



NTU CHRONICLES

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NTU is the Pioneer Institute of Textile Education
in Pakistan, Serving the Industry
Since 1959



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VISION

National Textile University aspires to have a transformative impact on the socio-economic development of the country in general and textile & clothing industry in particular, with outstanding education, research, and eco-friendly innovation.

MISSION

The mission of National Textile University is to contribute towards sustainable socio-economic development of society and welfare of humanity through pursuit of excellence in education, research and innovation in areas of National importance, with special emphasis on textile and clothing.

Important Visits at NTU



Inauguration of "Italy-Pakistan Textile Technology Center"

Italian Ambassador to Pakistan, H. E. Andreas Ferrarese and Mr. Rizwan Shafi (CEO, Crescent Bahuman Ltd.) inaugurated the "Italy-Pakistan Textile Technology Center" (IPTTC) at NTU on November 16, 2020. The inauguration ceremony was chaired by Prof. Dr. Tanveer Hussain (Rector; NTU). H. E. Jauhar Saleem (Ambassador of Pakistan to Italy), Mr. Amedeo Scarpa (Italian Trade Commissioner to UAE, Pakistan, Oman), and Dr. Alex Zucchi (President; Association of Italian Textile Machinery Manufacturers) attended the ceremony through video link. This technology center will strengthen the bond between the two countries and will help the denim industry to improve the quality of garments through research and innovation.





NTU Established Compressed Air Centre of Excellence

In collaboration with Asian Institute of Industrial Air (AIIA), National textile University has established a Compressed Air Center of Excellence (CECA) on October 16, 2020. It is Pakistan's first fully featured Compressed Air Training Facility. Rastgar Air Compressors and International Equipment Suppliers from Germany, France, and Netherlands also collaborated for this purpose. Mian Muhammad Latif (Chairman; Chenab Limited) inaugurated the Compressed Air Center of Excellence. Prof. Dr. Tanveer Hussain (Rector; NTU) thanked the Rastgar Group, the AIIA, and the International donors for taking this initiative to improve the knowledge of Compressed air engineering. While commenting on the objective of CECA, Dr. Arshad Ali (CEO; AIIA), an eminent educationist and ex-Vice Chancellor of NTU, claimed that the Compressed Air accounts for 70% of electricity being used by Textile Industry in Pakistan. Due to lack of Compressed Air Engineering knowledge, most of manufacturing enterprises are unaware of modern techniques for lowering energy cost, reducing cost of ownership, and reducing minutes' transmission losses through modern piping techniques, etc. He further highlighted the modern Compressed Air Practices. The CECA will train the industry professionals and the graduates of NTU according to the ISO standards of the Compressed Air.





Visit of Mr. Uzair Ahmed Khan from Crescent Textile Mills for Testing and P&D Facilities

Mr. Uzair Ahmed Khan (Senior Manager; Research and Innovation, Crescent Textile Mills) visited NTU on January 30, 2020. Mr. Muhammad Waqas (Deputy Director; ORIC Industrial Liaison) briefed him about the testing and Product & development facilities available at NTU. Mr. Uzair showed keen interest for the development of sample at NTU. He assured that he will start research project keeping in mind the requirements of their customers.



Visit of Dr. Sajid Yoosufani from The Federal Ministry of Education and Professional Training



Dr. Sajid Yoosufani, the Secretary of the Federal Ministry of Education and Professional Training, visited NTU on May 7, 2020. The Rector, Prof. Dr. Tanveer Hussain gave a brief presentation on NTU. The Secretary visited various Departments of the University and showed his interest for further development. Mian Muhammad Latif (Member; Board of Governors), Dr. Yasir Nawab (Dean; FET), Dr. Zafar Javed (Director; FHSS), Prof. Dr. Zahid Rizwan (Director; QEC), Prof. Dr. Tahir Hussain (Dean; FOS), Dr. Sajjad Ahmad Baig (Director; FMS), and Mr. Salman Saif (Registrar) were also present during the introductory session. The Secretary of the Federal Ministry of Education admired the efforts and the role played by NTU for the economy of Pakistan. He also advised the management of the University to extend their role by improving the quality of N-95 Mask and Protective Kits, especially during this existing COVID-19 Pandemic.



Visit of Mr. Zeeshan Afzal from Million Smiles to Deliver Lecture on Youth Empowerment

Character Building Society, in collaboration with Entrepreneur Society, arranged an event on Youth Empowerment. NTU roared for Pakistan and promised that this generation will change the future and give us all a brighter, better, and beautiful Pakistan. Mr. Zeeshan Afzal (CEO and Co-Founder of Million Smiles, Chief Visionary StationeryX, Director Sadaqat, MD C ThinkTank and former Global CEO SAF) gave a wonderful lecture to the young generation and guided the youth towards the right direction. At the end of the session, a souvenir was presented to the honorable guest by Mr. Farooq Jamal, the Convener of CBS.





Visit of Mr. Faisal Sherjan from LUMS to NTU-BIC for Possible Collaboration

Mr. Faisal Sherjan (Director NIC; LUMS) and Mr. Kaleem Ullah (Manager Community; NIC, LUMS) visited NTU-BIC in February 2020. They met NTU-BIC startups and discussed possible collaboration between NIC, LUMS, and NTU-BIC.



Lecture on "The Impact of Islam on our Lives" by Mr. Saeed Anwar



Character Building Society and Quran Society invited ex-cricketer and religious speaker, Saeed Anwar on February 13, 2020. He gave a speech on "The Impact of Islam on our Lives". He also encouraged the young generation to align their lives according to the golden rules of Islam. Mr. Farooq Jamal (Convener; CBS) presented the shield to worthy guest at the end of the event.

MoUs and Collaborations



NTU signed an agreement for the Launch of Batool Muzaffar Scholarship (Undergraduates) Program

A MoU was signed for the launch of Batool Muzaffar Scholarship Program on November 25, 2020. Mr. Imtiaz Ali Malik (Ex- Vice President; Habib Bank), a representative from Batool Muzaffar Scholarship, and Dr. Muhammad Umair (Advisor Students; NTU) signed MoU. This Scholarship helps the students in establishing successful academic careers and become future leaders in their fields.





Industrial Research Agreement of NTU-ORIC with Ahmad Jamal Textile Mills for Research Collaboration

Office of Research Innovation and Commercialization (ORIC) arranged an industrial visit to Ahmed Jamal Mills. The purpose of this visit was to foster the research collaboration. Subsequently, a Research Agreement was signed by Mr. Muhammad Waqas (Deputy Director; ORIC Industrial Liaison) and Mr. Saif ul Islam (General Manager) on the behalf of NTU and Ahmed Jamal Mills. The agreement was intended to formalize the mutual interaction and to strengthen the existing relationship between NTU and Ahmad Jamal Textile Mills. Mr. Malik Farooq (Senior Manager Production; Ahmad Jamal Textile Mills) was also present when the Research Agreement was being signed.



MoU of NTU-ORIC with Rafhan Maize Co. Ltd. for Research Collaboration



NTU and Rafhan Maize Product Co. Ltd. have joined hands for research collaboration. MoU signing ceremony was held at NTU on September 15, 2020. Dr Ahsan Nazir (Director; ORIC) and Mr. Muhammad Waqas (Deputy Director; ORIC Industrial Liaison) from NTU and Mr. Farhan Ahmed Malik (Director; Textile Business), Mr. Muhammad Kaleem Akhtar (B.D. and Tec Service), Mr. Ahsan Ahmad (Senior Manager; Textile Business), and Mr. Nadeem Shahid (Manager; Research & Technology) from Rafhan Maize Participated in the MoU signing ceremony.



MoU between Department of Management Sciences and MK Sons Pvt. Ltd.

The efforts of Ms. Mehwish Sultan (Lecturer; FMS), under the supervision of Dr. Sajjad Ahmad Baig (Director; FMS) and Dr. M. Hashim (Assistant Professor; FMS), bore fruit and the Officials of MK Sons Pvt. Ltd. visited the Department of Management Sciences. The Department signed its first ever industrial MoU with MK Sons Pvt. Ltd.



Sessions/Workshops/Scholarships



Training Session on "Structural Equation Modeling Using AMOS"

Business Research & Development Society and the Department of Management Sciences organized a four-day training on the "Structural Equation Modeling using AMOS", in the meeting room of FMS, in February 2020. The workshop offered a hands-on practice session for both SPSS and AMOS. Ms. Beenish Qamar (Lecturer; Management Sciences) was the resource person for the workshop. The workshop helped the students in developing better understanding and greater insights into the use of Structural Equation Modeling for research purposes.



Training Session on "Outcome Based Education" for Newly Inducted Faculty Members

Quality Enhancement Cell, in collaboration with the Human Resource Department of NTU, conducted an in-house awareness session titled "Role of Quality Enhancement Cell in the University" on October 2, 2020, in the Video Conference Room. The session was arranged for newly inducted faculty members at NTU. Engr. Muhammad Haroon (Assistant Director; QEC) delivered a comprehensive presentation on the functions of QEC and shed light on the duties and responsibilities of a teacher at the University.



Training Workshop on Autocad By Mr. Usama Hamid

2D drafting and 3D modelling are the core skills that are required by all engineering disciplines. Undertaking AutoCAD training is no doubt the best way to start building your 2D or 3D computer aided design skills. Society of Polymer Engineering organized a Workshop on AutoCAD in March 2020. The purpose behind this event was to make students familiar with the software tools that would be helpful in their careers. Final year student of BS Polymer Engineering, Mr. Usama Hamid was the resource person for this workshop.





Training Workshop on “Industrial Designs Application Filing in Pakistan”

NTU-ORIC organized a training workshop on February 17, 2020. This workshop titled as “Industrial Design Application Filing in Pakistan” was carried out in collaboration with Intellectual Property Organization (IPO) for the Department of Design. Mr. Ghulam Mujtaba Kamal (Deputy Director) and Mr. Muhammad Umar Ashraf (Director from IPO, Islamabad) were the resource persons of the training workshop. They discussed the training modules in detail and answered the queries of the participants about Intellectual Property Laws, Design and logo application preparation and filing, and specific types of claims. 20 participants from Design Department of NTU attended the workshop and appreciated the efforts of ORIC Staff.



Training Sessions on “Mplus Usage for Quantitative Analysis”



Business Research & Development Society and the Department of Management Sciences organized a training session on Mplus usage for Quantitative Analysis in the FMS meeting room. The workshop offered insights on the use of advanced analysis techniques and a hands-on practice session for Mplus. Dr. Muhammad Arshad (Assistant Professor; UOL) served as the resource person for this workshop and the workshop helped the students in developing a better understanding for the use of Mplus for research purposes. At the end of the session, a shield was presented to the resource person and certificates were distributed among the workshop participants.



ABN IELTS (Preparation Centre) Training Session at National Textile University

On March 11, 2020, the team IELTS provided the guidelines to the students about the scholarships and highlighted the procedure for application. Ms. Nadia Shamim, an Advisor in Students office, facilitated the IELTS team. They gave some tips to prepare the test and perform it in a smarter way





Workshop on "Tapestry Weaving" by Dr. Jade Lord

In coordination with Ms. Zunaira Shoaib, a workshop on Tapestry Weaving was arranged in the Department of Design on February 17, 2020. In different cultures, tapestry has been utilized for functional, decorative, spiritual, and expressive purposes. Dr. Jade Lord, a Lecturer in Fashion and Textile Design, from the University of Huddersfield, was the resource person. She shared her experience and art works with the students. The workshop was attended by the 2nd year students of Textile Design and Fashion Design. The core content of the workshop was to introduce the students to the fundamental skills related to the creation of woven tapestry, warping up a simple frame, exploring woven techniques, creating shapes and lines, and blending colors. Design students also displayed their tapestry art works.



Workshop on "Retail Landscape of Pakistan" by Chief Operating Officer, Gul Ahmad Textiles



A workshop on Retail Landscape of Pakistan was organized by TMM and Executive Society. Speaker Mr. Nadeem Rehmani, the Chief Operating Officer at Gul Ahmad Textiles, having 26 years of experience in different industries, was invited for speech about the landscape of Pakistan. This session was organized by Dr. Sajjad Baig (Dean; FMS), Dr. M. Hashim (Program Director; BSTMM and Convener; TMM Society), Nazish Imtiaz (Convener; Executive Society), and Mehwish Sultan (Coordinator; TMM Society). Basic purpose of this workshop was to educate the students about the retail sector that has an immense contribution in the overall economic activity of the country.



Awareness Sessions on "Covid-19 and Blood Donation" by NTU Society of Occupational Safety Health and BDS

NTU Occupational Safety Health & Blood Donation Society has arranged an informative session on awareness of COVID-19 and its prevention at workplace and during Blood Donation. This session was held on November 10, 2020. Dr. Muhammad Imran (Assistant Professor; DHQ, Faisalabad) spoke about COVID-19 and occupational health and Dr. Kahlid Fakhar (MS; Mujahid Hospital and MS DHQ, Rt) spoke on Blood Donation in the light of Holy Quran.





Workshop on "Creative Photography and Equipment Use" by the Graveyard Photographer

NTU Media Club and Photography Society warmly appreciates the successful event and workshop on "Creative Photography and Equipment Use" honored by Emaan Farooq, the Graveyard Photographer, on February 24, 2020, to share his experience and his success story. He gave many creative and innovative ideas to enhance skills of using different photography Equipment. Students from UET, TUFF, and IAD also participated in the event. At last, Dr. Muhammad Ahmad-Ur-Rehman (Convener; NMC & PS) and Sir Zarjan (Lecturer; Design Department) presented the souvenir to the guest speaker.



GRE Fulbright Scholarship Program by United States Educational Foundation in Pakistan



Advisor Students Office organized Phase-I of GRE Orientation Session for Fulbright scholarships by USEFP (United States Educational Foundation in Pakistan) on March 5, 2020. Mr. Zeeshan Rahat Kureshi (Principal Adviser; Test Preparation/Team Lead Lahore Advising) and Mr. Aman Bashir made a presentation on the salient features of USEFP and the requirements to apply for Fulbright Scholarship and explained the components of the test. The information session was attended by faculty and students which provided insight into the features of the MPhil/PhD programme in USA. It focused on the ability of the programme to enable graduates to lead educational reforms in Pakistan as well as future career prospects.



Workshop on Generating Revenue from Online Digital Business Marketplaces

Character Building Society and Entrepreneur Society organized a workshop on October 29, 2020, in collaboration with Digi Masters. The workshop was about generating revenue from online digital business marketplaces.





1st Installment of NEST ARTS & Culture Undergraduate Scholarship Program

1st Installment of NEST ARTS & Culture Undergraduate Scholarship Program (under Ministry of Federal Education of Professional Training) at NTU is released at NTU & the cheques for the first instalments of 25 slots has been delivered. Advisor Students, Dr Muhammad Umair congratulates the students of the Design Department. In continuation to the inaugural ceremony and workshops, the Focal Person of NEST, Ms Nadia Shamim and team (Advisor Office) coordinated with NEST for the process completion and disbursement of funds smoothly against awarded 25 slots.



National Endowment Scholarship for Talent by The Ministry of Federal Education and Professional Training

The Ministry of Federal Education and Professional Training has launched the Need-Based Scholarships focusing on the talent for promoting arts and culture in Pakistan through the National Endowment Scholarship for Talent (NEST). They are seeking to promote the fields such as Film, Theatre, Visual arts, Ceramic, Fashion Design, and Textile Design, etc. The Ministry of Federal Education has included 15 top HEC recognized and Degree awarding institutes of the Country, both from public and private sectors. NTU is one of them. Federal Minister for Education and Literary Heritage, Mr. Shafqat Mahmood inaugurated the Arts and Culture Scholarship program on January 16, 2020. The Focal Person of NTU, Ms. Nadia Shamim coordinated with team NEST and also attended the inauguration ceremony. NEST awarded 25 slots to NTU for the students of Design Department.

NTU Participation at National and International Level



NTU-ORIC's Participation in Seminar Titled "Future Dynamics of Apparel Business Markets"

Mr. Muhammad Waqas (Deputy Director; ORIC Industrial Liaison) participated in the seminar titled "Future Dynamics of Apparel Business Markets", organized by JICA and Trade Development Authority of Pakistan (TDAP) on February 28, 2020, at Pearl Continental Hotel, Lahore.





Participation of Dr. Umber Sheikh in "5th International Conference on Pure and Applied Mathematics"

Dr. Umber Sheikh (Assistant Professor; Applied Sciences) and her student Mr. Muhammad Ibrahim participated in the 5th International Conference on Pure and Applied Mathematics (ICPAM) at the University of Sargodha, Sargodha on February 24 and 25, 2020. They both presented their work at the event under the titles "Zagreb Indices of Carbon Nano-Structures" and "Calculating Thermal Capacity of Schwarzschild Black Hole in Rainbow Gravity" respectively.



Participation of NTU Students in the "6th International Conference on Engineering and Emerging Technologies"

Students of CS Department, Habib Ur Rahman and Muhammad Bilal Sardar presented Research Paper in the 6th International Conference on Engineering and Emerging Technologies (ICEET), held on February 22 and 23, 2020. The conference was organized by Superior University, 17km-Raiwind Road, Lahore. It was sponsored by IEEE. The Students presented their topics and got valuable suggestions from experts for their future research. Chief Patron of the conference were Prof. Dr. Chaudhry Abdul Rehman (Chairman; The Superior Group) and NAI BAAT Media Network, Pakistan. Chief Organizer included Dr. Muhammad Usman Hashmi (Associate Professor; Superior University) Focal Persons include Engr. Faisal Haider Paracha (Lecturer; Superior University) and Mr. Fahad Sabah (Lecturer; Superior University). Mr. Haseeb Khan was the ceremony host.



Participation of NTU in the "PASTIC-UAF One-Day STEM & IT Innovations Expo"

NTU participated in "One-Day STEM & IT Innovations Expo., 2020" on January 29, 2020. It was organized by Pakistan Scientific and Technological Information Center (PASTIC) at Expo Center, UAF, Faisalabad. ORIC (NTU) represented the University at the Expo. The event attracted prospective students interested in Research & Innovation programs. It helped the students to get counseling from the University professionals and representatives at the Expo.



Research Papers in "1st Multi-disciplinary National Conference" by NTU Students

Meeting of 1st Multidisciplinary National Conference on Emerging Educational Trends (MEET 2020) was held on March 4, 2020. The students of MS BA (3rd Semester) presented their research papers in this conference. Approximately, 130 researchers participated along with a galaxy of Educationists, Vice-chancellors, and Professors from the different Universities of Pakistan.

Important Meetings



Meeting of NTU-ORIC with R&I Team of Interloop Ltd. for Collaboration

A team from Research & Innovation Department, Interloop Ltd., had a meeting with NTU-ORIC. They visited research and testing facilities available at NTU. The University proposed multiple areas for research and development related to Textile Comfort. The team showed keen interest and assured to work together in the near future.



Meeting of NTU-BIC Startups with Angel Investor, Mr. Amjad Baig

NTU-BIC startups including Al-Fannan, Zert Club, Nio Fox, Texcraft, Agilerz, and Smartech shared their startup ideas and discussed possible cooperation/partnership with Angel investor, Mr. Amjad Baig.



The 10th Academic Council Meeting of NTU

The 10th meeting of Academic Council was held in the Video Conference Room of NTU on January 29, 2020. Rector of NTU, Prof. Dr. Tanveer Hussain chaired the meeting. All Deans, Directors, HODs, Registrar, and QEC officials were present there. Members of Academic Council from other universities and organizations also attended the meeting. It started with the recitation of the Holy Quran. The Rector welcomed all the participants and asked to start the proceedings of the meeting. The agenda items were presented to the house for discussion and the decisions were made accordingly.





NTU-ORIC Meeting with Swisstex Chemicals Pvt Ltd. for Research Collaboration

A team from Swisstex Chemicals (Pvt.) Ltd. had a meeting with NTU-ORIC. They visited research and testing facilities available at NTU. NTU-ORIC proposed multiple areas for research and collaboration. Team Swisstex showed keen interest in testing and product development services offered by NTU.



The 2nd General Meeting of Textile Industrial Advisory Board (TIAB)



The 2nd general meeting of Textile Industrial Advisory Board (TIAB) was held in the Video Conference Room of NTU on February 7, 2020. Dr. Yasir Nawab (Dean; FET) chaired the meeting along with Mr. Rana Sohail Ahmad (Chairman; TIAB). The purpose of the meeting was to help in setting strategic directions of the University and make it a fruitful platform to strengthen the academia-industry relationship.



NTU-ORIC Meeting with Former Vice Chairman of the Pakistan Yarn Merchants Association to Work Together

Mr. Muhammad Waqas (Deputy Director; ORIC Industrial Liaison) had a meeting with Mr. Shahid Akram Guccha (Former Vice Chairman; The Pakistan Yarn Merchants Association). Mr. Waqas briefed about the Research & Development facilities available at NTU and about the expertise of faculty members in different sectors of Textile. Mr. Shahid Akram claimed that working jointly can help to address the problems faced by industry in a better way.





An International Bilingual Webinar cum Seminar on SEERAT UN NABI

In order to celebrate a week in the honor of our Beloved Prophet Hazrat Muhammad (SAW), an International bilingual webinar cum seminar on Seerat un Nabi was conducted in the Main Hall by the faculty of Humanities and Social Sciences on November 16, 2020. Renowned scholars from Pakistan, India, and Malaysia spoke on different topics, especially on contemporary issues and their solutions in the light of Seerat un Nabi. Dr. Zafar Javed highlighted the need for the knowledge of Seerat un Nabi for young generation and Prof. Dr. Tanveer Hussain (Rector; NTU) highlighted the role of teachers in educating the young generation about Seerat un Nabi.



Success/Achievements and Awards



2nd Position in Clean Green Pakistan Wall-Art Competition



Students of Design Department (6th semester; Visual Arts) scored 2nd position in the Clean Green Pakistan wall-art Competition held in Faisalabad on February 17, 2020. 56 teams from Faisalabad participated in this competition. Design Department at NTU is focused to prepare and update the students with the latest activities in the art world to polish their skills. The feeling of winning any competition is unique that cannot be replaced with anything else. Such achievements are the results of the hard work and the efforts of the faculty and students of Design Department.



2nd Position in Takhyul 2020

NTU Literary Society participated in "Takhyul 2020", a Literary Festival held at Bhaududdin Zakriya University (BZU), Multan, on February 20, 2020. Jamshaid Abbas Tabish (Member; NTU Literary Society) won 2nd position in this competition.





Position in SDC International Design Competition



Nimra Nawaz, a student of MS Textile Chemistry, has won 8th position in the SDC International Design Competition for Students 2020, Pakistan. She is doing her MS project, under the supervision of Dr. Kashif Iqbal (Assistant Professor; Textile Processing), on sustainable dyeing process.



Three Positions in The National Literary Festival 2.0 At NUST, Islamabad

NTU Literary Society participated in the National Literary Festival 2.0 at NUST, Islamabad, held on March 6 to 8, 2020. More than 30 Universities participated in the Festival from all over Pakistan. Members of NTU Literary society participated in various categories of the festival and won 3 positions in Stand-up Comedy, Bait Bazi, and Essay Writing. The detail of the winners:

Mr. Muhammad Salman Ali

1st position in the Stand-up Comedy

Mr. Mujahid Mahmood

2nd position in Bait Bazi

Mr. Muhammad Muzamil

2nd position in the Essay Writing Competition.



Development and Commercialization of Lightweight Bulletproof Vests by NCCM, NTU



Translating the research into end product, the National Center for Composite Materials at NTU has developed the lightweight bulletproof vests made from 3D comingled woven thermoplastic composite and novel auxetic woven fabrics under HEC funded project. The i-Textiles (Karachi) has joined hands with NTU for commercialization of the developed products. The said story has been published by THE NEWS International on June 5, 2020, under the title "NTU Faisalabad, industrial partner make low-cost bulletproof vests" as an example of industry- academia linkages in Pakistan. For complete story visit the link below:

<https://www.thenews.com.pk/print/667943-ntu-faisalabad-industrial-partner-make-low-cost-bulletproof-vests>



Pak-Sri Lanka Educational Cooperation Program

Three Sri Lankan students joined National Textile University in BS Computer Science and BS Software engineering programs w.e.f Fall-2020. These students were admitted under Pak-Sri Lanka Educational Cooperation Program (Allama Iqbal Scholarship for Sri Lankan Students). This is the first batch of Sri Lankan students admitted in NTU.



Muhammad Muzammil Naz Took the Crown for NTU Debating Society

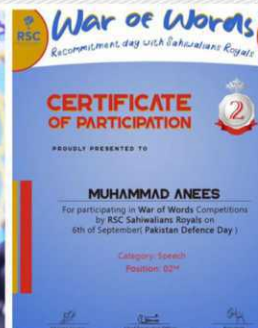


Malik Muhammad Muzammil Naz (Joint Secretary; NTU Debating Club) secured 1st position on the topic of "Qarbala" in All Pakistan Online Declamation Contest 2020. Event was held on August 17, 2020, via Zoom App. More than 60 debaters from Pakistan participated. He was awarded with the Certificate of Achievement for securing 1st Position. Judges and audience appreciated him on his best vocabulary and speaking talent. Further he was invited as a Senior Adjudicator at Marham, (All Pakistan Online Declamation Contest 2020 by Marham Welfare Foundation and Debating Club of Pakistan) held online from April 20, 2020 to August 1, 2020. Also, he provided his verdicts at Inter House Debate Competition held at Beacon House Canal Campus (Boys Branch), Faisalabad, on March 13, 2020. Congratulations to Malik Muzammil Naz on his achievements.



Winning Streak of NTU Debating Club

Mr. Muhammad Anees Islam (Student; Garments Manufacturing and General Secretary; NTU Debating Club) continues to rise the glory of NTU being an outstanding debater. He didn't give up on his speaking talent even during the pandemic and continuously represented his institution in various forms. He nailed the series of wins. Further, he achieved 2nd Position in the Debate Contest 2020, hosted by Seed Society of Education, Environment, and Development. He was declared 1st in "All Pakistan Interschool Online Declamation Competition" arranged by UMT Lahore. He also won 1st Position in "Bol Pakistan ke Liye" Speech Contest 2020. He won 2nd Position in All Pakistan Online Urdu Declamation Contest 2020, hosted by Aspirants Talent Empowerment. Moreover, he participated in "A-Plus TV Ramzan Kareem transMs. ion (speech segment)" and was declared the best speaker in the first round and was successfully qualified for the next round. Mufti Muhammad Tahir Tabassum and Farrah Hussain were the judges of that competition. Given below is the link of his speech on A-Plus TV



Seminars/Conferences/Events Lectures/Exhibitions



2nd International Conference on Technical Textiles

2nd International Conference on Technical Textiles was held at NTU on February 18 and 19, 2020. Engr. Jawed Salim Qureshi (Chairman; PEC) participated in the opening ceremony of conference as Chief Guest. Worthy Rector, Professor Dr. Tanveer Hussain delivered the opening remarks. Dr. Munir Ashraf, the Conference secretary, gave a welcome note. The conference was organized through sponsorship provided by GIZ Pakistan, Interloop Ltd., HEC Pakistan, WWF Pakistan, Nizam Sons, Jeanologia, and i-textiles. Dr. Yasir Nawab (Dean; FET) and Dr. Munir Ashraf (Associate Professor and Chairman; Textile Processing) played a key role in the organization of conference.



Mega Event on “Sufi Rang Iqbal Ky Sang”

NTU Iqbal Society arranged a mega event “Sufi Rang Iqbal Ky Sang” on March 12, 2020. Iqbal wants his youth to gain the best knowledge and that was the knowledge of Quran. This idea was presented through a theater play (Gul-e-Zindan) by NTU students. They expressed the vision of his kalam from Armughan-i-Hijaz. Many skits were performed to inspire the youth and show them the reality of the times and forge a destiny for themselves. The performances include:



An Interactive Session on “Intellectual Property Rights”

An interactive session on “Intellectual Property Right”, with the faculty members of Design Department, was arranged by Dr. Zafar Javed (Director; FHSS), in coordination with Mr. Shahid Zaheer. During the session, Dr. Zafar discussed various contextual analysis related to IP filling with special reference to the field of design. He motivated the faculty members for filling the application for IP by clarifying the significance of copyright and patent for designers' original work. Fashion and textile industry invest large amount of resources to make new and original designs each season.



An Event on "Iqbal and Love of Prophet Hazrat Muhammad"

On January 15, 2020, NTU Iqbal Society arranged an event on "Iqbal and Love of Prophet Hazrat Muhammad". Dr. Tariq Mahmood Hashmi (Associate professor; Head of Urdu Department; GC University) and Prof. Dr. Tanveer Hussain (Rector; NTU) were the guests of honor. They motivated the students by speaking about Allama Iqbal and his teachings for young generation. Students gave speech on our National Poet and Sultan Khalid Butt (Student, President of Arts & Culture Society) sang Kalaam-e-Iqbal to give a tribute to Dr. Allama Muhammad Iqbal. Two competitions took place.



Seminar on "Deforestation and Reforestation in South Korea"



Society of Nature and Environmental Sustainability (SNES) arranged a seminar on "Deforestation and Reforestation in South Korea" on January 14, 2020. Students and Faculty members attended the event. Dr. M. Irfan Siyal (Lecturer; DMT) delivered a lecture on this event. The aim of the seminar was to tell the students about forestation.



Lecture on "Quran and Character" by Dr. Suleman Misbahi

Character Building Society, in Collaboration with Quran Society, arranged a motivational lecture of Dr. Suleman Misbahi on "Quran and Character" on January 6, 2020. He encouraged the youth to follow the golden principles of Islam and to mold their character according to the principles of Islam.





Seminar on “Role of Youth in National Stability”

On 74th Independence Day of Pakistan, the Department of Humanities and Social Sciences arranged an online seminar on “The Role of Youth in National Stability” on August 13, 2020. The event was organized by Dr. Muhammad Yaseen (Assistant Professor; FHSS), Mr. Nasir Saim (Coordinator; DHSS), and Dr. Zafar Javed (Director; FHSS). Renowned speaker, Prof. Dr. Aftab Hussain Gillani (Chairperson; Dept. of Pakistan Studies; The Islamia University, Bahawalpur) and Ms. Sadia Saleem (lecturer; Pakistan Studies; NTU) made a speech in the seminar. In his speech, Prof. Gillani highlighted the sacrifices of our ancestors in getting the independence. At the end, Dr. Zafar Javed (Director; FHSS) thanked the guest speakers and all the participants for joining the seminar. Our Honorable Rector, Prof. Dr. Tanveer Hussain always wants to see the youth of NTU as responsible citizens of Pakistan. Dr. Muhammad Yaseen thanked the University administration, speakers, and participant for making the seminar successful.



Reasons of “Downfall of Economy of Pakistan and Middle East” by Shaheer Sialvi



An event based on the reasons of “Downfall of Economy of Pakistan and Middle East” was organized by TMM Society and Entrepreneurship Society on March 5, 2020. Speaker Shaheer Sialvi (President; State Youth Parliament) was invited for the lecture. The purpose of this session was to highlight the tragedy behind the downfall of Pakistan's economy. The event was supervised by Dr. M. Hashim (Program Director and Convener; TMM Society), Mr Farooq Jamal (Convener; Entrepreneurship Society), and Mehwish Sultan (Lecturer; Management Sciences).



An Event to Signify “Pakistan’s Commitment to Kashmiris”

NTU Arts & Culture Society arranged an event to signify Pakistan's commitment to Kashmiris in their genuine longstanding struggle for the right to self-determination. Faculty, staff, and students gathered for this event. This event included the representation of culture. There were Kashmiri stalls to represent Kashmiri culture which included their famous foods and items. The Students of NTU Stood with the Kashmiris and strongly condemned the brutal behavior, ongoing state terrorism, and violence by the neighboring country's forces.





Event on “Clean and Green Pakistan” at NTU

The Society of Nature and Environmental Sustainability arranged an event for “Clean and Green Pakistan” at NTU. The aim of this event was to sensitize the students about the importance of clean environment and planting. It was followed by the Prime Minister's initiative of “Clean and Green Pakistan”. Dr Zubair Khaliq (Convener; SNES) and Ms Nadia Shamim (Advisor Office) accompanied the students for walk and planting saplings.



Exhibition of Stitch Stories on the Theme of Ghanta Ghar



The students of Textile Design (6th semester) exhibited their embroidered art works based on the theme of Ghanta Ghar on 2nd International Conference of Technical Textiles at NTU. The Faisalabad Clock Tower is one of the oldest monuments still standing in its original state from the period of the British Raj. Being the center of the city, it is the most recognized building of Faisalabad. The fundamental goal of this exhibition was to introduce the universal visitors with the legacy of Faisalabad. Designers skillfully utilized colorful threads and variety of embellishments to prove their talent of embroidery intermixed with design and colors under the supervision of Ms. Aroobah Mumtaz from Design Department. Spectators appreciated and encouraged the learners for their hard work.



“Poly Talks: Funding Opportunities for Higher Education in Turkey”

Society of Polymer Engineering organized an event “Poly Talks: Funding Opportunities for Higher Education in Turkey” with the respectable guests Dr. Yakup Aykut and Dr. Mehmet Tiritoglu. The objective behind this event was to make students aware of the opportunities for higher studies abroad.



Careers/Recruitment Drives/Trainings

HR teams of following industries visited NTU for Recruitment Drive

- ▶ Instacare Software House, Lahore
- ▶ Style Textile Ltd., Lahore
- ▶ Softwood Textiles Pvt., Lahore
- ▶ Masood Textile Mills Ltd., Faisalabad
- ▶ Artistic Milliner, Karachi, Group-1
- ▶ Artistic Milliner, Karachi, Group-2
- ▶ Sapphire Group (Diamond Fabrics) Ltd., Lahore
- ▶ Cotton Web, Lahore
- ▶ Kohinoor Textile Mills Ltd. (Processing Unit), Lahore
- ▶ GRE Mock Test and Result for Fulbright Scholarship-PHASE III
- ▶ ABN IELTS (Preparation Centre) Session
- ▶ Sadaqat Group Ltd, Faisalabad



Student Activities/Industrial Tours



Jury for Evaluation of Final Year Projects of Textile Design

An external examiner jury was arranged for the final year students of Textile Design on January 30, 2020. External jury members from Academics and Textile industry were invited to evaluate the progress and development of their final projects. This activity was primarily focused to build self-confidence in the young learners and to boost their optimistic enthusiasm. This would help them look forward to a positive experience in planning more effective product design methodology. The session also helped the apprentices in analyzing their work themselves with both industry and academics in their minds. Final year students presented their design themes and ideas with confidence and also displayed the prototype of their products.



Certificate Distribution for Position Holders of Weaving and Knitting Departments



Department of Weaving and Knitting organized a certificate distribution ceremony on February 21, 2020. The position holder students of 1st, 3rd, 5th, and 7th semesters were awarded with appreciation certificates. The purpose of the event was to appreciate the position holders for their efforts.



Social Campaign: "Responsible Citizen" for Awareness of COVID-19

TMM Society started a social campaign (on Facebook, Instagram, and WhatsApp) against COVID-19 on April 12, 2020, named as "Responsible Citizen". They started this campaign under the supervision of Mehwish Sultan (Coordinator; TMM Society), in coordination with Dr. M. Hashim (Program Director and Convener; TMM Society) and Mr. Sajjad Baig (Dean; Management sciences). The basic purpose of this campaign is to spread awareness about the current situation of COVID-19, educate the people, and help the needy.

Start from yourself: In the 1st step of the campaign, all the members of TMM Society made videos in which they along with their families showed precautionary measures to save themselves from COVID-19.

Basic Purpose of 2nd step of the campaign "Tell others" started on April 21, 2020. The basic purpose for taking this step was to tell the troubles caused by COVID-19 to the neighbors and to warn them. In this step, all the society members recorded video messages to raise awareness of COVID-19 for those who were not following the instructions and were not taking precautionary measures. It was an attempt to make people realize the importance of following the instructions given by the government for ourselves and our families. TMM Society attempted to urge the people to stay at home for safety. **Help Others:** On May 5, 2020,



NTU-BIC conducted pitches for new startups

NTU-BIC conducted pitches to incubate new startups. Applicants from different departments presented their business ideas and products to the Selection Committee comprising of Dr. Ahsan Nazir (Director; ORIC), Dr. Zafar Javed (Director; FHSS), Mr. Muhammad Rizwan Akbar (Industrial Expert; CBL), Mr. Amjad Baig (Angel Investor), Mr. Asif Bashir (Manager; BIC), and Mr. Nasir Mahmood (Academic Expert).



Amity with Kashmir in A Unique Style by Students of Fashion Design



Designers have a unique mode for communicating the same stories around them in an exclusive and innovative way. Young designers at the Design Department created an inspiring aura to show their feelings for peaceful Kashmir. Students of Fashion Design (6th semester) created draping work based on the concept of peaceful Kashmir. They used black and white colors as powerful tools for communication as colors play a vital role in the world. They silently speak with the spectator.



Holding of Rally/ Walk regarding "Shane-e Mustafa (PBUH)"

NTU Quran Society organized a walk, regarding Shan-e-Mustafa (PBUH), on the campus on November 20, 2020. Faculty, staff members, and students expressed their immense love and deep affection for beloved Holy Prophet Muhammad (PBUH) and renewed their pledge to truly follow 'Seerat-un-Nabi (PBUH)'. The rally was led by Dr. Muhammad Yaseen (Convener; Quran Society), Dr. Sajjad Baig (Director; FMS), and Dr. Zafar Javed (Director FH & SS). It ended with Darood-o-Salam.



Industrial Visit to Kamal Textile Mills Ltd.

On February 15, 2020, 1st year of Weaving Department visited Kamal Textile Mills. The tour was led by Lecturer, Mr. Hassan Iftekhar and was welcomed by General Manager, Mr. Saad Zulifqar. The team at Kamal Textile Mills offered an informative tour of the weaving production unit. The tour was very helpful and enlightening for the students. The Department of Weaving is very thankful to Kamal Textile Mills for the hospitality and support.



Educational Adventure Tour

Department of Management Sciences organized a tour for the students studying Organizational Behavior, Introduction to Human Resource Management, and Principles of Management in the Departments of Textile & Apparel Merchandising and Textile Engineering (Weaving). This adventure tour was the first-ever initiative to assess sessional marks of these students on the field during team activities instead of a classroom team project. Students participated in group activities like Caving, Boating, Camping, and Team Building Games. These promoted greater awareness of the group dynamics, team-building, and problem-solving skills. Students also participated in Rappelling, a unique activity that focuses on the values of trust and dependability. The idea of hanging in mid-air and letting go of all fears was not only liberating but also fun for the students. Students were accompanied by the faculty members of Management Sciences Dr. Zia-Ur-Rehman, Dr. Muhammad Hashim, Ms. Beenish Qamar, and Ms. Aroosa Khalid.



Visit to SPEL Industry, Lahore



Society of Polymer Engineering arranged an industrial tour to SPEL industry, Lahore, on January 11, 2020. Industry warmly welcomed the students and faculty member of DPE. Main aim of this industrial visit was to provide an exposure of the practical working environment to the students. This tour also provided students with a good opportunity to gain full awareness of industrial practices. Mr. Muzammil Mehmood, lecturer DPE, coordinated this tour.



DHSS Sciences arranged a study cam recreational tour under the supervision of Madam Sadia Saleem

Department of Humanities & Social Sciences arranged a study cam recreational tour under the supervision of Ms. Sadia Saleem, Lecturer of Pakistan Studies at NTU, Faisalabad.



Sports Activities



Interdepartmental Football Championship 2020 Won by Textile Processing Department

Inter-Departmental Football Championship 2020 was won by Textile Processing Department. The final match was played between the Textile Processing Department and the Department of Computer Science. Dr. Muhammad Umair (Director; Student Affairs) inaugurated the final match ceremony. He was introduced with both playing elevens. Dr. Muhammad Umair kicked the football to start the final match. Dr. Abdul Rehman (Assistant Professor; Coordinator Sports; TPD), Mr. Hassan Iftekhhar, Mr. Imran Ali (Sports officer), and Mr. Pervaiz Akhter (Sports Officers) were also there at the ceremony.



Textile Premier Cricket League 5th Season



The 5th Season of Textile Premier Cricket League (TPCL) was held on March 6, 2020, at Cricket ground of NTU. A total of 8 teams participated in the TPCL namely; NTU Bashers, NTU Gladiators, NTU Hawks, NTU Malangs, NTU Qalandars, NTU Snipers, NTU Stars, and NTU Sultans. Prof. Dr. Tanveer Hussain (Rector; NTU) graced the inauguration ceremony with his presence. After formal introduction and handshake with all players, the Rector played the ball and announced the opening of the 5th season of TPCL. Dr. Muhammad Umair (Director; Students Affairs), Mr. Naeem Bhatti (Lecturer), Mr. M. Adeel (Assistant Controller Exams), Mr. Imran Ali (Sports Officer), and Mr. Pervaiz Akhter (Sports Officer) were also present during the ceremony.



Department of Management Sciences Won Interdepartmental Volley Ball Championship 2020

Inter-Departmental Volley-Ball Championship 2020 was won by the Department of Management Sciences. The final match was played between the Department of Management sciences and Department of weaving. Dr. Zafar Javaid (Director; DHSS) inaugurated the opening ceremony. The final match started after a formal introduction and handshake with all players. Dr. Muhammad Yasin (Assistant Professor; DHSS), Mr. Imran Ali Gill (Sports Officer), and Mr. Pervaiz Akhter (Sports Officer) were also present during the ceremony.



Other Activities



Distribution of Prototype Development Funds Among NTU-BIC Startups



Worthy Rector of NTU, Prof. Dr. Tanveer Hussain distributed cheques among the NTU-BIC startups with the help of the Higher Education Commission (HEC) for the development of prototypes. At the occasion, Rector NTU advised startup founders to work hard on their creative ideas and to become successful entrepreneurs.



Visit of NTU Team to Punjab Board of Investment and Trade (PBIT)

A delegation led by Dr. Ahsan Nazir (Director; ORIC) visited Punjab Board of Investment and Trade (PBIT) to explore commercialization of Medical Textile Products developed at NTU. PBIT connected the team (NTU) to the potential investors for marketing the projects and researches to create export potential and international outreach to showcase the products.



Visit of NTU-ORIC Team to Saeed Fabrics



Mr. Muhammad Waqas (Deputy Director; ORIC Industrial Liaison) had a meeting with Sheikh Tauqeer Amjad (Director; Saeed Fabrics). He gave a comprehensive briefing on product development and testing facilities at NTU. Mr Tauqeer Amjad is keen to work collaboratively with NTU.



Visit to M.K Sons by Faculty of Management Sciences Team to Develop Industrial Linkage

Dr. Muhammad Hashim (Program Director; TMM) and Ms. Mehwish Sultan (Lecture; Management Sciences) visited M.K. Sons, Pvt. Ltd. on August 10, 2020, and had a meeting with Asim Ali Shah (General Manager; HR) and Abdul Munim (Manager Marketing) to develop industry and academia linkages. With the efforts of Ms. Mehwish Sultan, under the supervision of Dr. Sajjad Ahmad Baig (Director; FMS) and Dr. Muhammad Hashim, M.K. Sons showed interest to work with NTU in future.

TESTING SERVICES OFFERED BY NTU

FIBER TESTING	STANDARD TEST METHOD
Single Fiber Strength test	ASTM D 3822
Fiber Composition of Textiles (Quantitative)	AATCC 20A
Fiber Composition of Textiles (Qualitative)	AATCC 20
Cotton Fineness	ISO 2403, ASTM D 1448-11
Cotton Fiber Length and Length Uniformity	ISO 6989, ASTM D 5103-7
Cotton Breaking Strength by Pressley Tester	ISO 3060, ASTM D 1445-12
Cotton Trash Content	ASTM D 5867-5
Fiber Moisture Content	ASTM D 2495-12
Cotton Fiber (HVI) Tests	ASTM D 5867-12
YARN TESTING	STANDARD TEST METHOD
Yarn Unevenness (Uster-5)	ASTM D 1425
Linear Density by Skein Method	ASTM D 1907, ISO 2060
Linear Density by Short Length Method	ASTM D 1059
Tensile Properties of Single Yarn	ASTM D 2256, ISO 2062
Lea Breaking Strength	ASTM D 1578, ISO 6939
Twist by Contraction Method	ASTM D 1422, ISO 17202
Twist by Direct Method	ASTM D 1432, ISO 2061
Classification of Yarn Faults	Lab Developed
Yarn Crimp and Yarn Take-up	ASTM D 3883-4
Yarn Type Analysis	ASTM D 3887-4
FABRIC TESTING	STANDARD TEST METHOD
Fabric Width	ISO 22198, ASTM D 3774
Fabric GSM	ISO 3801, ASTM D 3776
Pilling Resistance by Martindale Tester	ISO 12945-4, ASTM D 4970-12
Pilling Resistance by ICI Method	ISO 12945-1, BS 8479
Random Tumble Pilling	ISO 12945-3
Abrasion Resistance	ISO 12947-2
Tearing Strength by Elmendorf Tester	ISO 12937-1
Bursting Strength of Fabrics	ISO 12938-2
Breaking Strength by Grab Method	ISO 13934-2
Wrinkle Recovery Test	AATCC 66
Dimensional Stability to Washing	ISO 6330/AATCC 135S
Skew Change (After Washing)	AATCC 179S
Smooth Appearance (After Washing)	AATCC 124
Soil Release of Fabric	AATCC 130
Color Evaluation by Spectrophotometer	AATCC Evaluation Procedure 6
Breaking Strength by Strip Method	ISO 13934-1
Seam Strength	ASTM D 1683
Weave and Design of Fabric	ASTM D 3775
Gauge of Knitting Machine	Lab Developed
Courses and Wales of Knitted Fabric	Lab Developed
Thickness of Fabric	ISO 5084, ASTM D1777
Bow and Skew in Fabric	ASTM D 3882
Color Fastness to Sea Water	ISO 105-E02
Color Fastness to Sea Water	ISO 105-E03
Dye-ability Test	Lab Developed
Method of Color Fastness to Perspiration	ISO 105-E04
Color Fastness to Washing	ISO 105-C01,2,3,6/ AATCC 61
Color Fastness to Dry Cleaning	ISO 105-D01
Color Fastness to Light	ISO 105 B02,B04 / AATCC 16.3
Color Fastness to NaClO Bleach in Home	AATCC 188
Color Fastness to Crocking	ISO 105 X12, AATCC 08
Absorbency of Textiles	AATCC 79
Fault in Cloth	Lab Developed
Blend Ratio of Fabric (2 Components)	AATCC 20, 20

Identification of Yarn/Fabric	Lab Developed
Percentage of Yarn in Fabric (per side)	Lab Developed
Seam Strength Test	ISO 13935-2, ASTM D 683
TESTING OF COMFORT PROPERTIES OF TEXTILE FABRICS	STANDARD TEST METHOD
Thermal Properties of Fabric (Sweat Guard Hotplate)	ISO 11092
Water Vapor Permeability (Sweat Guard Hotplate)	ISO 11092
Thermal Properties of Fabric (Permetest)	ISO 11092
Water Vapor Permeability (Permetest)	ISO 8096
Water Vapor Permeability (Standard Room Conditions)	ISO BS 720
Air Permeability Test	ISO 9237, ASTM D 737
Fabric Touch Properties (Fabric Touch Tester)	Lab Developed
Fabric Stiffness	ASTM D 4032
Moisture Management of Textiles (MMT)	AATCC 195
Drying Rate Test	AATCC 199
Fabric Drape Test	BS 5058
Kawabata Bending Test	Kawabata
Kawabata Compression Test	Kawabata
Kawabata Surface Test	Kawabata
Kawabata Shear Test	Kawabata
Kawabata Thermal Test	Kawabata
PROTECTIVE TEXTILES TESTING	STANDARD TEST METHOD
Vertical Flammability Test	ASTM D6413
Limiting Oxygen Index Test	ISO 4589-1, ASTM D2863
Static Charge Test (Conductivity Tester)	BS EN 1149-1
UV/Sun Protection Factor Test	AATCC 183
Water Repellency Test (Spray Method)	AATCC 22
Water Resistance of Fabric (Hydrostatic Head Tester)	ISO 811, AATCC 127
Antimicrobial Test Qualitative	AATCC 147
Antimicrobial Test Quantitative	AATCC 100
ANALYTICAL TESTING	STANDARD TEST METHOD
X-Ray Diffraction (XRD)	Standard Protocol
Scanning Electron Microscopy (SEM)	Standard Protocol
Optical Microscopy	Standard Protocol
Particle Size Analysis (Zeta Sizer)	Standard Protocol
UV-Vis Spectroscopy	Standard Protocol
UV-Vis-NIR Spectroscopy	Standard Protocol
Fourier Transform Infrared Spectroscopy	Standard Protocol
Electro-Kinetic Potential	Standard Protocol
Energy Dispersive Spectroscopy (EDX)	Standard Protocol
Differential Scanning Calorimetry (DSC)	ASTM D 3418
COMPOSITE TESTING	STANDARD TEST METHOD
Dynamic Mechanical Analyser	ASTM D 4065
Thermogravimetric Analyser	ASTM E 1131
Thermomechanical Analyser	ASTM D 1545
Resistance to thermal transmission	ASTM E 1530
Dilatometer	ASTM E 831
Rheometer	Standard Protocol
Drop Weight Impact Test	ASTM D 7136
Pendulum Impact Test	ISO 179, ISO 180
Melt Flow Indexer	ASTM D 1238
Universal Testing Machine	ASTM D 3039, ASTM D 7264
HAZARDOUS MATERIALS TESTING	STANDARD TEST METHOD
GCMS Test for Hazardous Materials	ISO/DIS 21084, ISO 18254-1
HPLC Test for Hazardous Materials	ISO 14362-1
Atomic Absorption Spectroscopy	Standard Protocol
Formaldehyde Testing	Standard Protocol