

NIFT- ETIDI

Twinning Arrangement

To strengthen the capabilities of the Textile Industry Development Institute (TIDI) to undertake Training, Consulting, Research and Marketing support services for the apparel industry of Ethiopia.

Brings you an opportunity to work in an International Project



Expert Appointment Brief

About NIFT- ETIDI Twinning Arrangement

In order to steer the development of the Ethiopian Textiles Sector and address the emerging needs of the industry as well as to ensure its sustainable development, the Government of Ethiopia has established Ethiopian Textiles Industry Development Institute (TIDI), at Addis Ababa, the capital city of Ethiopia. TIDI is expected to support the Textiles and Apparel sector all the way along with the value chains starting from investment up until marketing end by providing training, benchmark implementation at company level, consultancy, research, testing and information services and assist in marketing activities.

The principal objectives of this project is "transforming TIDI into a globally competitive centre of Excellency in the field of Textile and Apparel sector so as to enable it to become competent and capable in providing all necessary support and services to the sectors' development." To fulfill is objective, TIDI has collaborated with NIFT in a form of twining arrangement. As per the proposed agreement, NIFT would be capacitating the TIDI enabling it to provide training to their staff and to the participants from the Garment industry in the area of Fashion, Manufacturing and Marketing on continuous basis.

Key Objectives

- Building up the capacity of TIDI to enable it to provide regular and continuous training to its staff and participants from garment manufacturers on a sustainable basis.
- Developing the managerial and technical capability of the TIDI by assigning key managerial and technical responsibilities.
- Designing and implementing suitable management system to suit the new system requirements for continuous improvement.
- Developing the capacity of the TIDI to provide consultancy and technical services to the garment industries and also consult and advice the Government in policy issues based on the situation in the sector and international best practices.
- Designing and preparing courses in all areas of the garment sector and also enabling TIDI to do the same.
- Providing leadership training to the TIDI staff and industry personnel.
- Conducting applied researches that can help to curb problems of the industry.
- Benchmarking implementation at company levels in order to bridge the gap between the sector's performance and international benchmarks.

Position Available

The project demands experts with sound industry experience in the areas of apparel manufacturing, marketing and merchandising.

Job Title: Level IV Expert (Please refer Activity list)

Period of assignment (for each activity): 2 months.

Remuneration: USD 2550 per month (Tax Free)

Other benefits include: Return air fare from India, furnished accommodation, Wi-Fi, local travel.

Location: Addis Ababa, Ethiopia.

Workload: 5 days a week with occasional travel to Apparel industries around Addis Ababa.

Activity List

General Training area

Professional Practices
Corporate Practices & Etiquette
Behavioral Analysis in Corporate
HRM in Apparel Industry
Strategic Management
Operational Risk Management
Research Methodology

Marketing area

Costing and Pricing in Export Manufacturing
Export Merchandising
Customer Relationship Management
Supply Chain Management
Fabric Knowledge & Sourcing for Merchandisers in Export Manufacturing
Forecasting and Product Development

Advertising & Promotion in Exports
Vendor Management- Social Compliance
Vendor Management- Technical Compliance
Effect of Trade policy on Apparel Industry
EXIM Documentation and procedures
Global Sourcing For Apparel Industry
Buying House operations
Cluster Study- Diagnostic Study, Baseline Survey and Interventions

Technology area

Lean Manufacturing
Garment Finishing
Computerized Embroidery
Ergonomics and Workplace Engineering
Specialized Machines / Workstation
Production and Operation Management
Process and Production Control
Dyeing and Printing
Setting up of Garment Industry (Knit)
Supervision of Garment production
Industrial Engineering for Garment Production
Quality Assurance

Design area

Integrated Design for Apparel Industry
Technical Sheet Creation for Business Generation
Application of Trend Analysis and Fashion Forecast in Export
CAD for Apparel (Design CAD)
Surface Ornamentation for Textiles & Garments
Draping Techniques

Please refer to the Last section for subject briefs

What you require to do as an expert?

Curriculum Development and Training

- Under this activity the appointed expert along with TIDI experts will work towards development of a training manual for effective and practical oriented training for the apparel industry in the selected subject area.
(Duration - 4 week)
- The expert will conduct a Generic Training Program to solve generic problem areas by inviting participants from industry and thus increase their productivity.
(Duration- 2 week)
- The expert will conduct a Training workshop of Trainers to enhance the knowledge and upgrade skills of TIDI/TVET trainers and improve training effectiveness. **(Duration- 2 week)**

Essential Qualifications

To apply for this position, the following qualifications and experience is mandatory:

- A **Post Graduate degree** from National/ International Institutes of repute.
- Relevant experience of **minimum 5 years** in apparel industry/ academic organizations of repute such as NIFT.
- Managerial/ technical experience and practical exposure in appropriate areas.
- Working knowledge of information Technology. (MS Word, Excel & Power point must)
- Good communication in English Language.
- Ability to develop course material, training aids, presentations and handouts.

How to Apply

To apply for this position, please send a comprehensive CV highlighting the experience and qualifications in the chosen Activity. You may also choose more than one activity as your expertise, however please mention your comfort level on additional activities chosen. Please ensure that your application fully addresses the appointment criteria in the Essential Qualifications. You should give the names, positions, organizations and contact details including Skype ID. Please send your CV along with a letter of EOI and a brief write up on how you would like to implement the activity, methodology etc., based on the guidelines provided.

Applications should be forwarded to:

Prof. Sameer Sood
Project Director
NIFT-ETIDI Twinning Arrangement

at

director.projectetidi@nift.ac.in

If you have any queries on any aspect of the appointment process, need additional information or wish to have an informal discussion, please contact Mr. Sanjib K Das via email at sanjib.das@nift.ac.in or on Skype at [sanjib.kumar.das.13](https://www.skype.com/people/sanjib.kumar.das.13)

Additional information

About the Location: Addis Ababa is the political capital and social nerve-center of Ethiopia and is absolutely safe for the travelers. Addis Ababa is situated in the foothills of the 3,000 meters Entoto Mountains and rambles pleasantly across many wooded hillsides and gullies cut through with fast flowing streams. Addis Ababa is as cosmopolitan as any of the world's great capital or metropolises. There are numerous restaurants offering various exotic dishes and tourist attractions.

Climate: Overall, Addis Ababa maintains pleasant daytime temperatures year-round, which can range anywhere from 18 to 28 degree Celsius. Winter clothing is advised during July to September.

Immunizations: A Yellow Fever vaccination certificate is mandatory in order to enter Ethiopia. Polio vaccination is mandatory in order to re-enter India. Make sure you get the vaccinations at least 2 weeks before you travel.

Currency: 1 Ethiopian Birr is equivalent to approx. 3.15 INR.

Cost of living per month: 2500 Ethiopian Birr excluding sightseeing & other personal habits.

2ND YEAR ACTIVITY DETAILS: NIFT-ETIDI TWINING ARRANGEMENT

GENERAL TRAINING AREA

Activity 1:

Corporate Practices & Etiquette

Scope: While the basics of Professional Practices have been delivered, this activity, as a sequel, should cover the next graduated level. Etiquette and professionalism are extremely important within the business and with external clients. The Corporate Practices and Etiquette training will help experts to improve the industry personal's understanding of professionalism in line with the desired expectations of the organization. As participants, the professionals will conduct themselves more professionally, communicate more effectively, and acquire the tools to create an impact in their professional conduct.

Objective of training: The objective of the programme is to help expert impart practical training on the following:

- Networking for Success
- Professional Introductions
- Professional Office Conduct
- Meeting Do's and Don'ts
- Netiquette
- International Etiquette
- General Rules

Learning outcome: As a learning outcome the experts will be able to hold professional training helping the industry the following:

- Understand what etiquette is and why it's important.
 - Acquire the fundamentals of professional etiquettes.
 - Learn how to introduce yourself proficiently.
 - Learn tools to assist and minimize nervousness.
 - Know different levels of conversation.
 - Learn to conduct yourself efficiently.
 - Understand appropriate etiquette for open plan and cubicle environments
 - Know dos and don'ts in a meeting.
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Activity 2:

Behavioral Analysis in Corporate

Scope: For efficient functioning, it is imperative that executives understand their 'selves' and develop themselves through structured intervention techniques. This training will give front-line workers foundational and theoretical knowledge for working with individuals presenting with behavioral challenges. It will also help participants learn how to establish routines, set personal goals, create an effective and practical working environment, while providing tools to maximize your personal productivity. The training will be facilitated through Transaction Analysis, Stress Management, of Personality Analysis, JOHARI Window, Interpersonal Relationship Orientation and Cross-cultural Intelligence.

Objective of training:

- To understand different the behavioural models and the process of behaviour change.
- To gain knowledge about behavioural intervention and behavioural assessment and behaviour change procedures.
- To learn various strategies for increasing desirable and decreasing undesirable behaviours.
- To develop the skills necessary to successfully change behaviour and have the opportunity to design behaviour change strategy for an individual.
- To learn behaviour management techniques and strategies.

Learning Outcome: Most people find that they wish they had more time in a day. This training will show participants how to organize their lives and find those hidden moments. Participants will learn how to establish routines, set goals, create an efficient environment, and use time-honored planning and organizational tools to maximize their personal productivity. The specific learning outcome will be:

- Effective assessment of behavior.
- Set & evaluate SMART goals (specific, measurable, achievable, relevant & timed)
- Learn to use routines to maximize productivity.
- Master numerous scheduling tools for efficient use of time.
- Organize physical & virtual workspaces for maximum efficiency
- Creating a Workspace
- Adapting company's long-term strategy.

Activity 3:

HRM in Apparel Industry

Scope: The Export industry in Ethiopia is at a rather nascent stage and lacks the required professionalism. Proper HR policies are required to keep the organizations/ export houses healthy enough to cater to the world markets. Human resource has emerged as one of the most critical functions in the modern corporate scene in the last decade. Quality recruitment and retention is a challenge for Medium to small scale companies. Payroll management, compensation and benefits planning, skill development, training and development are all gaining more and more importance.

Objective of the Training: This course is aimed at practical aspect of HR vertical in the areas of payroll management, compensation and benefits planning, skill development, training and development and to help industry to develop an effective HR policy.

Learning outcome:

- Identify and employ the skills and the activities of the workforce efficiently.

- Developing and maintaining quality of work life Communication.
 - Work on payroll management, compensation and benefits
 - Work on Performance Management System
 - Make a Training Need Analysis
 - Undertake compliance including all important Acts of Government pertaining to Human Resources department and their interpretation.
 - Performance Management system including appraisal process, balance score card, HR audit HR Induction and career counseling.
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Activity 4:

Strategic Management

Scope: Strategy management training can boost company's capacity to generate immediate and long-term results for the business unit or market. Export houses need to understand the concept and process of strategic management with sector specific applications in the apparel industry.

Objective of Training: The training should be able to train the executives on improved analytical, managerial and decision-making skills. The key objectives are:

- To sharpen leadership skills to meet at the challenges.
- To execute and manage work force and organization to realize set goals.
- To sharpen business analysis skills and strategic leadership effectiveness.
- Prepare to boost performance at individual, team and business-unit levels.
- Ensure that the organization is keeping ahead in a constantly changing business environment.
- Understand how to best address a particular business challenge.

Learning outcome:

- Apply problem-solving steps and tools
 - Analyse information to clearly describe problems
 - Identify appropriate solutions
 - Think creatively and be a contributing member of a problem-solving team
 - Select the best approach for making decisions
 - Create a plan for implementing, evaluating, and following up on decisions
 - Avoid common decision-making mistakes
 - Understand problem-solving
 - Make correct and timely decisions
 - Use problem-solving model and toolkit
 - Use SWOT Analysis
 - Make good group decisions
 - Analyse and select solutions
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Activity 5:

Operational Risk Management

Scope: Operational risk success is largely linked to People Risk and the "Human Factor". Sometimes addressing people issues is a way to manage operational risk. Losses from operational failures can be devastating. Today organizations face immense regulatory, compliance and operational risks. People who execute key processes of production operation are sometimes not trained enough. Untrained

people often make excessive errors or ignore key process controls. This activity will train on mitigating various operational risks involved in manufacturing.

Course Objective:

- To train how to mitigate various operational risks involved in manufacturing.
- To train on how to perform risk assessments for new vulnerabilities, control gaps, emerging threats, compliance violations and projects.
- To learn how to qualify the current risk level for presentation to executive level management.

Learning outcome:

- Concepts and definitions related to risk management
 - Risk management standards, frameworks and methodologies
 - Risk identification and assessment
 - Risk evaluation and treatment
 - Concepts and definitions related to risk management
 - Communication and consultation
 - Develop operational risk policies, frameworks, terms of reference and implementation project plans.
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Activity 6:

Research Methodology

Scope: Research carried out by surveys cannot achieve success without a well-designed questionnaire. However, questionnaire design has no theoretical base to guide the marketing researcher in developing a flawless questionnaire. Through experience and training it is possible to minimize biases and mistakes during questionnaire design. This training has the objective to provide tools able to deal with the more common mistakes that affect a survey. The training will impart a rich experience in research methodology domain (theoretical and application) for the apparel sector.

Objective of training:

- To learn how to conduct research about a specific marketing problem.
- To prepare a well-designed questionnaire.
- To collect primary data by administering the questionnaire to respondents.
- To analyze the data by using SPSS.
- To provide insights to managers and marketing practitioners based on the results of the survey.

Learning outcome:

- Understanding the process of conducting Marketing Research (Problem, Definition, Development of an approach, Research Design formulation, Data Collection, Data Preparation and Analysis, Reporting)
 - Learn how to design a market research questionnaire in order to collect primary data about consumer's attitude and preferences.
 - Analyzing data with a software package (SPSS) and interpreting findings in order to provide implications to managers and marketing practitioners.
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MARKETING AREA

Activity 1

Vendor Management- Social Compliance

Scope: Compliance is all about the quality of products from the factory which must meet the audits and inspections and to give a proper environment for working. The demand for compliance is growing rapidly in today's business scenario as the buyers from the global markets are insisting on ethically manufactured products. A social compliance system is an integrated set of policies and practices through which a company seeks to ensure maximum adherence to its code of conduct. Export houses require a Social compliance system in order to meet buyers' standards, which are becoming increasingly important in responsible business.

Objective of training:

- Understand the key components of a social compliance system and how they fit together.
- Become familiar with industry or cross-industry social compliance programs.
- Begin to define the scope of social compliance system.
- Understand the personnel requirements for a strong social compliance team.
- Recognize the management systems that will make your social compliance system successful.

Learning outcome: This activity would help the export houses to establish social compliance norms and thus facilitate business from reputed buyers. This programme would help the industry to improve working conditions, raise living standards, protect workers' ability to exercise their rights, and address the workplace exploitation of children and other vulnerable populations. This programme would help industries to carry out their responsibilities to pursue these same goals, in particular with respect to labour issues.

Activity 2:

Vendor Management- Technical Compliance

Scope: Vendor Management has been under the regulatory magnifying glass for several years and is only growing in importance with the advent of increased outsourcing and additional guidance being issued from all buying agencies. These factors have created a growing demand for professionals with regulatory knowledge and specialized expertise in building, implementing and managing compliant Vendor Management programs. In addition, there are numerous regulations to be aware of and comply with including those that your vendor is subject to even though they might not apply to your institution.

Course Objective: The objective of this training is to provide the industry with the regulatory and technical compliance knowledge, program implementation methodology and the best practices required to build and manage a compliant program and properly prepare for regulatory audits.

Learning outcome:

- Understanding benefits, regulations and components of a compliant vendor management program.
- How to implementing and enhance vendor management program to bring it into compliance with regulatory requirements.
- Audit Preparation
- Understanding varieties of Best Practices for successful vendor management program implementations.
- Understanding Key Components of a Compliant Program.
- Reporting

Activity 3:

Effect of Trade Policy on Apparel Industry

Scope: the progressive liberalization of cross-border transactions advances in production technology and information services, and improvement in transport logistics and services have provided firms with greater incentives to fragment production processes and to geographically delocalize them. Global supply or production chains (GSCs), where cost reduction strategies result in goods often being produced with intermediate inputs originating from several countries, are now common in many industries and extend over to an increasing number of developing countries.

Course Objective:

- To help export houses understand the trade policies and practices of Ethiopia.
- Gap analysis and Bridge the Trade policy issues.
- Educate the export houses on the effects of the existing trade policies.
- Discuss the global trade policies and undertake case studies.

Course outcome:

- Understand Trade policies of Ethiopia, its long term and short term effects.
 - Critical analysis of Policy advantages and disadvantages.
 - Recommend policies or improvements for the sector.
 - Understand GSC trends in international trade and economic policies.
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Activity 4:

EXIM Documentation and procedures

Scope: The export industry in Ethiopia requires capacity building in export - import documentation and procedures. A Hands-on experience on the standard EXIM documentation process is required for effective trade. The training aim to impart practical knowledge on export import procedures in the sector to make them independently handle the entire export or import order processing.

Course Objective:

- To provide hands on experience on the EXIM documentation procedures.
- To understand the latest export/import guidelines.
- To understand logistics problems.
- To maximize the services of general and bonded warehouses.
- To learn how to prevent excessive duties by using foreign trade zones.
- Learn to avoid the pitfalls of improper documentation.

Learning outcome:

- Document the shipment.
 - Execute smooth import transactions.
 - Comply with origin requirements, trademark and copyright regulations.
 - Observe industry standards.
 - Avoid customs penalties.
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Activity 5:

Global sourcing for apparel Industry

Scope: The globalisation phenomenon has induced a considerable change in manufacturing and supply chain strategies across apparel and fashion value chain. To get cost benefit, fashion retailer and manufacturers prefers relocation of their operations to overseas, and the sourcing of components from, low-labour cost countries. This training aims to educate the executives on global sourcing for apparel industry and help the export industry with a generic global sourcing plan so as to economize cost and time.

Course Objective:

- Learn to determine the most cost efficient vendor of materials, production, or finished goods at the specified quality and service level.
- To understand different parameters in sourcing.
- To understand different types of sourcing.
- To understand the role of production merchandiser in sourcing
- To understand factors affecting sourcing of fabric and trims

Learning outcome:

- Dynamics of International sourcing, Global sourcing, Off-shoring and Global manufacturing.
 - The material and information flow and Lead time.
 - Cost of logistics and quality parameters.
 - Nominated Suppliers and Non-nominated supplier.
 - Ordering specifications for raw materials.
 - Minimum Order Quantity (MOQ).
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Activity 6:

Buying House Operations

Scope: With global sourcing from Ethiopia on the rise, the next logical business model would be buying / Liaison houses. This training aims to provide a detailed knowledge on buying house operations and its functional activities.

Objective of training:

- Understand about the structure of a garment Buying House and its functional modalities.
- To visualize in-depth the total activities of Buying House
- To understand the classification and the role played by Garments Buying House in garments business.

Learning outcome:

- All ground works usually carried out by a Buying House while preparing the Order Sheet.
 - Product development and sampling for buyers.
 - Procedures of sampling and how one order is placed to any Factory by a Buying House.
 - Execution of orders by Buying House from its initiation to shipment and Follow-up of order processing with export houses.
 - Testing procedures and requirements.
 - What all are the various types of samples usually handled by Buying House and what are their implications in Garments Business.
 - COC and HR Compliance requirement by Buying House for placing any order with a Factory.
 - Documentation procedures, shipping and logistics.
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Activity 7:

Cluster Study – Diagnostic study, Baseline Survey and Interventions

Scope: Handloom constitutes an important segment of the de-centralized/unorganized sector of the economy. The hand-loom sector in Ethiopia is big but quite scattered. Considering its potential, a study of the sector with required interventions in Marketing, Product Design & Development, and Technology is needed. The cluster diagnostic study is a research oriented intervention with the objective of empowerment and sustainability to the cluster of handloom artisans, which inter-alia includes basic inputs and infrastructure support in addition to capacity enhancement to cater to target markets.

Objective of Diagnostic study:

- To identify potential of Handloom sector that are working in the cluster and establishing a market linkage in the value chain.
- To evaluate the present socio economic status of the Handloom weaver in the cluster.
- Identify the products being manufactured by the weavers.
- Assess the technology being used in weaving and dyeing.
- Identify the sourcing for raw materials & semi finished products and their method of use in the cluster.
- Identify the problems being faced by the Handloom weavers in the cluster.
- Identify the bottlenecks in development of the cluster and solutions there off.
- Undertake SWOT analysis.

Outcome of interventions:

- Determine the necessary measures to be taken for development of the cluster and prepare an action plan and Strategy for implementation.

TECHNOLOGY AREA

Activity 1:

Garment Finishing

Scope: The training would enable the experts to train the industry and have hands-on experience in different types of finishing techniques in garments. The training is design to develop knowledge and skills of persons engaged in garment wet processing industry.

Key inputs:

- Knowledge of fabric science and Chemistry for garment finishing.
- Garment finishing methods.
- Garment finishing process and techniques.
- Garment finishing machines and equipments.
- Special effects (stone wash, enzyme wash, acid wash, brushing, sand blasting etc.)
- Practical problems in garment washing and dyeing.

Activity 2:

Computerized Embroidery

Scope: The training will enable the expert to train on different types of embroidery on various types of computerized machines. The training would also equip to work out the embroidery costing.

Key inputs:

- Introduction to computer embroidery
 - Using the Machine, Framing cloth, Creating a Template, Transferring designs from Computer to machine
 - How to apply different decorative stitches with the help of a special embroidery sewing machine.
 - Control of the machine & movement balance.
 - Sew various designs like Motifs, Logo, Monogram, Appliqués etc.
 - Lockstitch & chain stitch, and all kind of embroidery practice & application.
 - Knowledge of different needles & threads and its uses.
 - Knowledge of Embroidery Sewing Machine, stitches & color combination.
 - Method of transferring a design.
 - Knowledge of different types of embroidery sequence, cording, boring, Beads etc.
 - Measurements/repeats of embroidery.
 - Safety precautions and cautions to be taken while working on an embroider Machine.
 - Costing fundamentals for embroidery operations.
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Activity 3:

Specialized Machines / Workstation

Scope: The objective of the training is to train the experts in providing training on different types of specialized computerized machines for garment manufacturing.

Key inputs:

- To operate various types of specialized machines for garment manufacturing.
 - Operation of various power machines like industrial type, double needle machine, over lock , flat lock, panel board, button hole and button fixing machine and popping machine.
 - Installation of various machines.
 - Information and use of various types of power machine operation.
 - Knowledge about needles, special purpose machines & its attachments.
 - Uses of special sewing machine & quality aspects.
 - Safety precautions to be followed while operating the machines.
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Activity 4:

Production and Operation Management

Scope: production and Operations Management improve operations and plant performance by systematically setting and communicating operating plans, monitoring process and highlighting deviations. This activity will train on the methods of optimizing resources for production and the use of tools required for scientific decision making.

Key inputs:

The objectives of the course is to develop the capacity of planners, related to

- Apparel production planning.

- Materials planning.
 - Inventory control.
 - Incentive planning.
 - Work study.
 - Order scheduling and overall production management.
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Activity 5:

Production Process and Control

Scope: This activity involves training on the functions, responsibilities and scope of personnel involved in Production Planning & control. This training aims to impart practical knowledge on applications of PPC in the Apparel Industry.

Key inputs:

- Concept of Production Management
 - Various methods of production coordinating & control
 - Familiarize participants with the various manufacturing systems
 - Analyze products into its manufacturing operations and to understand manufacturing process based on these operations.
 - Analyze product defects and methods of correction.
 - Understanding the concepts of planning & scheduling in the production process
 - Time & Motion study
 - Quality criteria & the various check points in process control.
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Activity 6:

Dyeing and Printing

Scope: This training is aimed at providing a clear understanding of the whole range of textile processes available for both yarn and fabric, from the initial preparation processes through to dyeing, printing and finishing. Inputs in the choice of colours and applied finishes and different types of dyeing and printing techniques including the latest practices in the industry will be the focus of the training.

Training objectives:

- To create awareness of the different techniques used for coloration of textiles
- To impart knowledge of the various dyeing and printing processes and the machines used for them
- To impart knowledge on dyestuff, their application on different fabrics and their fastness properties.
- To impart knowledge of the various dyeing and printing processes and the machines used for them
- To make participants aware of recent developments in dyeing and printing with emphasis on ecological concerns
- To impart knowledge on technology of textile Printing.

Learning outcome:

- Essential preparation of cotton and manmade fibres.
- Principles and practice of colour application
- Dyeing process of natural and manmade fibres.
- Colour fastness & faults

- Printing techniques & potential problems in finishing and dyeing
 - Dyeing Mechanism of various dyeing processes, application of dyes on various fibers/fabrics and their fastness properties (washing, light, perspiration and rubbing fastness, ISO method), reflectance of dyes (spectrophotometer)
 - Methods of printing – Block, transfer printing, flat and rotary screen
 - Preparation of blocks and screens
 - Identification of dyes and testing of dyed fabrics
 - Health and Safety and Environmental issues
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Activity 7:

Ergonomics and Workplace Engineering

Scope: This activity requires knowledge about how to recognize and eliminate or reduce injury risks and workplace engineering. The training aims discuss the concepts of Anthropometry and bio mechanics, help in identifying a sample workstation and improving it using the principles of Ergonomics.

Objective of training:

- Understand the philosophy behind ergonomic practice in garment industry.
- Understand the need for consideration of physical fit in the design of work, workplaces and equipment
- Understand and use ergonomic methods and techniques for risk assessment and identification of workplace risk factors
- Conduct a preliminary assessment in real production environment to evaluate risks to the musculoskeletal system from poor ergonomic design and recommend suitable control measures.

Learning outcome:

- Understand ergonomic principles and gain practical experience in using anthropometric data to design work equipment and how to assessment an office workplace.
 - Gain insight into the practical application of ergonomics in industrial settings.
 - Improve productivity and profitability through ergonomic solutions.
 - Identify factors contributing to workplace musculoskeletal disorders.
 - Identify ergonomic issues and solutions.
 - Accurately apply various ergonomic assessment tools.
 - Make breakthrough improvements to health and safety metrics including workers' compensation costs.
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Activity 8:

Lean Manufacturing

Scope: Traditionally operated garment industries are facing problems like low productivity, longer production lead time, high rework and rejection, poor line balancing, low flexibility of style changeover etc. These problems were addressed in this study by the implementation of lean tools like cellular manufacturing, single piece flow, work standardization, just in time production etc. This training is aimed to give insight in a lean operating system to establish similar concepts in Ethiopian garment industry.

Key inputs:

- Introduction to Lean Management
- Overview of different techniques to eliminate wastes.

- Concepts of lean management, lean management principles, concept of flow & continual improvement, basic requirements of lean & its interpretation.
 - Application of Lean tools and techniques are to eliminate the three sources of loss: waste, variability and inflexibility.
 - Value stream mapping
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Activity 9:

Setting a Garment Manufacturing Unit

Scope: This training will provide a comprehensive knowledge and technical guidance on how to set up a garment manufacturing unit. The training will have an industry attachment for understanding of technical operations of a garment unit and analyzing the setup for improved proposal. The training will not only provide hands on experience on making a project proposal, but also will incorporate critical analysis so that such project proposal can also be evaluated.

Key inputs:

- How to develop a project Proposal on setting up of a knitted/ denim/ shirt or trouser manufacturing unit.
 - How to determine scale of operation and factory capacity.
 - Financial analysis and Project cost estimation.
 - Critical Analysis of production setup for a controlled mix of machinery and equipments for production.
 - Assessment and sourcing of various Machinery and equipments and work out on accurate composition.
 - Human resource planning.
 - Evaluation of project proposal.
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DESIGN AREA

Activity 1:

Integrated Design for Apparel Industry

Scope: The training is aimed to help experts understand the Apparel Design Process and implement the same in the industry pattern to yield a variety of designs integrating different resources. This activity enables the expert to train on the design process to ensure that the participant can establish a product development team / department in his / her organization.

Key inputs:

- Introduction to the Design Process and methods of Design.
- Understanding Design needs.
- Product realization as a process within market & material constraints.
- Study of global design influences and integration.
- Developing concept for design and theme.
- Trend research and design Forecast interpretation.
- Understanding scope for interpretation and adaptations.

- Design development Process, Usage of Design Information, creation of specification and working sheets.
 - Prototype/ sample development.
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Activity 2:

Technical Sheet Creation for Business Generation

Scope: For the line that is developed by the factories for business development, Technical sheet creation training needs to be provided. The Tech sheet should be comprehensive and should include spec sheet, sketch sheet, trims sheets, artwork detailing sheet etc. This is a graphical and written document which indicates the design specification, fit specification, procedure for manufacturing the garment, measurement and sizing of the garment. Buyer communicates the tech-pack with production merchandiser in order to get the desired outcome with the desired quality and aesthetics. The provision is made in tech-pack to control the quality of the product throughout the production procedure. Specification sheets provide important details to ensure the correct execution of garment patterns into finished garments. It helps to produce accurate samples, which improves turnaround time and simplifies communication during all stages of manufacturing and quality control. Once tech-pack for any style is frozen, the production department must be able to go ahead with the manufacturing process without having to refer back to the designer for any aspect of production. The merchandisers are thus able to go ahead and ensure that the required material as per the tech-pack is made available to the production department, in the right quantities at the right time. The marketing department can use this document in their presentation, particularly to the large format stores and their key customers.

Key inputs:

- Detailed technical diagrams for different garment categories (Knits and Woven)
 - Flat (Over all illustration)
 - Construction notes
 - Point of measurement
 - Measurement Spec Sheet
 - Size Gradations
 - Seam specification
 - Stitching Details
 - Fit specification
 - Color specifications
 - Graphic Details (Artwork)
 - Graphic Placement Details
 - Embroidery details
 - Material and trim details
 - Trim Placement Details
 - Fabric Details
 - Fabric yields
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Activity 3:

Application of Trend Analysis and Fashion Forecast in Export

Scope: As a sequel to the Market forecasting and product development activity, this training will apply the forecast references in product development in factories.

Course Objective:

- To anticipate future trends in developing a range of products
- Able to describe emerging attitudes and lifestyle trends through forecast research.
- To collect market information on themes, colour, silhouette, look, design details and its applications.
- Able to apply the research in practical development of design in specific product category.

Learning outcome:

- Create Color harmonies and textures for new designs.
 - Proposition of concepts and applications to various apparel sectors.
 - Apply Key design concepts and trends for the season (including prints/ fabric textures, etc.)
 - Able to explain designs and make presentations through boards (mood board, color board and theme board etc.)
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Activity 4:

CAD for Apparel (Design CAD)

Scope: CAD is commonly used by the product developers in the creation, modification, analysis or optimization of a design. CAD software is used to increase the productivity of the designers and to improve the quality of their visualized designs. This training will train designers / product developers of (export) factories on design CAD for apparels to build the capacity in the area of designing / Product development.

Training outline:

- 2D CAD- Adobe Photoshop & Corel Draw/ Adobe Illustrator
 - Understanding tools and techniques
 - Motif and pattern design
 - Enhanced design of Prints/Textiles using Adjustments
 - Working on colour palette & schemes
 - Effects using filters for prints/ textiles
 - Color separation
 - Removing elements from Prints/Textiles
 - Adding elements to Prints/Textiles
 - Making Prints/Textiles into full repeat
 - Applying Patterns to shapes
 - Creating a Presentation Board
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Activity 5:

Surface Ornamentation for Textiles & Garments

Scope: The Surface ornamentation and design on fabric is a very crucial area of application in contemporary mass fashion. This training aims to teach technical know-how to create designs on the fabric surfaces that are suitable for a wide variety of applications including garments home textiles and fabrics. The training also aims to incorporate skills in illustrating a variety of techniques and media with an emphasis on applying individual creative solutions to commercial briefings. This training will focus on surface ornamentation techniques and adoption of Ethiopian as well as contemporary motifs and patterns on surfaces of textiles and garments through various surface techniques.

Training objective:

- Understanding of various handcrafted techniques, materials & processes.
- Exploration & application of different materials in combination with textiles.
- Adaptation of techniques to create fashion products.
- Understanding of tools, equipment & machinery & the limitations

Learning outcome:

- Hands on familiarity with application of basic hand processes & development of surface textures.
 - Skill of operating tools, machinery & equipment.
 - Innovative approach to create contemporary texture and finishes on textiles.
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Activity 6:

Draping Techniques

Scope: To complement Pattern making, Training on Draping techniques to be conducted to assist pattern makers in getting the right fit of garments. Today draping is a very common to design and product development activities and often used to visualize new styles, create new design and surfaces and test the fit and proportion.

Training objective:

- To understand the human body proportions and contours
- To be able to visualize and create three dimensional patterns directly on the dress form
- To be able to drape and manipulate the fabric to achieve the desired fit and style
- To study the garment in relation to the body and its structure

Training Focus:

- Visualize design, proportion and styling.
- Understand the concept of 3 dimensionality of body form.
- Understand all the various applicable garment components which form the basis for newer creations.
- Convert 2-D material into 3-D form.
- Learn the importance of good fit, comfort and functionality.
- Have hands on experience of converting a design sketch in actual garment.
- Create three – dimensional patterns on the dress form.
- Learn specific ways of cutting fabrics.
- Learn the techniques of accurate pinning & marking.
- Translate the drape into a paper pattern for production.

Learning outcome:

- Application of Principles of Draping in practical product development.
 - Usage and Handling of the different fabrics.
 - Ability to apply various inputs to create a well-fitted garment.
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