A Newspaper Published by University Advancement & Financial Assistance Office

NEDIAN

June 2023

www.neduet.edu.pk

Stories by the Students, for the Students and You

Issue. 6

BAHRIA TOWN SITE VISIT

MUHAMMAD TAIMOOR RIAZ
Civil Engineering, Batch 2020

ACI NEDUET Student Chapter organized an exciting site visit to Bahria Town Karachi for the students of the Department of Civil, Construction, and Urban Engineering on 14th January 2023. The visit included the Sewage Water Treatment Plant and the state-of-the-art Grand Mosque. The event comprised of total 255 students accompanied by faculty members, Dr. Shamsoon Fareed, Engr. Shahrukh Shaikh, and Engr. Tajik Shaikh, and four-point buses were arranged for transportation.

Upon reaching Bahria Town, the students were warmly welcomed by the BTK management and the Chief Resident Engineer, Mr. Amjad Ali Shaikh, who provided a detailed briefing about the visit. The Sewage Water Treatment Plant was the first location visited, where the students observed the process of recycling 100000 gallons of wastewater on a daily basis. They also witnessed how the recycled water was used for horticulture, cleaning, and in fire brigade emergencies.

Next, the students visited the Grand Mosque of Bahria Town. Even though it is still under construction, the mosque is the epitome of beautiful Islamic architecture. It will be the world's third-largest mosque according to its capacity, accommodating 800000 worshippers at a time. The mosque's 325 feet high Minaret, 150 Domes, beams, columns, and foundations were no less than a treat for the students interested in structural engineering and other individuals who had the opportunity to witness it.

HIGHLIGHTS OF THIS ISSUE

Tale of Friendship

Winning of National Award

Study Visit at Sindh

Study Visit at Islamabad, KPK

The students were also provided with lunch and drinks, and they were then taken back to the University in the point buses. The site visit was an excellent opportunity for the students to see how civil engineering theory is put into practice in real-time construction projects. The management of NED University was appreciated for facilitating such visits, and everyone looking forward to more.

TALE OF FRIENDSHIP & SELFLESSNESS

MUHAMMAD MUZAMIL HUSSAIN
Software Engineering, Batch 2019

The world lost a gem of a person on February 17, 2023, when my dear friend Nizam Ali passed away. As I sit down to pen his biography, I am reminded of the countless memories we shared together during our time at the university. Our friendship was a beautiful journey that taught me the true essence of selflessness and compassion.

I still vividly remember the first day of our university, when Nizam, standing in our classroom, called out to me as if he were my senior. As fate would have it, we discovered that we hailed from nearby cities, and from that moment on, we became inseparable friends. We attended classes together, ate our meals together, and shared countless cups of tea, which both of us had a fondness for.

Nizam was a brave and hardworking individual who was always sincere to me and a happy person. He had a unique way of greeting others, which was not forgettable, and his friendship was admired by everyone who knew him. He was always willing to go the extra mile for others and would not hesitate to sacrifice his own needs for the sake of his loved ones.

Nizam's friendly nature was not limited to his close circle of friends; he was equally close to the security guards, gardeners, and other staff members of our university. He lived his life like a common man and had earned the respect and recognition of everyone around him during his three and a half years at the university. Nizam was a person who knew how to handle situations under pressure, and his calm demeanour was a source of inspiration for those around him.

During our time together, Nizam would often tell me stories about his family background, his likes and dislikes, his favourite dishes, and places he had visited near his hometown. He was a great storyteller and had a keen interest in the prophetic stories. Nizam was a highly motivated and dedicated individual who was self-sufficient and took great pride in his independence.

Although we had our fair share of arguments, like all friends do, we would always forgive and forget, and our friendship grew stronger with each passing day. I still remember the day when Nizam came to my house for his brother's heart surgery. Unfortunately, his brother could not survive the surgery, and Nizam was deeply saddened by the loss. His brother's death had a profound impact on him, but even in his grief, Nizam remained steadfast in his commitment to those around him.

Nizam was born into a wealthy family, but his generosity knew no bounds. He would go out of his way to help those in need and greet everyone he met with a smile. He loved to discuss God’s creation and was a true believer of Islam. Nizam was a unique personality, and his love for his friends and family was unconditional.

One of Nizam's greatest passions was writing. He took great pride in his handwriting and would often write quotes and poetry on his friends' and classmates' handbooks during lectures. His teachers loved him, and he was always ready to lend a helping hand to his fellow students.

Nizam Ali had a unique approach to his studies that set him apart from many of his peers. While most students would stress out about deadlines and results, Nizam was always calm and composed. He never seemed to be concerned with grades or academic performance, but rather, he was more interested in his behavior and how he carried himself. He believed that success was not just about academic achievement, but also about character and integrity.

Despite his laid-back attitude towards deadlines and results, Nizam was still a diligent student. He would only study during the nights

before exams, but he would always put in his best effort to understand the material thoroughly. His confidence and self-satisfaction came from his deep-rooted belief in his own abilities and his faith in his actions. His focus on behaviour and character allowed him to live a life of purpose and meaning, and it was this philosophy that earned him respect and admiration from his friends and teachers alike. Nizam's unique approach to life and studies serves as an inspiring example for all of us to prioritize personal growth and character development above all.

Three days before his untimely demise, Nizam and I took a long walk around the university at night. As we strolled under the starry sky, he opened up to me and shared his deepest feelings, emotions, and thoughts. It was a heart-to-heart conversation that revealed the vulnerable side of his multifaceted personality. He spoke about his fears, hopes, and dreams with a rare vulnerability that left a lasting impact on me. Looking back, I realize how lucky I was to have had that moment with him, as it allowed me to see the depth of his character and the range of his emotions. It is a memory that I will cherish forever, and I feel grateful to have shared that profound experience with such a remarkable individual as Nizam Ali.

In conclusion, Nizam Ali was a person with a multitude of personality modes and aspects, each of which contributed to his unique character. His radiant smile, unwavering commitment to his friends and family, and selfless nature touched the lives of everyone he met. Although he may no longer be with us, his legacy of kindness and compassion lives on in the memories of those he touched. Rest in peace, my dear friend.

FIRST EVER WORKSHOP ON LC3 IN PAKISTAN

MUHAMMAD KARAM
Civil Engineering, Batch 2020

The LC3 Pakistan Resource Team organized the first-ever National Workshop on LC3 Cement held on the 17th of February at the Civil AV Hall in NEDUET Karachi, sponsored by HEC National Research Program for Universities- NPRU Project. It was fore-fronted by the LC3 Resource Person in Pakistan, Dr. Tariq Jamil & Co-Pl NPRU HEC, Dr. Tehmina Ayub. The Pro Vice-Chancellor NEDUET, Prof. Dr. Muhammad Tufail, participated as the Program's Chief Guest. ACI NEDUET Student Chapter joined forces as the Student Collaborator.

LC3 is a new type of cement that uses a blend of limestone, calcined clay, and gypsum and significantly reduces CO2 emissions during production. The workshop provided a platform for researchers and practitioners to share their experiences and findings on LC3 cement and discuss the potential for scaling up its use in the construction industry.

The programme started at 02:30pm with the recitation of the Holy Quran and National Anthem, followed by the welcome address by the Chairman of the Department of Civil Engineering, Prof. Dr. Abdul Jabbar Sangi. Technical Session 1 started with the opening remarks & the introduction of the program by Dr. Tariq Jamil, who shed light on the "Progress of LC3 in Pakistan." Subsequently, Prof. Dr. Tehmina Ayub discussed the "Durability Aspects of LC3 Cement."

The one-day workshop brought together leading experts, researchers, and industry professionals from around the world, including Prof. Dr. Chuanlin from Wuhan University of Technology, China, who shared his experience regarding the "Recent Research Progress about LC3" &

Prof. Dr. Shushank Bishnoi from IIT Delhi, India, shared his view on "Indian Research with the Production of LC3 & its Standardization."

The next session focused on the composition & chemistry of LC3 & its accessibility, with the opening remarks by Prof. and Dean Dr. Asad-ur-Rehman on "Cement & Concrete Research facilities at NED University." Followed by Engr. Muhammad Daniyal Sheikh, RA LC3 Cement Group, discussed the "Cement Chemistry & Strength Development in LC3." Engr concluded the session. Fahad Hussain, RA LC3 Cement Group, talked about the "Clay Reserves and LC3 Performance with Light Aggregate."

The workshop concluded with a panel discussion on the challenges and opportunities for adopting LC3 cement in the construction industry. The panelists discussed the regulatory framework, availability of raw materials, and the cost-effectiveness of LC3 cement. They also highlighted the need for more research and development to improve the performance of LC3 cement and make it a viable alternative to Portland cement.

Overall, the workshop thoroughly introduced LC3 cement and its potential to lower the carbon footprint of the cement industry. The participants better understood the characteristics, uses, and production processes of LC3 cement. The event also fostered an insightful debate on the obstacles to and opportunities presented using LC3 cement in the construction industry.

INTERNATIONAL INDUSTRIAL CHEMISTRY CONFERENCE 2023

ZAFIRAH MASOOD,
Industrial Chemistry, Batch 2019

The NED University of Engineering and Technology has been a pioneer in teaching Engineering, sciences and research despite the constant change in the nature and role of education over the century. The NED University of Engineering and Technology has been a long-time leader in the field of scientific research in Pakistan and beyond. It explicitly recognizes the importance of greener chemistry for the better development and progress of the world. The research in the field of chemistry has evolved in an increasingly interdisciplinary direction over time. After getting succeeded in 1st International Industrial Chemistry Conference 2021 which was held virtually in NED University due to COVID-19, the 2nd International Industrial Chemistry Conference 2023 was held both virtually and physically from 3rd to 4th March in NED University. The 2nd IICC-2023 was also succeeded with a overwhelmed response of participants, presenters, scientists, researchers, keynote speakers and industrialists.

The two-day conference with theme "Industrial Chemistry Towards Sustainable Future: Growing Together" focuses on keynote sessions, plenary talks and poster presentations. Second IICC 2023 brought together International and National academicians, scientists, researchers and industrialists to share the new trends for research and applications in the field and also promoted professional interaction and collaboration between them. IICC-2023, dedicated to create a global stage for exchanging the latest research methods. This conference was a valuable and important platform for inspiring international and interdisciplinary exchange at the forefront of Chemistry fields. Over the course of two days, internationally renowned speakers were described how their journey have developed in response to

contemporary challenges. The attending experts and industry partners were also provided a fantastic networking experience.

There were 14 keynote speakers who took part virtually and physically in the conference for sharing their experiences in different fields of chemistry. On the 2nd day there were time slot for poster presentation in which 23 poster presenter were participated and exhibited their new ideas, researches and development works.

Eminent Keynote speakers shared their state of art research in the conference. President of American Chemical Society (ACS) Angela Wilson shared her thoughts on Future of the Chemical Sciences in the Transformational Age of Chemistry in the beginning of the conference. Noteworthy talks of industrial representatives on burning issues of Pakistan e.g. Mr Adnan Javed Pirzada from Dewan Sugar Mills and Distillery Division talked about current scenario and future for utilization of sugarcane molasses in producing many valuable products. Dr. Halim Hamid Rehdwi shared success story of Dhahran Techno Valley Holding Co. - DTVC in King Fahd University of Petroleum & Minerals - KFUPM . Director General, Pakistan Scientific & Technology Information Centre (PASTIC) Dr. Akram Shaikh enlightened audience with National S&T Data Digital Repository. Dr. Philippe Daniel and Dr. Syed Adnan Ali Shah talked about advanced use of spectroscopy. Chemical sciences have made major contribution to health sciences. Prof. Dr Zaheer Qasmi, Dr. Zyta Ziora and Dr. Nuzhat Arshad shared role of chemistry in drug design and drug synthesis whereas Dr. Muhammad Saleem shared comparative study on activated carbon, produced from Acacia latea Tree Pruning by Microwave and Low Temperature Activation Process. Dr Fernando Bimbela discussed the the main alternatives for lignin valorization while Dr. M. Farooq Wahab shared new trends in analytical chemistry and sustainable practices.

A lot of efforts and resources were being putted into making the IICC-2023 conference a success and the Department of Chemistry NED University believe that the IICC-2023 was surely leaved a lasting impact on all attendees and it further looking forward for make sustainable future through innovation in chemistry

ALUMNI STARTUP WINS NATIONAL AWARD

MUHAMMAD KARAM
Civil Engineering, Batch 2020

On March 20, 2023, two NEDUET Textile Alumni, Muhammad Mohsin and Ubaid Ullah Khan, were awarded the first position in the Automotive sector at the National Idea Bank Awards. The award was presented by the President of Pakistan, Dr. Arif Alvi, for their startup, Generation Composites (GEN-C), which aims to bring sustainable automobile parts utilizing local and natural sources to reduce the global carbon footprint.Under the mentorship of Prof. Dr. Bilal Zahid, Co-Chairperson of the Textile Engineering Department at NEDUET, Mohsin and Khan have taken their startup to the next level. The idea behind GEN-C has brought a boost to Pakistan's economy, with the potential to transform the automotive industry.

The startup's focus on sustainability and the use of local and natural resources has caught the attention of the National Idea Bank Awards judges, who recognized the potential for GEN-C to reduce carbon emissions in the automotive sector.

Mohsin and Khan's success is a testament to the quality of education provided by NEDUET and the impact of the institution's mentorship programs. Their startup, GEN-C, is a shining example of how young entrepreneurs can create sustainable solutions to reduce the carbon footprint and boost the economy.

The award-winning startup's success is not only significant for Pakistan but also for the world, as the need for sustainable solutions continues to grow. GEN-C's innovative approach to sustainable automobile parts will pave the way for a brighter, greener future

National Idea Bank is a collaboration between Academia, Government, Industry and society to identify and showcase innovative ideas to solve indigenous problems.

CANTEEN CONCERNS AT CITY CAMPUS

HABIBA AHMED
Architecture Engineering, Batch 2020

One might assume it to be fortunate for the students of NED City Campus to be located near the infamous Burns Road, to have easy access to restaurants and delicious food, but don't be hasty and quick to judge because that's one of the major problems faced by students of Architecture and Planning: Canteens.

For a long time, due to low strength at the campus, the canteens have been neglected. In the scorching summer heat, one would not find cold water or juices within the campus canteen, to quench their thirst. There is not much variety for students to explore, and so, they buy food unwillingly from outside to fulfill their hunger needs.

Even if we consider going to Burns Road for lunch, it is not that easily approachable, especially during the hectic design and other class hours. Students have to take out time to pay a visit to restaurants outside.

The unavailability of their desired menu also makes students gloomy, adding to their misery in their already tiresome studies. There are gas and water issues once in a while that lead to difficulty in preparing the food. Moreover, there are no specified spaces for students or staff members to have their lunch properly.

Apart from that, hygiene is also a great concern. Due to the building's heritage look, no proper maintenance is done around the campus. Dustbins have been placed at the entrance that doesn't give a good impression. We hope that situation will soon improve.

CHATGPT – THE AI REVOLUTION

SALMAN AHMED
IM Engineering Batch 2021

Academic writing has always been an essential part of the education system. Students are expected to write research papers, essays, and other academic documents to demonstrate their understanding of the subject matter. However, the process of writing can be daunting, especially for students who struggle with expressing their thoughts and ideas in writing. With the recent advances in AI and natural language processing, academic writing is set to undergo a radical change.

Let us explore the role of AI in chat-based learning, and how is it poised to revolutionize the future of academic writing. We will also discuss the potential benefits of this technology for students and educators and find out why is it important to embrace these innovations in education, .ChatGPT uses cutting-edge technology such as natural language processing (NLP), sentiment analysis and conversation flow prediction to provide users with a wholesome chatbot experience. It can be customized through personalization, smart responses, conversation analytics, and tracking conversation performance. It even allows users to build personalized chatbots without coding.

With the rise of GPT (Generative Pre-trained Transformer) and AI (Artificial Intelligence), chat-based learning is becoming even more accessible and efficient, assisting students with their learning needs by providing immediate feedback. This technology has the potential to revolutionize the way we learn, making education more interesting.

These chatbots can also answer academic writing-related questions, such as citing sources or typesetting a paper, making them an invaluable resource for students. The use of AI in academic writing is still in its early

potential to change the way we approach writing and composing.

AI algorithms analyze students' learning patterns, identify strengths and weaknesses, and adjust learning materials accordingly. This not only helps students learn at their own pace, but also ensures that they focus more on the material they are studying. In traditional classrooms, students often have to wait for assignments to be graded before receiving feedback.

ChatGPT and its academic application of AI will entirely change the way we engage with computers. By understanding natural language and responding to complex queries, it is already showing signs of this evolution. We can expect to see even more sophisticated applications emerge in the near future as AI advances. Eventually, GPT's ability to analyze large amounts of data efficiently and precisely will open up new possibilities for both personal and commercial applications.

TRAFFIC JAMS OVERSHADOW POSITIVE DEVELOPMENTS AT UNIVERSITY ROAD

MARIA KHALID
Chemical Engineering, Batch 2020

University Road is one of the busiest roads in Karachi. Being traversed by office workers, daily wagers, businessmen, and students, the area is symbolic of the hustle and bustle of the City of Lights.

However, recent revamping efforts by the government, PSL matches, rowdy protests, and unsightly encroachments have left commuters outraged at the long, frustrating traffic jams that naturally ensued. The alarming situation is echoed in the woes of NED Students, faculty members, and workers who form a significant part of these unhappy citizens.

Gulshan Town and its adjoining areas have long been a victim of gross neglect. Badly damaged, littered with potholes, and often inundated with sewerage water, dilapidated roads became a ballpark for harrowing accidents. A few minutes commute would stretch out to hours as vehicles frequently engaged in a gridlock.

For the relief and ease of commuters, the government did take commendable actions to alleviate these problems. Millions were invested in refurbishing some of the roads. The Red Bus Service was launched back in June 2022 while construction of the 26-km long Red Line Bus Transit (BRT) Project (later renamed the Karachi Breeze Red Line Project) began in earnest to provide citizens with a state-of-the-art mass transit system.

Unfortunately, these exciting new developments meant narrowing the already congested roads, to make room for construction. Many roads were periodically blocked for repair, and the solution eventually started adding to the problem instead.

Exacerbated traffic jams incited public ire, and jam packed roads piled further misery as NEDians reluctantly became habitual latecomers to their University. Expressing grave concern over the situation, students missed out on valuable classroom time when they arrived tardy and disheveled from the agonizing commute.

The commencement of the 8th edition of the PSL from February 14 to the 26, further added fuel to fire as routes leading from University Road Expo Centre turning to the National Stadium were blocked. Protests stemming from power outages and anti-encroachment drives did no favor to the nightmarish traffic conditions either.

With new development schemes in Karachi in the pipeline, the construction of the Safoora Chowk Flyover and BRT, amongst other improvements, promise a better commuting experience for Karachiites, in what is described as a meticulous 'surgery' of the area by Administrator Karachi. Many illegal encroachments too, are in the process of being cleared (if not already), including those at Hassan Square by the Karachi Development Authority (KDA), allowing for spacious roads and well-managed drainage systems. Alas, all good things come with time, and we might have to wait quite some while for these efforts to bear fruit.

OUTCOME- BASED EDUCATION IN ENGINEERING: STRIKING A BALANCE

MUHAMMAD HAASHIR ABSAR
Electronic Engineering Batch 2020

Outcome-based education (OBE) is a pedagogical approach that emphasizes the attainment of specific learning outcomes as the primary goal of education. In the field of engineering, OBE has become a popular approach to improving the quality of engineering education by ensuring that students acquire the skills and knowledge necessary for success in the profession.

Engineering programs face the challenge of preparing graduates for the rapidly-changing technological landscape, where new technologies are emerging every day. OBE is seen as a way to address these challenges by providing a clear and measurable framework for defining and assessing the skills and knowledge needed for success in the profession. OBE encourages a deeper level of engagement and mastery of key concepts, leading to better-prepared engineering graduates. OBE also helps engineering programs better align their curriculum with the needs and expectations of industry and employers, enhancing the employability of graduates. Finally, it supports accountability and transparency in education by requiring educators to demonstrate how their instruction and assessments align with specific learning outcomes.

However, there are also concerns that OBE may hinder creativity and innovation, which are crucial elements of the engineering profession. OBE can be too focused on narrow and specific outcomes at the expense of broader educational goals, such as creativity, novelty and critical thinking. It prioritizes immediate, practical skills over the long-term development of a strong theoretical foundation, which can hinder the ability of graduates to adapt to new and emerging technologies. OBE may also lead to a standardized and homogenized

approach to engineering education, limiting the ability of students to explore and develop their unique interests and talents. Finally, it can be overly prescriptive and rigid, limiting the flexibility and creativity of educators in designing instruction and assessments.

To address potential criticisms of the article's argument, it's important to acknowledge the drawbacks of OBE and the need to balance measurable outcomes with creativity and innovation. It will be useful and healthy to observe the alternative perspectives and re-assess our choices.

In conclusion, OBE has its merits in improving the quality of engineering education, but it's crucial to strike a balance between attaining specific learning outcomes and fostering creativity and innovation. An outcome-based approach can provide a clear structure and purpose to education, but it should not come at the expense of stifling the very qualities that make engineering a dynamic and innovative field. To maximize the benefits of OBE while minimizing its drawbacks, educators and institutions must be mindful of its limitations and adapt it to the needs and goals of their students and programs.

CRISIS IN PAKISTAN

MAHA WASEEM
Economics & Management Sciences, Batch2022

Pakistan is currently grappling with a severe economic crisis, with inflation and devaluation of currency taking a significant toll on the country's economy. Inflation refers to a sustained increase in the general price level of goods and services, leading to a decrease in the purchasing power of money. Devaluation, on the other hand, is a decline in the value of a country's currency in relation to other currencies.

The economic crisis in Pakistan has been compounded by various factors, including political instability, weak institutions, and inefficient governance. The government's inability to manage the country's economy has further exacerbated the situation, leading to high inflation and currency devaluation.

According to recent data, the Consumer Price Index (CPI) in Pakistan reached a record high of 9.05% in January 2023 compared to the same month in the previous year. This has resulted in an increase in the prices of essential goods and services, including food, fuel, and electricity. The rising cost of living has made it difficult for many Pakistanis, including students, to make ends meet.

The Pakistani rupee has also been devaluing rapidly, losing over 50% of its value against the US dollar since 2017. This has made imports more expensive and reduced the value of foreign investment in the country. The devaluation has also increased Pakistan's external debt, making it difficult for the government to repay its loans.

The economic crisis has had a profound impact on students, particularly those from low-income families. With the increase in the cost of living, essential commodities such as food, fuel, and transportation have become more expensive, making it difficult for students to make ends meet. Additionally, reduced job opportunities have made it hard for graduates to secure employment.

Many institutions have also increased their tuition fees, putting a significant financial burden on students. Overall, the economic crisis in Pakistan is making it harder for students to pursue their education and achieve their goals.

To address the crisis, the Pakistani government has implemented several measures, including increasing interest rates, devaluing the currency, and imposing taxes on imports. However, these measures have not been enough to alleviate the situation, and the country still faces significant challenges in achieving economic stability.

In conclusion, Pakistan's economic crisis is a complex issue that requires a comprehensive approach to resolve. The government must

focus on improving governance, strengthening institutions, and implementing policies that promote economic growth and stability. Inflation and devaluation must be addressed through prudent monetary policies, and efforts must be made to increase exports and reduce imports to improve the country's trade balance. Only sustained efforts and a comprehensive approach can help Pakistan overcome its economic challenges and achieve sustainable development.

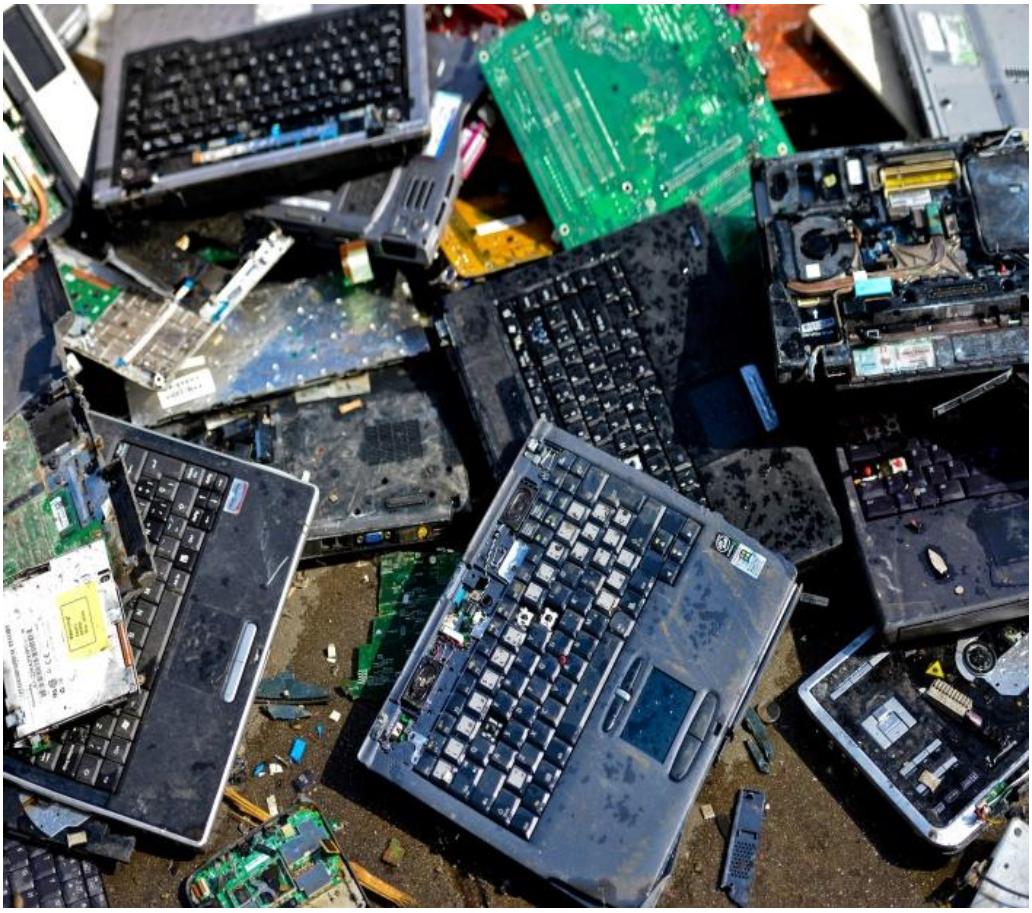
IMPACT OF ELECTRONIC WASTE

ZAINUL ABDEEN
Electronic Engineering, Batch 2020

Electronic waste, or e-waste, is a rapidly growing environmental problem that is impacting the world in numerous ways. With the widespread use of electronic devices and the constant upgrading of technology, the amount of e-waste being generated is increasing at an alarming rate. The following article sheds light on the impact of e-waste on the environment, human health, and the global economy.

The improper disposal of e-waste can have adverse effects on the environment. When electronic devices are thrown away or recycled improperly, the toxic chemicals in the devices can leach into the soil and water, contaminating the surrounding ecosystems. These chemicals include lead, mercury, and cadmium, which can cause serious environmental damage and have negative impacts on wildlife.

Additionally, e-waste contributes to the depletion of natural resources, as many electronic devices contain valuable metals and minerals. The extraction and processing of these resources can have significant environmental impacts, including deforestation, habitat destruction, and soil erosion.



E-waste has also put human health to question, particularly for those working in the recycling and disposal industries. Many of the chemicals found in electronic devices can cause respiratory problems, skin irritation, and other health issues if they are not handled properly. Workers in these industries may also be exposed to heavy metals, which can lead to neurological problems, developmental delays, and other serious health issues.

Furthermore, improper disposal of e-waste can lead to the contamination of food and water sources, putting entire communities at risk. In some cases, e-waste has been illegally shipped to developing countries, where workers are exposed to dangerous conditions and chemicals without adequate protective measures.

The impact of e-waste extends beyond the environment and human health, affecting the global economy as well. As electronic devices are rapidly upgraded and replaced, the amount of e-waste being generated is growing exponentially. This has created a significant strain on the recycling and disposal industries, which are struggling to keep up with the increasing demand.

E-waste often contains valuable metals and minerals, which can be recovered and reused in the manufacturing of new devices. However, the lack of effective recycling and disposal infrastructure has resulted in the loss of these resources, further contributing to the depletion of natural resources and increasing the demand for new mining operations.

The impact of e-waste is significant and multifaceted, affecting the environment, human health, and the global economy. As electronic devices become increasingly ubiquitous and the demand for new technology grows, it is critical that we address this problem with effective solutions. This includes implementing stronger regulations for the disposal and recycling of electronic devices, as well as investing in more sustainable manufacturing and resource recovery practices. By taking action now, we can mitigate the negative impacts of e-waste and create a more sustainable future for ourselves and future generations.

ROLE OF ENGINEERS IN SOLVING SOCIETAL PROBLEMS

MUHAMMAD HAASHIR ABSAR
Electronic Engineering, Batch 2020

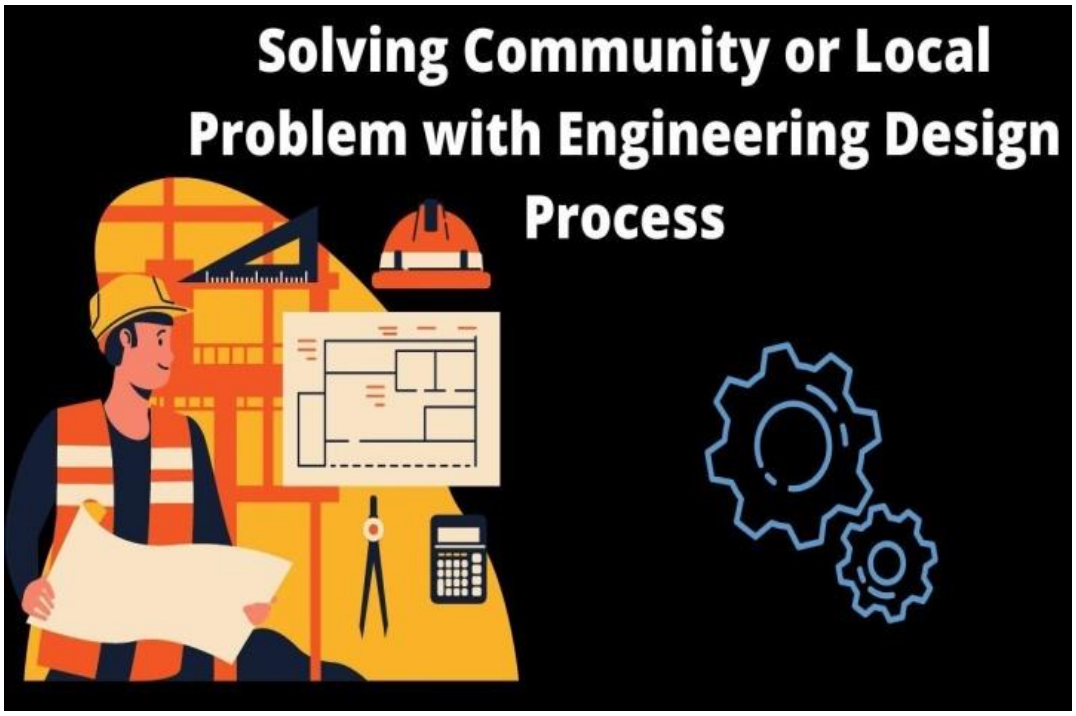
Engineers have long played a crucial role in solving the problems faced by society. From designing and constructing infrastructure to developing new technologies, engineers have contributed to the progress and prosperity of our communities. However, in recent years, the role of engineers in solving societal problems has become increasingly important, as we face complex and pressing challenges such as climate change, energy security, and sustainable development.

One of the key ways in which engineers are contributing to solving societal problems is through the development of sustainable technologies. As the world becomes more aware of the impact of human activities on the environment, there is a growing demand for technologies that can help us reduce our carbon footprint and promote sustainability. Engineers are at the forefront of this effort, designing and developing technologies such as renewable energy systems, energy-efficient buildings, and low-emission transportation.

Another way in which engineers are solving societal problems is through the design and implementation of infrastructure. Infrastructure is the backbone of modern society, providing us with everything from roads and bridges to water and electricity. Engineers play a critical role in designing and constructing this infrastructure, ensuring that it is safe, reliable, and resilient. Moreover, engineers are also responsible for maintaining and upgrading this infrastructure, ensuring that it continues to meet the changing needs of society.

In addition to developing sustainable technologies and infrastructure, engineers are also contributing to solving societal problems through the application of their technical knowledge and skills to social and humanitarian issues. For example, engineers are using their expertise to design and implement water supply and sanitation systems in developing countries, helping to improve health and reduce poverty. They are also working on solutions to address the challenges of urbanization, such as developing smart cities that can improve the quality of life for residents and reduce environmental impact.

However, the role of engineers in solving societal problems is not without its challenges. One of the main challenges is the need for



engineers to work collaboratively with other stakeholders, such as policymakers, community groups, and non-governmental organizations. This requires engineers to have not only technical expertise but also strong communication and collaboration skills. Engineers also need to be aware of the social and cultural context in which they are working, as this can have a significant impact on the success of their projects.

Another challenge facing engineers in solving societal problems is the need to balance the interests of different stakeholders. For example, a project that benefits one group may have negative impacts on another group. Engineers need to be able to navigate these complex trades-offs and make decisions that take into account the needs and perspectives of all stakeholders.

In conclusion, the role of engineers in solving societal problems is critical to the well-being and prosperity of our communities. Through the development of sustainable technologies, the design and implementation of infrastructure, and the application of their technical knowledge and skills to social and humanitarian issues, engineers are making a significant contribution to solving the complex challenges facing society today. However, to be effective in their role, engineers must be able to work collaboratively, communicate effectively, and balance the interests of different stakeholders. With the right skills and approach, engineers can continue to play a vital role in shaping a better future for all.

STUDY VISIT OF ARCHITECTURAL SITES IN SINDH

WAJIHA
Architecture & Planning, Batch 2021

As an architecture student, one of the most enriching experiences is to visit historical sites and learn from the architecture of ancient civilizations.

Recently, Batch of 2021 from Architecture department, NED university of engineering and technology, had the opportunity to go on a study trip to Mohenjo Daro and Larkana for our History and theory course (AR-211) accompained by our course instructor Dr. Rabela Junejo. We were exposed to a diverse range of architectural styles and historical eras. All of these sites were located in and around Larkana – a city located in Sindh province of Pakistan, having a rich architectural and cultural heritage. Five sites we visited were:

- Mohenjo Daro, Larkana district, Sindh
- Tomb of Benazir Bhutto, Garhi Khuda Bakhsh, Larkana District, Sindh
- Sheesh mahal, Kot Diji, Khairpur, Sindh
- Faiz Mahal, Khairpur, Sindh
- Fort Kot Diji, Khairpur district, Sindh

Mohenjo Daro, an ancient city that flourished in the Indus Valley Civilization, was one of the most advanced urban centers of its time. The city's planning and architecture are fascinating and offer valuable insights into the design principles of urban settlements of that era. Its ruins provide a vague image of the city planning, architectural design, and construction techniques used during that period. The site has several well-preserved structures, such as the Great Bath, the Granary, and the Dancing Girl statue, which offer a glimpse into the daily life of the people who lived there. The trip to Mohenjo Daro allowed us to observe the urban layout of the city, the design of its buildings, and the use of advanced technologies such as the water supply and drainage systems.

Benazir Bhutto was a famous political leader. Her mausoleum is an Islamic architectural marvel. Its unique design, which includes a dome-shaped structure and intricate detailing, showcases the blending of

traditional and Islamic architectural styles. Visiting this tomb allowed students to witness how architecture can be used to celebrate the life and legacy of influential public figures

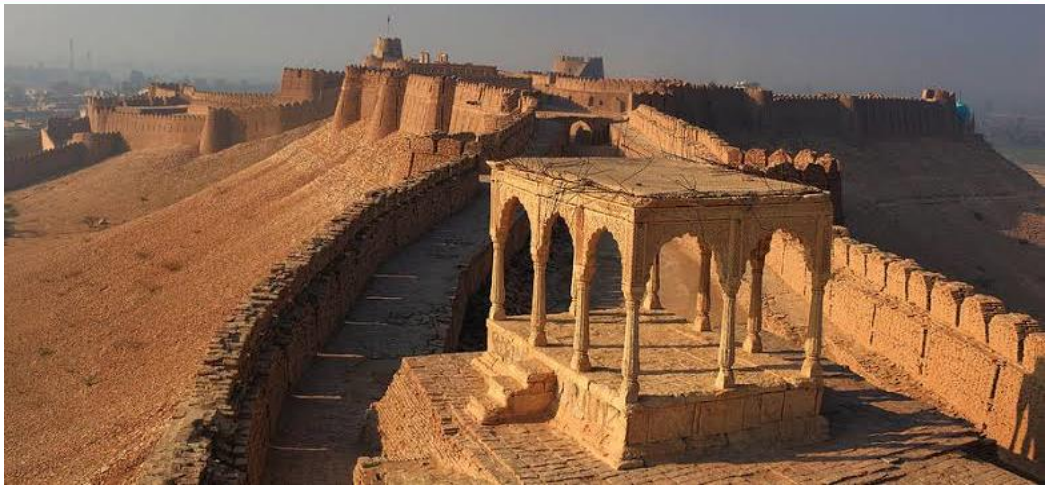
Sheesh Mahal Kot diji, Faiz Mahal Kot Diji, and Fort Kot Diji are examples of traditional Pakistani architecture. These historical buildings exhibit the use of local materials, construction techniques, and design elements, showcasing the rich cultural heritage of the region. We had the opportunity to witness the intricate detailing, patterns, and motifs used in these buildings.

The study trip was an incredible learning experience for us as architecture students. We were able to observe the design principles, materials used, and construction techniques of structures made decades ago. It was also an opportunity to understand how the buildings were integrated into their surroundings, and how they have stood the test of time. We were able to observe how the urban planning of Mohenjo Daro incorporated principles of water management, drainage, and waste disposal, which are still relevant today.

We observed the intricate details and unique features of these buildings, including the use of local materials, the blending of different architectural styles, and the functional aspects of the structures. We were also able to understand the importance of preserving cultural heritage for future generations and the challenges that follow.

Overall, study trips to historic and modern architectural sites are crucial for architecture students. They provide a unique opportunity to observe and learn from the architecture of ancient civilizations and appreciate their cultural heritage. They provide a hands-on

learning experience, allowing students to observe and develop critical thinking skills, the ability to appreciate and the courage to respect the cultural and historical significance of architecture. By visiting such sites, students are exposed to a variety of architectural experiences that broaden their horizons and enable them to develop their own unique style and perspective.



STUDY VISIT OF ARCHITECTURAL SITES IN TAXILA ISLAMABAD AND NORTHERN KPK

Ayan Wakil
Architecture & Planning, Batch 2020
Hansaka Wijesinghe
Architecture & Planning, Batch 2020

From February 23rd to 2nd, 2023, the students of NED UET embarked on a week-long educational trip to explore the natural beauty and architectural heritage of Pakistan. The trip aimed to provide students with a hands-on learning experience to develop a deeper appreciation for the diverse culture and rich history of their country.

On the first day of the trip, the students visited the Pakistan Museum of Natural History, where they learned about the flora, fauna, and geology of Pakistan. The museum houses over 300,000 specimens, including fossils, rocks, minerals, plants, and animals, showcasing the incredible natural diversity of the country. Next, the students visited the Pakistan Monument, a national landmark that symbolizes the unity and diversity of Pakistan. Designed by Arif Masood, the monument is an architectural masterpiece that represents the four provinces and three territories of the country. The students learned about the concept and design of the monument, including the use of space, contour planning, architecture design, and landscaping.

Students also visited the Faisal Mosque, one of the largest and most iconic mosques in the world. Designed by Turkish architect Vedat Dalokay, the mosque is a marvel of modern Islamic architecture, featuring a unique design that blends traditional and contemporary elements. The students learned about the spatial organization and design of the mosque, including the use of light, color, and geometry. The day ended with a visit to Rawal Lake, a man-made reservoir located in the heart of Islamabad. The lake is surrounded by lush green hills and provides a serene and picturesque setting for outdoor

activities such as boating, fishing, and picnicking. The students learned about the importance of preserving natural resources and the role of lakes in the ecosystem.

On the second day of the trip, we visited Taxila, the main destination of our field trip. Taxila is considered one of the oldest and most important archaeological sites in South Asia. The city was established in the 6th century BCE and was an important center of learning and trade during the Mauryan Empire, which ruled much of India from 322 to 185 BCE.

Taxila was situated at the crossroads of three major trade routes and was known for its skilled artisans, particularly in the fields of pottery and metallurgy. The city was also a center of Buddhist learning and was home to some of the most important Buddhist universities in ancient India. The city was ruled by a succession of empires over the centuries, including the Mauryan, Indo-Greek, and Kushan empires. The Kushan period, which lasted from the 1st to the 3rd century CE, is considered the golden age of Taxila. During this time, the city was a major center of trade and culture, and its influence extended throughout the region.

Today, the ruins of Taxila are a UNESCO World Heritage site, and visitors can see the remains of several important sites, including the Jaulian Buddhist monastery, the Dharmarajika Stupa, and the Sirkap archaeological site. The city's archaeological treasures include sculptures, coins, and pottery, as well as ancient texts and manuscripts.

We started our visit to Taxila at the Taxila Museum, located in the heart of the city and easily accessible by road. The museum building is a beautiful colonial-style structure surrounded by lush green gardens. The entrance to the museum is through a large courtyard where visitors can relax and enjoy the serene surroundings.

The museum has three galleries that display the artifacts and relics from the ancient city of Taxila. The first gallery displays the relics from the prehistoric period, including stone tools and pottery. The second gallery displays the artifacts from the Mauryan and Gupta.

INDUSTRIAL VISIT AT DEWAN SUGAR MILLS

MUHAMMAD ARHAM HAIDER,
Industrial Chemistry, Batch 2019

The Department of Chemistry at NED University of Engineering and Technology recently organized an industrial visit to Dewan Sugar Mill and Distillery Division in Sujawal. The visit was arranged by Dr. Saeeda Nadir Ali, Associate Professor at the university, for final year design project students. The visit took place on two separate occasions, the first on 11 November 202, Friday, and the second on 19th January 2023, Thursday. The primary focus of the visits was to allow the students to benefit from the industry's analysis details, giving them with an opportunity to get an in-depth understanding of sugar production.

The visits were organized with the support guidance of Eng. Adnan Javed Pirzada, General Manager Dewan Sugar Mill and Distillery Division. The first visit on 11 November 2022, Friday was primarily focused on presenting the proposal for the final year design project, "Characterization of Molasses Chemical Composition" and after hard work and effort, the students finally succeeded in receiving funding and industrial project from Dewan Sugar Mills. The second visit, held on 19th January 2023, Thursday, was organized with the final year design project students i.e., Muhammad Arham Haider, Muhammad Ibad Khan, Sana Khan, and Bisma Farhan from NED University of Engineering and Technology. During this visit, the students gave the presentation that covered several points, including the presentation objective and methodology, molasses production from sugar cane, sampling process, analysis technology, and future perspective.

The presentation, which lasted for about 1 hour and 10 minutes, provided detailed insights into the various aspects of sugar production, including the development of sugar cane until the product was obtained as molasses. The analysis technology discussed included industrial analysis, which involved Gas chromatography–mass spectrometry, and wet analysis, which included specific gravity, citric acid determination, acetic acid determination, and thin-layer chromatography. The presentation also covered the future perspective of sugar production.

After the presentation, the students were taken on a site visit. The visit included a tour of the different sessions of the industry, such as cane receiving, cane harvesting, cane crushing, and the production of bagasse, which is used for generating electricity. The students were also shown how cane juice production, clarification, filtration, and press mud are obtained as a by-product. The process of heating, evaporation, sugar crystal formation, and centrifugation were also explained, along with the process of obtaining sugar seed and A, B, and C-grade molasses.

During the visit, the students were allowed to take samples of A-grade molasses, B-grade molasses, and C-grade molasses for further analysis testing to obtain their complete profiling and chemistry. Throughout the tour, the students were well-mannered and disciplined, and no injuries or mishaps were reported.

The students were extremely thankful to Eng. Adnan Javed Pirzada and Dr. Saeeda Nadir Ali for the opportunity to visit the Dewan Sugar Mill and Distillery Division. They believe that the visit will help them in their future practical life and positively change their thinking and practical behavior regarding education.

In conclusion, the visit to Dewan Sugar Mill and Distillery Division was a great success. The students were provided with a unique opportunity to learn about the various aspects of sugar production, which will prove beneficial in their future careers. The Department of Chemistry at NED University of Engineering and Technology intends to continue organizing such visits to provide students with practical exposure to different industries.

WITNESSING THE POWER OF INNOVATION

ANOOSHA ARIF
Mechanical Engineering, Batch 2019

The Mechanical Engineering Department at NED University of Engineering & Technology hosted the first-ever AI and IoT exhibition on 19th January 2023; showcasing how these technologies are revolutionizing the field of conventional designs and processes of engineering. The exhibition was held due to the support provided by the CMD-Mechanical Engineering Dept. and the unwavering efforts of Dr. Haider Ali who introduced the course of AI & IoT in the department, assisted by Sir Umair Hassan Kazmi. The exhibitors were more than 60 groups of Final Year students

System, Automatic Greenhouse Irrigation System, Water Level Detection System and Energy Management System. The exhibition was a great success according to the views of the visiting teachers as well as the Chief Guest Mr. Abbas Sajid who selected a few groups for their outstanding projects and invited them to showcase their respective projects at the Expo Center, Karachi. The distinguished exhibitors were awarded certificates of achievement and tokens of appreciation from the department under each category for Best Project Display, Best Poster Display and many more.

For a course that was introduced in the department so recently, this exhibition made a huge impact on the perspective of mechanical engineering students who are considered to be the outliers in the study of AI and conventional in their ways as they aren't expected to evolve with the trend of emerging technologies. Here, the support and efforts of the Mechanical Engineering Department itself are commendable, executing an exhibition with over 60 participating groups is a very demanding job itself.

Thanks to the dedication and hard work of the students, teachers, and management of the Mechanical Engineering Department. this exhibition was not just a success, but a testament to the power of collaboration and innovation.

displaying the projects in four categories: Automatic Water Billing

BRIDGING THE GAP BETWEEN INDUSTRY & ACADEMIA

MUSTAFA AHSAN
Mechanical Engineering, Batch 2020

NED has always believed in strengthening and encouraging the student-industry bond. The university always reaches out to the top industries and achieves remarkable projects and funds that helps students towards professional advancement.

The Mechanical Engineering Department under the supervision of Dr. Mumtaz Hussain Qureshi brought in some remarkable industrial professionals to enlighten the students about the significance of practical learning.

Not only were the technical sessions organized but also the importance of strong moral etiquette required in a standard working protocol were shared amongst students.

Sessions on the following topics have been arranged in recent times:

- Powerplant Engineering
- Entrepreneurship Scope
- Production Engineering & Management

Students have shown a great response towards such learning activities and are ecstatic to discover more.

The project coordinator believes that it is through such measures that we ensure our students acquire a state-of-the-art learning environment and find themselves at ease once they step into corporate life.

EDITORIAL

Global Pandemic and inflation within the country have left profound effects on the nation which are also felt by the students alike and are discussed in their circles. The rising inflation and online mode of classes affected their learning to some extent. Since the young blood is too flexible to adjust and have been fulfilling their responsibilities in the optimal way. It is best depicted in both extra curricula and academic activities. The students have been actively engaged in community services, sports events, international competitions, collaboration with communities to design environmentally friendly products from waste. Even in such tough times, one of the students of the university got the opportunity to make an international study trip of U.S under a cultural exchange programme to know about the ideas about the most developed world about democracy, community service, human rights, designing public policy, Foreign Policy, volunteerism, judiciary, activism, prison journalism to running Election Simulation Campaign Activity through hypothetical campaign and many more.

Since long, young people have come forward to lead the nations through various mean of learning some of which are discussed above. We are hopeful that Pakistani students will play a crucial part to take Pakistan out of crisis through their 360-degree learning process.

DISCLAIMER

The contents in this publication reflect the views expressed by the students, authors and alumni. These contents are acquired through multiple means including obtaining write-ups from various sources, informal interviews and work of reporters as well as texts sent through electronic and verbal means. The views, facts, information and experiences shared by the contributors are their own and do not represent the official views of the university. The contents obtained and included in the publication are irrespective of discrimination on basis of race, color, age, gender, marital status, or any other basis. On behalf of the university, the UAFA reserves the right to edit the contents for clarity of language, length of texts and intent to avoid any remarks that could be injurious to any other individuals, groups and/or institutions. Due credit to the available source of information for the articles acquired and included is provided in the publication. The contents are published in good faith. The university does not take responsibility in case the contents are misused by anyone for any intent.

ACKNOWLEDGEMENTS

EDITORIAL COMMITTEE

1. Dr. Fawwad Masood, Assistant Professor, Department of Civil Engineering
2. Ms. Maheen Tufail Dahraj, Lecturer, Department of Humanities
3. Aiman Siddiqui, Civil Engineering, Batch 2019
4. Muhammad Karam Civil Engineering, Batch 2020

TEAM COORDINATION

1. Rabel Ahmed, Assistant Director, UAFA
2. Syed Adnan ul Hasan Naqvi, Staff Member, UAFA

LAYOUT DESIGNERS

1. Sana Taj Siddiqui, Telecommunications Engineering, Batch 2020
2. Areej Khan, Applied Physics Batch 2019
3. Syeda Kulsoom Zaidi, Management Sciences Batch 2021

STUDENTS REPORTER TEAM

1. Areej Khan, Applied Physics, Batch 2020
2. Ali Muhammad Jafrani, Urban & Infrastructure, Batch 2019
3. Sufia Tehseen, Chemical Engineering, Batch 2021
4. Muhammad Muneeb Hassan, Metallurgical Engineering, Batch 2021
5. Hafiza Urooba, Biomedical Engineering, Batch 2020
6. Muhammad Hashir, Electronics Engineering, Batch 2020
7. Hafsa Arif, Humanities, Batch 2020
8. Jawairia Asif, Material Engineering, Batch 2020
9. Hania Ali Sheikh, Telecommunication Engineering, Batch 2019
10. Farwah , Textile Sciences, Batch 2020
11. Ahmed Gala, Software Engineering, Batch 2021
12. Maryam Javed, CSIT, Batch 2021
13. Maryam Butt, CSIT, Batch 2021
14. Muhammad Hur Khan, Mathematics, Batch 2020
15. Ammar Sheikh, Mathematics, Batch 2021
16. Alizah Rubab, Polymer & Petrochemical Engineering, Batch 2020
17. Waseela, CIS Engineering, Batch 2020

18. Taimoor Riaz, Civil Engineering, Batch 2020
19. Ebadullah , Petroleum Engineering, Batch 2021
20. Ahmed Farhan, Automotive & Marine Engineering, Batch 2020
21. Habiba Ahmed, Architecture, Batch 2020
22. Asgher Naqvi, Development Studies, Batch 2020
23. Eman Khaild, Chemistry, Batch 2021
24. Syeda Kulsoom Zaidi, Management Sciences, Batch 2021
25. Areeba Siddique, Economics & Finance, Batch 2021

INVITATION

Contribute for NEDian Newspaper

NEDian is the official student-based publication of the university. Each and every activity in which students participate whether it a conference, workshop, competition, study-based tour and so on, can be part of this newspaper.
If you are willing to write, please send your submissions at:

nediansubmissions@cloud.neduet.edu.pk
All necessary guidelines and templates can be downloaded from:
uafa.neduet.edu.pk/guidelines.html

The editorial team also welcomes the letters from the readers. *"Letters to the Editor"* can also be submitted at the above email address.