in the way our tax system works can help create jobs in the consulting field. Businesses are seeing the need to hire GST experts as consultants so that they can restructure their operations in light of the changes GST has brought.

The loan industry and the financial sector in general, are set to benefit from the reforms that GST introduces. Streamlining the tax structure benefits loan companies because it introduces a level of certainty in their projections of profitability. This makes them better able to manage risks. If businesses benefit, then the industry benefits and this leads to job growth. Careers in the loan industry include administrative jobs, underwriting jobs, customer relationship managers, accountants, finance professionals, analysts and collectors. Some hire debt managers to assist them consolidate debt—a good debt manager can help people save money in extra charges and interest. Now, what are the reasons behind a healthy loan industry?

- Consumer credit grew steadily in 2016, both in terms of gross lending and outstanding balance. Growth was driven by increased awareness amongst consumers regarding loan schemes, and greater acceptability among them regarding opting for loans;
- Durables and card lending registered the strongest growth in 2016. It was driven by the millennial population, a majority of whom have higher disposable incomes than previous generations; Mortgages amongst different types of loans continued to be the biggest contributor to consumer credit in 2016, and is expected to grow because of
- Mortgages amongst different types of loans continued to be the biggest contributor to consumer credit in 2016, and is expected to grow because of low interest rates and pent-up demand;
- A renewed trust in economic stability, higher disposable incomes, and smoother application processes for credit cards and loans
- A renewed trust in economic stability, higher disposable incomes, and smoother application processes for credit cards and loans has fuelled growth in this sector.

With opportunities in place, how does one prepare for a career in the loan industry? The first step is to score well in your HSC, graduation and PG exams. A minimum of 60% marks in HSC is necessary. Choosing the commerce stream after 10th can help you with thorough understanding of the basic concepts of finance.

After H.S.C., one can choose B.M.S. (Bachelor of Management Studies), B.A.F. (Bachelor of Commerce in Accounting and Finance) or B.Com. (Bachelor of Commerce). An MBA in finance from a reputed institution can give a boost to your career—it can make it easier for you to get hired by some big companies, giving you a head start.

Where do you fit?

You have to determine which role suits you best. If you are good at number-crunching and data analysis, then accounting and financial analyst jobs might be the way to go. If you think you're better at explaining complex financial concepts to common people, you can be a good customer relationships manager. Are you good with communication and persuasion skills? You can become a business acquisition professional for a credit card firm or a consumer finance company. Do you find yourself to be a good decision-maker? Go for jobs in debt restructuring.

The biggest employers in the loan industry are banks and NBFCs. Then come consumer finance companies, debt consultants, housing finance corporations and corporate debt restructuring firms. Each sector is different in nature and some require particular skill-sets. Educating yourself constantly can boost your career growth. Books and online courses can help.

Finance is both a competitive and dynamic field, and getting mid- to top-tier jobs is particularly tough. Getting an entry-level job is relatively easy, but growing and becoming an indispensable asset for your company requires dedication and self-education. Lastly, a proper understanding of how to manage risks, whom to lend, how much, and how to secure profits and collections will help you secure a career in the loan industry.

(Financial Express – 31/07/2017)

Watch out! Government stimulus likely to give new life to leather stocks

The Indian leather industry enjoys a predominant place in the economy. However, the industry is facing tough competition currently from Chinese manufacturers. In order to boost the leather industry, the Modi government is likely to approve a Rs. 2,500 crore package against Rs 4,000 crore sought by the Department of Industrial Policy and Promotion (DIPP). The package, which is on the lines of the special package given to the garment industry last June, will be implemented over next three years till FY 20-end.

The leather industry, which is highly labour intensive, is a focus area under the Modi government's 'Make in India' initiative, as it has massive potential for providing more employment, growth and to grow exports. With an aim to double productivity of the leather industry in next 10 years, the government has launched an Integrated Development of Leather Sector (IDLS) plan. The government is targeting leather revenues of $27 billion by 2020. It has already allowed 100 per cent FDI in the leather industry through the automatic route.

All these measures are expected to not only create jobs but also attract huge investment from foreign players. Globally, India is the second largest producer of footwear and second largest exporter of leather garments. The Indian leather industry accounts for around 12.93 per cent of the global leather production of hides/skins.

With growing demand, availability of skilled workforce, rising exports, easier raw material availability and government incentives, the sector is likely to get the boost. The growth in demand for leather will continue to come from the fashion industry, especially footwear.

Believing in the potential of the leather industry growth, many companies are following the strategy of driving store growth in both urban and tier II markets, apart from launching new collections.

Companies are collaborating with brands such as FBB, Colors, Femina Miss India 2017. It is expected that companies such as Bata India (BSE -0.32 %), Liberty Shoes (BSE -1.41 %), Mirza International (BSE 1.10 %), Relaxo (BSE -0.68 %) Footwear, Super Tannery (BSE -6.68 %) will see good growth going forward.

(Economic Times – 29/07/2017)

Rs 2600 crore incentive package for leather sector likely soon

The government is expected to announce soon a Rs 2,600 crore incentive package for the leather and footwear sector to boost exports and job creation, sources said.

The package has already been approved by the expenditure finance committee and a draft cabinet note has been circulated to different ministries for their views.

The proposal, mooted by the commerce and industry ministry, has sought tax incentives for the 'Indian Footwear, Leather, and Accessories Development Programme'.

Besides, support has been sought to enhance tax incentives for employment generation.

The package, which includes both tax and non-tax benefits, was prepared on the lines of the steps announced for the textiles sector last year, said sources, who did not wished to be identified.

The sector assumes significance as it is a thrust segment under the 'Make in India' initiative. As per industry experts, Rs. 1 crore investment in the sector results in creation of jobs for about 250 people. Currently about 30 lakh people are directly employed in the sector.

The major players of the sector includes Bata India (BSE -0.32 %), Liberty Shoes (BSE -1.41 %), Mirza International (BSE 1.10 %) and Relaxo Footwear.

In global market, China is giving a tough competition to Indian leather manufacturers in terms of pricing.

The government aims to increase the sector exports to USD 15 billion by 2020 from the current USD 7 billion.

The Indian industry is mainly dominated with products made up of synthetic leather. It accounts for about 90 per cent of the total leather manufacturing in the country.

Last year, the Union Cabinet introduced labour law changes while approving a Rs 6,000-crore package for the textile and apparel sector.

(Economic Times – 20/07/2017)

LEATHER SCIENCE ABSTRACTS

VOLUME 50 **NUMBER 07** **JULY, 2017**

NATIONAL INFORMATION CENTER FOR LEATHER & ALLIED INDUSTRIES (NICLAI)
NATIONAL INFORMATION SYSTEM FOR SCIENCE & TECHNOLOGY (NISSAT)

CENTRAL LEATHER RESEARCH INSTITUTE
ADYAR, CHENNAI 600 020, INDIA

Leather Science Abstracts **(LESA)** is published by National Information Center for Leather and Allied Industries **(NICLAI),** Central Leather Research Institute **(CLRI)**, Chennai.

It is a monthly abstracting periodical covering significant papers/articles published in the fields of Leather Science and Technology, Footwear Technology, Leatherware and Leathergoods, Leather chemicals, Leather machinery, Leather economics etc., appearing in about 500 scientific and technical periodicals published all over the world. The abstracts are presented under well defined subject headings and include indexes.

All enquiries for further details should be addressed to: THE DIRECTOR, **(ATTN.: EDITOR, LESA)**
CENTRAL LEATHER RESEARCH INSTITUTE, ADYAR, CHENNAI-600 020, INDIA.

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LEATHER SCIENCE AND TECHNOLOGY

LEATHER INDUSTRY, HISTORY, MANAGEMENT, ECONOMICS, EDUCATION

50.15587

A renaissance for the African leather industry.(World Leather; 29, 1; 2016, Feb./Mar.; 38-9).

Describes the revolution in the form of making several progresses in the African leather industry. (2 Photos).

50.15588

2015 overview and 2016 expectation.SAUER (R), (Leather News India; 7, 1; 2016, Jan.; 84-90).

Discusses the downfall in the prospects of trade in the year 2015 and witnessing a ray of hope for the prospects in the universal markets with special reference to USA in the beginning of the year 2016. (9 Fig.).

50.15589

Can't we all just get along? SETTER (S), (Leather Intl; 217, 4557; 2016, Jan./Feb.; 27&29). Advised few wise words on branding and how the industry would work best by working together.

50.15590

Neglect of technological developments & decline of Indian economy. GHARPURE (YH), (Technology Transfer Association, Nos. 9&10, General Assurance Building, No. : 232, DadabhoyNaoroji Road, Fort, Mumbai -400 001, India). (Chem. Wkly.; 61, 23; 2016, Jan., 12; 205-8).

Discusses that one of the problems that hamper the technological developments is the abstract way by which science or technology was dealt with by Indians. Most surviving documents are overwhelmingly religious and ritualistic and not concerned with history or reality. Reviewed the various industries on the bases of those problems. The ethos that serve as stumpingblocks to the progress of science in India. It is time Indians wake up to this depressing scenario and take recourse to spread of education and scientific knowledge across barriers, leading to skilled labor and innovation and development of cutting edge technologies. Technologies and their widespread use alone can increase production and productivity, leading to creation of wealth and eradication of poverty. (1 Ref.; 2 Tab.; 1 Photo).

50.15591

New age technologies reshaping the future of manufacturing-Part 2.RAJAGOPAL (R), (M/s. "Chemical Weekly", Corporate Office, No. : 602, 6th Floor, B-Wing, Godrej Coliseum, Behind Everard Nagar, Off. Eastern Express Highway, K.J. Somaiya Hospital Road, Mumbai-400 022, India). (Chem. Wkly.; 61, 35; 2016, Apr., 5; 201-4).

Discusses the global chemical enterprises that force complex challenges such as manufacturing, research and development(R&D) supply chain management, industry consolidation and more importantly and ever increasing customer, regulatory and sustainability pressures. Describes the Internet of Things(IOT) tools which is used for creating value just by providing the desired connectivity.Discusses also few of the major impacts of IOTs like equipment monitoring and predictive analysis; predictive ability to detect deviations in batch production; energy of efficiency systems; cyber security and shifts in chemical business models. (2 Ref.; 4 Photos).

50.15592

Export performance of leather sector-Region wise. SAHASRANAMAN (A), (ILIFO(Indian Leather Industry Foundation), No. : F2, 'Shreyas', No. : 87, Greenways Lane, Greenways Road, Raja Annamalai Puram, Chennai-600 028, India). (Indian Leather; 49, 12; 2016, Feb.; 35-40).

An enthusiasm is overall found in the leather industry in all regions of the country. But the future performance of the regions will depend entirely on this ability to address key issues of environment management and productivity effectively and speedily. Future growth of the industry in the country will depend on the success of the industry in tackling such vital issues. (2 Tab.).

50.15593

Bangladesh leather sector-Poised for a higher leap. NANDA GOPAL (K), (Leather News India; 7, 1; 2016, Jan.; 61-8).

Discusses the various efforts that have been pursued by the leather sector in Bangladesh for promoting the leather and tanning industries with a view to achieve huge proportions of orders for the leather and its accessories both within inland and foreign countries that in turn pave the way for securing large volumes of revenues to convert it as a vast developing nation in the universe. Highlighted the various features of this leather sector. (21 Photos).

50.15594

Optimizing customer service : Six key links in the supply chain. ROKOHL (L), BECRAFT (W), (M/s. AspenTech, Incorporation, No. : 20 Crossby Drive, Bedford, Massachusetts 01730, USA). (Chem. Wkly.; 61, 24; 2016, Jan., 19; 191-2).

It is pointed out that the small businesses are optimizing six key supply chain areas and embracing cutting-edge software to achieve competitive advantage with increasing pressure to respond to demand and provide quality products on time. It is expected that the organizations must address six key links in the supply chain to achieve best practices by being more demand-driven and for more effectively doing it the business can maximize market-potential while mitigating risk. (3 Photos).

50.15595

U.S. hides and skins market situation at the beginning of 2016. SOTHMANN (S), (United States Hides and Skins and Leather Association, No. : 1150 Connecticut Avenue North West, 12th Floor, Washington 200004, District of Columbia, USA). (Leather News India; 7, 1; 2016, Jan.; 82-3).

Discusses the situation, for the markets to the hides and skins, which is currently prevailing in the United States of America and the expectation of it in the beginning of the year 2016 with special reference to its proposed marketing proposals with Indian markets.

50.15596

Access and affordability : The impact of biosimilars. ARUN (C), (M/s. Biocon Limited, Corporate Office, 20th KM, Hosur Road, Electronic City, Bengaluru-560 100, Karnataka State, India). (Chem. Wkly.; 61, 28; 2016, Feb., 2; 215-8).

efines biologics like insulin andmonoclonal antibodies(MAbs) that have emerged as a class of highly effective transformational life-saving drugs targeted at chronic diseases like diabetics and cancer. Discussed several aspects such as the cost & time factor, the growing demand for affordable biosimilars, affordability, smarter regulations that can facilitate greater affordability, abridged clinical pathway and compared the biosimilarities with interchangeability. (4 Photos).

50.15597

Crude oil scenario & the Indian economy.SABNAVIS (M), SHAH (A), (CARE Ratings, M/s. Credit Analysis & Research Limited, Head Office, 4th Floor, Godrej Coliseum, Somaiya Hospital Road, Off. Eastern Express Highway, Sion(East), Mumbai-400 022, India). (Chem. Wkly.; 61, 28; 2016, Feb., 2; 221-2).

Examined a perspective of the oil market and its implications for the Indian economy. (1 Tab.; 1 Fig.).

50.15598

Streamlining projects with a modular approach.BECK (R), PATIL (S), (M/s. AspenTech; No. 20 Crossby Drive, Bedford, Massachusetts 01730, USA). (Chem. Wkly.; 61, 25; 2016, Jan., 26; 11-2).

Discusses that the project overruns in the oil, gas and petrochemical industries have cost impacts that extend over the lifetime of the delivered asset, pressuring companies to deliver on schedule and remain profitable. Indicates the implementation of the standardization designs and the adoption of a modular approach to process units reduce design, schedule and cost uncertainty and therefore, saves significant amounts of time and money. The aim behind many engineering and other industries is to get into the phase more quickly. Process designs can be created for re-use in a modular fashion on similar projects and based on varying locations, applications and scale, thereby increase overall project management efficiency with the use of model-based software applications. (3 Photos).

50.15599

BioPET*v/s* conventional PET for bottles. SEVUGAN (K), (M/s. Beroe Incorporation, Ground Floor, ASV Chandilya Towers, Rajiv Gandhi Road(Old Mahabalipuram Road), Thoraipakkam, Chennai-600 097, India). (Chem. Wkly.; 61, 29; 2016, Feb., 23; 209-13).

Discusses the high cost difference, cost drivers and effect of declining crude oil prices on production cost of bottle. It helps the brand owners to understand the pros and cons of various types of PET material for production of bottles; determine the standard cost of conventional PET &BioPET bottles, understand the cost difference and major cost drivers; prepare and conduct better negotiations with suppliers/converters; Analyze the availability of 100% BioPET bottles through 2018 and its adoption trend by brand owners; and arrive at a conclusion on which type of PET bottle will gain more popularity in the future. (4 Ref.; 3 Tab.; 7 Fig.).

50.15600

Has investment picked up? SABNAVIS (M), SHAH (A), (CARE Ratings, M/s. Credit Analysis & Research Limited, Head Office, 4th Floor, Godrej Coliseum, Somaiya Hospital Road, Off. Eastern Express Highway, Sion(East), Mumbai-400 022, India). (Chem. Wkly.; 61, 28; 2016, Feb., 23; 206-8).

Discusses the distress fact of not significantly picking of the investment across the brand and the higher levels of proposals and announcements have been concentrated on specific sectors. Industries are still maintaining their point of wait-and-watch approach given that their own performance has been currently subdued for the three quarters of this financial year. Lower interest rates should help, though the challenge at this juncture is demand given that there is space capacity in industry. Infrastructure could be the commencing point for investment, which is separated from the issue of demand. In the positive side, a decline in the value of projects that have been dropped as per CMIE(M/s. Center for Monitoring Indian Economy Private Limited) is seen. Therefore, it may be expected that conditions would improve the investment climate soon. (3 Tab.; 2 Photos).

50.15601

In the white house.GUOLO (A), FINCO (B), (Leather Intl; 217, 4858; 2016, Mar.; 17-8).

It is seen here that the automotive sector is a surge in wet-white although the industry as a whole is dominated by wet-white. Reports the impact and perception of a new approach and what it means to the future. (1 Photo).

50.15602

Somalia's growing livestock sector reports record exports. (World Leather; 29, 1; 2016, Feb./Mar.; 37).

Discusses that the leather industry in Somalia will certainly make vast progress with the assistance from Food and Agricultural Organization (FAO) thus making improvements in the domestic levels. (1 Photo).

50.15603

Government investment in chemical industry should increase several fold. VENKATARAMAN (NS), (M/s. Nandini Consultancy Center, No. : M-60/1, 4th Cross Street, Besant Nagar, Chennai-600 090, India). (Chem. Wkly.; 61, 31; 2016, Mar., 8; 214-6).

States that the time has become very high if the selective intervention is recognized by the government to spur growth by investing on its own is necessary, particularly in situation like the present one in India. (3 Tab.; 2 Photos).

50.15604

Educational reforms required to spur innovation and economic growth. MALSHE (VC), (Nos. : 33-34, Building No. : 10 Kamdhenu, Hari Om Nagar, Mulund (E), Mumbai-400 081, India). (Chem. Wkly.; 61, 24; 2016, Jan., 19; 206-8).

Reported earlier about some suggestions for improvement in quality of education in the country, primarily in the Chemical Engineering discipline.Indicates some more suggestions for the education system as a whole. (4 Photos).

50.15605

Corporate social responsibility(CSR) : A shifting landscape. RAJAGOPAL (R), (M/s. "Chemical Weekly", Corporate Office, No. : 602, 6th Floor, B-Wing, Godrej Coliseum, Behind Everard Nagar, Off. Eastern Express Highway, K.J. Somaiya Hospital Road,Mumbai-400 022, India). (Chem. Wkly.; 61, 27; 2016, Feb., 9; 208-12).

Indicates that the corporate social responsibility(CSR) is at present viewed as very integral to a company's growth plans with increasing emphasis on equality in distribution of wealth and social commitment. There is also a realization that a company's growth cannot be insulated from social realities and commitment. CSR activities in India take a different hue when compared to the west. There is a growing recognition among researchers and policy makers that CSR issues in developing and emerging countries like India are somewhat distinct from those in developed countries. Identified two distinct

motivations by turning to the rationale of CSR from the perspective of a firm.Stresses very strongly that several issues that come in the way of CSR projects and have so far been implemented and these need to be resolved through appropriate policy mechanisms. It is pointed out that the present rules permit companies to implement big CSR activities through registered trusts set up by the companies or outside trusts with good track records. This will force the government to set up the safeguard mechanisms to ensure the ensurance of the CSR's integrity and philosophy. It is pointed also that the government will have the need of developing an effective way of monitoring such transactions and make legislative provisions as well. There is also a need for better coordination across companies in a particular region. Formal partnerships or consortia can be set up.

50.15606

Reinventing skill development and entrepreneurship in India.SUKHEJA (S), (Flat No. : 3, Ravi Kiran, Near Saraswat Bank, Sector 4, Charkop, Kandivali(West), Mumbai-400 067, India). (Chem. Wkly.; 61, 35; 2016, Apr., 5; 212-3).

Discusses that the government's initiatives are half-hearted and lack design and implementation inspite of appreciating the critical importance of skills-development. The future of the entire nation depends solely on its skills; hence, a lot more needs to be done by the government. The awareness of business enterprises towards benefits of conducting in house training sessions needs to be created by means of a legislation to this effect, as well as by conducting a dialogue with the apex bodies of industries and incorporating their opinions, views and suggestions in the skills developing policy. Moreover, there is a crying need for bringing a legislation similar to the Chinese Vocational Training and Education Law(VTEL), 1996 to encourage large-scale participation from students, educational institutions and industrial enterprises. (3 Photos).

50.15607

Asia outlook 2016 for olefins.(Chem. Wkly.; 61, 28; 2016, Feb., 16; 201-6).

Answers to the question namely what is the outlook for olefins and polyolefins in Asia in H12016 and many more can be found in this first-half outlook for 2016. (2 Tab.; 6 Fig.).

50.15608

Asia outlook 2016 for polymers. DOBASHI (F), SHAILAJA NAIR (E), (M/s. Platts, No. : 20 Canada Square, 9th Floor, London E14 5LH, England). (Chem. Wkly.; 61, 29; 2016, Feb., 23; 201-5).

Outlooks on various polymer products such as polyethylene, polypropylene, polyvinyl chloride etc. for the year 2016 in Asia.(1 Tab.; 2 Fig.).

50.15609

Asia outlook 2016 for polyesters & feedstock. LEE (J), TANG (I), (Chem. Wkly.; 61, 30; 2016, Mar., 1; 193-4).

Discusses the recoveries in feedstock purified terephthalic acid(PTA) and monoethylene glycol(MEG) prices in the first half of 2016-at least from March onwards-pulled by seasonal high demand for both polyester and PET(polyethylene terephthalate) resin and improved macroeconomic data from China and India which most Asian PET, polyester and feedstock producers are cautiously optimistic. (1 Fig.).

50.15610

India to drive industrial demand for energy to 2040 as China settles to lower pace of growth. RAVI (R), (M/s. ExxonMobil, Crescent #1, Prestige Shantiniketan Whitefield, ITPL Main Road, Whitefield, Bengaluru-560 066, Karnataka State, India). (Chem. Wkly.; 61, 28; 2016, Feb., 2; 135-6).

Discussed much earlier about the turnmoil in energy markets but the focus was usually the short-term. It is noted that while these are important as they impact consumers and businesses one way or the other, national policies and programmes need to be set by long-term trends and these form the focus of a newly released study.

ENZYMOLOGY

50.15611

Optimization of enzyme-assisted phenolic reactions applied to thermal stabilization of collagen using response surface methodology. SANTOS (LMD), ALLEN (SCH), ANTUNES (APM), (Institute for Creative Leather Technologies-University of Northampton, Boughton Green Road, NN2 7AL, Northampton, England and School of

Health-University of Northampton, Boughton Green Road, NN2 7AL, Northampton, England). (J. Am. Leather Chem. Assoc.; 111, 2; 2016, Feb.; 53-61).

Describes the vegetable tannins used in tanning of hides and skins that are limited by surface reactions as well as large molecular weights, reducing penetration into the skin and lowering the thermal stability or tanning effect. An investigation into the utilization of small phenolic compounds such as catechin to improve penetration with subsequent *in situ* enzyme-catalyzed polymerization may provide a novel and alternative tanning agent. Here, the catechin was oxidized by enzymatic catalysis using laccase, with the polymerization confirmed byFT-IR(fourier transform infrared) and UHPLC(ultra-high performance liquid chromatography). Tanning experiments were undertaken to measure the effect of laccase-catalyzed polymerization of catechin in the thermal stabilization of collagen, i.e. the change in shrinkage temperature between the treated and untreated sample of hide powder(“Ts). A factorial design was subsequently used to study process parameters that may affect enzymatic reactions like temperature, substrate concentration, enzyme concentration and incubation period. The statistically significant variables were found tobe temperature and incubation period and were thus chosen to be studied further for process optimization using response surface methodology(RSM). Maximum “Ts can be obtained for a temperature of 34.6°Centigrade and incubation period of 25 hours. This study demonstrates that the stabilization of collagen(“Ts) is increased with the use of enzyme-assisted polymerization. (31 Ref.; 4 Tab.; 4 Fig.).

LEATHER CHEMICALS AND AUXILIARIES

50.15612

Short-term preservation of hides and skins using peracetic acid.VALEIKA (V), BELEŠKA (K), ŠIRVAITYTE (J), (Department of Polymer Chemistry and Technology, Kaunas University of Technology, Radvilenu Road 19, LT-50254, Kaunas, Lithuania). (J. Am. Leather Chem. Assoc.; 111, 1; 2016, Jan., 1; 1-9).

Discusses that the treatment of hydrogen peroxide and acetic anhydride with a mixture of sodium hydroxide at 15-20°Centigrade during 2 hours allows a preservation of hide during 20 days at temperature 22±1°Centigrade. Prolongation of the treatment temperature higher than 20°Centigrade do not markedly increase the preservation effect but affects hide structure at these higher level. The application of short-term preservation method leads to substantial decrease of materials consumption. Preserved by oxidative method hide is more sensitive to chemicals during technological processes than ones cured by sodium chloride and its derma structure is opened in higher level. It binds more chromium compounds during chroming. The crust leather produced from hide preserved by oxidative method characterized by satisfactory strength properties. The use of proposed short-term preservation of hide allows reduction of Cl^- in wastewater more than 11 times. (30 Ref.; 6 Tab.; 3 Fig.).

50.15613

A type of auxiliary for native chemical peptide ligation beyond cysteine and glycinejunctions. LOIBI (SF), HARPAZ (Z), SEITZ (O), (Institut fur Chemie, Humboldt-UniversitatZu Berlin, Brook-Taylor-Strasse 2, 12489 Berlin, Germany). (Angew.Chem.; 54, 50; 2015, Dec., 7; 15055-9).

Native chemical ligation enables the chemical synthesis of proteins. Previously, thiol-containing auxiliary groups have been used to extend the reaction scope beyond N-terminal cysteine residues. However, the *N*-benzyl type auxiliaries used so far result in rather low reaction rates. Herein, presents a nee o $N^á$-auxiliary. Consideration of a radical fragmentation for cleavage led to the design of a new auxiliary group which is selectively removed under mildly basic conditions(*p*H 8.5) in the presence of TCEP(triscarboxyethylphosphine) and morpholine. Most importantly and in contrast to previously described auxiliaries, the 2-mercapto-2-phenethyl auxiliary is not limited to Gly containing sites and litigations succeed at sterically demanding junctions. The auxiliary is introduced in high yield by On-resin reductive animation with commercially available amino acid building blocks. Demonstrates the synthetic utility of the method by the synthesis of two antimicrobial proteins, DCD(dermicidin)-1L and opistoporin-2. (41 Ref.; 1 Tab.; 3 Fig.; 3 Schemes).

50.15614

Investigation into deep eutectic solvents.ABBOTT (A), ANTUNES (APM), COVINGTON (AD), MMAPATSI (B), WISE (WR), GUTHRIE-STRACHAN (J), (Department of Chemistry, Materials Center, University of Leicester, University Road, Leicester LE1 7RH, England). (Leather Intl;217, 4860; 2016, May; 26-7, 29&31).

Investigates the novel deep eutectic solvents for the purpose of the reduction of water usage in leather manufacturing.(1 Tab.; 6 Fig.).

50.15615

Shear stability and antiwear properties of three differently viscosity modifiers for lube oil.UPADHYAY (M), GHOSH (P), (J. Sci. Ind. Res.; 74, 10; 2015, Oct.; 567-70).

Investigated the viscosity modifiers(VMs) of three different kinds viz.: polymethacrylate(PMA), olefin copolymer (CCP) and hydrogenated styrene-isoprene(SIP) polymer for their antiwear(AW) properties and degradative stability towards mechanical shearing in two base stocks in the concentration range, 1.0 to 6.0%(wt/wt). The shear stability index(SSI) was substantially influenced by the chemistry and concentration of the Ums as well as by the viscosity of the base stock. AW performance was also influenced by the conditions chosen in the four ball wear test machine. All the VMs showed a saturation of SSI values beyond 4% concentration in both the base stocks, while the value of percent shear loss(PSL) showed a gradual increase with the rising VM concentration.

50.15616

Palm fatty acid distillate based biodiesel : characterizati**o**n and emission analysis. METRE (A), NATH (K), (J. Sci. Ind. Res.; 74, 10; 2015, Oct.; 584-8).

Describes the biodiesel obtained from the acid catalyzed esterification and trans-esterification of palm fatty distillate(PFAD) and was characterized using gas chromatographic and Fourier transform infrared spectroscopic analysis. Evaluated the physico-chemical thermal properties of the biodiesel and compared in relation to that of conventional petro-diesel following ASTM(American Society for Testing and Materials) and Indian standards. The PFAD-biodiesel blended with different proportion of petro-diesel was also subjected to performance and emission tests at varying leads in order to evaluate its actual performance, when used in a four stroke diesel engine. Exhaust gas analysis showed appreciable reduction of CO_2(carbondioxide) and hydrocarbons as against the unblended petrodiesel, although reduction of CO was marginal.

50.15617

Liquid bulk handling and storage-Paving the way for India's chemical and energy needs. PANCHAL (M), AGARWAL (P), VERMA (CK), (Tata Strategic Management Group, Chemicals, Energy, SCM &Logistics, No. : B-1001 Marathon Futurex, N.M. Joshi Marg, Lower Parel (East), Mumbai-400 013, India). (Chem. Wkly.; 61, 28; 2016, Feb., 2; 207-12).

A review of current port operations indicates lack of adequate capacity and infrastructure, poor connectivity to hinterland lack of regulatory support which impedes growth and overburdening of existing ports. This highlights a need for upscaling infrastructure in terms of berth capacities, pipelines, storage tanks and port equipment. Supportive regulatory policies are required which would help increasing port congestion and improve performance of port & vessel operations. (8 Ref.; 3 Tab.; 8 Fig.).

50.15618

Partnering industry & chemical logistics provider for chemical transportation.DAS (H), (M/s. Akali Manufacturers' Association of India(AMAI), Pankaj Chamber, 3rd Floor, Commercial Complex, Vikas Marg, PreetVihar, Delhi-110 092, India). (Chem. Wkly.; 61, 30; 2016, Mar., 1; 208-10).

Stresses the importance and need of chemicals for both domestic uses in everyone's life and also for industrial uses. Various chemicals are needed aplenty for several purposes including textiles and clothes, water treatment, water distribution, medicines, sanitation, energy and environment, conservations, infrastructure development etc. (1 Tab.; 1 Fig.; 1 Photo).

50.15619

Fats and oils. BAJPAI (D), (M**/**s. Bureau Veritas Consumer Products Services India Private Limited, No. : C-19, Sector-07, Noida-201 301, Uttar Pradesh State, India). (Leather News India; 7, 5; 2016, May; 76 & 78**-**9).

Describes the International Standard No. : ISO4048:2008(en):"Leather-Chemical tests-Determination of matter soluble in dichloromethane and free fatty acid content". The scope of this International Standard specifies a method for the determination of the substances in leather which are soluble in dichloromethane. This method is applicable to all types of leather.

PRE-TANNING MATERIALS

50.15620

Low carbon products to design innovative leather processes-Part 3 : Optimization of an eco-friendly formulation using Tara. BACARDIT (A), DÌAZ (J), CASAS (C), OLLÉ (L), (A3 Chair in Leather Innovation, Escola d'Enginyeriad'Igualada(EEI), UniversitatPolitecnica de Catalunya(UPC),Avda. Pla de la Massa, 8.08700-Igualada, Spain). (J. Am. Leather Chem. Assoc.; 110, 9; 2015, Sep.; 302-9).

Aims for the design of a new pretanning formulation by using the fruit of the Tara tree(*CaeselpiniaSpinosa*) as the sole source of vegetable tannin. The innovative aspect of this work embodies a new-tailored taraproduct which gave its tannin the enhanced ability to readily penetrate the leather cross section and thus made it unnecessary for the tanner to add aldehydes, syntans, other common vegetable tannins and mineral salts. Discussed specifically about the developments of the physical modifications for obtaining a modified tara with a higher percentage of tannins and with a better ability to penetrate/fix in leather by sieving and milling and also the development of an innovative, eco-friendly and optimal wet white formulation which has amaximum offer to leather of 9% modified Tara and a maximum 2% naphthalene sulphonicsyntan dispersing agent. (11 Ref.; 12 Tab.; 11 Fig.).

50.15621

Immunization action of sodium silicate on hair : Part 1-Hair-save process based on lime substitution by sodium silicate. VALEIKA (V),SIRVAITYTE (J), BELESKA (K), ALABURDAITE (R), VALEIKIENE (V), (Kaunas University of Technology, Radvilenu pl.19, LT-50524 Kaunas, Lithuania). (J. Soc. Leather Technol. Chem.; 99, 5; 2015, Sep.-Oct.; 223-30).

Investigates the ability of such alkalis as calcium, barium, sodium and potassium hydroxides and sodium metasilicate to immunize wool. Confirms the sodium silicate as an effective immunization agent whose efficiency increases with increased treatment duration and treatment solution concentration. Sodium silicate lacks a divalent cation and acts at *p*H13. This allows the assumption that the immunization mechanism is other than that of calcium or barium hydroxide. Differential scanning calorimetry(DSC) and infrared spectroscopy analysis(IRA) results show the differences in hair structure after treatment by various alkalis. Research work progress to clarify the mechanism of the hair immunization by sodium silicate and to develop an unhairing process with hair immunization which is suitable for leather processing. (35 Ref.; 5 Tab.; 4 Fig.).

50.15622

Immunization action of sodium silicate on hair : Part2-Hair-save process based on lime substitution by sodium silicate.SIRVAITYTE (J), BELESKA (K), VALEIKIENE (V), PLAVAN (V),VALEIKA (V),(Kaunas University of Technology, Radvilenu pl.19, LT-50524 Kaunas, Lithuania). (J. Soc. Leather Technol. Chem.; 99, 5; 2015, Sep.-Oct.; 231-7).

A major contributor to the pollution from the tanning industry is conventional unhairing using sodium sulphide and lime. Attempts to develop a lime-free unhairing process using sodium silicate as a hair immunization agent.Optimized the parameters of the unhairing process by evaluating qualitative indexes of the hide during processes and the leather obtained as well.It was established that hair removal quality and chemical and strength properties of the experimental leathers are comparable to those of control leathers. A significant reduction in chemical oxygen demand (COD), biochemical oxygen demand(BOD) and Kjeldahl nitrogen (KN) were obtained in comparison with the comparative data for the conventional unhairing with hair burning. (33 Ref.; 8 Tab.; 3 Fig.).

50.15623

Ammonia free deliming process in leather industry based on eco-benign products. SIVAKUMAR (V), PONNUSWAMY (C), SUDALAIMANI (K), RANGASAMY (T), MURALIDHARAN (C), MANDAL (AB), (Council of Scientific and Industrial Research-Central Leather Research Institute(CSIR-CLRI), Adyar, Chennai-600 020, India). (J. Sci. Ind. Res.; 74, 9; 2015, Sep.; 518-21).

Deliming is one of the most important unit operations in leather processing. Conventional process employs ammonium salts which generates considerable amount of ammonia during the process, making tannery environment unhealthy. Therefore ammonia free deliming process is necessary in view of environmental concern. Even though ammonia free alternate deliming processes

have been studied earlier, they have not yet provided commercial viability so far. Presents the CSIR-CLRI(Council of Scientific and Industrial Research-Central Leather Research Institute) developed ammonia free deliming process based on eco-design natural products. Studies involve analyzing their efficiency, process parameters, quality of leather produced and to develop a viable ammonia free deliming system. The results indicate that complete deliming could be achieved using this product. Physical testing results indicate that strength properties are on par with control process and pass minimum test requirements for shoe upper leather. Organoleptic properties and overall assessments indicate that leather delimed with CSIR-CLRI AFD(Academy of Fashion and Design) are on par with that of conventional leathers. Thus, CSIR-CLRI based AFD could provide alternative system as ammonia free deliming process, which is of great environmental and safety system.

TANNING MATERIALS

50.15624

Safety information and diagnostic tools for process industry. ANANTHARAMAN (L), (Computer Center, Council of Scientific and Industrial Research-Central Leather Research Institute(CSIR-CLRI), No. : 20, SardarVallabhai Patel Road, Adyar, Chennai-600 020, India). (Leather News India; 7, 3; 2016, Mar.; 89-95).

Presents a case study on computer assisted process technology for vegetable tannin extraction employing multistage counter current contact concept. Describes a full scale pilot plant which is set up with the necessary process control facilities for systematic chemical engineering investigations. Discussed the role of Fault Tree Analysis(FIA) in system safety analysis. (6 Ref.; 3 Tab.; 11 Fig.).

50.15625

Beach sand minerals-The treasure of Kerala : Properties of Beach Sand minerals based industries and strategies. RAGHAVAN (K), (Mineral Separation Unit, M/s. Kerala Minerals and Metals Limited(KMML), Sankaramangalam, Chavara, Kollam-691 583 and M/s. Travancore Titanium Products Limited(TPPL), Post Box No. : 1, Kochuveli, Thiruvananthapuram-695 021, Kerala State, India). (Chem. Wkly.; 61, 24; 2016, Jan., 19; 211-6).

Discusses that the potential of heavy minerals that are available in Kollam and Alleppy Districts, in cases they are put into proper and scientific uses, will immensely pave way for rapid industrialization of the state as titanium is an unique material for strategic applications. Their activities should never be limited just to the manufacture of TiO_2(titanium oxide) and titanium sponge alone, but to harness its vast potential by setting up a chain of titanium based industries through forward integration. Various auxiliary units should have to be set up for the production of various items required for the main units with a view to generate employment for the local people which would help the business folk to maintain a hormoneous and better relationship with local people. (8 Tab.; 4 Photos).

50.15626

A novel approach for wet-white leather manufacture based on tannin acid-laponitenanoclay combination tannage. SHI (J), REN (K), WANG (C), JIE (W), LIN (W), (National Engineering Laboratory for Clean Technology of Leather Manufacture, Sichuan University, Wingjiang Campus, Section No. : 24 ofSouthern Yichuan, Chengdu 610065, Sichuan Province, People's Republic of China). (J. Soc. Leather Technol. Chem.; 100, 1; 2016, Jan.-Feb.; 25-30).

Discusses the proposal of a novel wet-white tanning approach based on combination tanning with tannic acid(TA) and Laponitenanoclay. Thermal stability measurements(TSMs) show that the introduction of Laponitenanoclay gives an obvious increase in the shrinkage temperature(T_s) of TA-tanned leather, implying the presence of the synergistic effect between TA and Laponitenanoclay in the combination tanning process. The optimized tanning **sy**stem, i.e. 20% TA combination tanned with 3% Laponite in one-bath for 3 hours at 25°Centigrade and final *p*H 3.5, confers wet-white leathers with T_s above 89°Centigrade and good storage stability. The introduction of Laponitenanoclay facilitates the fixation of TA in the wet-white leather. Scanning electron microscopic(SEM) results show that the combination tanned leathers exhibit the isolated collagen fiber networks in comparison with that of solo TA and solo Laponite-tanned leather. The presence of Laponitenanoclay not only improves the mechanical strength of the resulting leather, but also gives an ultraviolet protection property. (29 Ref.; 1 Tab.; 13 Fig.).

50.15627

Glutaraldehyde : Proven technology for white metal-free leathers-Part 2 : The versatility of glutaraldehyde in leather making. GABAGNOU (G), DÖPPERT (F), HERTA (D), HESS (M), PELCKANS (JT), CHRISTNER (J), FENNEN (J), (M/s. TFL Ledertechnic AG,Klybeckstrasse 15, 4057 Basel, Switzerland). (World Leather; 29, 1; 2016, Feb./ Mar.;28-30).

Describes the tanning with modified glutaraldehyde as a proven and efficient technology, viable for tanneries equipped with standard machinery. The process is reliable, consistent and economically feasible. There are no restrictions to the use of glutaraldehyde as a tanning agent and with proper processing there is no detectable glutaraldehyde in the final leather. Consequently, a chromium-free leather can be produced as a skin-friendly material with no potentially sensitizing properties. The technology is versatile and it allows the tanner to produce a full range of articles. The technology is widely used on limed split hides and the tannage of full substance hides is taking place. In addition, these leathers in the crust condition show that both heat resistance and waterproofing are possible without the use of chromium compounds. (1 Ref.; 2 Tab.; 3 Fig.).

POST-TANNING MATERIALS

50.15628

Eco-friendly, rapid and efficient analytical procedure for carcinogenic aryl amnes in dyes and consumer products.SURESH (S), GANESH JEEVAN (R), PRIYA (N), MURALIDHARAN (C), (Eco Analytical Laboratory,Council of Scientific and Industrial Research-Central Leather Research Institute(CSIR-CLRI), Adyar, Chennai-600 020, India). (J. Am. Leather Chem. Assoc.; 111, 1; 2016, Jan.; 17-23).

Addresses the analysis of aromatic amines from azo dyes and dyed consumer articles mainly based on leathers as they are subjected to screening for release of any of the 24 hazardous aryl amines listed by the European agency. This study involves a reverse phase SPE(solid phase extraction) approach for enriching and cleaning-up of the matrices to facilitate the further analysis by UPLC(Ultra Performance liquid chromatography). The proposed study does away with tertiary butyl ether, other solvents and subsequent evaporation steps thereby cutting down the solvent usage to a major extent(from close to 80 ml into 2 ml) in sample preparation and the further analysis developed by UPLC, cut short the gradient analysis from 40 mm to 6 minutes enabling additionally the reduction of solvent for mobile phase. Thus the procedure is improvised to serve as Green analytical procedure. This study offers the scope to complete the sample preparation in 45 minutes in comparison to 80 minutes by the official procedure(excluding the degreasing step in both these cases). The proposed procedure is simple to adopt with more efficient recovery values in the range 52-104% for all the analysis. The LOD(limit of detection) and LOQ(limit of quantitation) of the analysis were 2 ìg g^{-1} and 9ìg g^{-1}. (32 Ref.; 2 Tab.; 6 Fig.).

LEATHER PROCESSING MACHINES

50.15629

Efficiency enhancement in natural gas fired boiler & recovery of water from flue gas. SYAMAL KUMAR, (Technology & Operation Division, M/s. Atul Limited(Aromatics Division), No. : 297, 297/1, Gujarat Industrial Development Corporation(GIDC), Industrial Estate, Ankleshwar-393 002, Gujarat State, India). (Chem. Wkly.; 61, 28; 2016, Feb., 16; 189-92).

Discusses that the installation of condensing boiler has gained momentum in all developed countries to reduce energy costs. There are reputed boiler manufacturers who supply condensing boilers worldwide, like Loos in Germany etc. All reputed boiler manufacturers are capable of supplying condensing boilers in India too. Population of such boiler installation has been limited in India so far due to lack of information or lack of knowledge sharing/Openness.It is indicated that about the successful installation of a 24-t*p*H condensing boiler designed at14-bar steam pressure for conservation of energy and natural resource, which is in operation for more than a year. This has resulted in savings of 550,000-Sm^3 of natural gas and conservation of 60,00,000 liters of water per year. This is another non-conventional step taken and innovation done by the team by doing things differently to make the overall business sustainable. (3 Tab.; 4Fig.; 1 Photo).

LEATHER PROPERTIES. QUALITY CONTROL

50.15630

Development of chromium-melamine formulation for retanning application.SATHISH (M), AZHAR (ZMJ), ARAVINDHAN (R), SREERAM (KJ), RAGHAVA RAO (J),

(Chemical Laboratory, Council of Scientific and Industrial Research-Central Leather Research Institute(CSIR-CLRI), Adyar, Chennai-600 020, India). (J. Am. Leather Chem. Assoc.; 111, 2; 2016, Feb.; 44-52).

The process of preparation of a large number of syntans is based on enhancement of the molecular weight of low molecular weight aromatic/aliphatic monomers etc., through addition of polymerization and condensation reactions. The disadvantage associated with condensation process is the use of formaldehyde, which is a proven carcinogen. In addition, addresses one of the major drawbacks with chrome tanning, the lack of fullness during post tanning processes by employing synthetic tanning agents. With these issues in focus, prepared the formaldehyde free aluminium based melamine syntan having particle size distribution in the range of 450-700 nm and stable up to *p*H 4.5. The prepared syntan has been used as retanning agent in leather processing. The experimental leather exhibits superiororganoleptic properties such as fullness, grain tightness and physical strength characteristics such as tensile, tear strength compared to control leather. Also, experimental leather exhibits higher dye intensity compared to controlleather. It is evident from the air permeability and pore size distribution analysis that the prepared product has significantly arrested the pores thereby increasing the fullness of leather. Scanning electron microscopic(SEM) image shows that the experimental leathers have a flat compact fiber structure. (17 Ref.; 4 Tab.; 9 Fig.).

50.15631

Effects of accelerated ageing on the physical and chemical properties of chrome-free leather.LI (R), WANG (YZ), SHAN (ZH), YANG (M), LI (W), ZHU (HL), (The Key Laboratory of Leather Chemistry and Engineering of Ministry of Education, Sichuan University, Chengdu 610064, Sichuan Province, People's Republic of China). (J. Soc. Leather Technol. Chem.; 100, 1; 2016, Jan.-Feb.; 19-24).

Much attention has been paid to the safety in using the chrome-free leathers with the expansion of market demand for them. Four kinds of chrome-free upper leathers made by Vegetable-Glutaraldehyde(Veg-GA), Glutaraldehyde-Vegetable(GA-Veg), Vegetable-Aluminium(Veg-Al) and a synthetic agent were subjected to accelerated ageing by hot air, Ultraviolet(UV) light and Xenon) lamp respectively for 96 hours. Tested the physical qualities and chemical indicators for these leathers before and after ageing, such as the shrinkage temperature(T_s), tensile strength, tear strength, color difference, water vapor permeability, formaldehyde, phenol and aniline. It was shown that some common rules apply to the four kinds of chrome-free upper leather samples after ageing, Xe-lamp ageing has made the tear-strength, formaldehyde and phenol levels reduce the most and the aniline level increased the most. UV-light ageing has caused the maximum color difference change whilst hot-air ageing has caused the maximum T_s decrease. All the ageing methods have enhanced the water vapor permeability. Summarizing, leather samples made differently have different physical quality indicators after the sample ageing treatment. It is found that the leather fiber turns into a bundle, curled loose and distorted no matter what kind of ageing treatment is used as the basis of the leather quality change. (12 Ref.; 6 Tab.; 9 Fig.).

50.15632

Metal organic based syntan for multi-stage leather processing. JAYAKUMAR (GC), SANGEETHA (S), SREERAM (KJ), RAGHAVA RAO (J), BALACHANDRAN UNNI NAIR, (Chemical Laboratory, Council of Scientific and Industrial Research-Central Leather Research Institute(CSIR-CLRI), Adyar, Chennai-600 020, India). (J. Am. Leather Chem. Assoc.; 110, 9; 2015, Sep.; 288-94).

Discusses the leather industry in India and elsewhere that have adopted a two stage processing methodology wherein hides/skins are processed up to wet blue in one stage and subsequently converted to value added products in stage two. The process of rechroming carried out when wet blue leathers are sourced from various vendors thus attains significance. Many tanners prefer to employ chromium based synthetic tanning agents for rechoming, as against basic chromium sulfate, so as to provide for a tanning at a higher *p*H values of above 3.5-4.0. Chromium based synthetic tanning agents in addition to employing masked chromium salts also provide for increased fullness to the leather. A significantly large number of these synthetic tanning agents are based on formaldehyde condensed aromatic intermediates, the use of which could result in the presence of free formaldehyde in the crust leathers. Instances of poorer raw material quality also call for the use of melamine-based syntans for preferential filling of the bally regions. Reports here about the application of a chromium based melamine syntan devoid of the use of formaldehyde for

condensation. Evaluated the product in tanning, rechroming and post tanning(as a retanning agent). In tanning, the product provides for a shrinkage temperature of 106°Centigrade, 3.25-3.75% Cr_2O_3content(dry weight) alongside good belly filling. The product provides for fuller leathers complete with physical properties meeting standard norms on use in rechroming or post tanning. The results indicate that the newly developed product has a significant scope in increasing the cutting value of the leathers by way of providing uniform substance alongside good tanning properties. (16 Ref.; 6 Tab.; 4 Fig.).

50.15633

Use of viscoelastic changes to demonstrate the relationship between drying parameters-A preliminary study. WISE (WR), COVINGTON (AD), FLOWERS (KB), PERUZZI (A), (The University of Northampton, Park Campus, Boughton Green Road, Northampton NN2 7AL, UK). (J. Am. Leather Chem. Assoc.; 111, 1; 2016, Jan.; 24-6).

Dynamic mechanical thermal analysis(DMTA) is routinely used for mechanical analysis by the polymer industry to provide information on the viscoelastic properties of a material. This report reveals how DMTA has been used to further previous studies by providing insight into the differences between post-tanned leathers(chromium and chromium-free). Demonstrates the potential to correlate the results with an industrial application such as optimization of the drying conditions during cell rotary conditioning(CRI). DMTA can indicate leather fiber response to changes in atmospheric humidity and temperature, potentially facilitating real-time adaptation of conditions during leather drying. Initial DMTA results show that post-tanning, partially fatliquoring, changes the rate of drying and allow scientists to advise on optimal leather drying conditions based on viscoelastic changes. (26 Ref.; 2 Tab.; 3 Fig.).

50.15634

Reduction of yellowing effect on leather with UV adsorber Benzophenon-4.AÇIKEL (SM), ASLAN (A), (Ege University, Faculty of Engineering, Leather Engineering Department, Bornova, Izmir, Turkey).(J. Soc. Leather Technol. Chem.; 100, 1; 2016, Jan.-Feb.; 31-8).

Discusses that besides quality in leather manufacture, another important factor is that the customer should use the product in the long term without any problem.However, leather product, being in natural structure, can age because of environmental conditions such as ultraviolet(UV), temperature and humidity and its chemical and physical structure can change with time. Some leather products in particular such as upholstery leathers which are exposed to sunlight can be aged and yellowed by the effects of ultraviolet light and temperature.Therefore, there is a need to prevent ageing and yellowing. UV absorbers are often used in various products such as cosmetics and polymeric materials to prevent the destructive effects of UV radiation. Aims for a study of using the UV absorber benzophenone-4 in reducing yellowing. Chrome-tanned and vegetable-tanned crust leathers were given a coating of hydro lacquer[lacquer emulsion] including the UV absorber benzophenone-4 as a finishing process. Investigated the results by CIE Lab Color measurement and by fourier transform infrared-annuated transform reflectometer (FTIR-ATR) spectrophotomer after exposureto monochromatic UV light at a wavelength of 340 nm for 24, 28,48, 72, 96, 120, 144 or 168 hours at approximately 80°Centigrade. (36 Ref.; 7 Tab.; 7 Fig.).

50.15635

Control of microorganisms on tanned leathers : From fungaicide to antimicrobial function leather. GU (H), ZHAO (L), YANG (Y), ZHAO (C), CHEN (W), (Key Laboratory of Leather Chemistry and Engineering of Ministry of Education, Sichuan University, Chengdu 610065, Sichuan Province, China and National Engineering Laboratory for Clean Technology of Leather Manufacture, Sichuan University, Wangjiang Campus, Section No. : 24 of Southern Yichuan, Chengdu 610065, Sichuan Province, People's Republic of China). (J. Am. Leather Chem. Assoc.; 111, 2; 2016, Feb.; 69-87).

Discusses the fungicides which are usually applied during various leather making processes for inhibiting the microbial growth on tanned leathers including wet-blue, crust leathers, finished leathers and their goods like garments, bags, etc. All kinds of eco-friendly fungicides were explored recently to replace currently used various ones in leather industry under the situation of increasingly strict environmental legislation. Meanwhile, a non-traditional new type of leather, called antimicrobial function leather, attracted more and more attention from leather chemists and technologists, because of its tempting antimicrobial protection provided and wide

application prospects in many fields such as medical materials, health products, daily products, public transport vehicles and so on. This review systematically and comprehensively summarizes current status and development trend about leather fungicides and antimicrobial function leather on the basis of the literature published in the past decade, especially in the past five years. The discussed antimicrobials contain traditional organic synthetic fungicides with small molecular weight, natural essential oils, macromolecular polymers and chitosan derivatives and nano-inorganic antimicrobials(nanosilver, nano-ZnO(Zinc oxide), nano-TiO_2(titanium oxide), nan-SiO_2(silicon dioxide) etc. Finally, addressed several proposals for the development of new leather fungicides and antimicrobial function leather and especially, a new viewpoint, in which the antimicrobial leather is prepared based on various tanning mechanisms, is demonstrably presented to solve the problem of loose combination between antimicrobial substances and leather fibers. (103 Ref.; 5 Tab.; 38 Fig.).

BY-PRODUCTS

50.15636

Collagen hydrolysate extraction from chromed leather waste for polymeric film production.SCOPEL (B), LAMERS (DL), MATOS (E), BALDASSO (C), DETTMER (A), (Engineering of Processes and Technology Post-Graduate Program-University of Caxias do Sul, Rera Francisco Getulio Vargas, 1130, ZIP CODE : 95070-560, Caxias Do Sul, Brazil). (J. Am. Leather Chem. Assoc.; 111, 1; 2016, Jan.; 30-40).

The generation of hazardous wastes and the overuse of non-renewable sources in polymeric materials production are two major concerns for researchers worldwide. Here, studied an innovative approach to changing chromed leather waste(CLW) into a raw material for polymeric film production. Collagen hydrolysate was extracted from CLW through alkaline hydrolysis. Tested the time, temperature, agitation speed, type and mass of alkalinizing agent. Determined the one that results in a high protein and low chromium content.According to statistical analysis, hydrolysis performed for 6 hours using a proportion of 4 grams of MgO(Magnesium oxide) for each 50g of CLW and 250 ml of water at 70°Centigrade and 180 rpm of agitation speed led to the best protein/chromium ratio in the collagen hydrolysate(TKN:2, 185.7 mg/L, Cr: <0.04 mg/L). Thecollagen hydrolysate obtained with optimum condition of production was then mixed with starch-a renewable source for polymeric material production-and glycerol-a byproduct of biodiesel production-to produce polymeric films by casting technique. Compared the mechanical properties of four different compositions(with and without the presence of collagen hydrolysate and glycerol) of films. The films produced with the addition of glycerol and collagen hydrolysate presented mechanical properties similar to the ones of commercial biodegradable films applied as mulches in agriculture. They also have in their composition a compound present in fertilizers-nitrogen and possible traces of chromium, which is a micronutrient. Therefore, they can be an alternative to synthetic polymers. (30 Ref.; 10 Tab.; 5 Fig.).

50.15637

Recovery, purification and reuse of contaminated sodium chloride obtained from tanneries for rawgoat skin preservation. VEDARAMAN(N),SANDYA(KV),BRINDHA (V),TAMIL SE£VI (A), VELAPPAN (KC), MURALIDHARAN (C),(Chemical Engineering Division, Council of Scientific and Industrial Research-Central Leather Research Institute(CSIR-CLRI),Adyar, Chennai-600 020, India). (J. Am. Leather Chem. Assoc.; 111, 2; 2016, Feb.; 62-8).

Describes the large quantity of sodium chloride which is used for raw skin preservation. Significant amount of salt is removed from raw skin through a mechanical process before taking for further processing in tanneries. This recovered salt is contaminated with various dirt, proteinous materials and microorganisms and gets accumulated, which creates a serious waste disposal problem for tanneries. In this study the recovered contaminated waste salt was purified and reused for skin preservation. The recovered contaminated salt from tannery was dissolved in water, filtered, treated with activated charcoal to remove the undesired components and subjected to ozone treatment for the removal of microbial contamination. The ozonized solution was subjected to solar evaporation. Improved evaporation techniques were employed to felicitate evaporation of salt solution. Dried purified salt obtained was checked for microbial contamination. Then the dry salt was used for the preservation of a fresh batch of animal skin. The skins were processed into leather as per the usual procedure after a minimum storage period of 21 days and compared with the leathers obtained by conventional fresh salt preserved skins. The physical tests, chemical analysis and organoleptic properties of

experimental leathers show that the quality of leather obtained from animal skins preserved using purified salt was comparable to leathers obtained from conventional pure salt preserved skins. The approach minimizes salinity concerns of tanning by providing simple and practical solution. (11 Ref.; 5 Tab.; 9 Fig.).

50.15638

Potential of zero liquid discharge(ZID) in industrial water management. (Chem. Wkly.; 61, 44; 2016, Jun., 7; 209-10).

Discusses the treatment of industrial process fluids without draining or discharge of aqueous flows. In this context, the concept referred to as "ZLD"(Zero Liquid Discharge) takes the counterstage as it is allegedly the most comprehensive, technologically most mature and ecologically most valuable wastewater treatment solutions. (1 Fig.; 1 Photo).

50.15639

Test the waters. RAJAMANI (S), (Asian International Union of Environment(AIUE) Commission, No. : 18, First Street, South Beach Avenue, MRC Nagar, Chennai-600 028, India). (Leather Intl; 217, 4857; 2016, Jan.-Feb.; 49&51-3).

Details the recovery of water for reuse from tannery wastewater.(2 Fig.; 1 Photo).

TANNERY. ENVIRONMENTAL ASPECTS

50.15640

Environmental protection measures including recovery of water for reuse from tannery wastewater-Asian scenario.RAJAMANI(S**),** (AsianInternational Union of Environment (AIUE) Commission, No. : 18, First Street, SouthBeach Avenue, MRC Nagar, Chennai-600 028, India). (Leather News India; 7, 1; 2016, Jan.; 94-8).

Describes the leather activities especially raw to semi-finishing process are being shifted from the developed nations such as United States,West European Countries, to Asian, North African and Latin American countries. The major tanneries in leather producing countries such as China, Italy, India etc. have to develop and adopt new environmental protection measures such as adoption membrane system, water recovery etc. due to enforcement of stringent environmental regulations. Thesustainability of the small-scale units is becoming a serious issue to meet the environmental protection and resettlement of tanneries from the urban areas to the industrial parks with common effluent treatment plants. New regulations and restrictions such as REACH on the use of certain chemicals, salinity and water recovery under zero discharge concept, disposal/management of chrome containing sludge etc. envisage continued Research & Development (R&D) activity. Innovative tanning processes which will greatly reduce the water and chemical sludge usage and minimize solid waste generation are needed together with overall environmental planning and management. (7 Ref.; 1 Tab.; 9 Fig.).

50.15641

Reducing the use of volatile organic compounds in the leather industry. COADROS (R), SOLÀ (A), OLLÉ (L), BACARDIT (A), (A3 Chair in leather Innovation, Escola d'Enginyeriad'Igualada,UniversitatPolitecnica de Catalunya, Avda. Pla de la Massa, 8.08700 Igualada, Spain). (J. Soc. Leather Technol. Chem.; 100, 1; 2016, Jan.-Feb.; 1-7).

The tanning industry uses some pollutant chemicals, which are hazardous and toxic. Proposes a modest research contribution to examine how to reduce or replace some of these products by less dangerous and less polluting chemicals in the finishing operations. Also examines how to reduce solvents in the finishing formulations currently being used in the production of a leather article. Specially, a study of each coat has been carried out to find out how to replace the most polluting products and still obtain all the adequate physical and organoleptic features in the final article to be manufactured. Leather manufactured applying the new process has been compared to leather obtained by means of the traditional process.The findings reveal that the new formulation complies with all requirements concerning physical resistance, fastness and organoleptic properties. Studied also the decrease in volatile organic compounds obtained with the new formulation. (15 Ref.; 22 Tab.).

50.15642

Short chained chlorinated paraffins test requirements under persisted organic pollutants. (Leather News India; 7, 1; 2016, Jan.; 101-2).

Discusses a limit for Short Chlorine Chlorinated Paraffins(SCCPs) under the Persistant Organic Pollutants(POPs) regulation that has been implemented recently. The new law has been proposed for enforcement in the near future. (1 Tab.; 1 Fig.; 1 Photo).

50.15643

Adoption of advanced environmental technology and sustainability in leather industry. SHWETA SINGH, RAJAMANI (S), (Indian Leather Industry Foundation(ILIFO), No. : F-2, '**S**HREYAS', No. : 87, Greenways Road, Raja Annamalaipuram, Chennai-600 028, India). (Leather News India; 7, 1; 2016, Jan.; 103-5).

Discusses the environmental laws that define the scarcity of environmental resources that affect the factor endowment of acountry as well as its position in the international division of labour.A general agreement is at present exists that applies the 'polluter pays' principle that should solve the environmental problems. It is stated that definitely an incentive for firms to either invest a clean technology or more efficient abatement technology as the burden of abatement increases as measured by the ratio of abatement expenditure to sales. There is also evidence that taxes and charges designed to internalize externalities can actually affect trade. Some environmental regulations have not succeeded as they do not match the cleaner technology and economic reality of the country or region, or because they do not take the institutional capabilities of the society that has to implement them into consideration. But the issue of concern is whether it is fair that the raw to semi-finished tanning process, containing 70% pollution discharge should be undertaken by developing countries alone, especially if it is at the cost of their survival. However, these regulations that have been analyzed have revealed that tanning units in developing countries would prefer to comply with the regulations, meet advanced technological needs and stay in the industry, the alternatives being to collude or to complete. (2 Ref.; 1 Tab.).

50.15644

Laboratory standards in the leather industry.ALLEN (P), (Leather News India; 7, 1; 2016, Jan.; 92-3).

Discusses the importance of assessing the laboratories in addition to briefly defining the test laboratories thus indicating their users and the uses of the laboratories. Briefly describes the term "SATRA LabPlus".

50.15645

Relocation of tanneries : how long will it take? ROY (P), (Leather Intl; 217, 4857; 2016, Jan./Feb.; 19-20).

Examines the effects for completing the central effluent treatment plant and more on the basis of the slow progress of work and missed deadline to relocate Hazaribagh tanneries to Savar. (2 Photos).

LEATHER PRODUCTS

FOOTWEAR

50.15646

UNIDO Kanpur Leather Development Project.KRAL (I), MUNUSAMY (V), (UNIDO, (United Nations Industrial Development Corporation, Headquarters, Wagramerstr. 5, P.O. Box 300, A-1400 Vienna, Austria). (Leather News India; 7, 1; 2016, Jan.; 110-1).

Discusses a Kanpur Leather Development Project that has been initiated by the United Nations Industrial Development Organization(UNIDO), on the basis of the agreement between UNIDO and Department of Industrial Policy and Promotion(DIPP), Government of India with the overall objective of enabling local leather-based industry to sustain conversion of locally available raw hides and skins into exportable products, either directly or genuine leather or as derived finished product(e.g. footwear), thereby providing employment and income opportunities for the increasing population without jeopardizing the livelihood of the human settlements. It is proposed, to envisage two broad outputs namely environment sustainability and waste management, through this project. Describes in detail about every one of these two outputs. It is expected that this project will bring in wide awareness and deep understanding on the cleaner tanning technologies among the tanneries, institutions and other stakeholders in the Kanpur region. (1 Fig.; 2 Photos).

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Owner: Indian Leather Technologists' Association, ***Printer***: Mr. S. D. Set, ***Publisher***: Mr. S. D. Set, ***Published From***: 'Sanjoy Bhavan', (3rd floor), 44, Shanti Pally, Kasba, Kolkata - 700107, West Bengal, India *AND* ***Printed From***: M/s TAS Associate, 11, Priya Nath Dey Lane, Kolkata- 700036, West Bengal, India, ***Editor****:* Dr. Goutam Mukherjee.