18th Meeting of ISO/TC 120 Leather
29-31 October 2018, CSIR-CLRI

In picture: Delegates from UK, Ethiopia, Kenya, Iran and India
Dear Doyens and Members of the Indian Leather Fraternity; Colleagues from CSIR; Mentors and Teachers, Colleagues and Friends! It gives us great pleasure in sending you our November 2018 edition of The LEATHER POST.

In this edition, the cover story features the ISO/TC 120 Meeting for LEATHER hosted by India and held at this Institute. CSIR-CLRI has played a key role in the Project Management of the Agra Trade Centre which has now taken shape and the Meet at Agra 2018 Fair was held successfully at the new venue. Our work on Footwear for Diabetic patients has gained a patent and we hope to continue our work in this field.

CSIR-CLRI has been reaching out to the Industry in every sphere with its technologies and services. We hope to live up to the expectations of the Indian Leather Sector at all times. We must walk hand-in-hand in our journey ahead!

I wish to thank you all for your unstinted support and kind co-operation at all times, I have been given an additional responsibility to lead the CSIR-CECRI laboratory in Karaikudi. We will strive to make this magazine informative and interesting and welcome your feedback for improvement.

22nd November 2018

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Dr. B. Chandrasekaran
Director, CSIR-CLRI

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Dr. B. Chandrasekaran, Director, CSIR-CLRI has assumed additional charge as Director, CSIR-CECRI, Karaikudi
The 18th meeting of ISO/TC 120 was held between 29-31 October 2018. The ISO/TC 120 Leather, under the auspices of ISO was formed in 1966 to deal with standardization in the field of raw hides and skins including pickled pelts; tanned hides and skins and finished leather and leather products including methods of test for leather products. The objective of ISO/TC 120 is to facilitate better understanding and promote international trade in leather. Leather - hides and skins, tanned leather and leather products have diverse applications in human civilization.

Under the ISO/TC 120, there are three sub-committees, viz., SC1 that deals with raw hides and skins, including pickled pelts, SC2 which deals with tanned leather and SC3 that deals with leather products. The meetings of these committees and that of a working group on Leather Terminology was held alongside.

As a prelude to this meeting a scientific seminar on Emerging Trends in Leather Technology and Need for Standards was held on 29 October 2018. This seminar featured three talks. Dr B Chandrasekaran, Director CSIR-CLRI and Chairman of CHD17 of BIS and SC3 of ISO/TC 120 spoke on the emerging technologies for sustainable leather sector and how India and CSIR-CLRI works for the betterment of the sector. Prof. Mwinyikione Mwinyihija, the Executive Director of Africa Leather and Leather Products Institute spoke on the emerging trends in leather sector by taking the regional value chains as a case study. In his presentation, he highlighted some FAO statistics of 2012, wherein the value of leather was >130,000 million US$ as against coffee at about 14,800 and cotton at about 9,993 million US$. He traced how the African leather trade was growing. He highlighted the need for appropriate standards to benchmark the products and how meeting the standards would bring in the right investments and market opportunities. Mrs. Christine Powley-Williams, the Assistant Director of SATRA, UK spoke on the topic supporting product improvement and customer satisfaction through standardization. She spoke about various agencies that supported and certified corporate social responsibility in the leather. She also spoke about how test methods have now started simulating real life situations to predict performance issues.
The ISO TC 120 appointed Dr B Chandrasekaran as Chairman for ISO TC 120/SC2 meeting in the absence of Dr S Sadulla and Dr BN Das as chairman for the closing plenary of ISO TC/120 in the absence of Shri N Shafeeq Ahmed. The ISO TC 120/SC1 and Terminology meetings were chaired by Dr C Muralidharan. A new business plan for the ISO TC 120 was put up by India. India also introduced “Framework for sustainable manufacture of leather” as a new subject for consideration in the form of Technical report. At the SC1 meeting, it was resolved that working documents for quality standards relating to red hair sheep skins, guidelines for grading and flaying of raw camel hides would be circulated to member countries for approval. Several other standards such as guidelines for preservation of hides and skins are under various stages of approval. A new subject proposal on “Traceability of hides and skins” for developing a working document was also approved in the meeting. Guidelines for packaging, manual measurement of wet blue, grading of wet blue ostrich leather, leather upholstery for furniture, leather for garment, full chrome upper leather, leather for dress gloves were discussed and are in various stages of balloting.
A new working document topic “Guidelines for identification of processed and semi-processed leather” was also approved. SC3 would be coming out with draft documents on guidelines for leather dress gloves, classification and performance guidelines of leather portfolios and wallets, leather garments, leather upholstered products, bags/handbags. A new subject – guidelines for classification and identification of leather products would be developed as a technical report. Earlier on 29th October, a working group deliberated in detail the terminology for leather.

The meeting was attended by delegates from UK, Ethiopia, Kenya, Iran and India. The next meeting of the ISO TC 120 would be held in UK.
Apollo KH Hospital, Melvisharam
15th Anniversary Celebrations, Sunday, 21st October 2018

Apollo KH Hospital, Melvisharam, Vellore was founded in the year 2003 with a vision to provide Quality Healthcare which is Safe, Effective, Efficient, Timely & Patient centered, at the same time satisfies the standards set forth by the National Accreditation Board for Hospitals & Healthcare Providers. Today we are proud to proclaim that we are One of the only Two NABH Accredited Multispecialty hospitals in Vellore.

We Provide Affordable World Class Health Care To Reach Each & Every Individual of Melvisharam and in & around Vellore.

Our Specialties:
• Emergency Medicine
• Orthopaedics
• Anaesthesia
• Ophthalmology
• Cardiology
• Obstetrics & Gynaecology
• Critical Care
• Plastic Surgery
• Neuro Surgery
• Paediatrics
• Diabetology
• Urology
• Dentistry
• Endodontics & Fascio-Maxillary Surgery
• Master Health Checkup
• General Surgery
• Internal Medicine
• Laparoscopic Surgery
• Nephrology
• Dermatology
• Dietary

Our Facilities:
• 3 Modernized Operation Theatre
• MICU/SICU/NICU/ Neuro ICU
• Cath Lab
• Advanced Lab
• 1.5T MRI
• 32 Slice CT Scan
• Mammogram
• Endoscopy
• Ultrasound/Echo
• Dialysis
• Treadmill Test
• Physiotherapy
• Blood Storage Centre
• 24x7 Ambulance Service
• Canteen

Apollo KH Hospital
Ranipet Vellore-Bypass Road,
Melvisharam, Vellore
Contact: 04172 - 269581-85
apollokh@vsnl.net
www.apollokh.com
The 15th Anniversary Function of Apollo KH Hospital, Melvisharam, Vellore was held on 21st October 2018. Established in 2003, Apollo KH Hospital has been providing quality health care facilities to the people of Vellore District.

In his welcome speech, Dr. Mushtaq Ahmed Khan stated that the hospital has been Accredited by NABH, which is only the 2nd Hospital in the whole of Vellore District to get it and also the hospital is registered under the Companies Act 25 which means profit if any will not go to the Directors, but will be ploughed back into the Hospital for its development. Further, Apollo KH Hospital is also approved under the 17(2) of Income Tax Act, where the hospital expenses of the Employee, borne by the Employer will be exempted from IT as expenditure, at the same time it will not be taxed as perquisite for the employee.

Dr. Preetha Reddy, Vice Chairperson of the Apollo Hospitals presided over the function and in her address congratulated the management of the KH Group and the staff members of Apollo KH Hospital on their 15th Anniversary and stated the motto of Apollo KH Hospital saying that the aim is to Provide Quality Services in Health Care and this Hospital is maintaining that. She insisted to bring quality in hospitals and Government of India had formed the NABH accreditation system so that Quality health care can be provided not only to Indians, but to foreigners who came to India for medical aid. She also assured the KH Management that Apollo will support them for their future development of the Hospital.

The Chief Guests for the event were Dr. G. Vishwanathan, Founder and Chancellor, Vellore Institute of Technology, Dr. Preetha Reddy, Vice Chairperson, Apollo Hospitals, Mr. S. A. Raman, District Collector, Vellore, Nawab of Arcot, Dr. Mecca Rafeeque Ahmed, Chairman, Farida Group, Mr. R. Gandhi, MLA Ranipet, Mr. Jonathan Shafmaster, from USA. Malack Mohammed Hashim, Chairman and Malack Abdul Wahab, Managing Director, KH Group honoured the Guests.

The Collector of Vellore, Mr. S. A. Raman stated in the gathering that the Govt of Tamilnadu is going to make state-of-the-art Trauma Care centres in 6 medical College & Hospitals and greeted the Apollo KH Hospital on the Anniversary. Dr. G. Vishwanathan, Nawab Mohammed Abdul Ali Azimjah, Dr. Mecca Rafeeque Ahmed, Mr. Gandhi, Mr. Jonathan Shafmaster greeted the Hospital administration and the staff for their dedicated service to the Society.

Ms. Preetha Reddy inaugurated the KH Institute of Health Sciences and Mr. S. A. Raman District Collector gave away the AED Machines which is used to restart the arrested Heart, sponsored by Apollo KH Hospital, one each to Katpadi Railway Station and 100 Heritage Food court in PVR Mall and also patient Transport Equipment to Katpadi Railway Station.

Two MoU’s for free Training on Cardiopulmonary Resuscitation CPR were Signed with Fire Service and Police Personnel. Two books, authored by Head of the Emergency Medicine, Apollo KH Hospital – 1. “Basic Life Support & Aid”, 2. “Essentials in Emergency Medicine” were released. It was also announced that students of KH Schools will be given training on CPR and it will be part of their curriculum.

Chairman Malack Mohammed Hashim KH Group in his special address informed the gathering that Blood Bank and a dedicated cancer centre will be started in near future and he thanked the staff members for these 15 Years journey of the Hospital. Mr. Malack Abdul Wahab, MD Apollo KH Hospital proposed vote of thanks.
Meet at Agra 2018- 12th edition of Leather, Footwear Components & Technology Fair was organised by Agra Footwear Manufacturers & Exporters Chamber (AFMEC) from 26 to 28 October 2018 at the newly constructed Agra Trade Centre, Singhna Village, NH-2, Agra.

This Fair was a huge success & the new “Agra Trade Centre” located at a distance of 25 Km from the city was highly appreciated by the Exhibitors & the dignitaries present in the Fair. It will give a boost to exports from Agra.

The fair was organized in 6000 Sq. M area and participated by 165 Companies in Two Halls having 230 Stands. Direct participation of Overseas Companies was from France, Italy, Spain, Brazil & China. Besides this, about 30 Overseas Companies from various countries participated through their Agents in India.

The Fair was inaugurated on 26 October by Shri Suresh Prabhu, Hon’ble Minister of Commerce & Industry, Govt. of India through his Video Speech. He was not able to be present in the fair due to some important Official engagement in Delhi. We are grateful to him for sending his good wishes for the success of the Event.

Shri Satya Dev Pachauri, Hon’ble Minister of MSME, Uttar Pradesh present on the occasion appreciated the newly constructed Agra Trade Centre & assured the Industry that he will make all efforts to ensure that Footwear Industry of Agra located in the TTZ area is not adversely affected in any way.
Other dignitaries present in the Inaugural Function were Dr. Ram Shankar Katheria, Chairman National Commission of schedule castes, Shri Kesho Mehra, former MLA, Shri Alok Kumar Choudhary CGM, SBI, Shri Piyush Srivastav, IAS, Addl. Development Commissioner, MSME, Shri Mukhtarul Amin, Chairman CLE, Shri P R Aqeel Ahmed Vice Chairman CLE, Shri R Selvam, IAS, Executive Director CLE, Shri B Chandrasekaran, Director CLRI, Shri R Ramesh Kumar, IAS CEO Leather Sector Skill Council, Shri Naresh Bhasin, CLE Regional Chairman- West, Shri Puran Dawar, CLE regional Chairman- North, Shri Saiful Islam, President LFMEAB, Bangladesh, Capt. A S Rana, Convener AFMEC, Shri Rajesh Sehgal, Vice President AFMEC, Shri Gopal Gupta Vice President AFMEC, Shri. Rajiv Wasan, Gen. Secretary AFMEC.

Awards for “Best Exports during 2017-18” were given to following companies: -
- Gupta HC Overseas (I) Pvt. Ltd
- Leiner Shoes Pvt. Ltd
- Dawar Footwear Industries
- Award for Best Exports in Components was given to Versatile Enterprises Pvt. Ltd.
- Award for Best Woman entrepreneur was given to Smt. Mansi Chandra from TA.RA Innovations
On 27 Oct. Technical Session & Panel discussion were held. The Topic of Panel discussion was- “**Environment & Industry Sustainability**” it was moderated by Zee Business & will also be aired by them. Panel Members- Shri Kesho Mehra, Former MLA, Shri Piyush Srivastav, ADOC, MSME, Shri Anand Kumar, DFO, Chambal Range, Agra, Shri Aravendan Chairperson, LD- NIFT, Shri Moti Lal Sethi, President, ILGA, Shri Sanatan Sahoo, Director CFTI, Agra, Shri Vipan Seth, Versatile Group, Shri Puran Dawar, President AFMEC, Shri Rajesh Sehgal, Vice President AFMEC, Shri Saurabh Bairathi, from CIFI. The session was attended by Exhibiters, AFMEC Members, Press/ Media & 440 Students from Leather Training Institutes.

A **Fashion Show & Gala Dinner** was organized at KNCC, Fatehabad Road, Agra. It was an excellent Venue & Top Models from Bombay & Delhi showcased the latest Footwear Designs of following six Companies:

- Gupta HC Overseas (I) Pvt. Ltd.
- Virola International – Albert Toressi Brand
- Leiner Shoes - Vanilla Moon Brand
- Aman Shoe Factory- BANISH Brand
- Popson International – HITZ Brand
- Derby Footwear Exports- DERBY Brand

The Fair Concluding Session was held on 28 Oct. 2018. There was a total footfall of Approx. 5000 Business visitors from Chennai, Kanpur, Noida, Jalandhar, Gurgaon & Agra. The location of Agra Trade Centre (25 Km from the City) did not have any effect on the footfall in the Fair. It is anticipated that there will be further growth in Exports from Agra from the present export of Rs. 3100 Crore.

Following awards were given during the concluding session:

- Best Component Stall – S S Sales Corporation
- Best Leather Stall – A N Leather
- Best Machinery Stall – Star International Pvt. Ltd.
- Best Innovative Product – Rupmaya Shoe Last Industries Pvt. Ltd.

Col. R K Khindri, coordinator AFMEC was also felicitated for his dedicated efforts in making 12th edition of “Meet at Agra” a great Success.

It was declared that 13th edition of “Meet at Agra” will be organised from 8th to 10th Nov. 2019 at Agra Trade Centre.

As per the feedback received from the participants - they were very happy with the new Location due to excellent Infrastructure & facilities available. They were also very satisfied with the footfall & quality visitors from various cities & good business response. 80 % of Exhibiters have assured of their participation next year.

*The Leather Post*
Meet at Agra 2018 was held at the newly constructed Trade Centre in Agra
CLRI is the Project Management Consultant

The Agra Trade Centre (ATC) infrastructure was developed in Singana village on NH-2, 21 km away from Agra main city. The total area of the campus is around 4.27 Acres. The construction work was started in August 2014 and completed in October 2018. In the newly constructed building “Meet at Agra – 2018” was conducted by beneficiary (AFMEC). CLRI is the Project Management consultant (PMC) and CLE is the implementing agency.

Main View of the ATC
The building is constructed with Pre-engineering building (PEB) structure (G+1) and covered by PUF panel all around and partly by glazing / aluminum composite panels. The Agra trade centre covered an area of about 4191 sq.m in GF and 1850 sq.m in FF. In addition, cafeteria and washroom facilities were provided with ATC main building. The boundary wall has also been constructed around the campus. In addition, security cabin with entry & exit Gate and heavy truck gate was provided separately. RCC underground water tank with the capacity around 2 lakh litre and a Septic tank with capacity of 1 lakh litre for ATC & TL.DS have been provided. Six Air Handling Units (AHU) rooms were also constructed around the ATC main building.

Bitumen road was laid around 4 sides of the main building and a separate concrete road in front of the security cabin. Paver block was laid in both foot path and parking areas. Storm water drain and lawn with grass and plants were developed around the building. Electrical power connection and a separate 250 KVA DG set also been provided. Air conditioning has been installed at the main building including cafeterias.

Agra Trade Centre was equipped with firefighting with sprinkler system, smoke detectors, fire extinguisher, fire alarms, CCTV surveillance, access control systems and with amenities like wi-fi zone and cafeteria.

GROUND FLOOR
The ground floor is spacious with reception and lounge followed by an exhibition hall with good LED, CFL lightings and power points suitable for exhibition stalls. In addition to this meeting hall, communication and UPS rooms were constructed. Two exit points on both side of the building and four fire exits has also been provided. The flooring work have been done with vitrified tiles in lounge and wooden flooring in office and meeting room. Flooring in washrooms and cafeteria was constructed using ceramic tiles and main exhibition hall has executed in RCC flooring with grinding.

FIRST FLOOR
The floor has the clear height of 4.5 m from the floor to false ceiling level. There were 2 office spaces for AFMEC and CLE. The major area in this floor has around 750 sq.m of auditorium.

The auditorium was constructed with acoustic in the wall as well as ceiling. The doors were also been acoustically treated. The auditorium has been equipped with audio and video equipment systems. The auditorium have facilities like control room and green room. The whole auditorium is covered with PL lamps and maximum of LED lightings with special effects on the stage. The flooring was done with vitrified tiles and ceramic in washrooms and wooden flooring in offices. The whole area is protected with firefighting with sprinkler system, smoke detectors, fire extinguisher and fire alarms.
While a lot of efforts are being taken to address the problem of high risk diabetics, not much effort has been taken to look at the problems of low risk diabetics. CLRI has worked on this project which has been sponsored by M/s Novo Nordisk, a leading diabetic pharma company in Denmark, through their Educational Foundation in Bangalore. We have also collaborated in this venture with M V Hospital for Diabetes and the Diabetes Research Centre, Royapuram, Chennai, for patient trials. These patients have to be catered to with comfort shoes and cushioning materials to prevent impact loading. The shoes also have to be designed with a unit sole made from PU with extra depth to provide larger area for more effective pressure distribution. The extra depth unit sole has a special tread for better grip and traction. Layers of foam and a specially designed insole bed provide added comfort and shock absorption for the wearer. A specially derived angle of slant has been provided in the sole to give the ‘rocker’ effect which is essentially used to offload pressure from the plantar surface of the feet. This would ensure that the patient does not experience areas of stress concentration in his underfoot and therefore he would not progress to the next stage of risk.

The upper has been designed to take special care of fluctuations in foot volume and is therefore provided with adjustable fasteners. The back is also made rigid with a counter stiffener for limiting joint mobility. The vital role of the footwear is very well described through the biomechanics of diabetic foot. Many foot complications due to external sources is prevented only by footwear. As such, it is a pre-requisite for the diabetic foot along with medical treatments.

Footwear which are either inappropriate or not used enough, or a lack of footwear are the most common causes of trauma resulting in foot ulcers. Many foot ulcers can be prevented by regular foot inspection, access to foot-care and adequate footwear.

In India, despite changes, the people are accustomed to the tradition of barefoot walking specially in homes, places of religious worship etc. The urban population does use footwear more often as compared to the rural population but to a large extent the socio-economic status of the people decides the usage of footwear as well as different varieties of footwear.

The diabetic patients too are not much aware of the serious need of footwear and opt for diabetic footwear only when they acquire some ulcers and feel that footwear is a real need only when their ulcers become serious. This condition has to be changed in future so that many ulcers can be prevented.

The information regarding the suitability of footwear in Indian conditions is however scarce. Thus, the work in this area would give a deeper insight and guide to develop and establish the footwear as well as educate the patients through this information.
Dr. Bhabendra Nath Das was born at Chandernagore, city, a former French settlement in West Bengal, India, about 30 km north of Kolkata, on the Hooghly River on 11th December 1958.

**Brief Sketch of Educational Background**

His schooling was at the Kanailal Vidya Mandir, Chandernagore and he passed the Higher Secondary examination under the West Bengal Board of Higher Secondary Examination (Class XI) in the year 1976 in the First Division.

He obtained his Bachelor’s Degree in Leather Technology, in First Class, from the University of Calcutta in the year 1981 and his Master’s Degree in Leather Technology, in First Class from Anna University, Chennai in the year 1989 (part time).

He obtained his Ph.D from Anna University in the year 2006.

**Professional Training**

Dr BN Das is a Trained Expert in ‘Manpower Development’ with extensive training under the ITC/SIDA project. He has also successfully undergone a Design and Industrial Technology internship training at Design e Technologia per l’industria della Calzatura, PISIE, Milan and is a certified Assessor with a certificate from United Kingdom Accreditation Service. He is also well versed with the nuances of Entrepreneurship Development and has undergone the course in “Effective Business Counselling” at the Entrepreneurship Development Institute of India.

Dr Das is a certified Auditor for Quality and Environmental systems and possesses an “ERA Approved Advanced Environmental Management Systems Auditing Certificate.” In addition, he has undergone Training courses in R&D management at ASCI, Hyderabad, Consulting Counselling Course...
with CTG /GTZ program, Germany and a Mentor management training program at HRDG, India.

**Positions Held**

Dr. BN Das had more than three years of Industrial experience before joining CSIR-CLRI in the year 1984. He has worked in CSIR-CLRI in different capacities and has served with distinction as the Head of the Shoe Design and Development Centre, CSIR-CLRI since its inception in the year 1992 and also as the Chairman of the Shoe and Product Design Cluster CSIR-CLRI since 2013.

He is currently a Chief Scientist and is the Cluster Chairman, Project Planning & Business Development, CSIR-CLRI.

In his distinguished career, Dr Das has held various important portfolios - prominent amongst them are:

**Role in Building Knowledge Networks**

Dr BN Das has made very significant contributions in the Knowledge Generation, Knowledge Development and Knowledge Management in areas related to Leather and Leather Products.

Dr Das harnessed the expertise available with the CSIR-CLRI Shoe and Product Design Centre to become the “Quality Assurance Partner” for the Tamil Nadu Text Book and Educational Services Corporation to carry out the On-Site Inspection of Products like Shoes and Bags being manufactured by Manufacturers all over the country for free distribution to School Children as well as carry out the TESTING of these ‘Materials’ and ‘Finished Products’ (i.e Footwear/Bags) in accordance to the specified TEST Methods and submit a detailed Report on their Quality Performance based on the Tender Specifications.

This earned huge Revenue for CSIR-CLRI and these serviced were then utilized by various other State Government organizations for these Expert Services.

Development of Technologies in commercial use

Dr Das has been instrumental in commercializing several technologies which have benefitted the industry tremendously.

**Impact of Some Important Contributions as Scientist**

- As a Researcher he has made lasting impact and his significant contribution especially in the area of Footwear Science and Engineering is of immense value. He has developed guidelines for materials use in leather product making, Designed Orthotics for people with disabilities, and has developed many software for use in the industry
- He has also planned and implemented the Setting up footwear Training cum production centres in different parts of the country and also Set up Centres of Excellence for generation of skilled manpower for the leather product sector. His contribution in developing the curricula for Technical Education in Footwear and for developing the “National Occupational Standards” for the Leather Sector Skill Council.

**Peer Recognitions in Professional Career**

Dr Das has been recognized and Awarded by his peers in the Industry and in academic circles and the most prestigious of his awards are:

- Prof. M Vishwanathan Technological Excellence Award in recognition of his outstanding original contributions to the ‘development of technology for design and manufacture of DIASTEP - Diabetic Footwear’
- Award from Indian Shoe Federation in appreciation for his service rendered to the industry in the area of Physical Testing
- Award from Indian Shoe Federation for the service rendered to the industry in the area of Leather Colour Forecasting (MODEUROP).

Several of the Products and Technologies developed by him have been awarded with Patents. Shri Das has successfully completed a number of International Programs.

He has published 150 Research articles in various journals including SCI peer reviewed journals and has also authored five chapters in different books. His current areas of research interest include therapeutic footwear, new material development and design of productivity enhancement systems.

He has mentored and guided eight PhD students and over a 100 M Tech. students in their dissertation.

SDDC- CLRI established itself as International R&D house in related Footwear Research under his stewardship and he was singularly responsible for making SDDC as one of the major ECF contributors to CSIR-CLRI and its Customer Satisfaction Index is higher than the Institute average value.

He has strong Technical and Managerial capabilities with special emphasis on Man-Management and has been able to motivate his colleagues to go beyond boundaries and deliver. Their achievements today, with International peer recognition, are testimony to his skills as a leader and motivator of men.
DIASTEP is a therapeutic open footwear for the diabetic patients with risk of foot problems such that the footwear reduces the abnormal distribution of plantar foot pressure. Also this footwear provides the patients with diabetic foot risk, complete open footwear, comprising selective top sole, insole and bottom sole made of appropriately selected material. The therapeutic footwear has a cow softy leather upper, a unit moulded sole made from Polyurethane (PU) with extra depth to provide larger area for more effective pressure distribution and outsole having special tread for better grip and traction. Extensive patient trials have established the efficacy of the footwear.

“DIASTEP” – the “Off the shelf Diabetic Footwear” for LOW RISK DIABETICS is a research output of a joint project between Central Leather Research Institute (CSIR), MV Hospital for Diabetes and Diabetes Research Centre and Novo Nordisk Educational Foundation.

It is a matter of great pleasure and pride that “DIASTEP” is now commercialized by M/s M V Health Care Pvt. Ltd. and over 15000 patients have benefitted from this footwear.

Our collaborators in this project were the MV Hospital for Diabetes and Diabetes Research Centre and the Novo Nordisk Education Foundation.

Diabetes is a very serious chronic disease and an alarming statistic projects that India would have the largest number of diabetics in the world. The major organs affected are the kidney, eye, foot and heart. It is estimated that over 50% of lower extremity amputations are linked to diabetes. The healthcare costs and loss of productivity associated with diabetic foot complications are enormous and all efforts must be taken to prevent this. This prompted M/s MV Diabetes Hospital and Diabetes Research Centre to collaborate with CSIR/CLRI in developing ‘special footwear’ which would go a long way to help reduce diabetic foot complications and ensure a better quality of life with enhanced productivity for these patients.

The project undertaken highlights the use of biomechanical principles in designing the correct footwear and details criteria and materials for satisfying the requirements of scientifically appropriate footwear for diabetics which is designed to provide for better shock absorption, reduced friction, better comfort and wear properties and most importantly helps in redistributing pressure uniformly on the plantar surface of the foot.

In this project, the therapeutic footwear was developed using cushioning materials like polyurethane (PU). A full length PU foam inner sole was included in the footwear to cradle and support the foot and PU molded outer sole was constructed.

A careful selection of patients was made and an adjusted sandal was fabricated for them. The footwear was fabricated with specially derived Rocker bottomed soles, to relieve biomechanical stresses. This was tested for its pressure reduction using an optical pedobarograph. Pressure reduction was analyzed and Wear trials were carried out and the Wear pattern was assessed. The results prove the efficacy of the developed footwear in reducing shock, preventing foot debilitation whilst additionally providing comfort to the wearer and also prevent the foot complication from progressing to the next higher level of risk.

The diabetic footwear of the present invention is thus directed to provide a practical solution to foot injury due to neuropathy to a large population of diabetic patients within India as well as abroad and thereby ensure wide scale application and use of such footwear for diabetic foot.
DIASTEP PATENT

a Prelude

- Patent Application submitted under the title of “Preventive Footwear for People with Risk of Mild to Moderate Foot Problems” jointly by:
  - CSIR-CLRI, Chennai
  - Diabetes Research Centre, Chennai (a unit under the MV Hospital for Diabetes and Diabetes Research Centre)
  - Novo Nordisk Educational Foundation, Bengaluru


- The Trade Mark “DIASTEP” was awarded on 6th March 2008.

- The TECHNOLOGY TRANSFER KNOWHOW was transferred to M/s MV Diabetes Health Care, Chennai and the process was duly completed on 17th April 2009.

- The DIASTEP Diabetic Footwear was formally launched on 2nd November 2009 by Dr T Ramasami, former Director, CSIR-CLRI and Secretary, DST in the presence of Dr AB Mandal, then Director of CSIR-CLRI and Dr Vijay Vishwanathan, Chief Diabetologist and Managing Director of MV Hospital for Diabetes and Diabetes Research Centre, Chennai.

- The PATENT was finally GRANTED and Recorded in the Register of Patents on 30th October 2018 with the PATENT No. 302551 with a validity period of 20 years from 27th March 2007.
India since time immemorial has contributed a lot towards spiritual wellness of people and formation of an ethical society across the globe. But today, India faces a crisis of corruption, which is posing a serious threat to the social and moral fabric of the nation and also impeding the economic development.

CLRI observed Vigilance Awareness Week-2018 during 29th October to 3rd November 2018 and took this occasion to spread awareness among all the stakeholders about the viscous effects of corruption on the nation and the need to eradicate corruption to build a New India.

As part of Vigilance Awareness Week, Staff members of CLRI took pledge to work for eradication of corruption from all spheres of life. CLRI conducted Essay Writing Competition for School Children to enable them to become forerunners to fight this menace. More than 200 students across various schools in Chennai participated in the Essay Writing Competition on the Theme “Eradicate Corruption: Build a New India”. The enthusiasm with which students participated indicate the resilience of nation to fight this evil. Staff members of CLRI also actively participated in the Poster Competition.

Director, CLRI addressed the staff members on 31.10.2018 and highlighted the importance of probity in public as well as private life. He also stressed on the need to maintain accountability and transparency in our day to day work in organisation. He also appreciated the efforts of employees in leveraging Information and Communication Technology (ICT) and online processing tools in performing various official procedures such as Biometric Attendance, Enterprise Resource Planning (ERP), e Procurement through Central Public Procurement Portal (CPPP) etc. towards achieving the goals of transparency, accountability and probity in public life.

In hindsight, observance of Vigilance Awareness Week-2018 has been an excellent opportunity for all the stakeholders to come together and join hands and pursue the goal of eradication of corruption from all spheres of our life.
CSIR-CLRI signs MOU with Carborundum Universal, Chennai

An Agreement was signed between CSIR-CLRI and M/s. Carborundum Universal Limited, Chennai on 20.11.2018 in connection with the project “Technical evaluation, analysis and consultation of their various raw materials and intermediates for manufacturing coated abrasive materials in order to improve the quality of their final products”

The scope of work covers:
• To develop characterization techniques, for accurate and robust determination of quality parameters. Both CSIR-CLRI and CUMI will work together to arrive at suitable testing method by sharing the necessary inputs.
• Continuous usage of the developed analytical tool for characterization of CUMI’s materials on a long term basis

Expert Committee on Leather Tannery Sector to finalize the Guidelines for strengthening environmental compliance in tannery sector

A meeting had been convened by Ministry of Environment Forest & Climate Change (MoEF) of the ‘Expert Committee on Leather Tannery Sector’ to finalize the Guidelines for strengthening Environmental compliance in tannery sector on 1st November 2018 at MoEF ‘Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi. Director, CSIR-Central Leather Research Institute, Joint Secretary, Department of Industrial Promotions & Policy, Head – Environment Management, National Productivity Council, Dr G V Subrahmaniam (Ex. Advisor, MoEFCC), Consultant GIZ, Member Secretary, UP Pollution Control Board, Member Secretary, Tamil Nadu Pollution Control Board, Member Secretary, Punjab Pollution Control Board, Chairman, Council for Leather Exports are the members of the Expert Committee on Leather Tannery Sector. Shri N. K Gupta, Divisional Head IPC-IV, CPCB Delhi was the member convener and the committee was chaired by Dr Senthil Vel, Scientist G, CP Division, MoEF & Climate Change.

The focus of discussion by the committee was developing guidelines for strengthening environmental compliance in tannery sector and CPCB, Delhi showcased the following measures for ensuring compliance in the tannery sector considering inputs from all the committee members.

i. Environmental Management System
ii. Good House-keeping
iii. Health & Safety
iv. Chemical Storage, Handling and Restricted Substances
v. Management of Chromium VI – Avoid formation of Cr (VI) on leather after ageing
vi. Emergency Plans
vii. Solid Waste Management
viii. Waste Minimization Measures
Director CLRI handed over the Licence Certificates to four tanners from Trichy to practice Waterless chrome tanning at their tanneries. I am forwarding herewith the photos sent by Director’s office for your kind perusal. The list of tanners to whom the certificates were handed over are as follows:
1. M/s Trichy Prime Tannery
2. M/s Bestan Tannery
3. M/s Shanmuga Prime Tannery
4. M/s Vignesh Leather Company

Visit to M/s TATA International Private Limited by the Scientist of CSIR-CLRI

Dr P Shanmugam, Senior Principal Scientist, CSIR-CLRI and Dr Kapoor, Manager ETP, TIL

Dr P Shanmugam of CSIR-CLRI visited M/s TATA International Private Limited (TIL), Dewas for two days for evaluating the Effluent Treatment Plant (ETP) and the biogas plants at TIL and made the presentation about the different areas of Research and Consultancy Services that CLRI can offer to TIL in the presence of Shri O K Kaul, CEO, Mr. Ashish Jha, MD, TIL and other HODs in TIL. Mr Ashish Jha had expressed keen interest in embarking upon projects with CSIR-CLRI.

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OBITUARY

Director & Staff of CSIR-CLRI offer their heartfelt condolences to the family of Mr Sandeep Singh, Head of Technical & New Product Development at TATA International Limited, Dewas. We have had great synergy and support with Mr Singh during his tenure at TATA International Limited. His work on development of 'new leathers' have won laurels at successive MODEUROP Roundtables.

May his soul rest in peace

SECURITY AGREEMENTS SIGNED

<table>
<thead>
<tr>
<th>Client Name</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reckitt Benckiser (India) Private Limited, Gurgaon.</td>
<td>Formulation assessment and reformulation guidance support for current formulations for footwear</td>
</tr>
<tr>
<td>West Bengal University of Animal and Fishery Sciences, Kolkata, West Bengal</td>
<td>Evaluating the efficacy of healthcare materials on higher animals like Goat/Sheep/Swine model</td>
</tr>
</tbody>
</table>

Dr B N Das, Chief Scientist, CSIR-CLRI participated in the ISO TC 216 & ISO TC 137 held in Hangzhou, China during 22nd to 26th October 2018. The committee adapted Tropical Standards Atmospheric condition (SAC) presented by CSIR-CLRI. Tropical SAC is now adopted in all "Footwear test methods".

Dr Sanjeev Gupta, Chief Scientist, CSIR-CLRI participated in the 11th Asian International Conference of Leather Science & Technology (AICLST 2018) at Xian, China and presented a paper on "Analysing the Role of Industry/Trade Association or Business Society/ Council in Sustainable Growth of Industry: Evidence from Indian Leather Industry".

Dr. S.V.Srinivasan M.E.(Env.Engg), Ph.D  
Senior Scientist, Environmental Technology Division, CSIR-CLRI participated in International Union for Environment (IUE), IULTCS and Asian Forum Meetings organised during Asian Leather Conference during 16-19, Oct 2018.

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On the occasion of Thacker Memorial Lawn Tennis Tournament 2018 conducted at CSIR-NCL, Pune, Dr M K Gowthaman from CSIR-CLRI was felicitated with Life Time Achievement Award for his contributions to Tennis at CSIR.

CSIR-CLRI has designed a Skill Development Program (technical training) in leather and leather goods related modules for the personnel of KH Exports. In picture, as part of the ongoing training Shri D Suresh Kumar and Shri G Sathiamoorthy of SPDC department of CSIR-CLRI conducted session on Pattern nesting, material optimization techniques using Computer aided nesting on 15.11.2018.

On the first session Shri D Suresh Kumar, explained various 2D CAD process and its importance in norms calculation, Types of 2D digitizers with technology advancements, need for Norms, laying out the patterns, adding different allowances for Shape and type of skin & other allowances to calculate the material consumption in more accurate way, Limitations of existing CAD systems, About Innoest software, which is developed by CSIR-CLRI for footwear norms calculation & its salient features, Advantages of using the developed software, Procedure to using the software package and the results were shown to the KH personals.

The second session was conducted by Shri G Sathiamoorthy, using software module demonstrations & videos covering Manual vs Automated nesting with respect to processing time, advantages and disadvantages of manual and automated nesting, numerous visuals explaining the nesting and cutting by machine. The session was largely interactive with positive feedback from the audience.
Dengue fever – break-bone fever, is a mosquito-borne infection caused by viruses and spread by Aedes mosquitoes.

Symptoms
Symptoms can appear 4 to 7 days after being bitten by the mosquito that carries the virus and typically last 3 to 10 days.
- High fever
- Intense headache
- Muscles and joints pain
- Body rash that can disappear and then reappear
- Nausea and vomiting
- Swelling in hands and soles of feet
- Bleeding from the mouth, gums, or nose
- Drop in blood pressure
- If situation worsens, there can be a drop in platelet level in blood, blood plasma leakage and shock

Treatment
Dengue is a virus disease, so there is no specific treatment or cure. However, a few things which have to be followed during the attack of dengue fever.
- Preventing dehydration – To drink a lot of liquids - clean water, fresh fruit juices and rehydration fluids to replace liquids and minerals
- Painkillers like Acetaminophen will help lower fever and ease pain

Prevention
No vaccine can protect against dengue fever. Only avoiding mosquito bites can prevent it
- Reduce the amount of skin exposed by wearing long pants, long-sleeved shirts, and socks, tucking pant legs into shoes or socks, and wearing a hat
- Using of Mosquito repellents with 10% or a higher concentration of DEET for longer lengths of exposure
- Avoid using DEET on young children
- Mosquito traps Nets treated with insecticide are more effective. The insecticide will kill mosquitoes and other insects, and it will repel insects from entering the room
- Structural barriers like door and window screens and netting can keep mosquitos out
- Try to avoid being outside at dawn, dusk, and early evening as mosquitoes bite during the day
- As the common breeding grounds for mosquitoes are manmade containers and stagnant water, implementing few hygiene and sanitation measures might help to prevent the disease.

Swine flu is a highly contagious respiratory disease caused by Influenza A viruses - most commonly H1N1 influenza subtype. Swine flu is spread to humans primarily through contact with infected pigs.

Symptoms
- Body aches, chills and cough
- Fever, headache
- Sore throat
- Tiredness
- Vomiting and diarrhoea occasionally

Causes
- Contact with infected humans - This is a much less common way of catching swine flu, but is a risk, especially for those in close contact with an infected person. In cases where humans have infected other humans, close contact was necessary with the infected person, and it nearly always occurred in closed groups of people
- Contact with infected pigs - This is the most common way of catching swine flu. Any contact with infected pigs makes transmission more likely

Treatment
Most people with swine influenza recover completely without the need for medical attention
- Medications like Adamantanes, Oseltamivir and Zanamivir are also being used to treat swine flu effectively

Prevention
As there is no known single cure, steps can be taken at home to prevent swine flu and reduce symptoms if a person does contract the virus
- Washing hands regularly with soap
- Drinking a plenty of liquids
- Eating a balanced diet
- Refraining from touching surfaces that may have the virus
- Adequate rest, Exercises and stress management
- Do not get close to people who are sick. Be sure to stay away from crowds if there is a swine flu outbreak in any area

Vaccine
A vaccine has been produced to protect humans against the H1N1 strain of swine flu. The specialized vaccine has now been replaced by more general seasonal flu shots
- People who are over 10 years old only require one shot of the vaccine
The Leather Post

CSIR-CLRI foresees to be the global hub that would transform the Indian Leather Industry into one, which is technology and innovation driven, thus steering India to be the Global Leader in Leather.

Dr B Chandrasekaran, Director, CSIR-CLRI

Cutting Edge Technologies in Leather Processing
Consultancy Services

Leather Processing
Education & Training

Leather Chemicals
State-of-the-art Testing Facilities

Environmental Technology
Health Care Products

CSIR-CLRI World’s Largest Leather Research Body. A Dependable Source for Technologies & Services

Striving for Excellence and Global Leadership in Leather Technology

Global Leadership in Leather
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