

DIRECTOR'S OVERVIEW

This year has again been a very successful year for ATIRA. Starting from high level publication as well as the acquisition of new prototypes has further increased the visibility in niche segment. Research of practical utility lies at the heart of all activities pursued by the ATIRA irrespective of knowledge generation or knowledge exploitations. Founded in 1957, the research organization undertakes applied research that drives sustainable development and serves the wider benefits of society and stakeholders with stress on translational research. Its services are solicited by the customers and partners in industry with solutions. In 2016 important deliverables in different areas with the clear strategy were taken up.

ATIRA is gaining sharp upward trend in-terms of the composite development program with the greater focus on Carbon Fibre Reinforced Plastics (CFRP). CFRP is steadily growing fast as preferred material for construction of aircrafts and spacecrafts. Composite development for space related application this year got major impetus well aligned with the country's space program with ATIRA -SAC, MOU in place. As a next step, ATIRA is working with vendor to develop indigenous resin system to meet challenging properties as well as development of more complicated components consisting of combination of honeycomb and CFRP having very high dimensional range.

Rising significance for geo-textile, shifting consumer preferences, increasing demand for new application area, growing flexibility and recognition of products are some factors poised to grow the market. Under the Scheme for Promoting Usage of Geo-technical Textiles in the North East Region, of the Office of the Textile Commissioner, Ministry of Textiles, Govt. of India, ATIRA is proactively involved in the implementation of the scheme. In all 34 projects, including roads, hill slopes and water reservoirs have been approved by the Apex Monitoring Committee/Empowered Committee

under the scheme are under advanced stage of execution ATIRA has also set up state of art laboratory at Guwahati, for the testing of geo-textiles used in the projects.

ATIRA incubation centre continued to support entrepreneurs for development of several prototypes in the realm of technical textiles for the industry. Besides, it also developed fabrics from carbon fibres for use in the Carbon Fibre Reinforced Plastics.

ATIRA successfully developed PTFE Nanofibre based glass fabric media with excellent filtration efficiency. Industrial trials were conducted and the completed project report was submitted to the MOT. Commercial application of the development is proposed to be taken up. In its' on-going project, ATIRA has developed nanofiber based filter candles for higher filtration efficiency; anti-microbial properties, reducing TDS and heavy metals and work is in progress.

The NABL accredited ATIRA Textile testing and Calibration laboratories continued to provide high end testing services to customers in the areas of fibre, yarn, fabric and technical textiles testing.

In the area of management science, ATIRA dealt on policy research to provide inputs to high level policy making at federal government level besides undertaking techno managerial consultancy for the industry.

We would now like to thank all our customers & partners for the trust you have placed on us. We look forward successfully completing the projects that we begin together and also of course in tackling new projects. We hope you will find this report fascinating reading and trust that the present annual report that you have in your hands provides new impulse and trigger for further cooperation.

Dr. Harish Bisht
DIRECTOR

HIGHLIGHTS OF RESEARCH AND DEVELOPMENTS

CHEMICAL TECHNOLOGY DIVISION

- Process consultancy has been provided to three processing units in Gujarat and Rajasthan. The assignments were for, improving utilization of workers and machineries, reducing waste, reducing consumption of utilities, reduction in colour and chemical consumption and studying machine conditions.
- Fabric Defect Analysis : more than 260 samples
- Certification of Customs Samples: 185 samples
- Performance assessment for various chemicals and auxiliaries used in chemical processing, Kawabata Thermal Insulation Test, Spectrophotometric Evaluation, Evaluation of detergent bars/ powders, evaluation of utensil cleaning bars : more than 660 samples
- **Training :**

Technical training to 5 process house owners in order to explain modern methods of processing to improve the existing processes followed at Balotra.
- Lectures were given on the following topics:
 - Reactive Dyeing.
 - ATIRA approaches for implementation of eco-friendly processing technologies in industries
 - Importance of recovering caustic soda during mercerisation and importance of caustic recovery plant
 - Process Control and environmental impact for small scale dyeing and printing units.

CENTRE OF EXCELLENCE (CoE) IN COMPOSITES :

Development of Carbon fiber based Composites for Space applications under ATIRA- SAC (ISRO) MoU

Carbon fiber reinforced polymer is an extremely strong and lightweight fiber-reinforced plastic which is reinforced with carbon fibers. The binding polymer is often a thermoset resin such as epoxy. The properties of the final CFRP product can also be affected by the type of additives introduced to the binding matrix (the resin).

CFRPs can be expensive to produce but are commonly used wherever high strength-to-weight ratio and rigidity are required, such as in the project where space applications are developed using CFRP.

Composites made from carbon fiber are five times stronger than grade 1020 steel for structural parts, yet are still five times lighter. In comparison to 6061 aluminum, carbon fiber composites are seven times stronger and two times stiffer, yet 1.5 times lighter. Carbon fiber composites have fatigue properties superior to all known metals, and, when coupled with the proper resins, carbon fiber composites are one of the most corrosion resistant materials available. Certain mesophase-pitch-based carbon fibers possess thermal conductivity three times greater than copper. They do not melt or soften with heat, allowing them to be used in such high temperature applications as rocket nozzles and aircraft brakes. In fact, their strength actually increases with temperature in non-oxidizing atmospheres. Considering its wide range of benefits, ATIRA has managed to implement CFRP into developing space applications for ISRO-SAC.

Product Development:

As part of the ATIRA-SAC (ISRO) MoU the following components were developed:

- Metering Cylinder
- Rear Optical Bench
- Main Optical Bench
- CFRP Struts
- K_u Band Hardware inclusive of Feed Horn Assembly
- Orbital High Resolution Camera
- CFRP Reflector (1.6 meters) etc.

It's been thirteen months since the inception of this project and ATIRA has successfully developed most of the aforementioned components. The products developed had its difficulty and complexity which was surpassed by ATIRA and delivered to ISRO on schedule.

Development of belly pan of an automobile using CFRP

Composite materials have big advantages over steel in automobile manufacturing. Composites are being considered to make lighter, safer and more fuel-efficient vehicles. Carbon-fiber composites weigh about one-fifth as much as steel, but are as good or better in terms of stiffness and strength. They also do not rust or corrode like steel or aluminum, and they could significantly increase vehicle fuel economy by reducing vehicle weight by as much as 60 percent. The strength and stiffness factors are why composites are currently used in aerospace and automobile applications, which also require a material that is extremely light and compared to single-layered steel in cars, multiple-layer composite laminates can be designed to absorb more energy in a crash. However, the use of these materials in the automotive industry has been very limited partly because of the costs associated with the materials and manufacturing.

For decades, advanced plastics and polymer composites have helped improve the appearance, functionality, and safety of automobiles while also reducing vehicle weight and delivering superior value to customers. New regulations, shifts in consumer preferences, and recent technology innovations are encouraging automakers to continue increasing their use of advanced plastics and polymer composites to meet tomorrow's challenges and opportunities.

Affordability is an important issue in vehicle manufacturing, which includes factoring in the costs associated with a car's complete life-cycle—including manufacturing, operating and disposal costs. The issue with today's composites is that they have been developed for aerospace applications where cost is not as critical. Pound for pound, material costs of carbon fiber composites are at least 20 times as much as steel, and the automotive industry is unlikely to use them until the price of carbon fiber drops significantly. The processing of carbon fibers is too expensive and slow. The raw carbon material is converted to carbon fibers using thermal pyrolysis, a slow, energy-consuming process that is combined with stressing to achieve a high percentage of carbon with the proper fiber tension. The raw material, the energy needed to heat it to make fibers, and the required equipment all contribute to the high cost. As a result, carbon-fiber composites cannot yet compete economically with steel in the auto industry. The development of low-cost carbon fiber is an active research area with great promise. Also the development of low-cost manufacturing methods for automotive composites is receiving a lot of attention. There are less expensive ways of manufacturing composite automobile parts that also reduce the number of joints and fasteners. ATIRA is in process to make these materials very affordable in the coming future.

Development of GFRP Pultruded pipes for Space applications under ATIRA- SAC (ISRO) MoU

Dish antennas are used as high-gain antennas for point-to-point communications, in applications such as microwave relay links that carry telephone and television signals between nearby cities, wireless WAN/LAN links for data communications, satellite communications and spacecraft communication antennas.

Development of Structural support system for PV Solar Panels

Solar Photovoltaic panels constitute the solar array of a photovoltaic system that generates and supplies solar electricity in commercial and residential applications. A single solar module can produce only a limited amount of power; most installations contain multiple modules. A photovoltaic system typically includes a panel or an array of solar modules, a solar inverter, and sometimes a battery and/or solar tracker and interconnection wiring.

The pultruded structure houses photovoltaic panels used to generate electricity, which will offset the electrical demand of the building.

TA photovoltaic system has its electricity-generating solar panels mounted on the rooftop of a residential/ commercial building, ground mounted and over canals etc. The various components of such a system include photovoltaic modules, mounting systems, cables, solar inverters and other electrical accessories.

Rooftop mounted systems are small compared to ground-mounted photovoltaic power stations with capacities in the megawatt range. Rooftop PV systems on residential buildings typically feature a capacity of about 5 to 20 kilowatts (kW), while those mounted on commercial buildings often reach 100 kilowatts or more.

ATIRA is involved in developing mounting structures for rooftop PV power station, ground mounted PV systems and for a portion of Canal Solar Power Project in Gujarat State. Gujarat has about 458 km (285 mi) of open main canal, while the total canal length, including sub-branches, is about 19,000 km (12,000 mi) at present. Assuming a utilization of only 10% of the existing canal network of 19,000 kilometers (12,000 mi), it is estimated that 2,200 MW of solar power generating capacity can be installed by covering the canals with solar panels. ATIRA will play a key role in bringing an innovative edge to the Canal Solar Power Project in Gujarat state.

Ground-mounted PV systems are usually large, utility-scale photovoltaic power stations. The PV array consists of solar modules held in place by racks or frames that are attached to ground based mounting supports.

Ground-based mounting supports include Pole mounts, Foundation mounts, Ballasted footing mounts.

Development of GFRP based Framed Structure for Anechoic Microwave Chamber under ATIRA- SAC (ISRO) MoU

An anechoic chamber is a RF shielded room whose walls and ceiling have been covered with microwave absorbers that scatter or absorb so much of the incident energy that it can simulate free space. The anechoic chamber is typically used to house the equipment for performing measurements of antenna radiation patterns, electromagnetic compatibility (EMC) and radar cross section (RCS) measurements.

ISRO may employ it to conduct tests on various electronic devices, vehicles, aircraft, or spacecraft. Semi anechoic chamber constructions are designed for radiated emission and immunity testing. But microwave test chambers are designed to perform measurements of antenna characteristics.

Development of GFRP based eco-friendly jute reinforced composite based toilet with Bio-digester

The Bio-digester technology has two components: anaerobic microbial consortium and specially designed fermentation tank. The microbial consortium has been made by acclimatization, enrichment and bio-augmentation with the active bacteria made to survive in an atmosphere suitable to them. It is composed of four clusters of bacteria belonging to hydrolytic, acidogenic, acetogenic and methanogenic groups with high efficiency of biodegradation. Fermentation tank is made of FRP and has the provision of immobilizing the bacteria in large numbers.

It is based on single pit bio-digester whose basic structural components are Jute Reinforced Composite and Pultruded Composite Frame. It is UV, fire and termite resistant with excellent aesthetic appearance. It maintains an excellent balance of mechanical properties along with being lightweight and maintenance free life-long use. Importantly, it is an environment friendly and energy efficient technology which can be prefabricated to premium quality walls. There is no training needed for usage and installation of toilets. The total material can be supplied in modular form and hence easily installed by any individual. The only maintenance required is to maintain timely removal of waste.

Human waste disposal in innocuous form is an ever growing problem leading to aesthetic nuisance, threat of organic pollution & several infectious diseases in epidemic proportions due to contamination of ground water and drinking water resources in highly populated and developing countries, like India. Less than 30% of Indians have access to the toilets. In rural areas about 10% of houses have toilets and rest of the people go to open defecation. Population in the cities although have better access to the toilets but only to the tune of 70%. Untreated waste is responsible for several diseases like, dysentery, diarrhea, amoebiasis, viral hepatitis, cholera, typhoid etc. taking the life of millions of children annually.

ATIRA, being a premier R&D organization in textile

related matter also being Centre of Excellence for Composites, has taken significant initiatives in composite development besides other activities related with textiles. Recently ATIRA has come out with "Eco-friendly Jute Reinforced Composites based Toilet with Bio-digester" design which will fulfill all functional requirements along with long service life without any maintenance based on single pit Bio-Digester system.

Development of GFRP based Parking space structure in ATIRA campus

Metals are the traditional choice for building materials but for the harsh, corrosive environments, FRP is a smart choice. Poly Urethane pultruded FRP has the substantial advantage over the metal. It won't corrode, rot, attract insect damage or conduct electricity. It can be formed into countless FRP profiles to fit to specification. Decades later when other materials need to be replaced, it will still have plenty of life.

The pultrusion process is a proven manufacturing method for obtaining high quality composite profiles with consistently repeatable mechanical properties. Pultrusion products are essentially composed of high performance individually or in combination, embedded in a polymer matrix (polyester, vinyl ester & Poly Urethane). Some of the features of the pultrusion process include:

- Complex shape and unlimited length capabilities
- Precise positioning of reinforcements
- Low scrap rates
- Wide choice of reinforcements and resins
- Better electrical properties
- Consistent quality
- It has special environmental conditions such are affected by salt damage and areas where corrosive gases are present such as thermal areas and landfill sites. The FRP-made structural frame for its corrosion resistance and light weight, as well for being easy to work with at construction sites is highly valued.

Composite Testing Laboratories

Development of Four Point Bending Test (Tensile testing) of Pultruded FRP Sections

- Compression Test
- Full section test by Three Point & Four Point Bending method (Modulus of Elasticity & Shear Modulus)
- Customized full section testing

Non-Destructive Testing Activity:

Experimental Investigation on impact behavior of polymer composites

Accreditation from NABL:

- Renewal of accreditation of Mechanical testing laboratory and accreditation of Heat & Flame Protection Testing Laboratory as per ISO/IEC 17025 :2005.

[Test certificate no.T-0854 (Chemical) & T-0855 (Mechanical) valid up to 18.10.2017]

Testing services were provided to Various composite industries:

- Resin manufacturers
- Carbon/Glass Fabric manufacturers
- Pultrusion section manufacturers,
- Wind Energy sector
- Boat Manufacturers
- Automotive
- Defence
- Aerospace Industries
- Metro/Railway

Total Industries served:

Composites Testing :
 Total Samples Tested : 4140
 Heat and Flame Testing :
 Total Sample tested : 172

TRC (Textile Reinforced Concrete) MODULAR TOILET

A Low Cost Modular Toilet was developed using TRC

panels, with pultruded composite frame made out of glass and polyester resins. The door of this toilet is made using Hybrid Jute reinforced composite which are fire and UV resistant.

Toilet with washroom has also been developed with similar technology. This Modular Toilet can be installed in four (04) hours.

DEMONSTRATION / UNITS INSTALLED

The TRC Modular Toilet has been demonstrated at various exhibition and have been installed at following states including 01 Nos. at Sulabh International, Delhi

Rajasthan	07 Nos.
Orissa	04 Nos.
Bihar	01 Nos.
Delhi	02 Nos.
Noida	02 Nos.
DRDE, Gwalior	02 Nos.
West Bengal	02 Nos.
Sikkim	01 Nos.
Assam (Guwahati)	01 Nos.

MOU Signed

Total Nine (09) MOU's have been signed with various entrepreneurs of Bihar, UP, Gujarat, Maharashtra, all southern states of India viz Tamilnadu, Kerala, Andhra Pradesh, Karnataka, Pondicherry & Telangana, MP, Jharkhand, Andaman Nikobar, envisaging target of manufacturing **1.25 Lac** Toilet out of which production has been planned for manufacturing **20,000** TRC Modular Toilets.

Manufacturing and installation of Toilets 100 Nos. have already started at Village : Nagwasi (**First Smart Village of U. P.**), Dist. Mirzapur (U. P.)

Construction Site Lab of **M/s. L & T** were also made through TRC Technology with an ideal combination of pultruded composite components Structures / Frame

etc. In addition **10 TRC & JRC Modular Toilets** have also been installed at various sites of **M/s. L & T Construction Ltd. in Gujarat.**

ENVIRONMENTAL ENGINEERING DIVISION

Highlights summarizing various services provided to the Industries in the area of Environmental Engineering by ATIRA:

- A.** ATIRA has been a recognized Environment Auditor for the Schedule- I group of Industries since the year 2001. The recognition is renewed for the years up to 2017. A total number of Industrial clients for the calendar year 2016-17 are 12.
- B. Environment Management System Adequacy Certification & Assessment Report :** 12 industries availed services from ATIRA, during the year 2016-17.
- C. Treatability Study** to evolve design data essential to design Effluent Treatment Plant: Number of industries approach ATIRA for such work, depending on the need of the client. Treatability Study as a step leading to improving efficiency of the Effluent Treatment Plant (ETP), ETP Designs & ETP Up-gradation.
- D. Sampling and analysis of Water, Waste water, Gaseous Emissions and Process as well as Flue Gases, Hazardous Waste,** is another area where Industries avail services from ATIRA. Total ~ **510** samples were analyzed during the year, over and above samples from the Environment Audit clients.
- E. Larsen & Toubro Limited** availed services from ATIRA, during the year 2016-17 for DOH Test (Degree of Curing Test).
- F. Soil & Ground Water Contamination Study:** methodology for assessment of extent of soil and groundwater contamination - 2 industries availed services from ATIRA, during the year 2016-17.

MECHANICAL PROCESSING (WEAVING) DIVISION

Consultation

1. Technical Scrutiny: Technical Scrutiny of fabrics and garments for selected products of babies and mothers was done for a public sector company.

The scrutiny was done for the process of purchasing of these products after testing. The report was prepared by analysing the test reports, its adherence or deviation to the specified limits and its affect on the fabric performance with respect to designated use.

2. Development of Specifications for Fabric for Uniform: An assignment was taken up for deriving specifications for finished fabric of *Saris* as uniform for public sector helpers and facilitators. The assignment was done for a state government corporation. Specifications for different types of fabrics were derived in terms of expected values (in range) of key construction and functional parameters were decided. The specifications were derived using IS standards, suggested quality of the fabric by clients, reference samples and market study.
3. Assessment of Construction Parameters: Technical Textile Product received by the ATIRA were tested and analysed for its construction parameters to facilitate its reproduction. Analysis includes multilayer weave identification, combination of weaves, types of yarns and its densities.
4. Improvement and fine tuning of specifications: Improvement and fine tuning of specifications was done for some items, apparel and fabrics, designated for usage by patients in government hospitals.

Technical Training

1. Customised Training Programmes were conducted for about thirteen trainees having varied background in terms of education and experience having highly specific training needs. The trainees were established entrepreneurs, traders, management cadre personnel from industrial units, students from technical institutions, new entrants in the industry, students from technical institutions, etc., hence, the training spectrum remained very wide. Total fifteen training programmes were conducted for following topics:
 - Technology of Textile Manufacturing
 - Woven Fabric Structure and development of new structures
 - Advance Weaving Technology

2. A Customised Training Program was conducted for an international spinning machine manufacturing company for their employees in research and planning departments. The training was imparted in Spinning and Quality of fibres and yarns.
3. Yet another specially tailored training program was organised for a local composite mill for senior level managers in Weaving and Weaving Preparatory areas according to their needs of shop floor working.

COMPUTER AIDED DESIGNING (CAD) CENTRE AT ATIRA, AHMEDABAD

The CAD centre at Ahmedabad conducted thirteen training programmes covering about 40 trainees during the review period. Most of the training programs were customised training programmes developed as per the need of the trainees coming from educational institutes or from the industry. Training was imparted on different topics of “Fabric and Garment Designing and Technology”.

Topics of the programmes conducted are enlisted below:

- Woven Fabric Design Technology
- Fundamentals of Textile Manufacturing
- Fundamentals of Apparel Manufacturing
- Apparel Designing

POWERLOOM SERVICE CENTRES (PSC) AT AHMEDABAD, DHOLKA AND INDORE

- Power loom Service Centre of ATIRA Ahmedabad and Dholka are engaged in various activities like Training, Testing, Consultation, organizing Seminar, Group Meeting, Awareness program about various schemes of GOI and GOG. PSCs ATIRA jointly with ROTxC team had worked a lot for awareness on Bank Payment/Digital Banking among Textile Owners & workers to support Cashless Transaction Campaign by Govt. of India.
- The Power loom Service Centre arranged exposure visit for Gujarat textile entrepreneurs in the power loom clusters of other regions in the country under cluster development scheme of Government of India. Besides textile entrepreneurs from Jabalpur, Coimbatore, Erode and Orissa have visited various textile units in Ahmedabad. Power loom entrepreneurs from

Dholka visited Bhilwara and Kishangarh power loom industry under the same scheme.

- **Technical Officers of ATIRA, In-charge of the Power loom Service Centres** and officers of the Regional Office of the Textile Commissioner paid visit to various new textile units in Gujarat for machine verification under TUF scheme of Government of India. Besides registration of power loom workers for Group Insurance Scheme (GIS) and Shiksha Sahyog Yojana (SSY) is carried out.
- **Power loom service centre at Indore (M. P.)** is engaged to provide services to the power loom industry at Indore, Dewas, Ujjain and Mandasaur as per the guidelines of the Textile Commissioner Office, which continued to cater various activities viz., Training, Consultancy, Testing, Seminar/Workshop, also carried out assignments related to quality, productivity improvement and designing. It also helps power loom units to manufacture suitable quality of fabrics. During this year a team of 22 power loom entrepreneurs has visited Burhanpur under exposure visit scheme for cluster development.

QUALITY SYSTEM GROUP: CALIBRATION LABORATORY

The NABL accredited Calibration Laboratory at ATIRA provides calibration/testing services to the various industrial segments such as textile units, machinery and accessories manufacturers, chemical units, Pharmaceutical industry, Clinical Research organizations, hospitals, pathological laboratories, dairy, food and paint industry, Research and Development organizations, Space Applications Center, Oil & Natural Gas Units, testing laboratories of Gujarat Pollution Control Board, in Gujarat Calibration Laboratories and Coke industries etc.

The Mechanical, Thermal and Electro-Technical calibration laboratories are accredited by NABL for Calibration of instruments at laboratory as well as on site in accordance with the standard ISO/IEC 17025:2005.

The calibration/testing services are also availed by NABL Accredited Testing Laboratories of ATIRA namely Textile Testing, Chemical Textile Testing/ Chemical Analytical Testing, Air Sampling and Testing laboratory, Composite, Heat and Flame testing, Nano web laboratory, Pultrusion Lab for different parameter based instruments/equipments.

At present, this laboratory is calibrating various parameter based instruments/artifacts such as dimension, pressure, vacuum, acoustic, mass metrology. Weighing balance, weights, Volume, Density, Speed, Temperature, Humidity, Electro-Technical, Time, Force, Air velocity, Illumination, Electrochemical, Textile Testing and Special medical instruments etc

During this year, the laboratory was audited by 6 clients as a part of vendor audit for availing calibration and testing services at laboratory and onsite. The calibration laboratory received above **465** Service Requests for calibration work from various industry segments and calibrated over **2500** instruments at ATIRA lab as well as at client's site. The technical team of calibration laboratory made **88** visits in **36** units for calibration/ testing assignments.

INCUBATION CENTRE :

Project

Development of Extra Heavy Duty belts/webbings as per the market requirement was carried out with the objectives:

- To ascertain the requirements of different specified industries using "Heavy Belts/ webbings."
- To develop Extra Heavy duty Industrial Belts with equal/higher strengths with the substitute and /or cost effective raw materials 300 mm wide and 5 to 10 mm thick for different and end-use applications.
- To evolve cost effective construction, design of the heavy duty belt with judicious combinations of specific high strength yarn to meet the requirements.
- Performance evaluation.

Outcome of the Project as under:

- The observation of use of High Strength woven Belts in field shows encouraging performance.
- Earlier Metallic Chains were used as Safety Belts but now High Strength Woven Belts are being used mostly. High Temperature Fabrics / Belts are being used in FR Blankets, Ballistic uniforms etc.
- Woven Belts can be finished by Coating on auxiliary machines to enhance mechanical properties.

- This technology is very important to produce specified application products like High Strength Belts, Car Seat Belts and Conveyor Belts etc.
- **Step towards commercialization** is in progress with M/s. Garware Ltd.
- Major Prototypes developed at Incubation Centre = 21
- Training programs on Technical Textiles for entrepreneurs: 02

Major Work in Progress :

- Joint project with ISRO to Develop Carbon Fabric for Application in Communication System for ISRO. Comprising of rewinding of Carbon yarn on Jakob Muller rewinding machine and weaving preparation for same on TEXMER creel to Beam for Direct Weaving of carbon Fabric of various configuration on Dornier 190 cm loom.
- Warping / Weaving of Specialty Fiber yarns for New Entrepreneur and towards Productive Developments.

Training Program on TRC Modular Toilet:

Training imparted to personals of ATIRA franchises for Manufacturing and Installation of TRC Modular Toilets.

Total Personals Trained: Fifteen (15)

TEXTILE TESTING AND CHEMICAL TEXTILE TESTING LABORATORY :

Textile Testing laboratory of ATIRA is offering testing services in filed of physical and chemical analysis of fibre, yarn, fabric, garment, Protective, Industrial textile and Geo textile material.

Chemical Textile Testing laboratory is offering testing services for Chemical test parameter of textile and solid fuel analysis.

The physical textile Testing laboratory has received more than 13000 requests for testing purpose from various clients across India. The Chemical textile Testing laboratory has received more than 2828 requests for testing purpose from various clients across India. It has tested more than 85000 fibre samples for various properties including man-made fibres.

Laboratory has tested more than 5000 yarn samples and more than 170000 fabric samples for various parameters. The laboratory has received more than 15000 Geotextile samples for varies test. The Geotaxtile testing check by is one of its kind in India with state of the art facilities. The laboratory has also received NABL accreditation for very specialized test parameters like BAW abrasion, In-plane Water permeability, Through Plane water permittivity with load which is one of only kind of facility in Asia. Laboratory is also receiving samples from various countries like south Africa, South Arabian countries, Bangladesh, Pakistan etc..

The laboratory is also receiving samples from multinational Inspections house like SGS, Intertek, Bureu Veritas, UL Laboratories etc for specialized tests.

The laboratory provide CE certification service in collaboration with EU notify body.

Laboratory has opened a Geotextile Testing Laboratory in Guwahati, Assam. Installation and commissioning of equipment under the lab is completed.

Laboratory also organized two days training program for student of CEPT university in Geotextile Area.

CL CENTRE:

Policy Research

1. "Restructured Technology Mission on Cotton"

A comprehensive White Paper was prepared based on detailed research among the cotton trade at the Ginning industry level and was presented to Government and policy makers.

The Technology Mission on Cotton was implemented by Government of India during the period 2000-10. The Mission aimed to address issues of raising productivity, improving quality and reducing the cost of production and thus provide much-needed competitive advantage to textile industry along with ensuring attractive returns to farmers.

As per the study :

- a) Mission has covered only 20percent of the total market yard in the country and
- b) Only around 25% of the Ginning units in the country

- c) The area under cotton since then went up by around 50% and
- d) Cotton production went up by 1.5 times e) as per the international cotton quality survey by ITMF, in recent times, the trash index in Indian cotton went up by 30 index points and the contamination index too went up marginally. Buyers of Indian cotton in the international market have expressed serious concerns over the quality of Indian cotton.

The Restructured mission was designed to suggest

- 1) to provide least contaminated cotton to the textile industry further to improve the image of Indian cotton
- 2) Improve the cotton economy as a whole.

Comprehensive detailing was made to address the issues on

- a) Quality improvement in cotton picking, selection of ginning machinery in modernization across processes
- b) Cotton bale certification
- c) Cost reduction possibilities
- d) Energy conservation
- e) Modernization possibilities limiting human intervention thereby addressing shortage of labour f) benchmarking among units g) GMP h) utilization of byproducts i) TEV studies and so -on

2. “Technical Textiles Market Creation Mission” (TTMCM) for sustainable growth of textile industry

Comprehensive white paper was prepared and submitted to Government of India based on detailed research on the development possibilities of Technical textile industry in India

Technical textiles sector is an area of product and process innovation and is a knowledge based research oriented industry and has been slowly but steadily gaining ground due to functional requirements viz. facets such as health and safety, cost effectiveness, durability, high strength, light weight, versatility, customization, user friendliness, eco friendliness, logistical convenience etc.

Rationale: Technical textiles being functional textiles is different from conventional textiles in terms of investment, production, consumption and usage. Therefore investment on production capacities cannot develop on its own. Industry would do techno-economic feasibility in investment based on return on investment and marketability. The investment in this sector is considerable and marketability is uncertain as the usage of technical textiles is in its nascent stage as compared to developed countries. Exportability of indigenous production too is uncertain. Fiscal incentives both one time and for a fixed duration would give a temporary euphoria for the investment climate and a ‘section’ of industry would resort to investment only to take advantage of fiscal benefits and that too could be for products at the lower end of technology due to techno-economic feasibility and uncertainty of the market. Thus the real growth and development of value added technical textile production, its markets and its sustainability is uncertain which is similar to current scenario of TT industry in the country

A comprehensive white paper was prepared to address the below:

- Encourage the use of technical Textiles by user Institute / Industry/ Organization
- Shall create market in the short span of time
- Such a scheme would be of pilot in nature before making rules and regulations for compulsory usage of Technical textiles to promote Govt missions of clean India and Make in India as well as sustainable growth of technical textile industry.

3. Research study was conducted at the behest of an institution on National and International Cotton Scenario.

In India, cotton is primarily sold in the form of kapas (raw cotton or seed cotton). However, in other leading cotton growing countries, kapas is Processed — wherein the fibre is extracted, and then the lint (cotton fibre extracted from seed cotton) is sold as processed bales

The national marketing sectors involved in cotton trade were studied.

- **Private sector** comprising traders, owners of ginneries operating as individual business proprietors, partnership firms and private limited companies

- **Public sector**
- **Co-operative Sector:** State level Co-operatives and Federations

Approximately 90% to 95% of the marketed surplus of kapas and lint is handled by the private marketing channels and the remaining 5% to 10% by the institutional marketing channels including co-operatives and public sector agency.

Besides the Indian and International cotton balance sheet were studied and movement of cotton across countries were studied

LIBRARY AND NICTAS

(A) HIGHLIGHTS OF LIBRARY

- ATIRA Library has rich resources of 42,737 books and bound volumes in the Textile and Allied areas.
- Subscribes 5 national and international print as well as electronic journals.

- About 150 books, bound volumes of journals were issued during the year.
- About 60 members are using the library as individual members.

(B) NICTAS AT ATIRA

During the year, NICTAS provided the following services to its users:

- 30 Standards were procured on demand.
- 10 articles procured from national and International sources.
- 3 issues of TEXINCON for the year 2016-17 were published.
- A total 10 on-line searches were carried out for 4 users, under NACID, through its specialized network.

INDEPENDENT AUDITORS' REPORT

Report on the Financial Statements

We have audited the accompanying financial statements of **THE AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, AHMEDABAD ("ATIRA")** which comprise the Balance Sheet as at March 31, 2017, and the Income and Expenditure Account for the year then ended and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation of these financial statements that give true and fair view of the financial position and financial performance of ATIRA in accordance with the accounting principles generally accepted in India, including the applicable Accounting Standards. This responsibility also includes maintenance of adequate accounting records in accordance with provision of the Act for safeguarding the assets of ATIRA and for preventing and detecting frauds and other irregularities; selection and application of appropriate accounting policies; making judgments and estimate that are reasonable and prudent; and design, implementation and maintenance of adequate internal financial controls, that were operating effectively for ensuring the accuracy and completeness of the accounting records, relevant to the preparation and presentation of the financial statement that give a true and fair view and are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with the Standards on Auditing issued by the Institute Chartered Accountants of India. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on auditor's judgment, including the assessment of the risk of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to ATIRA's preparation of the financial statements that give a true and fair view in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on whether ATIRA has in place an adequate internal financial controls system over financial reporting and the operating effectiveness of such controls. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion and to the best of our information and according to the explanations given to us, the financial statement give a true and fair view in conformity with the accounting principles generally accepted in India of the state of affairs of ATIRA as at 31st March, 2017 and its surplus for the year ended on that date.

For, **Sorab S. Engineer & Co.**
Firm Registration No. 110417W
Chartered Accountants

CA. Chokshi Shreyas B.
Partner
Membership No. 100892
Ahmedabad
Date : 28/06/2017

**ANNUAL ACCOUNTS
2016-2017**

**AHMEDABAD TEXTILE INDUSTRY'S
INCOME AND EXPENDITURE ACCOUNT**

2016 Rs.	EXPENDITURE	Rs.	2017 Rs.
	Employees' Emoluments		
38,000,308	Salary and Allowances	41,234,827	
3,366,661	P.F. and Pension Scheme Contributions	3,128,039	
633,638	Medical Benefits	385,089	
-	Retirement Benefits	6,772,172	
337,249	Bonus and Exgratia	997,311	
124,455	Staff Amenities	61,123	
123,371	Contribution to ATIRA Staff Insurance Fund	134,490	
117,781	Employees' Deposit Linked Insurance Scheme	225,831	
56,705	Leave Travel Concession	50,425	
<u>42,760,168</u>			52,989,307
	Travelling & Conveyance Expenses		
2,941,528	Travelling Expenses (Net)	4,033,228	
982,486	Conveyance Expenses	246,499	
837,147	Vehicle Expenses	126,089	
<u>4,761,161</u>			4,405,816
	Repairs & Maintenance		
741,439	Building & Estate Maintenance	842,958	
1,143,883	Repairs & Maintenance - Others	654,499	
61,934	Staff Quarter Expenses	64,515	
<u>1,947,256</u>			1,561,972
	Laboratory Expenses		
4,736,518	Laboratory, Workshop and Pilot Mill Expenses	7,318,810	
3,443,042	Incubation Centre Expenses	2,179,888	
-	IL-01 Infusion Laboratory	3,422,819	
276,028	Accreditation of Lab. Expenses	317,034	
206,994	Calibration Expenses	299,318	
3,351,911	Guwahati Laboratory Expenses	3,670,408	
<u>12,014,493</u>			17,208,277
	Library & Journal Expenses		
188,460	Library Journals , Publications and Books Expenses		352,869
	Administrative Expenses		
6,382,841	Electrical charges (Net)	5,540,719	
3,243,799	Service charges	3,762,244	
1,209,140	Rates and Taxes	2,654,919	
629,874	Legal and Professional Fees	1,740,229	
1,357,860	Miscellaneous Expenses	1,364,584	
52,740	Advertisement Expenses	414,299	
341,988	Forms and Stationery	301,356	
70,000	Audit Fees (Excluding Service Tax)	100,000	
117,708	Insurance on Building , Machinery etc	125,736	
428,265	Rent	409,189	
647,229	Security Expenses	634,338	
263,009	Conference and Seminar Expenses (Net)	-	
1,982,005	Sundry Dr./Cr. Balance written off (Net)	866,857	
<u>16,726,458</u>			17,914,471
<u>78,397,996</u>	Total C/F		<u>94,432,712</u>

**RESEARCH ASSOCIATION, AHMEDABAD 380 015
FOR THE YEAR ENDING MARCH 31**

2016 Rs.	INCOME	Rs.	2017 Rs.
	Grant & Contribution		
	Non-Plan Grant from Ministry of Textiles		
10,000,000	Salary Grant	12,360,000	
2,075,000	Recurring Grant	3,640,000	
1,860,000	Contribution from Industries	1,560,000	
<u>13,935,000</u>			17,560,000
	Earned Income :		
37,064,264	Testing Fees	46,687,589	
2,874,714	Calibration Service & Incubation Income	4,517,326	
11,813,606	Sponsored work from Industry	11,160,238	
<u>51,752,584</u>			62,365,153
	Salary/Overheads Recovered from Sponsored Projects & Services		
2,778,298	Powerloom Service Centres	2,589,062	
1,487,059	Other Govt./Non -Govt. Agencies/Services	3,094,647	
14,206,413	Overheads on Sponsored Projects	19,722,800	
<u>18,471,770</u>			25,406,509
	Interest on Investments		
7,982,954	Interest income	8,877,990	
556,190	Less: Transferred to Various Funds	430,599	
<u>7,426,764</u>			8,447,391
	Other Income		
3,900,132	Miscellaneous Income	3,577,806	
177,946	Staff Quarters Income	191,188	
80,560	CAD Centre Income	47,572	
790,052	Excess Provisions no longer required	-	
<u>4,948,690</u>			3,816,566
<u><u>96,534,808</u></u>	Total C/F		<u><u>117,595,619</u></u>

**AHMEDABAD TEXTILE INDUSTRY'S
INCOME AND EXPENDITURE ACCOUNT**

2016 Rs.	EXPENDITURE	Rs.	2017 Rs.
78,397,996	Total B/F		94,432,712
	Communication Expenses		
199,626	Postage and Telegrams (Net)	335,958	
247,744	Telephones & Fax charges	338,542	
<u>447,370</u>			674,500
	Finance Cost		
82,390	Interest on Bank Overdraft	126,143	
15,315	Bank Charges	4,617	
<u>97,705</u>			130,760
1,000,449	Depreciation	-	815,090
89,686	Loss on Sale of Fixed Assets	-	-
	Excess Expenditure on sponsored projects met out of ATIRA Funds		
15,039,121	Projects Sponsored by MOT	4,144,965	
46,252	Internal Project	76,534	
-	Projects Sponsored by GOG	12,785,186	
<u>15,085,373</u>			17,006,685
	Transfer to Fund		
-	ATIRA Development Fund		4,535,872
	Surplus		
1,416,229	Surplus for the year		-

96,534,808

TOTAL :

117,595,619

For Notes forming part of Accounts refer schedule 'K'

As per our report of even date
For, **Sorab S Engineer & Co.**
Firm Registration No.110417W
Chartered Accountants

Place : Ahmedabad
Date : 28/06/2017

S. P. Bhavsar
Incharge - Finance & Accounts

Harish Bisht
Sanjay Lalbhai
Members of the
Council Of Administration

CA Chokshi Shreyas B.
Partner
Membership No. 100892

**RESEARCH ASSOCIATION, AHMEDABAD 380 015
FOR THE YEAR ENDING MARCH 31**

2016 Rs.	INCOME	Rs.	2017 Rs.
96,534,808		Total B/F	117,595,619

96,534,808

TOTAL :

117,595,619

**AHMEDABAD TEXTILE INDUSTRY'S
BALANCE SHEET AS**

2016 Rs.	FUNDS & LIABILITIES	SCHEDULE NO.	2017 Rs.
685,802,746	CAPITAL FUNDS	A	703,079,453
273,627,374	OTHER EARMARKED FUNDS	B	280,519,353
126,036,784	SPONSORED PROJECTS	C	78,628,148
45,559,514	CURRENT LIABILITIES & PROVISIONS	J	56,926,920
	INCOME & EXPENDITURE ACCOUNT		
-	Balance as per last financial statement		1,416,229
-	Less: Transfer to Atira Development Fund		1,416,229
-			-
<u>1,416,229</u>	Surplus for the year		-
<u>1,416,229</u>			-

1,132,442,647

TOTAL :

1,119,153,874

For notes forming part of Accounts, refer Schedule 'K'

As per our report of even date
For, **Sorab S Engineer & Co.**
Firm Registration No.110417W
Chartered Accountants

Harish Bisht
Sanjay Lalbhai

Place : Ahmedabad
Date : 28/06/2016

S. P. Bhavsar
Incharge - Finance & Accounts

Members of the
Council Of Administration

CA Chokshi Shreyas B.
Partner
Membership No. 100892

RESEARCH ASSOCIATION, AHMEDABAD 380 015
AT MARCH 31

2016 Rs.	PROPERTIES & ASSETS	SCHEDULE NO.	2017 Rs.
29,408,075	IMMOVABLE PROPERTIES	D	29,408,075
671,194,860	MOVABLE PROPERTIES	E	689,581,610
196,010	CAPITAL WORK IN PROGRESS	-	-
132,859,687	INVESTMENTS	F	126,388,590
28,863,684	CASH AND BANK BALANCES	G	8,429,062
11,463,491	SUNDRY DEBTORS	H	11,023,548
	OTHER CURRENT ASSETS, LOANS &		
28,054,864	ADVANCES	I	35,638,353
230,401,976	SPONSORED PROJECTS	C	218,684,636

1,132,442,647

TOTAL :

1,119,153,874

AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, AHMEDABAD 380 015
SCHEDULE - 'A' : CAPITAL FUNDS

AS AT 31-03-2016 Rs.	ACCOUNT HEAD	ADDITIONS RS.	DEDUCTIONS RS.	PARTICULARS	AS AT 31-3-2017 Rs.
29,063,445	1) Industry's Capital Contribution Account				29,063,445
5,845,595	2) Contribution for Capital Expenditure from the Government	-	-		5,845,595
16,700,977	3) Fund for ATIRA-AMA Centre Building	-	-		16,700,977
345,000	4) Capital grant and contribution for Lab. Building	-	-		345,000
633,847,729	5) Fund for capital exp. out of grant and contributions from Govt. and various other sources	17,276,707	-	Fund created during the year	651,124,436
<u>685,802,746</u>	TOTAL :	<u>17,276,707</u>	<u>-</u>		<u>703,079,453</u>
<u>612,861,446</u>	Previous Year	<u>72,962,799</u>	<u>21,499</u>		<u>685,802,746</u>

AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, AHMEDABAD 380 015
SCHEDULE - 'B' : OTHER EARMARKED FUNDS

AS AT 31-03-2016 Rs.	ACCOUNT HEAD	ADDITIONS RS.	DEDUCTIONS RS.	PARTICULARS	AS AT 31-3-2017 Rs.
37,045,508	1) Depreciation Fund	815,090		Depreciation Provided during the year	37,860,598
1,982,754	2) ATIRA Staff Insurance Fund	134,490		Contribution for the year	2,117,244
529,139	3) Staff Welfare Fund	40,298		Interest credited during the year	
			50,000	Recurring expenditure incurred during the year	519,437
1,000,000	4) Fund for Chimanlal Lalbhai Centre for Management Studies			Transfer to Atira Development Fund	1,000,000
202,385,510	5) Machinery / Equipment Replacement Fund		202,385,510		-
30,684,463	6) Building Renovation Fund		30,684,463		-
-	7) Atira Development Fund	233,069,973			
		1,416,229		Transfer from Opening Balance of Income & Expenditure Account	
		4,535,872		Transfer from Income & Expenditure Account	239,022,074
<u>273,627,374</u>	TOTAL :	<u>240,011,952</u>	<u>233,119,973</u>		<u>280,519,353</u>
<u>273,336,027</u>	Previous Year	<u>1,177,876</u>	<u>886,529</u>		<u>273,627,374</u>

AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, AHMEDABAD 380 015
SCHEDULE 'C' : SPONSORED PROJECTS

Sr. No.	Account Head	Credit/ (Debit) Balance as at 01-04-2016	Grant received/ (Refund) during the year	Interest/ other income received during the year	Expenditure incurred during the year	Transfer to Income & Exp. Account	Credit / (Debit) Balance as at 31-03-2017	Recurring Capital					
								Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
A) Projects sponsored by Ministry of Textiles													
	(MT-54) To Evolve Construction Related Design a well as Environmental Design Parameters for both Woven & Non-woven Geo-Synthetics	(5,457,108)				196,108	(5,261,000)						
	(MT-56) Bio preparation Technology : Enhanced sustainability in cotton & cotton Containing Textile Processing	(498,580)			810		(499,390)						
	(MT-58) Development of High Strength Core and Sheath ropes using Weaving Technology	(68,486)				68,486	-						
	(MT-59) Development of protective textiles for protection against electromagnetic radiations (Capital)	(1,224,083)				1,224,083	-						
	(MT-59) Development of protective textiles for protection against electromagnetic radiations (Recurring)	-			165,877	165,877	-						
	(MT-60) Development of PTFE nano fibre-based media for filtration under corrosive/high temperature condition	(2,042,826)			368,586		(2,411,412)						
	(MT-61) Development of Extra Heavy Duty Industrial Belts/Webbings as per the market requirement	(1,654,848)	1,180,800			474,048	-						
	(MT-62) Textile Reinforced Precast Panel (Capital)	14,027,623				145,860	13,881,763						
	(MT-62) Textile Reinforced Precast Panel (Recurring)	-			1,685,827	1,685,827	-						
	(MT-63) Development Of Nano-Fibre Based Water Filter To Get Safe And Pure Drinking Water For Human beings	-	1,120,000		588,672		531,328						
	(ISDS)-Integrated Skill Development Scheme Centre of Excellence in Composites	(207,620,731)					(207,620,731)						
	SMC manufacturing using jute as the major reinforcing fibre & compression moulding	23,173,078			612,000		22,525,141						
	Creating a short film on composite segment for promoting usage and application of technical textiles	(1,378,441)			761,787	186,228	(1,954,000)						
	Scheme for promoting usage of Geotechnical Textiles in North Eastern Region	1,200,000			256,500		943,500						
	Scheme for promoting usage of Geotechnical Textiles in North Eastern Region (Capital)	30,081,554			28,962,611		1,118,943						
	Setting up the Focus Incubation Centre	16,272,467			9,848,057		6,424,410						
		34,199,320			7,246,853		26,952,467						
Total C/F		(100,991,061)	2,300,800	-	33,402,669	17,276,707	4,000,656	(145,368,981)					(Contd....)

AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, AHMEDABAD 380 015
SCHEDULE 'C' : SPONSORED PROJECTS (Contd.)

Sr. No.	Account Head	Credit/ (Debit) Balance as at 01-04-2016	Grant received/ (Refund) during the year	Interest/ other income received during the year	Expenditure incurred during the year	Transfer to Income & Exp. Account	Credit / (Debit) Balance as at 31-03-2017	Recurring Capital	
								Rs.	Rs.
	Total B/F	(100,991,061)	2,300,800	-	33,402,669	4,000,656	(145,368,981)		
B) Modernisation of PLSC's									
	Modernisation & Strengthening scheme of Powerloom Service Centre at A'bad- Capital	226,541					226,541		
	Integrated Scheme for Powerloom Sector Development for Modernisation/upgradation of PSCs	1,559					1,559		
C) Powerloom Service Centres at :									
	Ahmedabad — Recurring	-	1,771,500	5,540	1,920,774	143,734	-		
	Ahmedabad — Capital	-	600,000				600,000		
	Dholka — Recurring	-	1,200,000	61,251	1,261,545	294	-		
	Indore — Recurring	-	1,500,000	74,462	1,574,743	281	-		#
D) Projects sponsored by Ministry of Science and Technology									
	Monographs on Industrial Carbohydrates of India	76,191					76,191		
	Nissat Access Centre to International DataBase Services at ATIRA (NACID)	228,994		34,320	37,866		225,448		
	National Information centre for Textiles & Allied Subjects (NICTAS)	5,622,523		454,963	1,357,092		4,720,394		
E) Projects sponsored by Defence R & D Establishment									
	(DRDE); Design & Development of PTFE Nano fiber Based media for filtration under corrosive/high temperature condition	500,000		891,279			(391,279)		
	(DRDE 2015-01); Exp work on development of simple & Portable water filtration cum treatment device to be used by army personnel to get drinkable water from dirty/muddy water.	(277,546)		220,587			(498,133)		##
F) Projects sponsored by Government of Gujarat									
	(GG-24) A 3 month skill Development Course for Fresh Power-loom Weavers & Jobbers for Non-auto, Auto and Shuttle-less Looms	(9,923,552)		2,710,800		12,634,352	-		
	(GG-24A) Stipend to Trainees	(112,417)	1,650,000		1,650,000	112,417	-		
	(GG-27) Setting up of ATIRA Geo-Synthetic Testing Laboratory	(38,417)				38,417	-		
	(GG-01-B); Expansion of Calibration Laboratory (Module II)	244,485					244,485		
	Total C/F	(104,485,176)	9,022,300	630,536	45,027,355	17,276,707	(140,206,255)		(Contd....)

Interest Allocated during the Year
Inter Project Transfer

AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, AHMEDABAD 380 015
SCHEDULE 'C' : SPONSORED PROJECTS (Contd.)

Sr. No.	Account Head	Credit/ (Debit) Balance as at 01-04-2016	Grant received/ (Refund) during the year	Interest/ other income received during the year	Expenditure incurred during the year	Transfer to Income & Exp. Account	Credit / (Debit) Balance as at 31-03-2017
	Total B/F	(104,485,178)	9,022,300	630,536	45,027,355	16,930,151	(140,206,253)
G) Internal Projects							
	(IND-06) Improving Performance Characteristics of Forming Fabrics for Paper making machines by use of Multilayer Weaver within the Gaps available among the Current Patents	149,300					149,300
	(IND-08) Geographical Indication (GI) Registration of Hand-woven Textile Items and Textile Crafts in Gujarat State	20,522	26,735				(6,213)
	(IND-10) Geographical Indication (GI) Registration of Hand Woven Items of Gujarat - Mashroo Cloth of Patan & Mandvi (Kutch)	6,678					6,678
	(IND-11) Geographical Indication Registration of Gharchoha/Panetar Saree of Khambhat (Cambay)	5,949		20,020		14,071	-
	(IND-12) Building awareness on Intellectual Property Rights for Micro , Small & Medium Enterprises (MSME)	(62,463)				62,463	-
	Total	(104,365,192)	9,022,300	630,536	45,074,110	17,276,707	(140,056,488)
	Previous Year	(99,828,792)	92,401,700	2,024,118	41,059,654	72,962,799	(104,365,192)
	Breakup of balance as at						
	Debit balances	(218,684,636)	(230,401,976)				
	Credit balances	78,628,148	126,036,784				
		(140,056,488)	(104,365,192)				

AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, AHMEDABAD 380 015
SCHEDULE - 'D' : IMMOVABLE PROPERTIES

AS AT 31-03-2016 Rs.	ACCOUNT HEAD	ADDITIONS RS.	DEDUCTIONS RS.	AS AT 31-3-2017 Rs.
679,056	1) Land			679,056
9,501,910	2) Labroatory Building & Roads			9,501,910
2,526,132	3) Staff Quarters			2,526,132
16,700,977	4) ATIRA-AMA Building			16,700,977
<u>29,408,075</u>	Total	<u>-</u>	<u>-</u>	<u>29,408,075</u>
<u>29,408,075</u>	Previous Year	<u>-</u>	<u>-</u>	<u>29,408,075</u>

AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, AHMEDABAD 380 015
SCHEDULE - 'E' : MOVABLE PROPERTIES

AS AT 31-03-2016 Rs.	ACCOUNT HEAD	ADDITIONS RS.	DEDUCTIONS RS.	AS AT 31-3-2017 Rs.
Out of own funds				
4,237,543	1) Machinery	867,683		5,105,226
10,701,213	2) Laboratory Apparatus			10,701,213
83,992	3) IBM Punching Machines			83,992
519,369	4) Workshop Equipment			519,369
4,208,823	5) Furniture and Dead Stock	78,003		4,286,826
3,116,594	6) Library Books	3,308		3,119,902
299,284	7) Typewriters and Calculating Machines			299,284
27,928	8) Vehicles			27,928
2,196,955	9) Computers and peripherals	150,699		2,347,654
710,160	10) Closed Circuit TV			710,160
62,668	11) Mobile instrument	10,350		73,018
70,400	12) EPABX System			70,400
2,310,041	13) Laboratory Apparatus & Equipments			2,310,041
1,419,368	14) Equipment for IONO-OXY Plant			1,419,368
3,671,757	15) Vehicles - Toyota Camry			3,671,757
33,636,095	Total - A	1,110,043	-	34,746,138
Out of grant and contribution from Govt. & Other sources				
2,441,703	15) Capital exp. for projects sponsored by MOT			2,441,703
7,688,330	16) Eco-lab Equipt. purchased out of grant from MOT			7,688,330
7,547,213	17) Equipt. for upgradation of Eco-Lab at ARC, Indore			7,547,213
579,813	18) Motor car out of IDTCP			579,813
773,732	19) Capital exp. for modernisation of PLSC-A'bad			773,732
4,730,220	20) Capital exp. for CATD Centre at A'bad (Includes Rs.5,220/- ATIRA's contribution)			4,730,220
2,474,862	21) Capital exp. for CATD centre at Indore			2,474,862
26,235,873	Total B/F	-	-	26,235,873

(Contd...)

AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, AHMEDABAD 380 015
SCHEDULE - 'E' : MOVABLE PROPERTIES (Contd.)

AS AT 31-03-2016 Rs.	ACCOUNT HEAD	ADDITIONS RS.	DEDUCTIONS RS.	AS AT 31-3-2017 Rs.
26,235,873				26,235,873
1,825,762	22) Capital exp. for upgrd. of Lab. (Textile committee) (Includes Rs.1,45,593/- ATIRA's contribution)			1,825,762
8,085,160	23) Capital exp. for Calibration Lab. at A'bad (GG-01)			8,085,160
2,788,522	24) Capital exp. for Gng. Service Centre at A'bad (GG-02)			2,788,522
4,359,671	25) Capital exp. for Information Tech. Centre (GG-06)			4,359,671
1,591,049	26) Capital exp. for Minor Eqpt. for PLSC - A'bad			1,591,049
593,530	27) Capital exp. For Devlp. Rapier loom (GG-05)			593,530
1,321,384	28) Capital exp. For Minor Equit. For Eco-Lab. -A'Bad			1,321,384
2,330,817	29) Capital Exp. For Modernisation of PLSC-Indore (Includes Rs.850/- ATIRA's contribution)			2,330,817
250,000	30) Capital Exp. for Infrastructure for PLSC-Indore			250,000
121,834	31) Capital exp. For proj. Design & Develop. of electronic aid for quick identification of mechanical deficiencies in ring frame to help increase yarn productivity (DIT-01)			121,834
2,750	32) Capital exp. for proj. DRDE-06 Devlpt of bio- degradable packing film (DRDE-06)			2,750
1,093,394	33) Capital exp. for proj. indigenous development of IT based fabric pattern making, marking & cutting system (DIT-02)			1,093,394
774,357	34) Capital exp. For spinning cluster Develop. programme (GG-02A)			774,357
146,516	35) Capital exp. for Training progrm. for upgrd./ refreshing the technical & other skills of weavers jobbers & owners of power-loom units at Ahmedabad (GG-10)			146,516
8,233	36) Capital exp. for Swiss project-CT assessment			8,233
4,007,083	37) Capital exp. for expansion of calibration laboratory at ATIRA (GG-01A)			4,007,083
7,116,643	38) Capital exp. for SSI-HVI-1000			7,116,643
33,452,292	39) Capital exp. for Centre of Excellence for Technical Textiles (GG-23)			33,452,292
321,447	40) Capital exp. for PLSC-Dholka Modernisation			321,447
19,758,373	41) Capital exp. for Centre of Excellence in Geo-Textile (MT-48)			19,758,373
116,184,690	Total B/F			116,184,690
	Total C/F			116,184,690

AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, AHMEDABAD 380 015
SCHEDULE - 'E' : MOVABLE PROPERTIES (Contd.)

AS AT 31-03-2016 Rs.	ACCOUNT HEAD	ADDITIONS RS.	DEDUCTIONS RS.	AS AT 31-3-2017 Rs.
116,184,690	Total B/F	-	-	116,184,690
18,400	42) Capital exp. for PLSC-Ahmedabad			18,400
361,803	43) Capital exp. for project Skill Devlpt. Course for Fresh Powerloom Weavers & Jobbers for Non-auto, Auto & Shuttle-less Looms (GG-24)			361,803
32,013,250	44) Capital Exp. For Setting up of ATIRA Geo-Synthetic Testing Laboratory (GG-27)			32,013,250
31,550	45) Capital Exp. For Design Modifications to Modern Ring Frame to Reduce Yarn Hairiness (GG-33)			31,550
186,319	46) Capital Exp. For development of 3D Hollow Woven Preforms for Mobiltech Applications (GG-37)			186,319
10,791,676	47) Capital exp. for project enhancement of Cotton Seed Oil Recovery adopting German PEFT Technology (MT-51)			10,791,676
-	48) Capital exp. for Project GIRHW Patola Saree of Patan (IND-09)			-
1,758,275	49) Capital exp. for Project Indigenous Development of Automatic Multilayer Garment Cutting Machine (MT-52)			1,758,275
5,891,440	50) Capital exp. for Project Spinning Fire Retardant Fibre Blends on Cotton System (MT-53)			5,891,440
3,244,598	51) Capital exp. For evolve construction related design as well As environmental design parameters for both woven & non-woven geo synthetics (MT-54)			3,244,598
8,897,198	52) Capital exp for Development of Nano-fibre based Textiles (MT-55)			8,897,198
13,876,661	53) Capital exp for Textile Dyeing an efforts towards Sustainable & Cleaner , Eco friendly technology (MT-57)			13,876,661
83,786,216	54) Capital exp. for Integrated Skill Development Scheme (ISDS)			83,786,216
205,801,016	55) Capital exp. for Centre of Excellence in Composites	35,937		205,836,953
609,471	56) Capital exp. for upgradation of CAD Centre at Indore			609,471
265,107	57) Capital exp. for Novel Wound Dressing Material with Synergistic Effects by Harnessing Properties of Antibiotics and Native Herbsals for Tissue Regeneration and Protection (DRL-02)			265,107
483,717,670	Total CF	35,937	-	483,753,607

(Contd...)

AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, AHMEDABAD 380 015
SCHEDULE - 'E' : MOVABLE PROPERTIES (Contd.)

AS AT 31-03-2016 Rs.	ACCOUNT HEAD	ADDITIONS RS.	DEDUCTIONS RS.	AS AT 31-3-2017 Rs.
483,717,670	Total B/F	35,937	-	483,753,607
231,437	58) Capital exp. for Development of Permethrim / Herbal Oil- based Masquito Repellent Formulation for application on Army Clothing (DRL-01)			231,437
103,603,184	59) Capital exp for establishing Incubation Centre (GG-38)(Includes Rs. 36,23,184/- Alira's Contribution			103,603,184
22,300,000	60) Capital exp. for Creation of Pilot Plant facility for Nano-Textiles especially in area of filtration (GG-39)			22,300,000
2,305,515	61) Capital exp. for Expansion of Calibration Laboratory (Module II) (GG-01-B)			2,305,515
54,609	62) Capital exp. for Bio-preparation Technology : Enhanced sustainability in cotton & cotton containing textile processing (MT 56)			54,609
3,450	63) Capital Exp. For PSC- Dholka			3,450
144,485	64) Capital Exp. For PSC- Indore			144,485
2,975,981	65) Capital Exp. For Development of PTFE nano fibre-based media for filtration under corrosive / high temperature condition			2,975,981
11,024,083	66) Capital Exp. For Development of protective textiles for protection against electromagnetic radiations (MT-59)			11,024,083
10,027,533	67) Capital Exp for Sch for promoting usage of Geotechnical Textiles in NER	9,848,057		19,875,590
758,441	68) Capital Exp. For Integrated Scheme for Powerloom Sector Development for Modernisation/upgradation of PSCs			758,441
412,377	69) Capital Exp. For Textile Reinforce Precast Panel (MT-62)	145,860		558,237
-	70) Capital Exp. For Focus Incubation Centre (FIC)	7,246,853		7,246,853
637,558,765	Total - B	17,276,707	-	654,835,472
671,194,860	Grand Total (A+B)	18,386,750	-	689,581,610
595,437,635	Previous Year	76,945,180	1,187,955	671,194,860

AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, AHMEDABAD 380 015
SCHEDULE - 'F' : INVESTMENTS

31

AS AT 31-03-2016 Rs.	ACCOUNT HEAD	AS AT 31-03-2017 Rs.
	i) General Fund Investments	
24,912,916	a) FDR with Bank of India	14,425,017
19,708,965	b) FDR with HDFC Bank	34,828,324
25,937,806	c) FDR with ICICI Bank	6,438,479
<u>70,559,687</u>		<u>55,691,820</u>
	ii) C. L. Centre Fund Investments	
525,000	a) FDR with Housing Development Finance Corporation Ltd.	525,000
475,000	b) FDR with Bank of India	475,000
<u>1,000,000</u>		<u>1,000,000</u>
	iii) Centre of Excellence in Composites Fund Investment :	
9,800,000	a) FDR with Bank of India	22,200,000
	iv) Focus Incubation Investment :	
31,500,000	a) FDR with Bank of India	29,809,477
	v) North East Region Investment :	
20,000,000	a) FDR with Bank of India	17,687,293
<u>132,859,687</u>	Total	<u>126,388,590</u>

AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, AHMEDABAD 380 015
SCHEDULE - 'G' : CASH AND BANK BALANCES

AS AT 31-03-2016 Rs.	PARTICULARS	AS AT 31-03-2017 Rs.
90,556	CASH ON HAND	38,329
	BANK BALANCES	
7,126,836	In Current Account	3,214,643
21,646,292	In Savings Account	5,176,090
<u>28,863,684</u>	: Total :	<u>8,429,062</u>

SCHEDULE -'H' : SUNDRY DEBTORS

AS AT 31-03-2016 Rs.	PARTICULARS	AS AT 31-03-2017 Rs.
11,463,491	Considered Good	11,023,548
<u>11,463,491</u>	: Total :	<u>11,023,548</u>

AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, AHMEDABAD 380 015
SCHEDULE - 'I' : OTHER CURRENT ASSET, LOANS & ADVANCES

AS AT 31-03-2016 Rs.	AS AT 31-03-2017 Rs.
<u>LOANS TO STAFF :</u>	
72,697	89,098
44,350	41,925
7,500	6,000
124,547	137,023
<u>ADVANCES :</u>	
2,202,807	504,713
1,239,548	713,318
13,811,078	17,428,740
7,543,500	10,207,050
-	1,501,000
1,010,854	884,123
25,807,787	31,238,944
<u>INCOME RECEIVABLE:</u>	
-	1,440,000
2,122,530	2,822,386
2,122,530	4,262,386
28,054,864	35,638,353
	: Total :

AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, AHMEDABAD 380 015
SCHEDULE - 'J' : CURRENT LIABILITIES & PROVISIONS

AS AT 31-03-2016 Rs.		AS AT 31-03-2017 Rs.
17,033,537	Gratuity Payable	18,226,785
6,049,622	Leave Salary Payable	8,222,725
2,164,664	Statutory liabilities	3,626,084
13,455,896	Sundry Creditors	10,037,390
2,168,100	Advance received for Material and Services	8,787,526
2,837,033	Other liabilities	5,771,810
1,850,662	Security Deposits	2,254,600
45,559,514		56,926,920
	: Total :	

**AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, AHMEDABAD-380 015
SCHEDULE 'K' – NOTES FORMING PART OF ACCOUNTS FOR THE YEAR 2016-2017**

I. SIGNIFICANT ACCOUNTING POLICIES

1) ACCOUNTING CONVENTION

The financial statements are prepared on the basis of historical cost convention and on the accrual basis of accounting.

2) INVENTORY VALUATION

Stocks of stores, stationery, maintenance etc. are valued at cost.

3) INVESTMENTS

Investments are carried at cost, less provision for permanent diminution in the value of investments, if any.

4) FIXED ASSETS

Fixed assets are stated at cost of acquisition inclusive of freight, duties and taxes and incidental and direct expenses related to acquisition.

5) DEPRECIATION

Depreciation on fixed assets acquired out of own fund is provided as per Straight Line Method at the following rates:

Quarters & Roads	1.63%
Furniture & Dead Stock, Library Books	6.33%
Mobile Phones , C.C.T.V., EPABX	20.00%
Building	3.34%
Motor Car	9.50%
Machinery, Lab. & Workshop equipment, typewriters, etc..	4.75%
Computers	16.21%

No Depreciation has been provided on fixed assets acquired out of Project funds.

6) GOVERNMENT GRANTS

Government grants are accounted on the basis of sanction from Government.

7) FOREIGN CURRENCY TRANSACTIONS

Transactions denominated in foreign currency are accounted at the exchange rate prevailing on the date of the transaction.

8) REVENUE RECOGNITION

Interest income, testing fees and contribution from members are accounted on Accrual basis.

9) RETIREMENT BENEFITS

Gratuity and leave salary are provided on the basis of actuarial valuation.

(Contd....)

AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION, AHMEDABAD-380 015
SCHEDULE 'K' – NOTES FORMING PART OF ACCOUNTS FOR THE YEAR 2014-2015 (Contd.)

II. CURRENT ASSETS, LOANS AND ADVANCES

In the opinion of the Management, the current assets, loans and advances have a value on realization in the ordinary course of business, equal at least to the aggregate amount shown in the Balance Sheet.

III. TAXATION

In view of there being no taxable income under Income Tax Act 1961, no provision for income tax has been considered necessary.

IV. The Association enjoys overdraft facility with Bank of India against which FDRs for Rs. 60,00,000/- (previous year Rs. 60,00,000/-) have been pledged.

V. Members' contribution outstanding at the year end amounting to Rs. 80,50,000/- (previous year Rs. 72,12,782/-) has not been accounted for in view of uncertainty of Recovery.

VI. Tax deduction at source on interest & service income is Rs. 37,23,058/- (previous year Rs. 32,60,862/-).

VII. Disputed demand in respect of Income Tax is Rs. 9,60,77,260/- (previous year Rs. 6,28,31,710/-)

VIII. Capital Commitment at the year end is of Rs.4,24,10,000 /- (previous year Rs. 99,56,823 /-)

IX. Corresponding figures for the previous year have been re-grouped/re-arranged, wherever necessary to make them comparable with those of current year.

Signatures to Schedules "A to K"

As per our report of even date

For, **Sorab S Engineer & Co.**
Firm Registration No.110417W
Chartered Accountants

CA Chokshi Shreyas B.
Partner
Membership No. 100892

Harish Bisht

Sanjay Lalbhai
Members of the Council
of Administration

S. P. Bhavsar
Incharge
Finance & Accounts
Place : Ahmedabad
Date : 28/06/2017

ANNEXURES

ANNEXURE I

PUBLICATION

1. Textile Innovation & Developments, 2 Issues
2. **TEXINCON**
(TEXtile Information CONDensed) – 3 Issues

ANNEXURE II

TALKS AND PAPERS

(A) TALKS AND LECTURES BY ATIRA STAFF

<i>Name of the Staff Members</i>	<i>Title of the Paper, Sponsor, etc.</i>
Kiran Dev and Pravin Patel	Pultrusion using polyurethan matrix organised by Owens Corning, on 6 th May 2016 at Hotel Crown Plaza, Ahmedabad
Seema Patel	Color fastness to light and the importance of standards in textiles, Mumbai, on 30 th June 2016

Dr. K C Gupta

Lecture on "ATIRA approaches for implementation of eco-friendly processing technologies in industries" on 15th April 2016 at Rajasthan State Pollution Control Board at Jaipur.

Lecture on "Reactive dyeing" in Half day Seminar on 18th June 2016 at Zydex Industries, Ahmedabad.

Lecture on "Process control and environmental impact for small scale dyeing and printing units" on 22nd June 2016 at Government Polytechnic Bhuj.

Lecture on "Importance of recovering caustic soda during mercerization and importance of caustic recovery plant" on 20th July 2016 at Jetpur Processors Association.

Vrunda Wala,

Talk on smart textiles at Teachers Training programme on 15th July, 2016 at Gujarat Technical University, Ahmedabad

Hasmukh P. Patel

Lecture on Group Insurance Scheme for Powerloom Workers organised by Regional Office of the Textile Commissioner, Bhadra, Ahmedabad and PLSC Dholka on 18th February 2017 at Dholka.

Hasmukh P. Patel

Various Development al Scheme for Textile Industry Jointly organised by PLSC Dholka and Regional Office of the Textile Commissioner, Bhadra, Ahmedabad on 18th February 2017 at Dholka

(B) PAPERS PRESENTED AT MAJOR CONFERENCES, SEMINARS, SYMPOSIA, ETC. BY ATIRA STAFF

57th Joint Technological Conference, Organised by ATIRA, NITRA, SITRA and BTRA. Held at BTRA Mumbai on 17th -18th February 2017

<i>Name of the Staff Members</i>	<i>Title of the Paper</i>
Pawan K Sharma, C S Vora	Development of Protective Textiles for protection.
Pawan K Sharma, C S Vora and Seema Patel	Protective Textiles for protection against electromagnetic Radiations
Kiran Dev and Pravin Patel	Eco-friendly TRC based toilet with Bio-digester
Chetan Mahajan	Development of nanofibers based water filtration membrane device for human beings
Seema Patel	Geotextile Hydraulic Properties: An experimental study

(II) CONFERENCE/SEMINAR ORGANISED BY OTHERS

C S Vora “Development of Intelligent Textiles and Clothing for On-line Health Monitoring”, All India Seminar on Smart and Technical Textiles organised by The Institution of Engineers (India) Gujarat State Centre, held at Bhaikaka Bhavan, Ahmedabad on 9th-10th March 2017

(c) SEMINAR, CONFERENCE, TALKS ETC. ATTENDED BY ATIRA STAFF

Dr. A. K. Sharma Attended ITM 2016 International Textile Machinery Exhibition organized by TEKNIK Fairs Inc. in cooperation with TUYAP Fairs and Exhibition organization Inc. – 1st June 2016 to 4th June 2016

Visited OJSC “SvetlogorskKhimvolokno, at Minsk, Belarus for discussion of tie-up for new product development – 24th July 2016 to 29th July 2016

Visited Northwest Composite Centre, University of Manchester, Manchester from - 21st November 2016 to 28th November 2016

Visited ITU - TEMAG Lab, Turkey – 1st December 2016 to 2nd December 2016

Ashok Bhuyan, Nilesh Mehta, Pravin Patel and Kiran Dev Training on Preparation of Professional Project Report, August 2016

M S Dhadwaiwale Programme on TWRF Organized by Regional Office of the Textile Commissioner on 10th September 2016 at Ratlam.

M S Dhadwaiwale Buyer Seller Meet organized by Regional Officer of the Textile Commissioner on 23rd September 2016 at Indore

M S Dhadwaiwale Technical seminar organized by Regional office of the Textile Commissioner on 27th September 2016 at Indore

M S Dhadwaiwale Seminar on “Ready Made Garment” organized by Regional Officer of the Textile Commissioner on 10th February 2017 at Indore.

ANNEXURE III

PATENTS

Pallets Made of Corrugated paper/foam: Application No.2016 21031344.Date of filing: 14.09.2016

ANNEXURE IV

STATISTICAL RECORD OF TRAINING

REGULAR TRAINING PROGRAMME

Sr. No.	Title	Number of Participants
1.	Fresh Weavers Training Program	109
2.	Fresh Weavers Training Program (Dholka)	74
3.	Students & Business Executive – Composite	12
4.	Entrepreneur Training on Textiles Processing	06

IN-HOUSE TRAINING PROGRAMMES

Sr. No.	Title	Number of Participants
---------	-------	------------------------

POWERLOOM SERVICE CENTRE

1.	Basics of Textiles	02
----	--------------------	----

COMPOSITE

1.	Pultrusion	20
2.	Composite training	60
3.	TRC Modular toilet training	15
4.	NDT training	06

TEXTILE TECHNOLOGY LAB

1.	Geotextile Testing –Hands on Experience	25
----	---	----

MECHANICAL PROCESSING (WEAVING)

1.	Textile fibers, spinning technology, yarn and fiber quality	08
2.	Technology of textile manufacturing	11
3.	Woven fabric structure and development of new structure	02
4.	Advance weaving technology	02

INCUBATION CENTRE

1.	Technical Textiles for Entrepreneurs	
----	--------------------------------------	--

COMPUTER AIDED DESIGNING (CAD) CENTRE

1.	Woven fabric design technology	5
2.	Fundamentals of textile manufacturing	15
3.	Fundamentals of apparel manufacturing	15
4.	APPAREL DESIGNING	05

ANNEXURE V

TESTING

Type of Testing	No. of Samples Tested for -
Textile Testing Lab	
Fibre	85620
Yarn	5545
Fabric	17065
Geo-textile	15140
Chemistry Lab	
Solid fuel	923
Chemical Analytical	153
Testing of Chemicals in Textiles	1752
Composites	
Heat & Flame Test Lab	4140
Mechanical Testing	172
Power loom Service Centre	
Yarn and Fabrics	117
Environmental Engineering	
Water/waste water solids/solid waste Air Emission, Noise	510
Calibration	
No. of Instruments	1926
Chemical Technology	
Fabric Defect Analysis	260
Kawabata Evaluation	30
Fabric, Chemical & miscellaneous	630
Certification of Customs samples	185
ATIRA Regional Centre, Indore	
Physical Testing of Yarn, Fiber and Fabrics	1014

ANNEXURE VI

LIST OF MAJOR CONSULTATION REPORTS

POWERLOOM SERVICE CENTRE – DHOLKA

Trouble shooting in Power loom Units (48 Nos.)

NANO-WEB TECHNOLOGY DIVISION

Development of Nanofibers based membrane for air filtration (5 Nos.)

Development of Nanofibers based thermal insulation fabric (2 Nos.)

Development of Nanofibers based antimicrobial fabric (1 No.)

COMPOSITE

Consultation & testing of FRP Ladder

Consultation & testing of FRP Rods

Design and fabrication of Tools and Die system

ATIRA REGIONAL CENTRE, INDORE

Physical Verification of Machinery

CHEMICAL TECHNOLOGY DIVISION

Recovery of Caustic, Reuse of Water, Reduce Effluent

Reduction of Cost Processing

Disposal of Treated Development

Process Consultancy in Composite Mill

ENVIRONMENTAL ENGINEERING DIVISION

Environmental Audit Report (12 Nos.)

EMS Certification & Assessment study Reports (10 Nos.)

Ambient Air Quality, Flue Gas Stake & Noise monitoring (7 Nos.)

Soil & Ground Water Contamination Study (2 Nos.)

C L CENTRE FOR MANAGEMENT

Eligibility of Technical Textile Units for Govt. Subsidies (4 Nos.)

Cotton Price trend in National & International Markets (1 Nos.)

MECHANICAL PROCESSING (WEAVING)

Development of fabric specifications for Uniform fabric for a Public Service Unit (1No.)

Analysis of Technical Textiles product for Reproduction (1 No.)

ANNEXURE VII

NEW MACHINERY / EQUIPMENTS

- 1 Dielectric strength testing instrument
- 2 Glow wire testing machine
- 3 Dry arc Resistance testing instrument
- 4 Industrial Oven
- 5 Fine Particulate pm 2.5 Sampler AAS 127 Mini
- 6 PM 10/PM 205 (Combined) Sampler with Gaseous
- 7 Handy Air Sampler
- 8 Portable Flue Gas Analyzer O₂, CO₂, CO
- 9 Moulds, Size 1.5m x 1.5m x 0.08m (01 set)
- 10 Granite Surface Plate with Stand, Size 3000x2000x200mm
- 11 Vacuum System
- 12 Cold Room – Vertical & Data Logger
- 13 2531 CLAB Electronic Twist Tester
- 14 FX 3250 Automatic Pick Counter for fast Convenient

ANNEXURE VIII

INDUSTRY VISITS

Senior Officers of ATIRA paid around 305 visits to around 133 both in Ahmedabad and Outstation for major consultation as well as Project / Liaison work as listed below:

Name of Unit	No. of Visit	Name of Unit	No. of Visit
A.Raja Cotex	3	Cliantha Research Ltd. (2 units)	4
Aabad Cottex	1	Cliantha Research Ltd. Vadodara	1
Aarvee Denim	1	CTM Textile Mills	2
Accord Polypack	1	Deepawali Poly Fab	1
Acculife Healthcare Pvt. Ltd	1	Devarsons Industries Pvt. Ltd.,	2
Accutest Laboratories	1	DFR Technical Textile	1
ADI Fine Chem Pvt. Ltd. Sanand	1	DIAT Pune	1
Aeron Industry	1	Dorizoe Life Sciences Ltd.	6
Aim filtertech	3	Dynamics Machinery	1
AIMIL Ltd. Vadodara	1	Entrepreneurship Development Institute of India	1
Ajarakhpur Handicrft Mega Cluster Mission	1	Fisher Bio-Pharma Services(I) Pvt. Ltd., Matoda	1
Aksharchem India Ltd.	1	Ganesh Cotton Industries	1
Alembic Research Center, Vadodara	1	Garg Tube Exports LLP	1
Ambika Textile	1	Ginza Industries, Surat	1
Angel Cottox Industries	1	Giridhar Techfab Pvt. Ltd.	1
Anjani Synthetics	1	Grasim Industries Ltd.	1
Ankleshwar Research and Analytical Infrastructure Ltd.Ankleshwar	1	Gujarat Fluorochemicals Ltd.(GFL)	1
ArexTextile	1	Gujarat Mineral Development Corporation	1
Arvind limited	5	Gujarat Pollution Control Board, Ankleshwar	1
Arvind Ltd., Santej	7	Gujarat Pollution Control Board, Bhavnagar	1
Astron Research Pvt. Ltd ; Ahmedabad	1	Gujarat Pollution Control Board, Gandhinagar	3
Avadat Apparels	1	Gujarat Pollution Control Board, Jamnagar	1
Bansari Polymers	1	Gujarat Pollution Control Board, Rajkot	1
Bearing & Tool Center	1	Gujarat State Medical Services Corporation Ltd., Gandhinagar	4
Blue Blends (India) Ltd.	1	Gujarat Tea Processors & Packers Ltd.	3
Cadila Health Care Limited- Moraiya	3		
Cadila Health Care Ltd.	1		
Cadila Pharmaceutical	1		
Centre for Entrepreneurship Development	3		
Cil Nova Petro Chemical Ltd.	1		
CIMS Hospital Pvt Ltd.	1		

Name of Unit	No. of Visit	Name of Unit	No. of Visit
Gujarat Vepari Mahamandal Vasahat Pollution Control Committee	1	Office of the Commissioner of Women and Child Development	3
HCG Medi-surge Hospitals Pvt. Ltd	2	Oizom Instruments Pvt. Ltd.	1
Hemetek, Vadodara	1	ONGC	2
Indian Farmers Fertiliser Co.Op. Ltd. (IFFCO)	1	P M Cotton	1
Indofil Industries Ltd.	1	Pollucare Biomedical Management Pvt. Ltd.	1
Intas Pharmaceuticals Ltd.		Pooja Cotton Industries	1
Intas Pharmaceutical Ltd, Matoda	1	Power Loom Unit, Burhanpur	1
International Centre for Entrepreneurship and Technology	3	Pratiksha Chemical Ltd.	1
Jay Print Pack	1	R C Technical Institute	1
Jubilant Life Science Ltd. (Unit -2)	1	Radhe Filaments	1
Kalindi Fibers, Dharpuri	1	Rohan Dyes & Intermediates Ltd. (Unit 1)	2
Kalol GIDC Industrial Association (CETP)	1	Samved Hospital	1
Kamnath Cotton	1	Sarjan Cottex	1
Khadi Village Industries Board, Gujarat	1	Shital Processors	1
Khadi Village Industries Commission, Mumbai	3	Shri Ganga Textiles, Ujjain	1
Krishna Cottex	1	Shyam Cottex	1
Kuldevi Cotton Industries	1	Silvassa Span Yarn Industries	1
Kusumgar Corporates Pvt. Ltd., Mumbai	1	Siyaram Cotton	1
L D College of Engineering	1	Society for Clean Earth	1
Macro Polymers Pvt Ltd, Changodar	1	Somnath Ginning & Pressing	1
Mahadev Textiles	1	Space Applications Center	22
Mahalaxmi Textiles	1	Supreme Nonwoven	1
Maruti Ginning Industries, Kadi	3	Swan Energy Ltd.	1
Maxxis Rubber India Pvt. Ltd.	1	Tagros Chemicals India Pvt. Ltd.	1
Meghmani Inorganics Ltd.	1	Technical university of Liberec Czech republic	2
Meghmani Organics Ltd.	1	Tirth Fabric	1
Milton Industries	2	Torrent Power Ltd.	1
Mohd. Kaleem Tafteeq Ahmed Siddiqui	1	Torrent Research Centre, Bhat	3
Nandana Polyfabricst LLP	1	Unitech Industries	1
Naroda Enviro Projects Ltd. (NEPL)	1	Vaccine Technology Centre ,Moraiya	6
Navdurga Polyplast	1	Vedant Hospital	1
Navkar Laminates	1	Veeda Clinical Research Pvt. Ltd., (2 Units)	5
Nidhi Hospital	1	Vinod Fabrics	1
Nisarg Enviro labopratory	1	Yes Weavers	1
		Zydu Infrastructure Pvt. Ltd. (CETP)	2
		Zydu Research Centre, Moraiya	2

ANNEXURE IX

DISTINGUISHED VISITORS

Smt. Smriti Zubin Irani, Hon. Minister of Textiles, Govt. of India, New Delhi

Smt. Rashmi Verma, Secretary, Textiles, Govt. of India, New Delhi

Smt. Pushpa Subrahmanyam, Additional Secretary, Textiles, Govt. of India, New Delhi

Mr. Pradeep Kamat, VP, Supreme Plastics, Mumbai

Mr. Ramesh, Director, Hexion Chemicals, Mumbai

Mr. Tapan Misra, Director, ISRO, SAC, Ahmedabad

Ms. Moumita Bhattacharya, Head British Council, Ahmedabad

Mr. S B Dangayach, Director, Sintex Group of Companies, Kalol

Dr. Shailesh R. Dhruva, Technical Director, Advance Multitech Ltd., Ahmedabad

Mr. Vikas Jain, Director, Milton Industries Ltd., Ahmedabad

Mr. K. C. Ravi, Sr. General Manager (Operations) GHCL Ltd., Madurai, Tamilnadu

Mr. W. R. Kesavan, Director, Hydra Consulting Service Pvt. Ltd., Bangalore

Mr. Anupam Jalote, Chief Executive Officer, iCreate, Bavla, Gujarat

Ms. Anupama Rathore, Lead Strategic Alliance, iCreate, Bavla, Gujarat

Mr. Jitendra Shah, Chairman, Jekson Hydraulic Ltd., Ahmedabad

Mr. K. K. Ojha, Senior IPS Officer, Govt. of India, New Delhi

Mr. Amalkumar Talukdar, Senior Manager, Fab India, Kolkata

Ms. Indrani Kaushal, Addl. Economic Advisor, MOT, Govt. of India, New Delhi

Mr. R. K. Saxena, Account Officer, Chief Consultant of Accounts (IAW), MOT, Govt. of India, New Delhi

Mr. S. G. Jain, Consultant, Chief Consultant of Accounts (IAW), MOT, Govt. of India, New Delhi

Mr. V. S. Rang, Consultant, Chief Consultant of Accounts (IAW), MOT, Govt. of India, New Delhi

Mr. Nirmal Patel, Managing Director, Minaxi Textiles, Ahmedabad

Mr. Sandeep Patel, Managing Director, Sashwat Textiles, Ahmedabad

Mr. Vishal Patel, Managing Director, Dynamic Machineries, Ahmedabad

ANNEXURE X

MEMBERS OF THE COUNCIL OF ADMINISTRATION

ELECTED MEMBERS

Chairman

Shri Sanjay Lalbhai
Arvind Mills Ltd.
AHMEDABAD

Shri Anand Parekh
Reliance Industries Ltd.
AHMEDABAD

Shri Samveg A. Lalbhai
Atul Ltd.
AHMEDABAD

Shri Vijay K. Maheshwari
Mafatlal Industries Ltd.
AHMEDABAD

Shri R H Shah
Sayaji Industries, Maize Products
AHMEDABAD

REPRESENTING AHMEDABAD TEXTILE MILLS' ASSOCIATION

Shri Chintan Parikh
President
Ahmedabad Textile Mills' Association
AHMEDABAD

REPRESENTING CONFEDERATION OF INDIAN INDUSTRY (WESTERN REGION – GUJARAT STATE OFFICE)

Shri Naishadh Parikh
Past Chairman
CII Gujarat State Council

CO-OPTED ASSOCIATE MEMBERS

Shri Ashok Joshi
Director & Business Head (Vapi)
Welspun India Ltd.
Mumbai

Nominees of Ministry of Textiles

AS & FA

Ministry of Textiles
Govt. of India
New Delhi

Joint Secretary (Concerned)
Ministry of Textiles
Govt. of India
New Delhi

Textile Commissioner
Office of the Textile Commissioner
Mumbai

Joint Secretary (R & D)
Ministry of Textiles
Govt. of India
New Delhi

CO-OPTED MEMBERS (SCIENTISTS)

Shri Prafull Anubhai Shah
Arohi Consultants
Ahmedabad

Prof. J. N. Goswami
Physical Research Laboratory
Ahmedabad

Ex-Officio

Dr. A. K. Mukhopadhyay
Director
Bombay Textile Research
Association (BTRA)
BOMBAY

Dr. Prakash Vasudevan
Director
South India Textile
Research Association (SITRA)
COIMBATORE

Dr. Arindam Basu
Director General
Northern India Textile
Research Association (NITRA)
GHAZIABAD

Dr. Harish Bisht
Director
ATIRA
AHMEDABAD

ANNEXURE XI

MEMBERS OF THE COMMITTEES

(A) COMMITTEE FOR APPOINTMENTS OF SENIOR STAFF

Shri Sanjay Lalbhai
Chairman
ATIRA Council of Administration

Shri Prafull Anubhai Shah
Arohi Consultants
Ahmedabad

Shri Anand Parekh
Reliance Industries Ltd.
Ahmedabad

Dr. Harish Bisht
Director
ATIRA, Ahmedabad

(B) BOARD OF TRUSTEES: ATIRA FOUNDATION

Shri Sanjay Lalbhai
Chairman,
ATIRA Council of Administration

Members

Shri Anand Parekh
Reliance Industries Ltd.
AHMEDABAD

Shri Vijay Maheshwari
Mafatlal Industries Ltd.
AHMEDABAD

Shri Chintan Parikh
Ahmedabad Textile Mills'
Association
AHMEDABAD

Shri Prafull Anubhai Shah
Arohi Consultatant
AHMEDABAD

Dr. Harish Bisht
Director
ATIRA

(C) RESEARCH ADVISORY COMMITTEE

Shri R. Raghunathan
Chairman RAC
SC-5, Sowparnika Ananda Apartments
Sompura Sarjapur Road
Bangalore – 562 125

Members

Shri Sanjay Lalbhai
Chairman
Council of Administration of ATIRA
Arvind Mills Ltd.
Naroda Road, AHMEDABAD 380 025

Shri Samveg Lalbhai
Managing Director,
Atul Limited
101, 1st Heritage Building
Nr. Gujarat Vidyapith, Ashram Road,
AHMEDABAD 380 014

Shri Chintan Parikh
Chairman
Ashima Ltd.
Texcellence Complex
Khokhra Mehmedabad
AHMEDABAD 380 008

Shri R. J. Shah
Chief Executive of Dahej SEZ Ltd.
Block No. 5, 4th Floor
Udyog Bhavan, Sector 11
GANDHINAGAR 382 011

Prof. Thomas Gries
Director
Institut fur Textiltechnik (ITA)
der RWTH Aachen
Otto-Blumenthal-straÙe 1,
D-52074 Aachen
Germany

Dr. Prasad Potluri
Research Director
Northwest Composites Centre
The University of Manchester
P.O. Box 88, Sackville Street
MANCHESTER M60 1QD
U.K.

Representatives of Government Agencies

Joint Secretary (R&D)
Ministry of Textiles
Udyog Bhavan
NEW DELHI 110 011

Textile Commissioner
Office of the Textile Commissioner
Govt. of India, Ministry of Textiles
48, Vithaldas Thackersey Marg
Nishtha Bhavan, (New C.G.O. Building)
MUMBAI 400 020

Directors of Co-operative Textile Research Associations

Dr. A. K. Mukhopadhyay
Director
Bombay Textile Research Association (BTRA)
Lal Bahadur Shastri Marg
Ghatkopar (West)
MUMBAI 400 086

Dr. Prakash Vasudevan
Director
South India Textile Research Association (SITRA)
Coimbatore Aerodrome P.O.
COIMBATORE 641 014

Dr. Arindam Basu,
Director
Northern India Textile Research Association
(NITRA)
Sector 23, Rajnagar
GHAZIABAD 201 002

Dr. Harish Bisht
Director
Ahmedabad Textile Industry's Research
Association (ATIRA)
P.O. Ambawadi Vistar
AHMEDABAD 380 015

(D) PANEL OF EXPERTS

1. MECHANICAL PROCESSING

Chairman

Shri. R. Raghunathan
311, Arunachalam Apartment
Bhartiyar, 5th Cross
S.S. Colony
MADURAI 625 010

Members

1. Shri P.K. Sharma
Bungalow No.20
Someshwar Complex No.2
Nr. Bidi Wala Park,
Satellite Road
AHMEDABAD
2. Shri Vipin Sherelekar
9/1581, Laxmi Cinema Street
Subhash Road
Gandhi Nagar
DELHI 110 031
3. Shri Sunil Sharma
D-1304, Mantri Elegance
N.S. Palaya
Bannerghatta Road
BANGALORE 560 076
4. Dr. S. K. Agrawal
Sr. Vice President
RSWM
Bhilwara
5. Shri Navinbhai K. Patel
President
Ahmedabad Powerloom Owners Asson.
12, Bharat Colony,
Nr. Sardar Patel Colony
P.O. Navjivan
AHMEDABAD 380 014
6. Shri Kamlesh Patel
Chief Operating Officer
Advanced Materials Division
Arvind Limited
P O Khatraj, Taluka Kalol,
Dist. Gandhinagar 382721
7. Shri A K Jain
Textile Consultant and Expert
B-502, Pushpak Apartment
Prernatirth Derasar, Satellite
Ahmedabad 380 015

2. CHEMISTRY & CHEMICAL TECHNOLOGY

Chairman

Dr. Vikas Nadkarni
Managing Director
Texcellence Consultancy Pvt Ltd
5, Pushkaraj Apartments
Pushpak Park, Aundh
Pune – 411 007

Member

1. Shri Ashutosh Tripathi
Cluster Project Manager,Factories BU
Ahmedabad Cluster
Larsen & Toubro Ltd.
1009/26, Sakar II, 10th floor
Near Ellisbridge, Ashram Road
Ahmadabad 380 006
2. Dr. R S Chauhan
P D Division
Defence R & D Establishment
Jhansi Road
Gwalior – 474 002.
3. Shri A C Mathur,
Head, AMDD.
Mechanical Engg Systems Area
Space Applications Centre (ISRO)
Ahmedabad-380015
4. Dr. J.J. Shroff
6/3 Hiren Appartments
Opp. Nutan Society
Nr. Suvidha Sopping Centre
AHMEDABAD
5. Dr. D.K. Jain
108, Goel Park
Nr. Premchand Nagar
Judges Bungalow Road
AHMADABAD
6. Shri Ashok Maitra
Executive President (Operation)
Bharat Vijay Mills
Station Road
KALOL 382 721
7. Dr. K.G. Agnihotri
Chief Technical Officer
Technology/Innovation Group
Arvind Limited
Naroda Road
AHMEDABAD 380 025
8. Shri Pradeep Kamat
Associate Vice President (Technical)
Composite Division
Supreme Industries Ltd.,
Halol.

ANNEXURE XII**AUDITOR**

M/s Sorab S. Engineer & Co., Mumbai

ANNEXURE XIII

STAFF

Dr. Harish Bisht
M. Tech, Ph. D.
Director

C R Prayag
M. Tech
Deputy Director

SCIENTIFIC OFFICERS CHEMICAL TECHNOLOGY DIVISION

Bipasha Maiti
B.Sc., M.Tech. (Textile Engg.)

Vikas Tiwari
B.Sc. (Chemistry)

Dr. Kailash Chandra Gupta
M.Sc., Ph.D.

Pragnesh Bilimoria
D.T.P.

D S Trivedi
B.Sc., Dip. In Tex. Mfg. Tech.,
Dip. In Per. Mgt. & IR

K K Misra
B.E. (Mech.), PG in Dip. In
Operational Management

COMPOSITE

Dr. Tanmoy Gangodhyay
B.Tech., M. Tech., PhD.
Deputy Director

Ashok Bhuyan
B.Sc., PGD-PTCT,
MBA (Operation & Marketing)

Bhupendra R Parmar
B.Sc.

Pravinkumar P. Patel
Diploma in Plastic Engineering &
Mechanical Engineering

Chintan Chavda
D. M. E.

Kiran Dev
B. Tech., B. E. (Chemical),
M. Sc. (Textile Technology)

Priyabrat Pooranik
Diploma Plastic Engg

Nilesh Mehta
Diploma Plastic Engg

Bulu Pradhan
Diploma in Mechanical Engg

C L CENTRE FOR MANAGEMENT

R M Sankar
B.B.A., M.Com., M.B.A., L.L.B.

ENVIRONMENTAL ENGINEERING DIVISION SCIENTIFIC OFFICERS

Vaishali Patel
B.E. (Env.)

Binita Prajapati
B.E. (Chemical)

Nikhil Lotia
B. E. (Environment Engg)

Avinash Radadiya
B. E. (Chemical Engg)

GUWAHATI CENTRE – NER

P. S. Barbora
B. Text

S. C. Sarma
B. E. (Civil)

G. B. Sharma
Diploma in Civil-Engg

M. H. Singh
B. Tech (Civil)

INCUBATION CENTRE

Jayprakash J. Bhatt
B.E. (Textile Technology)

Chandrakant K. Nakum
Dip. In Tex. (D.T.M.)
Consultant

NANO TECHNOLOGY

Naman H. Barot
B.E. (Mechanical), Certificate
Course of Computer Application
(CCCA)

Chetan Mahajan
M.Tech (Nano Science &
Technology), Ph. D. (Pursuing)

QUALITY SYSTEM GROUP ELECTRONICS & I T GROUP

C. S. Vora
Asstt. Director
D.E.R.E., B.E. (Electronics &
Comm. Engg.)

Kishori M. Bhatt
D.E.R.E.

Devang Thaker
B.E (Electronics & Comm.)

P. M. Jain
D.M.E., P.D.S.M., B.E. (Mech.),
C.Engg. (I), M.I.E.(I)

SPINNING DIVISION

P. H. Shah
D.T.M.

K. H. Panchal
D.M.E.

Pawan Sharma
B.Sc., A.T.A., M.B.A.

TEXTILE TESTING LABORATORY

Seema Patel
M.Text. Engg.

R.V. Chikani
D.E.R.E., B.E.(Electronics & Comm. Engg.)

LIBRARY & NICTAS AT ATIRA

Hina N Shah
B.Sc. D.Mkt. Mgt., M.Lib.
Incharge

WEAVING DIVISION

Vrunda Wala
B.E.(Text.Tech.) D.E.P.

POWERLOOM SERVICE CENTRE

Hasmukh P. Patel
D.T.M.T.

ADMINISTRATION

Gretta Joseph Alex
B.Com., B. Lib.

G. C. Patel
M.A., L.L.B.

Alkesh N. Patel
I.T.I

Shruti Bhavsar
M.Com., Inter C. S. C.A.

R. R. Patel
B.Com, L.L.B.

Om Prakash Dubey
B.A.,(M.A.)

ATIRA REGIONAL CENTRE, INDORE

M. S. Dhadwaiwala
B.Sc., M.A., A.T.A

KOLKATA CENTRE

Saibal Guha
B.Com.

Asit Ray
M.A., L.L.B.

BHILWARA CENTRE

Narendra Kumar Purohit
B. Tech (Textile Chemistry), P. G. Diploma in
Advance Software Design and Development.

Director	1	^
Deputy Directors	2	^
Assistant Director	1	^
Scientific & Technical Officers	42	8 + 34*
Scientific & Technical Assistants	46	10 + 36**
Non Technical Officer	5	1 + 4***
Non Technical Assistant / Other Staff	32	25 + 7****
Total	129	

^ on Contractual Appointment

* 34 on Contractual Appointment

** 36 on Contractual Appointment

*** 4 on Contractual Appointment

**** 7 on Contractual Appointment

ANNEXURE XIV

MEMBERSHIP

MEMBER UNITS BY CATEGORIES AS ON 31-03-2017

Category	Original/ Privileged	Associate	Total
Spinning Mills	4	15	19
Weaving Mills	-	6	6
Composite Mills	5	16	21
Process Houses	-	21	21
Dyes and Dyestuffs	-	5	5
Manufactures of Starch, Chemicals & Auxiliaries	1	9	10
Manufactures of Textile Machinery & Accessories	-	11	11
Ginning	-	34	34
Others	-	20	20
Total	10	137	147

MEMBERSHIP

The following is the list of ATIRA members as on 31.03.2017:

(Those marked *are Original Members, ** are Privileged Members, and others are Associate Members.

- Adachi Paste Co.
- Ahmedabad Dyeing
- Aico Agencies Pvt. Ltd..
- Alliance Textiles Pvt Ltd
- Alok Industries, Mumbai
- Amizara Cotton Pvt. Ltd., PO: Talaja, Dt. Bhavnagar
- Amruta Spintex
- Anil Texfab Pvt Ltd.
- Anubha Fabrics, Palsana, Surat
- Arjyot Chemicals Pvt. Ltd.
- Arpan Synthetics (Gujarat) Pvt. Ltd.
- * Arvind Mills Ltd.
- Arvind Products Ltd.. (4 Units)
Arvind Intex
Arvind Cotspin, Kolhapur
Arvind Polycot, Santej, Dt. Mehsana
- Ashima Ltd. (2 Units)
Ashima Fabrics, Villa : Karannagar, Tal: Kadi, Dist .Mehsana
- Ashwamegh Industries, Rangpurda, Tal: Kadi, Dist. Mehsana
- Atlas Dye-Chem (India) Pvt. Ltd.,
- ** ATUL Ltd.
- Bajaj Steel Industries Ltd.
- Balkrishna Ginning & Pressing Factory, Post. Taraghadi, Tal. Padadhri, Dist.Rajkot
- Balkirishna Tex. Pvt Ltd.
- Bhagyodaya Group Co-op. Cotton Sale Gng. & Pressing Factory, At & Post. Dhakdi, Tal. Viramgam, Dist. Ahmedabad
- Bharat Ginning & Pressing Factory
- Bharat Vijay Mills, Kalol
- Bhaskar Industries Ltd., Mandideep
- Birla Cellulosics, Kharach, Kosamba, Dist. Bharuch
- CTM Textile Mills
- Cash Zone (Garment)
- Deegee Cotsyn Pvt. Ltd
- Dewas Fabrics Ltd., Dewas, M.P

- | | |
|--|--|
| 30. Dhanraj Industries, Kadi, Dist. Mehsana | 65. Kotak Ginning & Pressing Industries Pvt. Ltd. |
| 31. Dharti Spinning Mills | 66. Kunal Fabrics |
| 32. Dhruv Cotton Processors Pvt Ltd | 67. LNJ Denim Group, |
| 33. Divya Textiles | 68. LNJ Fabric (RSWM Group) |
| 34. Loxim Industries Ltd | 69. Mafatlal Industries Ltd., Nadiad |
| 35. Durga Processors | 70. Mahalaxmi Reb Tech |
| 36. Dynamic Autolooms India Pvt. Ltd | 71. Maharaja Shree Umaid Mills Limited, Pali |
| 37. Fairdeal Jumbo Packaging Pvt Ltd | 72. Marg Biotech Pvt. Ltd. |
| 38. Faiz Industries, At: Lalpar, Dist. Wankaner | 73. Maruti Ginning & Pressing Industries, Una |
| 39. Fancytex Global Pvt. Ltd., Gwalior | 74. Meshania Ginning & Pressing Factory,
At. Lalpar Tal. Wankaner, Dist. Rajkot |
| 40. Farmerson Export (P) Ltd. | 75. Modern Denim Ltd., Moraiya |
| 41. Fairdeal Jumbo Packaging Pvt Ltd. | 76. Modern Terry Towels Ltd., Sanand, |
| 42. G.B. Cotton Industries, Rangpurda, Tal Kadi | 77. MRT Fabrics |
| 43. Ghanshyam Ginning Machinery | 78. Nandan Exim Ltd, Piplaj |
| 44. Glitter Fabrics | 79. Narendra Cotton Ginning & Pressing Co. P. Ltd.,
Rajkot |
| 45. Global Pacific Nominees India Pvt. Ltd. | 80. Narayan Spinning Mills Pvt Ltd, Amreli |
| 46. Goldline International | 81. Navkar Fabrics |
| 47. Greenland Agro Engineering | 82. Neelkanth Spg. Mills, Dhrangadhra |
| 48. Guardian Textiles Pvt Ltd | 83. Niharika Impex |
| 49. Gujarat State Co. op. Cotton Federation Ltd. | 84. Pace Clotex Ltd., Surat |
| 50. H.V.Synthetics Pvt. Ltd | 85. Panwala Ginning Factory, Post. Makan,
Via. Palej, Dist. Vadodara |
| 51. Harshdeep Industries | 86. Parmeshwari Industries, At & Post. Harij, |
| 52. Hind Syntex, Dewas (2 Units) | 87. PBM Polytex Ltd. (2 Units) |
| (ii) Hind Spinners | 88. PBM Polytex, Borgaon, Dist. Chhinchwada
(MP) |
| 53. Hirapara Poly Products Pvt Ltd. | 89. Patwa Kinarivala Electronics, Vadodara |
| 54. Hitkaree Udyog | 90. Peevee Textiles, Jam, Dist Wardha |
| 55. India Sea Foods, Cochin | 91. Prashant Fabrics (I) Pvt Ltd., Piplau-Narol |
| 56. Indian Armour Systems Pvt Ltd | 92. Prathiba Fabrics, Surat |
| 57. Indra Cotton Ginning & Pressing Pvt. Ltd.,
Jasdan | 93. PT. Indorama (Synthetics Division) Tbk
Jakarta, Indonesia |
| 58. Jay Enterprises | 94. Pyrotech India Pvt Ltd., Chennai |
| 59. Jay Khodiyar Industries, Jetpura, Tal. Kadi, | 95. R.S.B. Cottex Limited, Sabarkantha |
| 60. K.K. Engineering Co. | 96. Rachna Arts & Printing Ltd.. Surat |
| 61. Kedar Cotton Industries, Budasan, Tal. Kadi | 97. Radhalaxmi Spintex Pvt. Ltd., Morbi |
| 62. Khodiyar Gng. & Pressing Factory, Wankaner | |
| 63. Kinarivala RJK Industries | |
| 64. Kiri Industries Ltd. | |

98. Raghav Industries, Manavadar, Tal. Viramgam, Dist. Ahmedabad
99. Rajaswi Polychem Industries
100. Rajdhani Universal Fabrics Pvt Ltd., Madhavnagar
101. Rakesh Textiles
102. Rameshwar Ginning Factory Harij, Dist. Patan
103. Rangrej Processors
104. Raymond Ltd., Thane
105. ** Reliance Industries Ltd.
106. Rimtex Industries, Wadhwan
107. S. Kumars Nationwide Ltd , Dist. Bharuch
108. Saahil Organics Pvt. Ltd.
109. Samir Synthetics Mills.
110. Sandeep Textiles, Pali-Marwar
111. The Sathamba Group Co-op. Cotton Gng. & Pressing Mill Co. Ltd., At & Post. Sathamba
112. Saurashtra Ginning & Pressing, Wankaner
113. .* Sayaji Industries Ltd., (Unit: Maize Products)
114. Semitronik Instruments
115. Shahlon Silk Industries Pvt Ltd., Tal. Mandvi
116. Shivam Cotton Industries, Tal. Karjan,
117. Shree Ganesh Cotton Ginning & Pressing Factory, Hadmatala, Tal: Kotda-sangani,
118. Shree Gurukrupa Cotton Industries, Taraghadi
119. Shree Rajasthan Syntex Ltd., Dungarpur
120. Shree Ramanuj Dyeing & Printing Mills Ltd., Surat
121. Shree Tirupati Industries, At & Post. Harij
122. Shri Una Taluka Cotton Ginning & Pressing Co-op. Society Ltd., Una, Dist. Junagadh
123. Shruti Trading Corporation
124. Shubham Industries, Dsit. Mehsana
125. Shyam Corporation
126. Siddhi Gng. & Pressing, Gir-Gadhada Road, Una
127. Signor Hydraulics
128. Sinhal Brothers
129. Spentex Industries Ltd.
130. Solus Filtech, Surat
131. Soma Textiles and Industries Limited
132. Subham Industries, New Chhatral, Dist. Mehsana
133. Subhnen Veneers Pvt. Ltd., Mumbai
134. Swastik Textile Engineers Pvt. Ltd.
135. Techtech Traders
136. The Ruby Mills Ltd., Mumbai
137. Tirupati Cotton Ginning Factory, Harij, Dist. Patan
138. Umesh Cotton Ginning Factory, Harij, Dist. Patan
139. Urja Infratech
140. Urja Products Pvt Ltd.
141. Vimalnath Creation
142. Vinod Fabrics Pvt Ltd., Piplaj
143. Vinod Denim Ltd.
144. Yes Fashions (P) Ltd., At Palo, Dist. Surat
145. Yogi Industries, Nani Kadi
146. Yogiraj Spinning Pvt. Ltd., Gondal
147. Welspun India Ltd., Anjar

ANNEXURE XV

SPONSORED PROJECTS

MINISTRY OF TEXTILES

- 1 Development of Nano fibers Based Water Filter to Get Safe and Pure Drinking Water for Human Beings
- 2 Bio Preparation Technology : Enhanced Sustainability in Cotton and Cotton Containing Textile Processing
- 3 Development of Extra Duty Industrial Belt/Webbing as per the Market Requirement
- 4 Textile Reinforced Precast Panel
- 5 Development of High Strength Core and Sheath Ropes using Weaving Technology
- 6 Development of PTFE Nano Fiber based Media for Filtration under Corrosive/High Temperature Condition
- 7 Development of Protective Textiles for Protection against electromagnetic radiations
- 8 Textile Reinforced Precast Panel
- 9 Creating a Short Film on Composite Segment for Promoting usage and Application of Technical Textiles
- 10 Scheme for promoting usage of Geotechnical Textiles in North Eastern Region
- 11 Setting up the Focus Incubation Centre at ATIRA
- 12 Modernisation & Strengthening Scheme of Power loom Service Centre at ATIRA

DEFENCE R & D ESTABLISHMENT

- 1 Exploratory work on Development of Simple and Portable Water Filtration Treatment Device to be used by Army Personnel to get Drinkable Water from Dirty/Muddy water

MINISTRY OF SCIENCE AND TECHNOLOGY

- 1 NISSAT Access Centre to International Data Base Services at ATIRA (NACID)
- 2 National Information Centre for Textile and Allied Subjects (NICTAS)

**AHMEDABAD TEXTILE
INDUSTRY'S
RESEARCH ASSOCIATION**

2016-2017

Published by RM. Sankar at Ahmedabad Textile Industry's Research Association, Ahmedabad 380 015.
Phones: 26307921-22-23, 26305132, 26306365, 26302874, 26303363
Fax: 079-26304677, 26301969
E-mail : atiraad1@sanchernet.in, Website: www.atira.in
Printed by: Print Art Mudranalaya, Ahmedabad 380 007. Mobile : 98252 63622

CONTENTS

	Page
MESSAGE FROM CHAIRMAN	1
DIRECTOR'S OVERVIEW	2
HIGHLIGHTS OF RESEARCH AND DEVELOPMENTS	3
INDEPENDENT AUDITOR'S REPORT	13
ANNUAL ACCOUNTS 2015-2016	15
ANNEXURES	
Annexure I : Publication	37
Annexure II : Talks and Papers	37
Annexure III : Patents	39
Annexure IV : Statistical Record of Training	40
Annexure V : Testing	41
Annexure VI : List of Major Consultation Reports	42
Annexure VII : New Machinery / Equipments	43
Annexure VIII : Industry Visits	44
Annexure IX : Distinguished Visitors	46
Annexure X : Members of the Council of Administration	47
Annexure XI : Members of the Committees	48
Annexure XII : Auditor	50
Annexure XIII : Staff	51
Annexure XIV : Membership	53
Annexure XV : Sponsored Projects	56