

Indian Institute of Carpet Technology

Knowledge and Technology Partner to the Industry

INVITES

INDUSTRY/STAKE HOLDERS TO EXPLORE PORTFOLIOS :

1.HRD, 2.DCD, 3.R&D AND 4.TSI TO ENHANCED THEIR PERFORMANCE



Indian Institute of Carpet Technology (IICT), Bhadohi, an institute with difference was conceived, by Ministry of Textile (MOT), Govt. of India (GOI) in eighties. IICT was

given the autonomous status in December 1998 through formation of society. Involvement of broad based stakeholders/authorities include Govt. of UP, Industry, Academicians, Industrial experts, statutory bodies/authorities like AICTE, University, NABL, IFW-MOT, experts from all region of the country in the Executive Committee Chaired by DC (Handicrafts) resulted role clarity and achievements.



Administrative Building of IICT

"IICT has always been at the forefront whenever there was a need of human resources and technology assistance to the industry."

Dr. KK Goswami, Director, IICT

Role IICT played for Carpet Industry:
IICT played its role through created portfolios exclusively for carpet industry are depicted below:

IICT PORTFOLIOS

1. HRD

(Human Resource Development)

Introduced long term training like B.Tech & Diploma course.

B. Tech Course in Carpet and Textile Technology (CTT): Started in the year 2001. Thereafter, specializations in Advances in Carpet Technology (ACT)/ Home Textile Technology (HTT)/ Textile Design Technology (TDT) have also been

integrated to B.Tech in CTT with the due approval of A. K. Technical University, Lucknow and accreditation to Textile Institute, Manchester, U.K. IICT has been awarded twice Star performing institute of the University.

[More Details please visit www.iiict.ac.in](http://www.iiict.ac.in)

373 Students serving the trade which includes higher studies in premier institutes like IITs, NITIE, ISM, IIM, NIFT

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252 students are under going graduation. Every year 60 students are available for placement w.e.f. July month Industry to come forward & utilise these resource.

Futuristic plan: It has been

possible to draft the futuristic plan which includes introduction of M.Tech in Carpet & Textile Management with 20 intakes and Ph.D. Programme covering Pre Ph.D. Course Centre for Textiles at IICT. More labs are also going to be created to cover advanced and novel activities like advanced Carpet & Home textiles manufacturing, Fashion/ Style/Texture, Designs, Information Technology EDP, Personality Dev./ language skill including foreign language other than English.

In this endeavor a holistic approach of repositioning of IICT will be made. The DPR for Phase III expansion in hand to reflect the roadmap.

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International Distance Learning Programme (IDL P)

Certificate/ Diploma course through International Distance Learning program (IDL P) in collaboration with AG Research, New Zealand duly approved by DEC,IGNOU, MHRD, Govt. of India.

Students' enrollment in process. Working person at large can take benefit.

Short term courses More Details please visit www.iict.ac.in

Tailor made Industry driven Short Term Training programs run time to time.

MES based:

Application of Computer and IT in Carpet Manufacturing.
 Carpet and Textile design using CAD
 Carpet Yarn Dyeing
 Carpet weaving
 Spinning of woolen yarn
 Washing & Finishing of Carpet.

More than 5000 persons have been trained so far to mitigate the skill gap.

Through ISDS : 566 have been trained & other 2000 are expected to complete by 2015 covering above mentioned 6 MES.

Through CHCDS: 3500 have been trained till date covering carpet weaving and another 1500 to be by the waving and other desired MES shortly.

Askill india-move, the industry to utilize these skilled manpower to mitigate the skill gap

Industry to come forward and desire demographic dividend

(Job Creation and Skill Enhance - skill India in carpet and textile sector to supplement Make in India).

3. R&D

2. D C D

(Design Creation & Development)



Design Bank Created- More than 15000 designs are in place out of which around 3500 designs have been utilized by industry for commercial purpose. The variety of Design Bank includes Traditional INDIAN Motifs (Like : Harappa, Ajanta, Mughal, Rangoli, Jaipuri, Fulkari, Kantha, Paithani, Kalamkari, Banarasi, Jamewar etc.), modern motifs etc. as per trend.

Industry at large to come forward, advice and take more benefit of bank, creativity and development - global value at local cost.

(The above initiatives could focus on design creation and skill enhancement integrating Indiya collection an attempt to propagate Indian motif in carpet and textile sectors to supplement Make in India)



(Research & Development,

Product Development:

Quite a few product development activities has been done at institutional level and or in collaboration which includes:

- Coir Based Carpet:
- Silk Carpet:
- Eri silk Carpet:

- Modacrylic based carpet:
- Handmade Astroturf type Carpet
- Natural fiber based carpet:
- Natural dyeing:
- Organic product.
- Substitute to polyester shaggy:
- Bujbun Utilization:
- Vertical Blind
- Coir Paper and Coir Silk:

Another revolutionary research supported by CCRI Alleppey, Kerala of Coir Board, Kochi is continuing for coir silk. Commercial Stage trials with reputed Rayon Manufacturing co.(Grasim & Century Rayon) are being undertaken. The value addition will benefit coconut growers and support industrialization for coir paper & coir silk Production in coconut production intensive states like Kerala, Tamilnadu of the country.

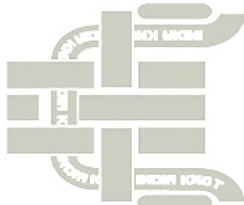
▪ Concept of Ergonomic and Flexible Tufting Frame:

▪ Cross Bar Horizontal Loom CBHL (Wooden or Metallic) for Hand knotted and Tibetan, Shaggy, Soumak etc - A proprietary move on supplement to Make in India Mission- Industry to come forward and explore



Weavers enjoying the comfort while working in CBHL

▪**India Knot:** A proprietary one of IICT which permits semi knotting its loom supplement to Make in India Mission - Industry to come forward & Explore

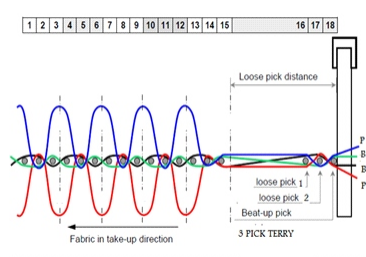


▪**Snehabha Carpet Backing System Polymer Backing Technology:** Light weight, Washable Reported it's features & feasibility in publications like carpet e world



▪**Terry leno Structure** :Another proprietary Make in India move to provide a new / cost effective carpet terry structure

The benefit of this R&D concept can be taken by carpet & Home textile includes towel industry at large to enhance their market/ market share/performance.



▪**Universal relation amongst diameter and linear density:** A published academic activity to supplement Make in India Mission :



TSI
(Technical Service Support to Industry)

17170 testing services provided to industry so far.

Consultancy provided to many units & organizations of repute. Further local industry units have derived free liaison visit/ trouble shooting service of IICT. which has benefitted them for instant solution their problem.

Space for photograph Laboratory activities

IICT Laboratories are accredited to NABL (ISO 9001.2008). Industry can take benefit of accredited facilities of global level testing/certification at local cost

More Details please visit www.iict.ac.in

Recognized expression for predicting yarn diameter

$$d'' = \frac{1}{28\sqrt{Ne}} \text{ By F.T. Pierce, JTI 1937}$$

Revision of above to mitigate the limitation

Deduction of Universal Relationship

1. $d(\text{inch}) = \frac{1}{29.25\sqrt{Nec} \times \sqrt{\rho_1}}$ 2. $d(\text{cm}) = 1130 \times \sqrt{\frac{ld}{yd}}$

3. $d(\text{inch}) = 0.445 \times \sqrt{ld \times yv}$ 4. $D = \left(\frac{M}{11.89}\right)^2 \times \rho$

By K.K. Goswami, Melliand international, December 2015



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