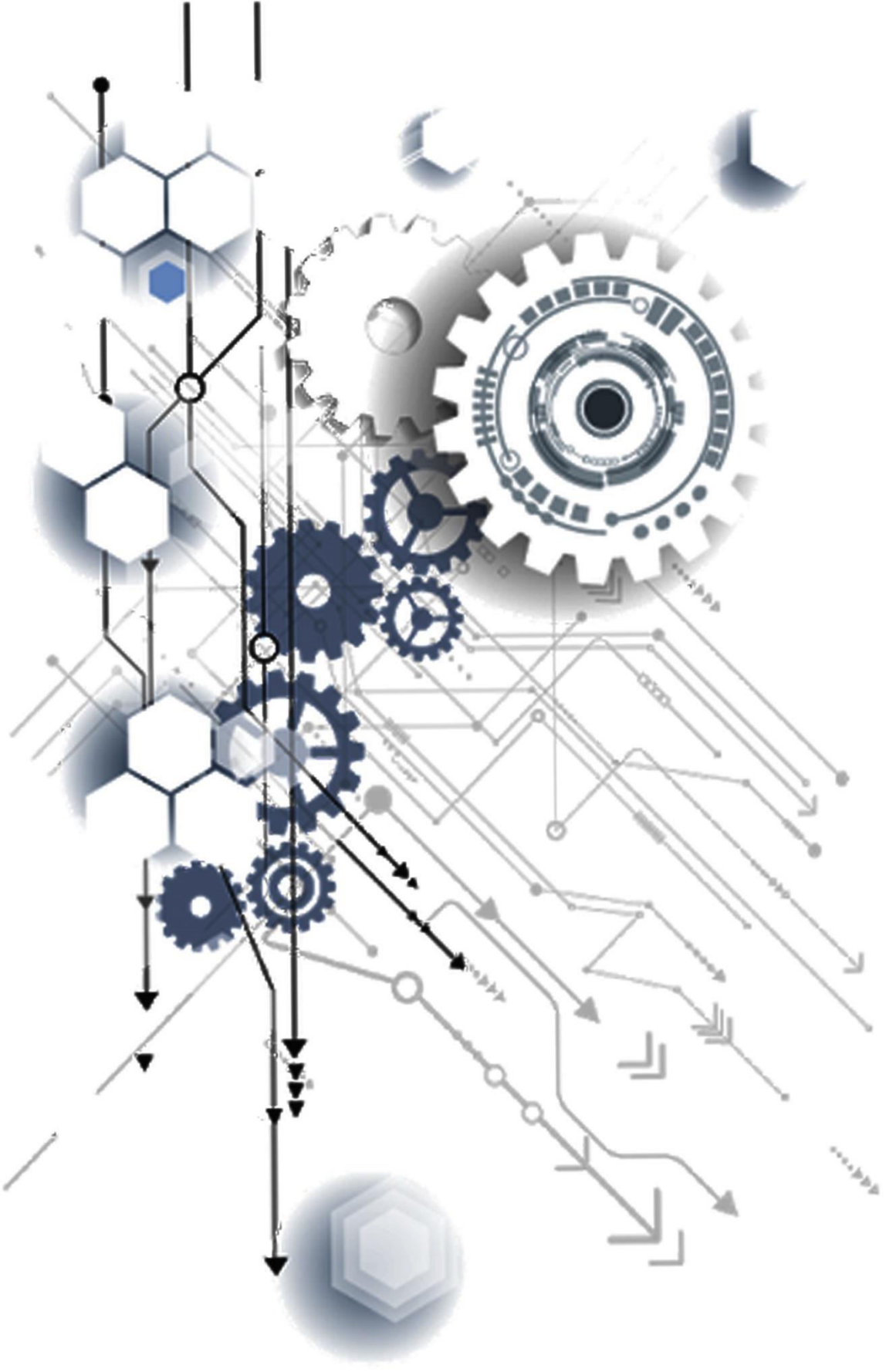
राष्ट्रीय फैशन प्रौद्योगिकी संस्थान
National Institute of Fashion Technology
Kolkata



TechnOva '20

Department of Fashion Technology

Technova '20

Bachelor Of Fashion Technology

BATCH 2016-2020

Apparel manufacturing industry has played a significant role in the Indian economy. The industry is predicted to grow substantially on export as well as domestic market front. Hence, there is a growing need for fashion technologists who can implement latest technology solutions, man advancement equipment and practice modern system in team work environment. The four year undergraduate programme is designed to train students to excel in core garment manufacturing technology. The programme has a practical and hands on approach to machinery and equipment application. It is designed to motivate and facilitate students to bridge the gap between modern technology and human elements.

Mr. Shantmanu

Director General, NIFT

Dear Class of 2020!!

NIFT is envisioning future markets and career opportunities in the Indian and Global Fashion scenario as set up by Ministry of Textiles, government of India. NIFT has expanded its area of influence in the fashion and lifestyle section, creating employment opportunities and positively contributing to economic growth. Over the years, our alumni have been active stakeholders in the fashion industry in India as well as globally.

NIFT graduates from the class of 2020 carry with them a legacy of all their predecessors, energised by their fresh creative talent and equipped with the relevant technical know-how. I am confident that each of them has the potential to become a great asset to the society. You all have prepared to don an cap of NIFT alumnus. It is expected that the skills, learning and experience that you have gathered over the years at NIFT would stand you in good stead to stay abreast of the crowd and to forge your own path.

The multidisciplinary studies at NIFT brings a win-win situation even though it may have radically altered the way we had envisaged our future given in the current circumstance. The tenets of imparting education at NIFT are thus to be revisited at this juncture. During our journey at NIFT we have honed our creative potential to carve out our niche areas and to optimize our unique skills valuable to self, industry and society.

The fashion industry is ever changing and transformative. So should we!

It is my immense pleasure to congratulate the most talented 252 graduates of NIFT Kolkata. It is commendable to see that the students in these trying times have strived to achieve excellence in their graduating showcase and have shared their work through this virtual show. This conveys the spirit and winning attitude which is vital succeed in life.

I wish each one of you success and fruitful professional journey ahead. The alumni – alma mater is a lasting bond immersed with gratitude and nostalgia. Make your alma mater proud!

Prof. Dr Vandana Narang

Dean Academics, NIFT

National Institute of Fashion Technology (NIFT) is a premiere institution and highly regarded among the global leaders of fashion education. The institution strives to provide higher education with a competitive advantage through its evolving curriculum, industry-academia connect, and alumni engagement. Curriculum plays a pivotal role in providing education which launches graduates into the world of fashion.

It gives me immense pleasure to congratulate NIFT Kolkata's graduating class of 2020. The 252 students from the various disciplines of design, management and technology have achieved a milestone in successfully completing their projects in accordance with the norms in these trying times when we have been engulfed in uncertainty and fear due to pandemic. An achievement, indeed!

The spirit of the students is appreciable and they ensured that coronavirus in no way came in the path to their creative pursuits. Some of the case-in-point laudable examples are when students ended up making buttons at home, dyed fabric using kitchen waste, filled the fabric with intricate embellishments, worked on projects to combine luxury with marketing analytics in creating luxury-closet, created framework to measure sustainability, development of antimicrobial ortho Stockinette for patients suffering from bone fracture, development of wearable therma therapeutic system for dysmenorrhea alleviation, to name a few.

I am assured of their successful future given the attitude and desire to excel, and wish them a very rewarding career ahead.

We look forward to the success stories and a never ending connect with the class of 2020, a lasting bond that can be cherished for life with alma mater. Make us proud!

Prof. Dr. Russel Timothy

Chairperson - Department of Fashion Technology, NIFT

The Department of Fashion Technology has always been a in the forefront in offering solutions to the issues faced by the Apparel manufacturing industry by way of research projects which develop innovative real life solutions by the students of DFT during their final semester graduation projects. The student projects deal with the whole gamut of apparel manufacturing.

At this juncture, I would like to thank all the industry partners of national and international apparel manufacturing and retail industry for their constant encouragement to our students to develop indigenous research based solutions helping to resolve the challenges faced by them.

It is also my pleasure to acknowledge and appreciate the superlative efforts of the entire DFT team comprising of the faculty members and staff who have always been reliable while guiding and molding the students during their formative years and during the graduation project. I also acknowledge the cooperation and guidance of Campus Director for the successful functioning of the department.

I take deep pride in presenting yet another successful batch of Technology graduates from the portals of NIFT. I am sure these young professionals will make their mark not just as exemplary performers, but also as committed and focused contributors to the growth of our country.

I congratulate the passing out students of B.F.Tech 2016-2020 for successfully completing their academic program and with them a bright and eventful future.

Ms.Monika Aggarwal
Director, NIFT Kolkata.

On behalf of the NIFT Kolkata family, I extend a sincere congratulations and best of luck to the NIFT Kolkata Class of 2020. You have been exceptional representatives of NIFT Kolkata campus. I have no doubt that you will continue to serve as worthy ambassadors for the institute by building upon our reputation for excellence.

As an NIFT graduate, you have demonstrated the commitment, creativity and talent you need to succeed in your chosen career. Graduation is a significant step in your education. I encourage you to make the most of your NIFT qualification through your contribution to your chosen profession.

Over the course of your program, you have developed lifelong friendships and networks. Our Alumni Association is an invaluable resource for you as you embark on your career, with connections across all disciplines in India and overseas. I believe that graduates of the NIFT campuses are unique in that, regardless of your chosen area of practice, all of you have the opportunity to enrich the lives of those around you. As you embark upon and progress through your careers, I urge you to always remember why you chose your respective field and the sacrifices that you endured in order to make it happen:, to serve our Nation and improve the quality of life of people with compassion, honesty and integrity.

I would also like to give special thanks to the parents and friends of our graduates for their patience, understanding, sacrifices and support - both moral and financial - during these challenging, but rewarding, years at the Campus. Although your guidance, comfort and encouragement certainly will continue to be sought and appreciated in the years to come. In the coming years, I would ask you all to keep us updated on the many achievements you will experience in your careers and personal lives. We will always take great pride in your achievements.

Congratulations once again on successfully completing your program. Be proud of what you have worked to achieve and remember those who have supported you to reach this end. The entire NIFT Kolkata family is very proud of you.

Take care and stay in touch,

Dr. Abhijit Mukherjee

Associate Professor
&
Centre-Coordinator
Department of Fashion Technology
NIFT, Kolkata

Dr. Abhijit Mukherjee is Associate Professor & Centre-Coordinator (Department of Fashion Technology) and is associated with NIFT, Kolkata since 2005. He has Ph.D.(Engineering) from Jadavpur University, Kolkata; M.Tech. (Textiles) from Mumbai University, B.Tech. (Fibre), D.J.T. and B.Sc. Hons. (Physics from University of Calcutta. He is also qualified 'GATE' and Chartered Engineer (India). He worked as professional at different levels of responsibilities as "Project Officer" in UNDP Project (Govt. of India), "Executive" in Swiss Multinational etc. before joining NIFT organization. In his long tenure of working as professional for about 19 years in industry/ academia, he has expertise in implementation of technological programmes at different levels of organization-hierarchy and quality improvement programmes (QIP) in jute, textiles and leather industry, inspections of various consumer goods at national and international levels, business development at national level, laboratory testing of textile products, factory audits etc. He has many publications in peer reviewed journals of national and international repute. His chief area of interests are textile manufacturing technology, product analysis and development, sustainable production, knitting technology, Inspection and laboratory testing of textiles, garment processing, functional textiles/apparels etc.

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Ms. Binwant Kaur

Associate Professor,
Department of Fashion Technology
NIFT, Kolkata

Ms.Binwant Kaur is Associate Professor in Department of Fashion Technology at National Institute of Fashion Technology, Kolkata. She is a Postgraduate in Mathematics from St. Stephen's College, University of Delhi. As part of her 29 years of experience, she has worked in the area of software development besides teaching at NIFT, Kolkata. Ever since she joined NIFT, Kolkata in 1996, she has been engaged with integration of tools of Information Technology with Fashion, Design and Apparel Production. She has imparted training to undergraduate students from Design and Technology disciplines in various subjects such as Computer Aided Design (CAD) in Garment Industry for Pattern Making, Grading and Marker Planning; application of Textile CAD (Vision) in Printing and Weaving Industry; application of graphic tools such as Corel Draw, Adobe Illustrator, Photoshop, InDesign and Flash. In addition to the IT tools, she takes courses for undergraduate students of Fashion Technology department in subjects such as Human Resource Management(HRM),Structured System Analysis and Design(SSAD), Relational Database Management Systems (RDBMS), Enterprise Resource Planning (ERP) and Research Methodology. Over last few years she has been involved in conducting research in the area of 3D Printing in Fashion and also on Impact of RFID technology in Apparel Supply Chain. To pursue research in these areas she had joined Graduate School at Fashion Institute of Technology (FIT), New York, USA as a Visiting Scholar for a period of one year from Feb 2014. During her stay in US, she was invited for delivering Expert Lectures to undergraduate students of Buffalo state University, LIM College and Hunter College, New York, USA in areas of Fashion Industry.

In addition to the post of Professor she had held an additional administrative responsibility of Director, NIFT, Kolkata from July 2015 to Feb 2017.

Mr. Bibekananda Banerjee

Associate Professor,
Department of Fashion Technology
NIFT, Kolkata

Mr.Bibekananda Banerjee is working in the Fashion Technology Department at NIFT, Kolkata since July, 1995. He did his B.Sc. (Honours) and B. Tech from University of Calcutta. He got his M.Tech. Degree in Textile Engineering from IIT, Delhi. He did one semester Faculty Programme in FIT, New York. His working experience includes the organizations like, Indian Rayon and Industries, Tata Economic Consultancy Services, Council for Scientific and Industrial Research, etc…

He has participated in several National and International Fairs, seminars and conferences, like Bobbin Show in USA, ITMA fair in Singapore, IMB fair at Germany, Gartex fair in Delhi, etc…

He discharged additional administrative responsibilities in NIFT as Campus Director of Kolkata, Raebareli and Shillong campuses, altogether for almost three years. He discharged additional responsibilities as Chairperson, Centre Coordinator, Anchor, Regional Industry Coordinator, etc…altogether for more than 16 years.

He has been associated with teaching and research activities for more than 28 years in the areas of production, quality management, design development, etc… During this period he authored more than 15 publications at various forums. He has guided more than 80 students for their final semester research projects in 24 years. He has been associated with curriculum development programmes, faculty orientation programmes and active member of the team of faculties preparing question banks for various purposes.

He has been instrumental in bringing several projects and sponsorship from Govt. and Non Govt. agencies in the tune of more than eight crores for NIFT as of now. He coordinated more than 17 continuing education programmes and short term certificate programmes. He did liaisoning activities with Industry and National as well as International Bodies on behalf of NIFT as Faculty member as well as Campus Director on various occasions.

Mr. S. S. Ray

Associate Professor
Department of Fashion Technology
NIFT, Kolkata

Mr. Siddhartha Sankar Ray is an Associate Professor in NIFT, Kolkata. His academic qualifications are, B.Sc.(Physics Honors) from C.U. followed by GMT from NIFT, New Delhi and then Masters in Fashion Technology from NIFT, Kolkata. His long working experience includes his five years jobs in garment Industries ,namely in L.T. Karle & company and J.J. exports that followed his current tenure in NIFT since July 1996. Mr. Ray has also handled the charge of Center Director in NIFT, Kolkata for some time. He has published papers on sizing surveys in the apparel industry & company; 3-D whole body scanners, simplifying the physical measurement process, both published in 2007 in stitch world. He also published papers on importance of sleeve cap height and cap ease, hand embroidery on garments-a point to ponder and paper on reducing fabric losses to reduce cutting cost. Currently he is teaching subjects on Garment technology like: Apparel Production Planning and control, pattern making, creative pattern making, Ergonomics, Product analysis and Development, spreading and cutting of Apparel Products etc.

Mr. Jyoti Prakash Behera

Associate Professor,
Department of Fashion Technology
NIFT, Kolkata

Mr.Jyoti Prakash Behera is working as Associate Professor at NIFT, Kolkata. He has more than 18 years of work experience in industry/ academia and is associated with NIFT, Kolkata Since 2003. He has done B.Sc.(Hons) & Master Degree in Computer Applications (MCA) from Utkal University. His area of Interest is Digital Design, Internet Technology, Relational Database Management System, Computer Aided Production Planning and Management Information System.

Mr. Bikas Agrawal

Associate Professor,
Department of Fashion Technology
NIFT, Kolkata

Mr. Bikas Agrawal, Associate Professor NIFT, Kolkata, has an experience of 22 years after acquiring his Master's qualification in Garment Manufacturing Technology. His long working experience includes working in garment industry as well as in teaching institutes. He has been working in NIFT, Kolkata since December 2005 in the current position and has served a three year term as the Center Coordinator of Bachelor of Fashion Technology. The subject he teaches include garment pattern making, machinery and equipment, Work-study , Lean Manufacturing and Sustainable Production etc. He has been associated with the activities of coordinating and teaching in various sponsored projects. His area of interest and research is Lean manufacturing and sustainable production of Garments and he has been publishing and presenting papers in his area of interest. Apart from the academic interests he takes keen interest in Hindi writing also and has been a part of Hindi Committee of NIFT, Kolkata for a very long time.

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Md Shahabuddin Ashrafi

Associate Professor,
Department of Fashion Technology
NIFT, Kolkata

Md. Shahabuddin Ashrafi, is an Associate professor (Technical) at NIFT, Kolkata. He has been working in NIFT since 2005. He has a Master Degree in Operation Management from Sikkim Manipal University (SMU) and he has also done his "Clothing Production Technology (CPT)." from NIFT, Kolkata. He has a work experience of eighteen Years in the field of Production Technology. His area of interest is Pattern Making, Grading, Draping and Garment Construction.

During his assignment as NIFT, Expert (ETIDI-NIFT twinning Programme, Ethiopia), he was instrumental in developing course curriculum and connecting GTP, CTP, Training Programmes (TOT) for ETIDI experts and industry participants. The course curriculum is developing accordance to industry requirements captured through various factory visits. The course curriculum and training program are designed to capacitate the ETIDI experts in curriculum developments, Manual Developments and knowledge / skill enhancement. The training session, a combination of classroom and practical sessions, at ETIDI and Factories (in case of CTP). Anthropometric measurement assignment covering over two hundred employees of Ethiopian Airlines was undertaken and accordingly a size chart was developed.

Mr. J. Pari

Associate Professor,
Department of Fashion Technology
NIFT, Kolkata

Mr.J.Pari is an Associate Professor & Link CC - Foundation Programme at NIFT Kolkata. He is a NIFT - Chennai alumnus with B.Tech in Textile Technology, M.F.Tech (GMT) and MBA in Textile management. He has a work experience of 6 years in industry (Roverco Apparel Company, S.Oliver - India and APD Exports) and has been working with NIFT since 2008. His core areas of interest are Textiles and Garment Manufacturing Technology. He is currently teaching subjects like: Dyeing and Printing, Fashion Merchandising, Project Management, Sewn Product Machinery and Equipments in BFT Department and does a lot of contribution in Foundation Program, teaching subjects like Fashion Orientation, Survey of Apparel Design, Field Studies and also contributing in other departments like Knitwear Design department & Leather Design department teaching Advance Professional Practices.

Technova '20

Mr. Chinmoy Bandapadhyay

MTS

Ms.Vaswati Mitra

Junior Assistant

Mr. Budruddinn Ashraf

Lab Assistant

Mr. Ajay Sharma

Machine Mechanic

Mr. Chandan Purkait

MTS

T. Oviya Arasu

TRAINING MODULE FOR OPERATORS USING VIDEO DATABASE IN CELEBRITY FASHIONS

Name of the company: Celebrity Fashions Ltd., MEPZ, Chennai.

Faculty Mentor: Ms. Binwant Kaur

oviya.arasu@nift.ac.in

Background:

To profitably run a garment production factory an effective operator training system is essential; however, many companies either have no facility or one that is not fit for purpose to meet the demands of the modern industry. Training can take two separate identities, the giving of skills and knowledge to new recruits and the upgrading of the abilities of the existing workers.

A systematic training program is an essential part of the management structure of a garment production factory. Without such a facility the manager will not be able to fully meet his objectives. Many managers recognize by utilizing data from labour cost control systems that they have a training or skill problem in the lines but do not have the assets to do anything about it. Trained instructors give him that ability to positively address problems as part of a performance improvement initiative.

Objective:

To develop a standardized, systematic training module for the sewing operatives by making changes in the existing sewing machine operatives training program based on the issues identified in the existing training module.

Analysis:

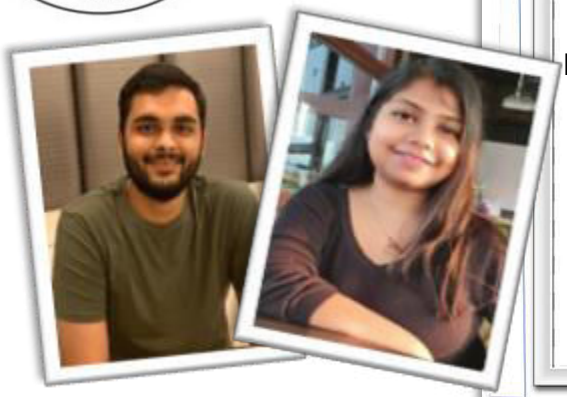
The existing module referred has been created during the initial years of apparel industry. The module is not systematic enough to fulfil the need. There is no specific or standard time allotment and exercises for training new operatives leading to unsatisfied operatives. In the new module, the training period has been reduced to 14 days. The training syllabus has been documented and a training handbook has been created in the local language. In order to teach the importance of SAM and the proper methods to do the operations, visual training is introduced. Slow motion videos are used to teach the proper methods to do the operations.

Conclusion:

A sample set of people were trained using this new module. By using this new training module, the training has been made systematic, simple and easy. Using the video database for training will be very effective for the operators to learn the methods and the importance of SAM. In conclusion, if training is given using this new module, the operators will be able to achieve 80% efficiency (which is required) by the end of the 15 days training.

Technova '20

Suyash Maloo & Ahana Das



DEVELOPMENT OF BRIEF WITH VIBRATION THERAPY TO PREVENT PRESSURE ULCERS AMONG WHEELCHAIR RIDDEN PATIENTS

Faculty Mentor: Mr. Bibekananda Banerjee

suyumaloo97@gmail.com
ahana.das@nift.ac.in

Background:
People in wheelchairs are limited in their mobility, sensory perception, and activity. These limitations can lead to increased temperature and moisture on the areas that are in contact with the wheelchair surface. These risk factors place wheelchair users at a higher risk for pressure injuries. A pressure injury is localized damage to the skin and underlying soft tissue, usually over a bony prominence or related to a medical or other device. The incidence of pressure ulcers in patients with SCI is 25%– 66%. In wheelchairs, 50% of the body's weight is supported by 8% of the body on the ischial tuberosities. This configuration places the wheelchair-bound person at risk because of the higher pressure in a smaller area of the body

Objective:
To make the bottom wear (briefs) for both male and female, with vibrators fitted in it, which vibrates at a particular interval of time. The vibrators are to be made detachable to make the garment washable.

Analysis:
The secondary research was done from past papers which were already published regarding pressure ulcers among wheelchair ridden patients. The primary research was done in Indian Institute of Cerebral Palsy, Kolkata. We interviewed the patients there and identified their problems came up with a probable solution. The brief was designed with vibrators fitted which can be easily removed , making the garment completely washable. The areas in buttock which are prone to pressure ulcers were identified and vibrators were fitted in those areas.

Conclusion:
The prototype was tested on a sample using a Braden Scale, that predicts the risk for developing a hospital or facility acquired pressure ulcer/injury. It was observed that the risk of pressure ulcer decreased in the buttock area after wearing the brief for 7 days. This brief was well accepted by the patients as it was easy to wear, and the circuit could be removed making it completely washable.

Technova '20

Jaskiran Kaur & Manaswi Praveen

EXISTING GARMENT VENDOR EVALUATION, SELECTION AND REMODELLING

Name of the company: Triburg, Gurgaon

Faculty Mentor: Ms. Binwant Kaur

jaskiran.kuki@gmail.com
manaswi.praveen@nift.ac.in

Background:
Many problems like delayed shipment, short shipment and profit margin affected due to not meeting buyer's specifications, were occurring due to vendors not being competent for specific styles or quantities.
The following project will help reduce the problems by devising a plan for helping merchandizers in the future to strategically give orders with specific needs to specific vendors

Objective:
Primary Objective - To optimize the selection process of existing vendors at Triburg Apparels for manufacturing TJX apparel.
Secondary Objectives - To identify the KPIs for vendor evaluation. To evaluate and rate the vendors on the basis of KPIs identified. To identify a vendor and perform Pareto Analysis

Analysis:
For evaluating existing vendors, KPIs were determined first on the basis of which they'd be evaluated. Analytical Hierarchy Process was then used to give weightage to all KPIs and then weighted decision matrix to give the final evaluation of all vendors. AHP was again used to give weightage to all vendors on the basis of each KPI..
In the second half of the project, delay analysis was conducted on 3 vendors. The vendor with the highest delay rate was chosen and Pareto analysis was done to help reduce the DHU of that vendor

Conclusion:
By rating vendors on each KPI, the chances of problems faced by the merchandizers will reduce and in turn, the profit of Triburg will increase. Also, IRAA will have a DHU of less than 5% which will help it in delivering their shipments on time

Surya Pradhan & Aman Rizvi

DEVELOPMENT OF AN ANTIMICROBIAL ORTHO STOCKINETTE FOR PATIENTS SUFFERING FROM BONE FRACTURE TO REDUCE THE PROBLEM OF ITCHING AND FOUL ODOR

Faculty Mentor: Dr. Abhijit Mukherjee

surya.pradhan@nift.ac.in
Aman.rizvi@nift.ac.in

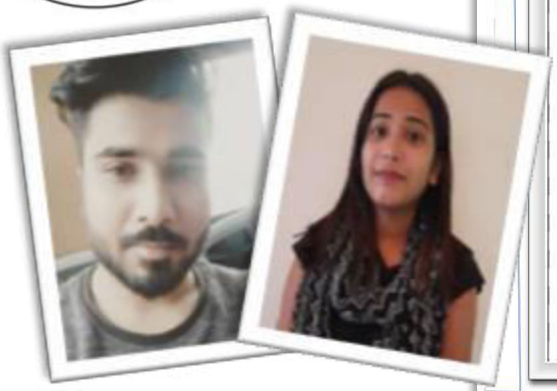
Background:
A fracture is basically a condition of broken bone which is healed by using a 3 layer cast over the broken limbs.
During the healing period which is about 6 weeks, due to the tight covering the skin is unable to release toxins such as sweat and other impurities into the environment as a result of which it gets entrapped under the 3 layers thus supporting the growth of microbes. These microbes then in turn releases certain fluids and chemicals from the body which basically engender itching, and the presence of foul odor.
There is a need for a product that curbs the growth of microbes and hence reduces the itching and odor problem thereby providing comfort to the patients during healing period

Objective:
To prevent the problem of itching and foul odor during the healing period of fracture by developing an antimicrobial finished product to curb microbial growth

Analysis:
The innermost layer of the cast i.e Ortho stockinette was chosen to be coated with antimicrobial finish. A novel medicinal plant having antimicrobial properties was chosen as an antimicrobial agent. Finish was prepared using Methanol as a solvent and was applied to the stockinette using Pad-Dry-Cure technique.
The Prepared sample was then tested by performing laboratory test for determining their efficacy against microbes.
After obtaining successful lab test reports, the sample was then applied to the patients and the feedback of same was taken

Conclusion:
It was found that the developed sample received better feedback in terms of dealing with problems like that of itching and odor as compared to the existing untreated ortho stockinette.
The antimicrobial coated ortho stockinette has societal and medical appeal as it is effective in providing comfort to the patients at a very low cost, thereby eracdicating the problems faced during the whole healing period

Technova '20



Shivam & Priyanka Kumari

STANDARDIZING THE COSTING PROCESS BETWEEN IMPULSE & VENDOR BY CREATING A STANDARD AND DYNAMIC COST-SHEET FORMAT ON A USER-FRIENDLY WEB BASED PLATFORM

Name of the company: Impulse India Pvt. Ltd.
Faculty Mentor: Mr. J.P.Behera
shivam1997singh1@gmail.com
s03priya05@gmail.com

Background:

To provide a single user-friendly format and a common platform for creating, saving and sharing those cost-sheets.

●Since the cost-sheet was prepared style-wise, instead of putting the style details into a pre-decided format which includes all the elements of cost, merchandisers did not take certain elements during costing because of their negligible effect during the production stage. This creates a random variation in costing from concept development stage to production stage. The main problems here in costing are given below:-

●There is no standard operating procedure which isfollowed.
●No list of the complete elements ofcosts.
●No fix cost/unit for value added service (embroidery, printingetc.)
●No check-points for cost components factors (rejection/stretch, shrinkageetc.)
●No calculation of trims (sewing threadsetc.)

Analysis:

A web portal with four interfaces for four different users from Impulse and the Vendors. Each merchant and the vendor is provided with an ID and a password to log into the portal which presents them with information which is meant only for them.

A digital repository will be created for each element of a cost-sheet, where the rate will be identified and generated automatically with a combination of all the previous values entered into cost-sheet, i.e. Fabric Name, Fibre Content, Width of the fabric, Count of the Yarn, EPI*PPI. All the other element's cost will also be auto-filled according to the same procedure. The final cost will ultimately be calculated after addition of all the cost of the elements

Conclusion:

●To allow the user to experience the ease of using one common platform to create, save and share cost- sheet.
●To provide the merchants with one single extensive format of cost-sheet in order to eliminate their process of creating new formats of cost-sheet for every new buyer.

To initiate the process of collecting, organizing and saving the data entered into cost-

Technova '20

Aakanksha Chourasia & Meghna Jha

DEVELOPMENT OF SUSTAINABLE TAGS AND LABELS

Name of the company: Future lifestyle Fashion Limited, Bangalore

Faculty Mentor: Mr. J. Pari

aakanksha.chourasia@nift.ac.in
meghnajha3@gmail.com

Background:

In order to address the apparel waste issue which in return will reduce the social and environmental pollution along with introducing substantial savings to the cost incurred in Apparel Industry, Finding means to be more Sustainable retail fashion alternative materials for polyester and silicon labels and tags with sustainable ones, and reducing their count which mostly customer throw away without even reading a single word printed on it which also promotes environment change for a better future.

Objective:

PRIMARY OBJECTIVE - Reduction of plastic waste from the scullers brand.
SECONDARY OBJECTIVE - Reducing the number of tags and labels. Reduction in the costing of the garment.

Analysis:

Although waste generation from tags and labels from a single garment may seem quite low and insignificant, but when large amount of garment is taken into picture (i.e. one season garments of a particular brand) then the scenario is quite alarming. Therefore, retail industry can work in this area, thereby reducing the number of tags and labels and introducing sustainable materials. Technology involvement can also be done for complete removal of tags and labels in the nearby future.

Conclusion:

Finally we are able to reduce the number of tags and labels by removing the unnecessary tags and labels but at the same time providing important information about the garment. Thus the money saved were utilized in the sustainable material which was less than the amount saved i.e. the total cost of sustainable tags and labels were less than the previous ones and our approach towards more sustainable fashion without compromising the Customer's need .

Technova '20

Aman Kumar & Md Nasir Hussain

IMPROVEMENT IN CUTTING AND SEWING DEPARTMENT &DHU REDUCTION IN SEWING DEPARTMENT

Name of the company: Shades of India, Noida

Faculty Mentor: Mr. Shahabuddin Ashrafi

aman.kumar@nift.ac.in
mdnasir.hussain@nift.ac.in

Background:

In Reduction of DHU to improve "First Time Through" by implementing Quality Management System ,

First Time Through is the percentage of units that complete a process and meet quality guidelines the first time without being scrapped, rerun, retested, diverted for off-line repair, or returned. It is a measure of the quality of the manufacturing process. One hundred percent (100%) FTT capability = Zero defects made or passed on.

FTT measures how many goods are produced correctly without flaws or re-work as percentage of total units produced in a production process or value stream

Objective:

To reduce the defect per hour in sewing department and get maximum output from sewing department

Analysis:

First we observe the department which produce most percentage of defective pieces and analysis the department why it produce the most percentage of defective pieces We go through the department job description and some found some misunderstanding about job description we classified and add some work in every profile in sewing and cutting department For DHU reduction we continuously observed 4 weeks on defect by DHU sheet and picked out most frequent defects which occur and provide

Conclusion:

It was found that after implementing modified job descriptions and defects solution we manage to reduce the DHU and also implement few things like cut parts packaging bags and towel to keep dry hand

Technova '20

Ananya Biswas

OPTIMIZATION OF PROFIT MARGIN BY IMPROVING SUPPLY CHAIN IN PRE-PRODUCTION ACTIVITIES AT SHAHI EXPORTS

Name of the company: Shahi Exports Unit – 12, Bangalore, India

Faculty Mentor: Dr. Abhijit Mukherjee
ananyamoon.moon@gmail.com

Background:
Pre-production activities are very crucial in fulfilment of one particular order as these activities constitute 65%-70% of total lead time. Sometimes Planned Cut Date cannot be met due to delay in this area . In many cases, it leads to deviation from the ex-factory date and air shipment instead of vessel shipment. This affects the profit margin as air shipment is costlier than vessel shipment. So some definite solutions (i.e. – an order tracking system or process streamlining) are needed which can reduce the severity of the delay. This solutions are purely industry specific and depend upon the major reasons of the delay.

Objective:
To find out the major delay areas in pre - production activities and suggest solution to reduce the deviation from the planned T&A, thus improving the supply chain in this area.

Analysis:
The activities in pre-production area are time consuming and complex. The problem was identified and established after department study and data collections and survey was done to get to the major delay areas. After analysing all the data and survey results, it was found that a proper order tracking system (which can be easily used by all the department) can reduce the severity of the problem. So the tracking system was designed and developed. Also, suggestions to reduce some non-value added process were also given.

Conclusion:
One major solution to reduce the delays to some extent was designed and developed i.e.- the Order Tracking System. The system helps to keep proper track of every particular order and necessary actions can be taken to manage the delay or avoid any upcoming delay.

Technova '20

Nikita Srivastava & Vanshika Srivastava

TO INCREASE CUSTOMER SATISFACTION AND LOYALTY BY ANALYSING THE EFFECT OF JOB SATISFACTION ON THE CUSTOMER SERVICE

Name of the company: Cover story, FSL
Faculty Mentor: Mr. Bikas Agrawal

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Background:

Previous researches on job satisfaction has shown that employee job satisfaction is a relevant factor in service quality improvement. Employees who feel satisfied with their jobs provide higher levels of customer satisfaction(Snipes, 2004). Since the cover story and ancestry is a fast fashion brand customer service becomes very important to sell the products quickly. Thus customer satisfaction towards brands to sell the products in short time is a very important task for brand nowadays. Capable employees enthusiastic about delivering great service generate high levels of customer satisfaction (Anderson, 1958). Highly satisfied customers are more likely to be loyal customers and help in impulse buying and positive word of mouth.

Objective:

To make an analysis of employee job satisfaction to consumer service and satisfaction. To calculate employee job satisfaction index. To calculate consumer satisfaction index. To formulate strategies in order to retain employees, improve job satisfaction and hence generate quality customer services.

Analysis:

A lot of projects in the field of employee job satisfaction and customer service and satisfaction have been already done by researchers. In this report we tried to relate the employee job satisfaction level to customer satisfaction level and to the service quality customer received with the help of collecting data by questionnaire from the EBO of company ABC Pvt. Ltd. This study contributes to the current body of work in this area by investigating the responses from 15 employees and their 15 customers. Overall the positive correlation came between employees satisfaction index to customer satisfaction index. The true hypothesis by regression statistical tool proves the positivity of the project. By the research employees and customers agree that employee job satisfaction helps in delivering better customer service which leads to customer satisfaction and customer loyalty. The positive value of Cronbach's alpha of employee and customer survey proves that the overall project is reliable. The method and limitations of this project is discussed through the paper.

Conclusion:

Research has proven that job satisfaction is directly related to enhanced performance (customer service). To maintain profitability in the firms, leaders must take necessary measures to reduce the factors that increase job dissatisfaction and improveworking conditions over time. Our research reminds business leaders that becoming more customer-oriented while allowing workplace morale to suffer is a poor and short-sighted strategy.Instead, customer and employee satisfaction should be seen as two sides of the same coin.

Technova '20

Swati Singh & Ankita Saha

DEVELOPMENT OF ONE SIZE FIT DENIM FOR KIDS-WEAR (11Y-16Y) IN MAX

Name of the company: Max Fashion Pvt. Ltd, Kolkata

Faculty Mentor: Mr. Shahabuddin Ashrafi

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Background:

With time the fashion industry has expanded in terms of business and customers. The ever-changing dynamics of fashion industry such as introduction of the concept of made to measure, fashion seasons, fast fashion and increasing competition has made this industry more critical than ever. With the increasing competition and changing dynamics of the industry, each and every organisation focuses on how to retain target value of the industry at a lower cost of the product and flexibility in design, quality, delivery and speed to market. Product and customers are the two important entities that generate the revenue and increased profit for any organization. Providing the right product to the right customers at the right time and at the right place within the reasonable price of the product is the biggest target for the different organizations This project focuses on development of one size fit denim for adolescent girls aged 11 to 16 years

Objective:

The objective of this project is to increase sales in kids-wear, to discover the opportunity in the market where the brand can increase its sales, to develop a better fit to improve the sales and satisfy customer demands, and also to know the customer's demand.

Analysis:

Sales data was collected for the past year. Data was analysed to identify the root cause of loss of sales. Primary study was done through surveys, questionnaire and competitive analysis to gather relevant data..

Conclusion:

In retail industry products and customers are directly proportional to each other.

To improve the performance % of any product it is important to realize the target customers connected with that product.

As retail industry is one of the fastest growing industry and with the increasing competitors a company should always focus on launching new products into the market as revenue & profit can only be achieved through products & customers by a company.

Aayushi Kumar & Simrat Kaur Hora

DEVELOPMENT OF A WEARABLE THERMA-THERAPUTIC SYSTEM FOR DYSMENORRHEA ALLEVIATION.

Faculty Mentor: Mr. Bibekananda Banerjee

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Background:
Dysmenorrhea or severe pelvic pain and is a very common problem that a woman goes through ever month around menstruation. Women with this condition report that menstruation has an immediate negative impact on their quality of life. Pelvic pain may also cause anxiety and depression, which can amplify the severity of pain experienced by a woman which in turn can affect their everyday activities on several days a month, maybe even prevent them from working or going to school or college. Although menstruation is a normal part of a woman's life, but severe period pain affecting several days, every month is not a normal phenomenon. This aspect has been explored by studying several research works and articles followed by framing a systematic literature review stating prevalence and severity of impact of this "common and natural issue".

Objective:
To create a commercially viable product in the form of a wearable therma-therapeutic undergarment while learning the procedure of product development and make a constructive attempt to solve the problem of dysmenorrhea (primary and secondary) experienced by young girls and women every month.

Analysis:
The heated technical textile is the heart of the garment and will be placed at the epicentres of pain discovered during the anatomical study of primary dysmenorrhea. The temperature and the battery size were obtained after analysing the data from the survey. The design and specifications of the supporting electronic components was also determined. The design of the garment was finalised after considering many factors like conformity, lightweight, discreet. After a lot of contemplation, it was finally decided that it would be an underwear which would have the exact fit and coverage like that of a period underwear. In short, the technical textile and the supporting electronics will be clubbed with a conventional high waist, full coverage underwear.

Conclusion:
After the functional analysis of the final prototype integrated with the make-shift supporting electronics, it was discovered that the temperature was maintained and there was enough heating.

Suman Kumar & Ayush Kumar

DEVELOPMENT OF AN ERGONOMICAL WORKSTATION FOR WORKERS OF SNLS MACHINE IN A SHIRT MANUFACTURING COMPANY BY USING RULA & REBA METHOD.

Faculty Mentor: Mr. S.S Ray

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Background:

Musculoskeletal disorders (MSD) are injuries or disorders of the muscles, nerves, tendons, joints, cartilage, and spinal discs. Most of the work-related injuries are caused or aggravated by stressors such as repetitive motion, and awkward posture. Musculoskeletal conditions are typically characterized by pain and limitations in mobility and functional ability, reducing people's ability to work and participate in social roles with associated impacts on mental wellbeing. 75% of sewing operators were complaining about shoulder and neck problems. This is huge percentage and this dissatisfaction leads the labour turn over. So industry have to make economical and affordable attachment to make the work station more safe and comfortable.

Objective:

Development of an ergonomical workstation for workers of SNLS machine in a shirt manufacturing company by using RULA & REBA method.

Analysis:

Most of the small and medium apparel company are using bench and stool for sitting. It is very difficult to work by sitting on the hard surface without any back support. Workers were not able to maintain their posture for long time. Due to lack of correct posture the risk of WMSD is more. To maintain the correct posture during work, attachments were made for the arm rest, lumber and thoracic support. These attachments will support the body and help to the worker in maintain the correct posture and reduce the risk of WMSD.

Conclusion:

It was found that the prototypes were able to provide arm rest and back support with lumber and thoracic support. Stool can be use as stool and chair both with the help of detachable back support.

As per the RULA and REBA report of final products, the risk of the WMSD is minimum after using these attachments. It also helps in maintaining correct posture during the work.

Technova '20

Arpit Raj & Rishika Mallick

REDUCTION OF DELAYS IN PRE-PRODUCTION PROCESS

Name of the company: IMARA, USPL, Bangalore

Faculty Mentor: Mr. J Pari

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Background:

In order to satisfy the ultimate customers, to meet the target shipment date and to make the apparel sector more stable Universal Sportsbiz. Pvt. Ltd. – Imara is required to reduce the lead time during execution of an order placed by buyers. Delay in any of pre-production activities take up 60-70% of total lead time, this in turn delays the subsequent activities, thus failing to meet the planned delivery date. If the vendor misses the delivery date, the buyer asks for a discount of 5%, 10% or more depending on the number of days late. Discount slab:

1)>5 days: 2% of bill value
2)>12 days: 5% of bill value
3)>15 days: 10% of bill value

Objective:

To identify delays & gaps at Preproduction stage

Analysis:

The data of past records had been segregated manually and the analysis work has been done with the help of MS-Excel. The data on 24 Orders which primarily got delayed in Pre-production stage have been analysed on the basis of the following parameters: Sample submissions, material procurement, quality problems, lab dips. The hypothesis testing is used for the analysis of the study to arrive at conclusions which will have practical application. By the combined result of the TNA analysis and survey, the deviation in planned and actual dates for most orders were found out to be maximum in: Bulk fabric and trims in house, PP sample submission and approval.

Conclusion:

It was found that the problem areas were communication gap that included old non-updated excel sheets, improper follow-ups, unorganized tables which resulted in difficulty to track the orders, Improper prioritization of styles, MS-Excel sheet is used merely as for record keeping and not for any analysis or decision making. These findings support the feasibility of using an application tracking portal that will facilitate easy tracking, providing visibility from allocation to delivery, provide clear priorities and provide early warning of potential issues and also vendor can be rated in the application further.

Technova '20

Manshi Bharti & Mihir Garg

DEVELOPMENT OF A SPECIALIZED SPREADING SURFACE WITH ATTACHMENTS IN ORDER TO FACILITATE CONTINUITY IN SPREADING AND CUTTING IN SITUATIONS OF A SUDDEN CHANGE OF PRIORITY IN ORDERS.

Faculty Mentor: Mr. Bikas Agrawal

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Background:

The garment manufacturing industry is a labour-intensive industry. There is a cost associated with the time they spend in the manufacturing processes. Each minute wasted results in loss of money and an increase in lead time. For being competitive in market it's essential to deliver the goods on time i.e. within the lead time There are many ways of controlling costs, but the aim should not be the compromise with the raw material quality.

In this project, we focused on "The spreading area" and we felt there are some problems which didn't get much priority, need to be improved. Many cases were observed where the delay is untraceable or people don't give much priority to the issues as they are unaware of the consequences.

Objective:

To create a bypass way for a fabric lay in a cutting room of a garment factory, without disturbing it or any other lay in case of urgently required cutting

Analysis:

This prototype spreading table provides a bypass way to the completed fabric lay with the help of horizontal and vertical movements without disturbing the other fabric lay. For this project, we identify the major problem which occurs during spreading and cutting of the fabric in the garment manufacturing industry, we collected the data required for the study by doing motion & time analysis and created a questionnaire base survey form in which we asked questions about complications or difficulties faced in spreading and cutting. After the prototype development, we check the functions which we sought.

Conclusion:

The prototype was developed successfully to meet all the required needs that were targeted.

It was found that the prototype was able to perform the movement which we sought i.e. horizontal and vertical. The product minimized the fabric lay waiting time and provided a bypass way for lay to reach the CNC cutting machine. It gave freedom of sequencing the fabric lay if the cutting plan has been changed and also provided proper Lay relaxation space for stretchable fabrics without hindering other lays. It was not built on an actual scale due to pandemic situation.

Technova '20

Ankita Ranjan & Ayushi Singh

DEVELOP A CLOUD BASED SYSTEM TO TRACK SAMPLES IN MERCHANDISING DEPARTMENT OF PEE EMPRO.

Name of the company: PEE EMPRO, Faridabad

Faculty Mentor: Mr. J.P.Behera
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Background:
In the garment industry, the goal is not only to deliver the product at low cost but most importantly in shorter time which can be achieved by ensuring proper coordination and communication among different activities. Entire pre production, production and postproduction activities need to be managed properly. In order to find the major problems leading to delay, TNA and delay analysis was done from which one can come to a point that there is a lot of reconstruction required in the sampling department and sampling work method.

Objective:
Develop a Cloud based system to track Samples in Merchandising Department of Pee Empro and help the company to deliver the goods in time to the buyers end.

Analysis:
The results combines, with the results of the survey conducted, gave us the idea of the main loopholes and areas we can work upon. The delay in getting GPT approval, raw materials in-house and getting the PP sample approvals; all were linked due to poor order tracking and inefficient follow-up system.
According to the merchandisers, a proper follow up system would help in maintaining visibility and would help to save time which is spent on going through so many excel sheets for a particular order to track the deliverables of each order.

Conclusion:
The one time investment in cloud based system provides no. of advantages for long time run. All the information of past orders, running orders and pending orders can be maintained at one place and can be accessed by team members and workers by providing them login id and password. Auto data Generation: Costing and Bill of Material, Indent as soon as the orders are confirmed.
Total time saving for a merchandiser per day = 12 min. (Approx)

Technova '20

Congratulations Graduating Batch of 2020