

INDIAN INSTITUTE OF CARPET TECHNOLOGY - BHADOHI Au institute with difference



# PROSPECTUS

## (Distance Courses)

agresearch Limited, New Zealand



Approved by: UGC - AICTE - DEC JOINT COMMITTEE Indira Gandhi National Open University (IGNOU) Ministry of Human Resource Development (MHRD), Govt. of India



## **IICT - An Overview**



Indian Institute of Carpet Technology, popularly known as IICT, has been set up by Ministry of Textiles, Govt. of India in 1998 as a registered Society under the Society Registration Act, 1860. IICT became truly functional in the year 2001 by launching B.Tech. (Carpet & Textile Technology) programme, an execlusive degree course in Asia, with 20 intake which has been raised subsequently to 60. IICT was set up by Ministry of Textiles, Govt. of India to provide all possible technical support to the Carpet, Textile & other related sectors in the form of technical experts, Research & Development, etc. for the continual growth & make the industry competitive at the world level. Institute has been continuously trying to fulfill long time pending demand of the sector for technical experts through its B.Tech. technocrats. Industry has also come forward and placed these technocrats suitably in their organisation. IICT is providing world class quality education to its students by targeting to meet the anticipated requirements of the stake holders through formal or informal feedbacks from the various organisations time to time. In addition to B.Tech. other short term course trainees of the institute have also been doing well and holding a good positions in the organizations. Institute is:

- ◆ Affiliated to U. P. Technical University, Lucknow.
- ✦ Approved by AICTE, New Delhi
- ♦ ISO-9000:2001 certified.
- ◆ Having NABL (National Accreditation Board for Laboratories) accredited Laboratories.
- ♦ Approved by The Textile Institute, Menchester (UK).
- ◆ Distance Courses approved by AICTE UGC DEC Joint Committee.
- ◆ Awarded Star Performer for the year 2007 by the University.
- ♦ NBA (National Board of Accreditation) Accredited.
- Collaborated with ag-Research, NewZealand for IDLP (International Distance Learning Programme)
- ♦ Member of I.S.T.E and CII. CAMPUS & FACILITIES

IICT is situated in Bhadohi which is famous in the world as Carpet belt of India. The stake holders of Bhadohi and





adjoining districts has been taking maximum locational advantage as the institute has been set up at Bhadohi. Bhadohi is about 45 Kms away from holy city Varanasi and about 75 Kms from Prayag City, Allahabad & 30 Km from Mirzapur. The campus of IICT is 4 Kms from Bhadohi Railway Station and situated on Main Road known as Chauri Road on the outskirts of Bhadohi town. The campus is free from all sorts of pollution, providing a peaceful atmosphere for studies and research which is spread over in 10 acres of land, that comprises of stat-of-the-art Administrative building consisting of Classrooms, Laboratories, Conference Hall, Library, Design Studio, Museum and Workshops. The campus is equipped with facilities like separate Hostels for Boys & Girls, Residential accommodation for employees, Open Air Theater for performing cultural activities, open space for Games, generator and Water supply system. Certain additional facilities are under creation.Institute has also obtained 20 Acers land from Govt. of Uttar Pradesh in Bhadohi for its second phase expansion.



## AgResearch- An Overview

Objective

AgResearch Ltd. evolved from Wool Research Organization of New Zealand (WORNZ) and Wools of New Zealand Ltd. The Organization has been serving with International Reputation over the last 40 years in the field of research, development and technological services. It is internationally focused technology service organization and supplies innovative research and development services, a broad range of technical services and involved in the creation of new technology-based products. AgResearch focuses mainly on four fields:



To emerge as a globally renowned centre of excellence for producing technocrats in the field of Wool, Carpet & Textile Technology who can accept the global challenges in the field and become catatlyst for the industry.

IICT offers various courses in the field of Carpet, Textiles, Wool, Dyeing, Designing, Computer, Management through direct & distance mode. The programmes are as under:

B.Tech.

IICT conducts 4 year full time B.Tech. degree course in exclusive stream Carpet & Textile Technology (CTT) under the affiliation of U. P.Technical University & duly approved by AICTE, New Delhi with the following three specializations in final year:

- Home Textile Technology (HTT)

- Advanced Textile Technology (ATT)

- Textile Designing Technology (TDT)

## INDUSTRY DRIVEN SHORT TERM COURSES

## **Carpet & Textile Designing**

This programme is specially framed for Designers, Artisans to make them aware with the technologies used in traditional, moderm designing, demand of todays market, International trends, etc. Here we train the candidate to make the designs as per the requirement of the customer on finger tips through the computer. Practical training on world class software - Nedgraphics/Autotext. Eligibility for admission is 10th passed with basic knowledge of arts and Course fee is Rs. 15,000/- Proficiency Programme in Computer Application & Mgt.

This is the exclusive programme in our institute in which the candidates are given the detailed knowledge of Computer, Information Technology, Software development, Web Technology, Management, Accounting and Carpet Manufacturing Technology. Eligibility for admission is 10th passed and Course fee is Rs. 10,000/-

### Carpet & Textile Yarn Dyeing

This is third industry demanded programme conducted at IICT. This programme is mainly focused on Carpet and Textile Yarn Dyeing. Eligibility for admission is 10th passed with basic knowledge of arts and Course fee is Rs. 10,000/-

Admission Period : January, May & September.

## **Distance Learning Courses**

IICT offers 7 Diploma & 30 Certificate courses in the areas of Wool, Carpet & Textile at Certificate and Diploma level through distance learning mode. The courses are approved by AICTE - UGC - DEC joint Committee. Institute has collaboration with Agresearch, NewZealand for designing & updation of courses time to time to make it internationally. The objective of the course is aimed at those who aspire for a career in wool, carpet and textile industry. The curriculum will comprise a totally comprehensive package covering all aspects of wool, textiles and carpets. The institute envisages to introduce advances in carpet technology, home textile technology, textile design technology and such relevant programs in the fold of DLP in near future. Details are Courses are given ahead in this prospectus.

#### Duration:

Minimum duration for completing the diploma course is three years. Minimum duration for completing the certificate course is six months. If in any case after the expiry of period of three years/ six months (as applicable); the candidate is not being able complete the Diploma/Certificate course he/she has to register again for which a nominal fee will be charged.

#### Commencement:

These programmes are continuous programmes so one can register any time through out the year for any of these courses. Eligibility Criterion:

These courses are open to candidates who have passed 10<sup>th</sup> standard from any recognized Board with Mathematics as a compulsory subject but it is essential that the candidate must be conversant in English Language & Computer Friendly to cope up with the course material. Exposure of the relevant field is preferable.

#### Admission Procedure:

Candidates willing to get registered for IDLP diploma/certificate course will be required to apply on the prescribed form, which can be obtained from personally/by post. The application form can also be down loaded from the institute website <u>www.iict.ac.in</u>. The registration fee for these courses is Rs. 500.00, which is to be deposited along with the filled in prescribed form. Candidates applying on the application form obtainable by hand from the institute will be required to deposit the Rs. 500.00 at the time of purchase of the form, which includes registration fee also. Candidates willing to get the application form by post will be required to send a demand draft of Rs. 600.00(which includes registration fee & postage charges) in favour of Indian Institute of Carpet Technology, payable at Bhadohi drawn on any centralized bank. Registration:

On the receipt of completed application form along with the registration fee the candidate will be registered with the institute for the diploma/certificate course and will be allotted a registration number. The candidates will be required to quote this registration number for future correspondences.

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## CERTIFICATE COURSES

Course Code	Name of The Topic	Course Code	Name of The Topic
CC 1. CC 3. CC 5. CC 7. CC 9. CC 11. CC 13. CC 15. CC 17. CC 19. CC 21. CC 21. CC 23.	Textile and Dyestuff Chemistry Textile Printing Carpet Finishing Natural Dyeing (IICT exclusive package) Spun Yarns Wool Market Systems Yarn Specification and Measurement Textile Dye Selection and Use	CC 2. CC 4. CC 6. CC 8. CC 10. CC 12. CC 14. CC 16. CC 16. CC 18. CC 20. CC 22. CC 24.	Carpet Manufacture Woven Fabrics Natural Textile Fibres Wool Scouring Technology Woolen Yarn Manufacturing Dyeing of Wool Carpet yarns Textile Colour
CC 27.	Dye house Operation Carpet Maintenance Carpet Performance	CC 26. CC 28. CC 30.	Introduction to Wool Carpets Advanced Carpet Manufacture Carpet and Textile Designing (IICT exclusive package)

Details of Modular content of these certificate topics is available in the contents of the diploma course

## DIPLOMA COURSES

SI. No.	Name of the Diploma (Diploma Code)	Compulsory Course	Optional any three
1.	Diploma in Apparel Yarn Manufacture	CC 2 or CC 16, CC 5or CC 17,	CC 1, CC 4, CC 8, CC 14
	(DAYM)	6 or CC 21	
2.	Diploma in Basic Textile Technology (DBTT)	CC 2 or CC 16, CC 5 or CC 17, CC 14	CC 1, CC 8, CC 12, CC 14
3.	Diploma in Carpet & Textile Designing (DCTD)	CC 1 or CC 3, CC 12 or CC 26, CC 30	CC 15, CC16, CC 24
4.	Diploma in Carpet Technology (DCT)	CC 1 or CC 3, CC 12 or CC 26, CC 28	CC 13, CC 20, CC 27, CC 29
5.	Diploma in Carpet Yarn Manufacture (DCYM)	CC 1 or CC 3, CC 12 or CC 26, CC 20	CC 4, CC 7, CC 10, CC 20
6. `	Diploma in Textile Dyeing & Finishing (DTDF)	CC 2 or CC 16, CC 9 or CC 23, CC 24 or CC 25	CC 8, CC 10, CC 11, CC 22
7.	Diploma in Wool Scouring Technology (DWST)	CC 1 or CC 3, CC 12 or CC 26, CC 7 or CC 18	Cc4, CC 6, CC 7, CC 19

Course Fee:

(a) Diploma Course: The fee for Diploma course, which comprises of six topics, is Rs.36, 000.00. Six topics include three compulsory and three optional beside Internship cum project as compulsory in addition but without any fee. Candidates for diploma course can deposit their course fee in installments as per details given below:

1<sup>st</sup> Installment: Rs. 18,000.00 2<sup>nd</sup> Installment: Rs. 12,000.00 3<sup>rd</sup> Installment: Rs. 6,000.00

(b)The course fee for the certificate course is Rs. 6,000.00, which is to be deposited only in one installment. 6

## STUDY MATERIAL

All the candidates registered for the IDLP courses will be provided Study Material. These study materials are designed by the experts from AgResearch and IICT. The course materials have been evaluated further by DEC and updated accordingly. The course materials will be provided semester wise to the candidates, after depositing their course fee. Each module of the course materials will contain theoretical description of that module and an assignment. Updation of course material & course matrix as deemed necessary from time to time by means of periodic review to be done by a committee to be constituted by Director IICT involving institute's faculty & external expert(s) to meet the requirement.

#### Student Support Services at IICT:

All the registered IDLP IDLP Candidates may avail the fallowing facility at the IICT Bhadohi regardless of their enrolled study centre.

- Computer facilities with internet at the institute.
- Accessibility to library
- Accessibility to workshops
- Services of Training & Placement cell
- Accessibility to faculty for discussion! clarification in person or through email.

**Delivery Mechanism**: Printed course material will be provided to all enrolled candidates without any extra charge through concerned Study Centers. A write protected CD of the course material can be also availed by paying Rs. *1000/-*

#### assignment is provided:

- Interaction classes are organized as per requirement
- The assignments are submitted by the candidate
- Examination is conducted twice a year during April and October.
- Each candidate has to undergo internship training and also submit a project report.

#### **Students Support Centers:**

IICT may open its Student Support Center (SSC) across the country(as per AICTE-UGC-DEC approved) to enroll the Candidate and conduct the contact classes on the basis of availability of/ accessibility to adequate infrastructure through a Memorandum of Understanding. For detail about SSCs visit our website: www.iict.ac.in

#### **Contact Programmes:**

IICT & its approved SSCs will register candidates for IDLP & run contact program for various topics as per requirement. However, attendance in personal contact program is not mandatory. Recorded video for each certificate topic demonstrating teaching-learning is also being launched through suitable channels or any appropriate manner.

#### **Assignments:**

Candidates will be required to submit own hand written assignments given at the end of each module. Assignment (s) will be provided to the students through the SSCs.

**Examination:** Exams may be scheduled at IICT & its approved SSCs twice in a year, in April and October. The examination will be of 2<sup>1/2</sup> hours duration, comprising of 7 questions out of which candidates will be required to attempt any 5. Apart from the examination every student aspiring for a Diploma is required to undergo an internship and has to submit a project report on the assigned topic.

#### **Marking system**

The candidates are required to appear for examination on the predecided assignments. Learners performance is adjudged based on the expressed competency on subject knowledge and written communication.

The final result for a Diploma/Certificate topic is the average of the marks recorded for the certificate courses/ module assignments respectively through written examination and vice voice.

For the award of an **IICT AgResearch Certificate of Achievement** for the topic, the final result must be at least 60%. This 8

pass level is to ensure the mastery of the topic. Assignments may be resubmitted in order to achieve the pass level. An **IICT** AgResearch Diploma comprises a set of Certificate Topics. Diplomas are awarded at three levels of attainment,

depending on the average marks obtained for the certificate topics contributing to the Diploma:

• • •	Pass Merit Honors	50% to less than 60% 60% to less than 75% 75% to less than 85%		
•	Distinction	85% & more		
Assignment 30	Examination 70	Viva Voce 50	<b>Total</b> 150	All topic(s)
Internship	75	25	100	

Proposal for permitting lateral entry to B. Tech 2<sup>nd</sup> year for the IDLP diploma holders is under consideration with U. P. Technical University, Lucknow.

#### Placement:

The candidates may register with the placement cell of IICT after acquiring Certificate/ Diploma for assistance in placement.

## STRUCTURE OF THE CERTIFICATE COURSE

Course Code	Name of the topic	Structure of the course
CC 1	Introduction to Wool and the Wool Industry	Part A Introduction to the Wool Fibre Module 1 - Wool fibre structure and growth Module 2 Commercially important properties of wool Module 3 Wool characteristics of textile significance Part B The Wool Industry Module 4 A brief history of sheep and wool Module 5 Wool production Module 6 Structure of the wool industry Module 7 Wool yarn manufacture Module 8 Wool textile manufacturing and products
CC 2	Manufactured Textile Fibres	Module 1Introduction to Textile FibresModule 2Extrusion Processes for Manufactured FibresModule 3Regenerated Manufactured FibresModule 4Synthetic Manufactured Fibres (a)Module 5Synthetic Manufactured Fibres (b)
CC 3	Wool and the Wool Scouring Process	Module 1Wool production and disposalModule 2Processing systemsModule 3Wool impurities and their removalModule 4Wool conveying systemsModule 5Scouring systemsModule 6Wool drying, pressing and packing

CC 4	Wool Characteristics and Measurement	Module 1Characteristics of the wool fibreModule 2Introductory statistics for woolModule 3Objective measurement of wool (a)Module 4Objective measurement of wool (b)
CC 5	Textile Fibre Blending	Module 1Fibre BlendingModule 2Opening, cleaning and conveying scoured wool.Module 3Fibre Processing Aids And Their Application
CC 6	Worsted and Semi worsted Yarn Manufacturing	Module 1Preparation for worsted and semi worsted processingModule 2Worsted and semi worsted cardingModule 3GillingModule 4CombingModule 5Drawing, roving and spinningModule 6Testing in top making and spinning
CC 7	Scouring & Setting of Wool Carpet Yarns	Module 1 Yarn scouring Module 2 Principles of chemical setting Module 3 Twist setting technologies Module 4 Yarn and carpet properties
CC 8	Textile Dyeing and Finishing	SECTION 1 Module 1 Colour Theory Module 2 Dyes Pigments and Chemicals Module 3 The Dyeing Process SECTION 2 Module 4 Dyeing methods and equipment Module 5 Dyed product performance SECTION 3 Module 6 Fabric finishing

CC 9	Textile and Dyestuff Chemistry	Module 1	Chemistry relevant to dyeing
	5	Module 2	Organic compounds relevant to dyeing
		Module 3	Textile Fibres
		Module 4	Dyes and the dyeing process
		Module 5	Water for dyeing
CC 10	Textile Dyeing Machinery	Module 1	Dyeing Machine Characteristics
		Module 2	Dyeing Machine Operation (1)
		Module 3	Dyeing Machine Operation (2)
CC 11	Textile Printing	Module 1	Textile Printing Process and Systems (1)
	5	Module 2	Textile Printing Process and Systems (2)
		Module 3	Post-printing Processes
		Module 4	Carpet Printing
CC 12	Carpet Manufacture	Module 1	Wool and other carpet fibres
		Module 2	Carpet manufacturing
		Module 3	Carpet constructions and textures
		Module 4	Carpet performance
CC 13	Carpet Finishing	Module 1	Back finishing of carpets
	1 3	Module 2	Brushing, steaming and shearing
		Module 3	Special finishing treatments
		Module 4	Quality management
CC 14	Woven Fabrics	Module 1	Woven Fabric Structure
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		Module 2	Warp Preparation
		Module 3	Weaving process and Weft insertion
		Module 4	Basic Weaves

CC 15	Natural dyeing	Module 1 Module 2 Module 3 Module 4 Module 5	Introduction to wool and its process Carpet Industry Introduction to Natural dyes, specification and market information Dyeing process: Do's & Don'ts - Eco parameters Fastness properties of Natural Dyes Shade: Development in wool/ silk. Reproducibility aspects.
CC 16	Natural Textile Fibres	Module 1 Module 2 Module 3	Introduction to textile fibres Vegetable Fibres Animal fibres
CC 17	Spun Yarns	SECTION 1 Module 1 Module 2 Module 3 SECTION 2 Module 4 Module 5 Module 6	Principles of Yarn Making and Yarn Properties Spun Yarn Production Spun Yarn Manufacturing Systems The Worsted System Spun Yarn Manufacturing Systems The Semi-worsted System Spun Yarn Manufacturing Systems The Woollen System Other Yarn Processes

CC 18	Wool Scouring Technology	Module 1Aqueous Scouring And DetergentsModule 2Chemical TreatmentsModule 3Energy In Wool ScouringModule 4Wool greaseModule 5Wool scour Effluent And Effluent TreatmentModule 6Control And InstrumentationModule 7Wool Testing
CC 19	Wool Market Systems	Module 1Wool marketing pipeline and the participantsModule 2Wool supply and demandModule 3Wool quality and classificationModule 4Wool selling and other topics
CC 20	Woollen Yarn Manufacturing	Module 1Preparation for woollen processingModule 2Functions of the woollen cardModule 3Woollen carding performanceModule 4Woollen spinning and subsequent processesModule 5Testing in woollen yarn manufacturing
CC 21	Yarn Specification and Measurement	Module 1Introduction to yarn specification andmeasurementModule 2The measurement of yarn linear densityModule 3The measurement of yarn twistModule 4The measurement of yarn moisture contentModule 5The measurement of yarn strengthModule 6The measurement of the oil and fatty matter content of yarnsModule 7The measurement of yarn evennessModule 8Other yarn tests

CC 22	Dyeing of Wool Carpet yarns	Module 1Colour theoryModule 2Dyes and associated chemicalsModule 3The dyeing processModule 4Dyeing methods and equipment
CC 23	Textile Dye Selection and Use	Module 1 Selection and use of dyestuffs   Module 2 Dyes, chemicals and the dyeing cycle.   Module 3 Dyed product performance assessment   Module 4 Computerized colour measurement and shade prediction.   Colour Diagrams Colour Diagrams
CC 24	Textile Colour	Module 1Colour PerceptionModule 2Colour productionModule 3Colour Identification and Expression
CC 25	Dye House Operation	Module 1Safety in the Dye houseModule 2Dye Selection and CostingModule 3Colour Fastness and Shade MatchingModule 4Chemical and Dye Effluent and Disposal
CC 26	Introduction to wool carpets	Module 1Wool and other carpet fibresModule 2Carpet manufacturingModule 3Carpet constructions and texturesModule 4Carpet performance
CC 27	Carpet Maintenance	Module 1 Carpet Soiling Processes   Module 2 Carpet Cleaning Performance   Module 3 Carpet Maintenance Planning

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CC 28	Advanced Carpet Manufacture	Module 1	Tufting of carpets
		Module 2	Control of quality in tufted carpets
		Module 3	Pattering techniques for tufted carpets
		Module 4	Axminster carpet weaving
		Module 5	Wilton carpet weaving
		Module 6	Fact to face carpet weaving
		Module 7	Yarn engineering for wool carpets
		Module 8	Insect resist treatments
CC 29	Carpet Performance	Module 1	Performance of carpets
		Module 2	Consumer properties of carpets
		Module 3	Carpets and the indoor environment
		Module 4	Static electricity in wool carpets
		Module 5	Friction and fibre shedding
		Module 6	Shading
		Module 7	Fire safety with wool carpets
		Module 8	Carpet wear and testing
CC 30	Carpet & Textile designing	Module 1	Theory behind design creations and color theory
	· · · · · · · · · · · · · · · · · · ·	Module 2	Motifs- Selection and application for Carpet & Textiles
		Module 3	Concepts of Textile Designing
		Module 4	Concepts of designing of floor coverings
		Module 5	Popularization of designs through exhibition
			trend analysis etc.

\*Internship cum Project: Under the guidance of a Competent person (IICT faculty or any person of the Study Center(s) or from industry duly approved by IICT), the candidate is required to take part in internship and submit a comprehensive report to prove terminal competency including professional communication. 16

For further details & any query please free to contact:

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Note: Any information contained in this brochure is subject to change without any prior intimation.

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**S**TUDENTS TEAM SPIRIT **R**ESOURCES **E**MPLOYEES **NEW HEIGHTS G**LOBE **TREND SETTING** HONESTY **SUPERIOR SERVICES** 

Our inspiration Our forte Our means Our partners in progress Our endeavour Our horizon Our resolve Our pre-requisite Our mission

Our virtue Our spirit Our temperament

Our way of life

# Indian Institute of Carpet Technology (Under Ministry of Textiles, Govt. of India)

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