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Annexure A: IEEE Lahore Section Summary

A.1: Executive Summary
IEEE Lahore Section was formed as a full-fledged Section in 1964. Currently, it has five society chapters,

- IEEE Communication Society
- IEEE Power & Energy Society
- IEEE Industry Applications Society
- IEEE Computer Society
- Antennas and Propagation, Circuits and Systems, Microwave Theory and Techniques and Solid-State Circuits Joint Societies Chapter

And two joint chapters,

- IEEE Robotics & Automation Society
- IEEE Control System Society

There are 44 active student branches and 42 Active Student Branch Chapters in this section besides Young Professionals and WIE groups. IEEE Lahore Section have 4 Affinity Groups namely,

- IEEE Women in Engineering
- IEEE Young Professionals
- IEEE Consultant Network
- IEEE SIGHT

Student branches remained vibrant throughout the year 2021 and organized many activities.

The objectives of IEEE Lahore Section have been defined as under:

- To Provide a Platform for Networking
- To help in sharing knowledge and expertise at Local level
- To strengthen Industry-Academia Links
- To encourage and guide Student Activities
- To represent Lahore Section at international IEEE Forums

The affinity groups of Lahore Section namely YP, WIE and SIGHT were quite active and organized several activities.

The section membership is 757 in January 2021, much higher as compared to the last year’s total of 457.

During the year 2021, seven (7) Executive Committee meetings were held besides a few administrative meetings and technical events. In 2021, IEEE Lahore Section organized two international conference (IEEE ICOSST 2021 and IEEE ICECE 2021) and partnered one international conference (IEEE ICEPT 2021).

This year 12 awards and 3 Recognitions were announced for Lahore section by IEEE global committees and three Awards by IEEE Region-10 (Asia & Pacific).
Will be provided separately.

A.3: List of Executive Members

IEEE Lahore Section Executive Committee Members List.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Section Officer</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. Amjad Hussain</td>
<td>Chair</td>
</tr>
<tr>
<td>2</td>
<td>Mr. Kashif Bashir</td>
<td>Vice-Chair</td>
</tr>
<tr>
<td>3</td>
<td>Dr. Muhammad Adnan Siddique</td>
<td>Gen. Secretary</td>
</tr>
<tr>
<td>4</td>
<td>Engr. Shahid Zulfiqar</td>
<td>Treasurer</td>
</tr>
<tr>
<td>5</td>
<td>Engr. Muhammad Hamza Ihtisham</td>
<td>SAC Chair, (Students Activity Committee)</td>
</tr>
<tr>
<td></td>
<td>Past Chair</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Engr. Shahzeb Rathore</td>
<td>Past Chair</td>
</tr>
</tbody>
</table>

IEEE Lahore Section Extended Committee Members List.

<table>
<thead>
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<th>Sr. No.</th>
<th>Name of Section Officer</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Dr. Waqar Mahmood</td>
<td>Chair, IEEE Computer Society</td>
</tr>
<tr>
<td>8</td>
<td>Mr. Kashif Bashir</td>
<td>Chair, IEEE Communication Society</td>
</tr>
<tr>
<td>9</td>
<td>Mr. Shahid Zulfiqar</td>
<td>V. Chair, IEEE Power and Energy Society</td>
</tr>
<tr>
<td>10</td>
<td>Ms. Faiza Nasir</td>
<td>Chair, IEEE Industrial Application Society</td>
</tr>
<tr>
<td>11</td>
<td>Dr. Wajahat M. Qazi</td>
<td>V. Chair, IEEE RAS Pakistan</td>
</tr>
<tr>
<td>12</td>
<td>Dr. Wasif Tanweer</td>
<td>Interim Chair, Antennas and Propagation, Circuits and Systems, Microwave Theory and Techniques and Solid-State Circuits Joint Societies Chapter</td>
</tr>
<tr>
<td>13</td>
<td>Mr. Aftab ur Rehman</td>
<td>Chair, IEEE YP Lahore Section Affinity Group</td>
</tr>
<tr>
<td>14</td>
<td>Ms. Safoora Saleem</td>
<td>Chair, IEEE WIE Lahore Section Affinity Group</td>
</tr>
<tr>
<td>15</td>
<td>Dr. Muhammad Ghufran</td>
<td>Chair, IEEE Consultant Network Lahore Section Affinity Group</td>
</tr>
<tr>
<td>16</td>
<td>Dr. Muhammad Ghufran</td>
<td>Chair, IEEE Faisalabad Sub-Section</td>
</tr>
<tr>
<td>17</td>
<td>Dr. Ali Qureshi</td>
<td>Chair, IEEE Bahawalpur Subsection</td>
</tr>
<tr>
<td>18</td>
<td>Mr. Sumama Zaeem</td>
<td>Section Student Representative 2020-2021</td>
</tr>
</tbody>
</table>

IEEE Lahore Section Additional Committee Members List.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Section Officer</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>Dr. Adeel Pasha</td>
<td>Chair, Membership Development (MD) Committee</td>
</tr>
<tr>
<td>20</td>
<td>Dr. S. Waqar-ul-Quonain</td>
<td>Chair, Conferences Committee</td>
</tr>
<tr>
<td>21</td>
<td>Dr. Ali Afzal Malik</td>
<td>Chair, Awards and Recognition Committee</td>
</tr>
<tr>
<td>22</td>
<td>Dr. M. Atif</td>
<td>Chair, Professional Activities Committee</td>
</tr>
</tbody>
</table>
A.4: Memberships Statistics

IEEE Lahore Section’s Past 10 Years Membership Statistics

<table>
<thead>
<tr>
<th></th>
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</tr>
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<tbody>
<tr>
<td>Affiliate</td>
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<td>-</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Associate Member</td>
<td>4</td>
<td>-</td>
<td>10</td>
<td>23</td>
<td>8</td>
<td>8</td>
<td>13</td>
<td>7</td>
<td>18</td>
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</tr>
<tr>
<td>Fellow Member</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Graduate Student Member</td>
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<td>78</td>
<td>70</td>
<td>66</td>
<td>64</td>
<td>47</td>
<td>33</td>
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</tr>
<tr>
<td>Life Member</td>
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<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Life Senior</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
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<td>1</td>
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</tr>
<tr>
<td>Member</td>
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<td>161</td>
<td>266</td>
<td>346</td>
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<td>258</td>
<td>260</td>
<td>254</td>
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<tr>
<td>Senior Member</td>
<td>49</td>
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<td>28</td>
<td>13</td>
<td>11</td>
<td>11</td>
<td>10</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Student Member</td>
<td>334</td>
<td>148</td>
<td>263</td>
<td>347</td>
<td>348</td>
<td>379</td>
<td>520</td>
<td>441</td>
<td>328</td>
<td>239</td>
</tr>
<tr>
<td>Total</td>
<td>757</td>
<td>457</td>
<td>671</td>
<td>852</td>
<td>710</td>
<td>728</td>
<td>869</td>
<td>760</td>
<td>628</td>
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</table>
### A.5: IEEE Section’s OU Statistics

#### IEEE Lahore Section OUs Count.

<table>
<thead>
<tr>
<th>IEEE Lahore OUs</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IEEE Subsections</strong></td>
<td></td>
</tr>
<tr>
<td>• IEEE Faisalabad Subsection</td>
<td></td>
</tr>
<tr>
<td>• IEEE Bahawalpur Subsection</td>
<td></td>
</tr>
<tr>
<td><strong>IEEE Lahore Section Technical Chapters</strong></td>
<td></td>
</tr>
<tr>
<td>• IEEE Communication Society</td>
<td>5</td>
</tr>
<tr>
<td>• IEEE Power &amp; Energy Society</td>
<td></td>
</tr>
<tr>
<td>• IEEE Industry Applications Society</td>
<td></td>
</tr>
<tr>
<td>• IEEE Computer Society</td>
<td></td>
</tr>
<tr>
<td>• Antennas and Propagation, Circuits and Systems, Microwave Theory and Techniques and Solid-State Circuits Joint Societies Chapter</td>
<td></td>
</tr>
<tr>
<td><strong>IEEE Lahore Section Technical Joint Chapter</strong></td>
<td>2</td>
</tr>
<tr>
<td>• IEEE Robotics &amp; Automation Society</td>
<td></td>
</tr>
<tr>
<td>• IEEE Control System</td>
<td></td>
</tr>
<tr>
<td><strong>IEEE Lahore Section Affinity Groups</strong></td>
<td>4</td>
</tr>
<tr>
<td>• IEEE Women in Engineering</td>
<td></td>
</tr>
<tr>
<td>• IEEE Young Professionals</td>
<td></td>
</tr>
<tr>
<td>• IEEE Consultant Network</td>
<td></td>
</tr>
<tr>
<td>• IEEE SIGHT</td>
<td></td>
</tr>
<tr>
<td><strong>IEEE Lahore Section Student Branches</strong></td>
<td>44</td>
</tr>
<tr>
<td><strong>IEEE Lahore Section Student Chapters</strong></td>
<td>42</td>
</tr>
<tr>
<td><strong>IEEE Lahore Section Student Affinity Groups</strong></td>
<td>18</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>117</td>
</tr>
</tbody>
</table>
Annexure B: IEEE Lahore Section Organizational Activities

B.1: IEEE Student Branches Activities.
B.1.1: IEEE CUI Lahore Student Branch

**Poster Designing Competition**

*Type of Activity:* Non-Technical - Arts

**Description:** In the time of lockdown, this event had taken place by the online mediums. All the participants prepared their design and submitted via online mediums. It was a design competition organized between the designers willing to show their creativity regarding any type of posters or illustrations. We have gotten several superb posters including both digital and handmade. Even participants from India sent us emails.

The judged then shortlisted and decided the winners.

**Impact of Event on Community:**

This event gave a rise to the designing trend in the community and brought the participants on a single platform increasing their exposure.

---

**Essay Writing Competition**

*Type of Activity:* Non-Technical

**Description:** In the time of lockdown, this event had taken place by the online mediums. All the participants prepared their design and submitted via online mediums. This event brought an opportunity to learn new things, an opportunity to prepare to cope failures and an opportunity to develop new skills in the field of writing. In this, event participants had to prove themselves with their content writing skills.

**Impact of Event on Community:**

This event had awakened the trend of self-writing and bringing new ideas to the words for all the participants and the competition awakened the desire to participate in the newcomers.
 Shoot the Frame
 Type of Activity: Non-Technical

Description: This was a photography competition, in this competition members needed to make a frame of 3 pictures including nature portrait, kitchen close-up and book/magazine shoot to present as valid competition submission.

Impact of Event on Community: This competition has raised the interest about the photography in the society and community around it. And the non-participants were also amazed by the end results and got interested into the theme as well.

Vector Designing Competition
 Type of Activity: Non-Technical

Description: In this competition, participants had to make a Vector portrait or Digital portrait of the theme "Solitude". They had to express the idea in any possible way, using their ideas and imaginations. They were asked to how they can present their ideas with their skills and can become the No. 1 of all.

Impact of Event on Community: This event made a positive impact at the designing community and raised awareness about it.

PLC Training Workshop
 Type of Activity: Technical

Description: It was a training workshop on PLC (Programmable Logic Controller) from 22-24 2021.

Mr. Muhammad Awais joined it as a speaker,

Impact of Event on Community: This event was proved to be very informative and brought learning opportunity for all the attendees.
Workshop on Intro to AI for Robotics

Type of Activity: Technical

Description:

This event was purely a technical event and Saad Hassan who is open-source AI developer and AI researcher was the speaker at the event.

This was very informative session and seminar.

Impact of Event on Community:

This seminar enabled the attendees to realize the value of AI in the current time and raised interest in them to learn more about AI and machine learning.

B.1.2: IEEE GCU Student Branch

PANEL DISCUSSION ON DATA SCIENCE FOR ITS SOCIAL IMPACT

Type of Activity: Technical.

Description: Data Scientists from academia and industries joined us and discussed recent development in the broad area of data science and its social impacts.

Impact of Event on Community: The event gave a great opportunity to students to get to hear face to face from Data Scientists discussion and interact with them.

TECH TALK ON DATA SCIENCE

Type of Activity: Technical.

Description: Data Scientists from academia and industries joined us and discussed recent development in the broad area of data science and its social impacts.

Impact of Event on Community: The event gave a great opportunity to students to get to hear face to face from Data Scientists discussion and interact with them.
APPLICATION OF ARTIFICIAL INTELLIGENCE IN AVIATION

Type of Activity: Technical.

Description: A ground-breaking workshop that focused on the importance of Artificial Intelligence in Aviation Industry.

Impact of Event on Community: The event gave students a great chance to know about the significance of Artificial Intelligence at industrial level. They get to know about a lot of things from our speaker during the interactive session.

B.1.3: IEEE LUMS Student Branch

CodinGuru 3.0

Type of Activity: Technical (Competitive)

Description: CodinGuru3.0 was a two-day event which attracted nearly 250 students from all across the country mainly from FAST, NUST, COMSATS, PUCIT, FCCU, LUMS and BNU. The goal was to broaden and enlighten the concept of programming among students to innovate and create eco-friendly solutions for global problems. The delegates used C++, Java and Python to win the esteemed title of CodinGuru and numerous cash prizes in not one but 5 modules: AI Guru, WebGuru, AppGuru, Programming contest and IdeaGuru

Impact of Event on Community: Provided Computer Science students from all around Pakistan to showcase their skills. This not only counts as essential experience for someone applying for jobs but also provides them with students with the possibility to make themselves known before numerous tech industry representatives presenting the ceremonies if they win a position. Furthermore, such an event contributes to promoting the trend of taking part in coding competitions in general as it prepares people and makes them aware of bigger international competitions as well. Each module individually also served a purpose: AI Guru – aiming to promote the rising culture of Artificial Intelligence and Data Science, WebGuru – aiming to promote web development with improved User Interface, AppGuru – aiming to improve the efficient use of technology, Programming Contest – aiming to hone the programming skills and better coding practices, IdeaGuru – aiming to provide innovative and efficient solutions to modern problems. Event includes the Virtual Panel Talks by Industrialists and Tech Start Ups.
IEEE Day
Type of Activity: Non-Technical

Description: IEEE LUMS is celebrating IEEE international’s birthday on the 15th of October! So to celebrate IEEE day we decided to invite lecturers to talk about life/their student lives/other random stuff. The event started off with the hosting IEEE LUMS team briefing the audience about IEEE international and its achievements and contributions in advancing technology. To make things a bit more interesting, a vote was held to invite the most popular instructors associated with IEEE, who would share things with the student body which aren’t about courses. And at the end the panel of the invited instructors would be open for all sorts of questions for the students to ask. And at the end we took pictures which we submitted for the IEEE day picture competition.

Impact of Event on Community: The student body was made aware of the contributions that IEEE had made and the perks it had to offer. And not only this but also helped students realize how very similar instructors are to them (as hard as it might seem to us students) and got to receive genuine advice from them not as instructors but as a mentor.

Professional Development Program
Type of Activity: Non-Technical

Description: This was a series of 7 sessions for developing essential skills to land your very first job and be successful in the professional workplace. This was an initiative of IEEE LUMS’ social welfare initiative. Speakers from Ufone (a well-known telecommunications company) gave sessions on essentials skills and habits like work ethic, cv making, presenting, Ms Excel.

Impact of Event on Community: This took place from Aug 23 till 2nd September during which all in person courses and interactions were restricted. During this period schools and colleges were also closed.

PLC Training Workshop
Type of Activity: Technical

Description: IEEE LUMS in collaboration with Industrial Application Society (IAS) IEEE UET hosted a propitious workshop for the aspirants who wish to pursue their careers in any Large Scale National or Multinational Industry a 3 days long PLC Training Workshop from the best in the field, Mr. Muhammad Awais an Electrical and Automation Engineer with a decade long expertise and developed insights in Industrial Automation, industrial
IOT, Maintenance and has been rendering his services as a professional trainer, and an instructor at different institutes and industries of Pakistan.

**Impact of Event on Community:** The students got hands-on experience in configuring and monitoring the state of input devices of widely used Programmable Logic Controllers (PLCs). This training course described how to wire, design as well as program a PLC, ensuring the attendees’ chances of starting their journey towards being an automation guru.

**Let’s Git Together Workshop**

**Type of Activity:** Technical

**Description:** The event started with the introduction of GitHub. Our speaker, Arsalan explained very well about GitHub along with the uses of Github. The event had three parts. The first part was GitHub Projects and Collaboration in which Arsalan showed how to collaborate and how GitHub is used for projects and open sources by performing a real demo. The second part was GitHub Best Practices in which he told some rules and regulations while using GitHub. This part basically showed what to do and not to do when using GitHub. In the last part there was a 5 minutes trivia and a Q/A session. Certificates were distributed among the three participants who answered the questions asked in the trivia first.

**Impact of Event on Community:** Helped students understand the importance of being proficient at git and being able to effectively make use of it. This is an essential skill for all CS students since git and github are an industry standard.

**Gradapp wars**

**Type of Activity:** Non-Technical

**Description:** This was a 3-day event for helping students sort out grad school related confusions and help fight their way into their dream school. Spanning from November 6th to November 8th, Grad App Wars will hold a series of exciting sessions with our esteemed CS faculty and alumni.

**Impact of Event on Community:** The aim of these sessions was to guide students through all the different steps of the graduate school application process and to educate about all the different opportunities and programs that await.

**Future of software industries in Pakistan**

**Type of Activity:** Technical
**Description:** Mr. Nadeem Ghauri CEO NETSOL and Umair Majeed founder of Datics AI were invited to give a talk on the future of software companies in Pakistan. Being the founders/CEOs of some of the finest software companies in Pakistan they were invited to talk about their perception of what the tech company future would look like.

**Impact of Event on Community:** Helped the audience in getting the essence of where the software industry is heading so that they may prepare accordingly. It also provided them with a platform to get advice from professionals working in the field if they want to initiate a start-up as well.

---

**Adding value to our lives and the power of intent**

**Type of Activity:** Non-Technical

**Description:** Nabeel Akmal Qadeer is the Founder and CEO of The YOU Company, also credited as the CEO of InfinIT Labs, which works to create smart and human-centered business intelligent technology solutions. In his session Nabeel talked about what activities one must be involved in and the mindset they must have while solving a problem to really integrate the traits of time management and hard work which will allow them to succeed.

**Impact of Event on Community:** It was to serve as an eye opener for all attendees and teach them to add actual value to their skills, their characters and their professional outlooks beyond the boundaries of CVs, GPAs and all that is obvious. Attendees were taught how to add true value to their lives that would help them in their future lives, and what we have to focus on to succeed in the modern virtual world.

---

**Women In Tech Panel Talk**

**Type of Activity:** Non-Technical

**Description:** Women In Tech Panel Talk aimed to share the stories of successful women in tech and provide others an opportunity to learn from their experiences. It was hosted by Umama Nasir Abbasi—A CS sophomore at LUMS, while we were joined by Jaya Rajwani (A data scientist and a fulbright scholar), Mehreen Tahir (Machine Learning researcher, author and a Community Speaker), Sakina Abbas (Software Engineer, Flutter developer & CEO of ReacTree) and Ramsha Siddiqui (Data Scientist and Artificial Intelligence enthusiast). Jaya provided insights on how to get into a full bright scholarship. Ramsha shared details on how to ace tech interviews. All panelists encouraged everyone to work in the field, saying there are a lot of opportunities. Mehreen shared insights on how important research is in the field of tech. This talk was also streamed on Facebook so that the LUMS community could benefit from it.
Impact of Event on Community: To bring notable female industry leaders at a panel to discuss their respective fields in tech and the opportunities that it holds for students, specifically women.

**Git-ing Together Again Workshop**

**Type of Activity:** Technical

**Description:** A sequel to the first Git-ing together workshop. This time it focused on introducing the more advanced features of git and github and included even more practical application activities than before.

**Impact of Event on Community:** Students of LUMS got to experience what it is actually like using these tools as they would in their future jobs in addition to finding out how using these tools could help them better collaborate on projects.

**Tech startup Panel Talk**

**Type of Activity:** Technical

**Description:** A talk organized to have discussions with tech startup founders to help students who aim to launch startups of their own in the future understand the opportunities startups hold for them. It also aimed to help students realize the perseverance required to launch and commit to a startup and discuss the prospective startup market in Pakistan’s near future. Hosted by Muhammad Zain-ul-Abidin, the panel consisted of Mr. Shahrukh Swati, Co-founder of Nearpeer, and Mr. Syed Sair Ali, Co-founder at Blinkco Technologies. Panelists also encouraged students to present their queries and provided advice about startups, given their experience in the field.

**Impact of Event on Community:** The talk aimed to provide advice to students regarding startups and panelists shared their own experiences regarding the subject to help students better understand how to create their own startup, how to manage it and the risks and rewards associated with undertaking such a step.

**IEEE Orientation**

**Type of Activity:** Non-Technical

**Description:** The orientation was aimed to help students get an overview of what is IEEE at LUMS and around the IEEE international. Despite being held virtually due to the pandemic, the team worked really hard to make it an interactive and wonderful session for the freshers. Different departments presented their own slides and gave a thorough overview of what each department is offering so that the incoming batch of IEEE LUMS student chapters wouldn’t face any difficulty in choosing their department of interest. A brief overview of all the past
events was also displayed in the orientation for the students to get an insight into what they can learn from such a great platform. In the end, we organized some mini-games to make the session interactive followed by awarding the winners with the coupons as a little gesture of kindness.

**Impact of Event on Community:** It was organized to inform the students about the IEEE and its work. Notes from the EC and the Extended Departments helped students to choose the right department of their choice. Also, it encouraged students that dedication and passion are the keys and no past experience is required as they will eventually get to learn new things from the amazing people already serving in the society. The whole orientation also gave an idea to the freshers as to how working with international society will help them in their respective technical fields in the near future.

**Seminar Series - Radar Systems**

**Type of Activity:** Technical

**Description:** A series of 15 seminars on state of the art radar technologies from some of the most well-known professionals working in this field from all around the world.

**Impact of Event on Community:** The audience gets to know about the latest advancements in radar technologies and are able to build up their knowledge which would prove very useful for people who intend to plan a postgraduate degree in this field.

**Hack4Impact**

**Type of Activity:** Technical

**Description:** IEEE LUMS joined hands to support Stacks Pakistan in conducting their first Hackathon, #Hack4Impact on 27th & 28th of March. We provided them the technical support teams.

**Impact of Event on Community:** Providing a platform of Hackathon will help finding young, dynamic developers to become a part of this programming event and eventually Stacks ecosystem. Winners and technical teams will be published on our website pakistan.stacks.co as well as certificates of contribution to Stacks Hack4Impact will be provided by Stacks Pakistan

**B.1.4: IEEE UET KSK Student Branch**

**Bloom 2020**

**Type of Activity:** Non-Technical
Description: To warmly greet the new session of EE, CS, BME and CE, Bloom 20 was arranged by IEEE. The event covered all the technical and non-technical facts which must be acknowledged by the new commers about Engineering. Along with the great deal of information the event also consisted of the refreshing activities which were very well enjoyed by the Juniors. Not only they had fun but also, they learned how to progress in the future. This event assistance them to find all the facts regarding their respective Engineering field and also made them learn a lot of new skills.

The basic purpose of IEEE to hold this orientation session was to let the students discover their inherent skills and use them effectively. It guided them to improve their communication skills and help them to speak confidently in gatherings and express their thoughts. The students were made to realize and explore what is waiting for them. Making them aware of the upcoming challenges and helping them to cope up with it. This will give them a brilliant introduction for our society and help them make the right choice.

Healthy activities were also conducted for the students to break the barrier between them and help them to break the ice with not alone their classmates but with other sessions as well. This activity helped them to explore and to widen up their circle.

Impact of Event on Community: This introductory bloom session boosted the new students to set their goals and start their struggle. It ensured that they will not be alone in this journey IEEE is always their to guide them and make them flourish. The society also discussed its future prospects to focus on building and boosting the skills of our young students. This will help them to perform well in the curriculum as well as practically. This event not only refreshed our new session but also raised their morale to struggle more and reach the top.

In short, bloom’20 has been a successful event to greet our new session and refresh them along with teaching and guiding them through various aspects of the upcoming challenges. We succeeded in our soul purpose of expanding the option for our new session and teaching them various skills.

IEEE Day 2020
Type of Activity: Technical

Description: On 6 October, 2020 we all gathered to celebrate IEEE. All executives congregated and decorated Electrical Department. Color theme of IEEE Day was white and blue. Dr Kamran and Sir Atif were gracious enough to honor us with their awe-inspiring presence. We were very grateful, that they amalgamated with us on this prestigious day. A cake was also ordered to commemorate IEEE Day. They cut the cake, which was ordered to celebrate IEEE Day. After the Cake Cutting Ceremony, All the members of IEEE convene together
for the Annual IEEE Day portrait. Everyone’s endeavors to make this day momentous were meritorious. IEEE is highly obliged to everyone who cooperated to make this day indelible.

**Impact of Event on Community: IEEE Day:** Celebrating the primary time in history once engineers worldwide and IEEE members gathered to share their technical concepts in 1884.

IEEE Day’s theme is: “Leveraging Technology for a higher Tomorrow”. Where as the globe advantages from what’s new, IEEE focuses on what’s next. The celebration of IEEE Day on 6Oct 2019 is that the 10th year celebrating this historic event!

Worldwide celebrations demonstrate the ways in which thousands of IEEE members in native communities be a part of along to collaborate on concepts that leverage technology for a higher tomorrow. we have a tendency to celebrate IEEE members!

**Grid Station Tour 2020 (1 March 2020)**

**Type of Activity:** Technical

**Description:** IEEE UET KSK arranged a study tour to Nearby Grid Stations, which included 132KV GIS SAGGIYAN GRID AND 132KV AIS SHAHDRA NEW GRID. Its main functions are to receive electrical energy at high voltage provided by the power stations. Then it reduces the provided voltage to a certain value that is efficient for local distribution. First, it Step-Down 220-KV electricity into 132-KV electricity, which is further step-downed to 66-KV then 11-KV. This tour was a great initiative by the society as it was full of information for the students. They came to acknowledge the many types of equipment and components used in real life to transmit electricity to the consumers.

The tour included two types of grid stations for better understanding for the students. One was an Air-insulated substation (AIS), and the other was Gas insulated substation (GIS). The differences between air-insulated substation (AIS) and gas-insulated substation (GIS) are vast. There are five major considerations in the differences between the two high voltage substations: their construction, installation, operation, ongoing maintenance, and total cost of ownership. This system occupies almost 10 times greater space than GIS but can be used for large scale transmission. For safety, purpose pebbles are placed over the base of transmission pylons for maximum grounding.

**Impact of Event on Community:** The tour’s main purpose was to help the students with their 4-year Bachelor program at the University of Engineering & Technology Lahore, Pakistan.
The students focused on learning practical concepts related to the field. They learned to solve daily life Electrical related problems and learn about Electrical distribution systems.

This tour provided the aspiring Engineers with the most valuable opportunities for thorough learning and understanding. Respected faculty members also joined this tour and gave students precious instructions and put the students in contact with experts in the field, who gave extensive guidance regarding many practical issues.

3 Days online Training on Fundamental of outcome based education by QEC, UET NEW Campus

Type of Activity: Technical

Description: A three-day online training workshop for teachers of all University of Engineering and Technology campuses, Lahore, was organized by Quality Enhancement Cell (QEC) New Campus from 18-20 August 2020. Now, the question arises what QRA is? Quality Enhancement Cell (QEC) basically implements the university’s internal quality assurance (IQA) mechanism. QEC’s are established on all campuses and are run as per HEC guidelines. QEC is responsible for reviewing quality standards and quality of teaching and learning in each subject area, and explicit standards as a reference point to the reviews to be carried out.

An online training workshop on Outcome Based Education (OBE) was held in which more than 20 teachers from all the campuses of the university participated. In the training workshop, Dr. Syed Mohsin Ali Kazmi, Focal Person for QEC, New Campus, as a resource person, taught the teachers about the philosophy of OBE, curriculum development, learning process, student examinations, and national and international standards of grading. Informed and practiced. Outcome-based education is an educational theory that bases each part of an educational system around goals (outcomes). By the end of the educational experience, each student should have achieved the goal. The focus on outcomes creates a clear expectation of what needs to be accomplished by the end of the course. Students will understand what is expected of them, and teachers will know what they need to teach during the course. Clarity is important over years of schooling and when team teaching is involved. OBE can be compared across different institutions.

Impact of Event on Community: On an individual level, institutions can look at what outcomes a student has achieved to decide what level they would be at within a new institution. On an institutional level, institutions can compare themselves by checking to see what outcomes they have in common and find places where they may need improvement, based on the achievement of outcomes at other institutions. Outcome-based education is an internationally recognized system. In the early 1990s, all states and territories in
Australia developed intended curriculum documents largely based on OBE for their primary and secondary schools. Criticism arose shortly after implementation. Officially, an agenda to implement Outcomes-Based Education took place between 1992 and 2008 in Western Australia. Hong Kong’s University Grants Committee adopted an outcomes-based approach to teaching and learning in 2005. No specific approach was created, leaving universities to design the approach themselves. Universities were also left to ensure their students’ education to contribute to social and economic development, as defined by the university’s community. With little to no direction or feedback from the outside, universities will have to determine if their approach achieves their own goals.

**Online admission guide for UET Webinar**

**Type of Activity: Technical**

**Description:** To enroll in the ultimate destination to be awarded with a Bachelors degree, the students work extremely hard with great focus and dedication in their intermediate and Entrance Admission Test to score enough to be enrolled in a respectable and renowned institute.

UET Lahore: A dream and inspiration of many students, almost 40,000 candidates applied for ECAT (an entry test for UET) but only few of them managed to secure a seat in the most pioneer institute of Pakistan. As a freshly college graduate, students are not very much aware with the technicalities involved with respect to taking admission. Some students also belong form the rural areas. The application is not rocket science but since the students are not aware and properly guided through the application procedure the end result is of they selecting the field which they are not aware such are the mistakes which can not be reversed. IEEE uet ksk is a renowned society working for the betterment in the field of Engineering.

The global pandemic COVID-19 resulted in the lack of interaction it was the need of hour to educate the students about the guidelines. For this purpose IEEE uet ksk arranged a webinar on 11th of July providing the students with guidance and procedure for ECAT to apply for uet Lahore and its affiliated colleges. In the webinar a brief introductory session and key points were delivered by Usman Yaseen, Director of Documentation Committee, IEEE uet ksk.

**Impact of Event on Community:** IEEE has always been the leader at innovation and notorious for taking risk and introducing new thing, in the pandemic as the world shifted to online the seminar also shifted to webinars and in the campus IEEE was the first society to take the initiative and arrange this webinar as an opportunity to assist students. The stats were very good and the reach of the webinar was off the charts.
The session live feed has 1600 views and 161 shares which is a great boost and as compared to the total strength of the ksk campus and its wide range links.

Seminar on IEEE Xtreme Webinar
Type of Activity: Technical

Description: IEEE UET ksk arranged the webinar on 28th September. All members of the team that place in the top100 at the end of the Xtreme will receive merchandise bundle and special software gifts from competition sponsors. First Place will get a chance to win a trip to the IEEE conference of your choice, anywhere in the world. Member of the team that wins 2nd place in the IEEE Xtreme 14.0 competition will receive a US$400 cash award. Each member of the team that wins 3rd place in the IEEE Xtreme 14.0 competition will receive a US$300 cash award.

The instructor for the webinar is a coding guru Salheen Bakhat. Who is Harvard global leader in science and technology. He remained a top coder of IEEE Xtreme. And is a keen enthusiast of AI. In the webinar salheen talked about the tips and tricks on how to win this competition. Also sheded some light on the major problems faced by the students during the competition.

Impact of Event on Community: IEEE Xtreme is a global challenge in which teams of IEEE Student members – advised and proctored by an IEEE member, and often supported by an IEEE Student Branch – compete in a 24-hour time span against each other to solve a set of programming problems. The stats were very good and the reach of the webinar was off the charts. The session live feed has 1600 views and 41 shares which are very good numbers as compared to the total strength of the ksk campus and its wide range links.

Orientation 2020
Type of Activity: Non-Technical

Description: The session was articulated with great effort and dedication. Its sole purpose was the introduction to Engineering and Department. The session was graced by the gracious Head of Department Dr. Muhammad Kamran along with the respected faculty members of Electrical Department.

Brief guideline was given by the faculty the Freshmen were updated about the current trends and demand in the industry. The respected teachers urged the students to work on their technical skills as well as soft skills, because both are very important and efficient in industry, the faculty also guided the students to grasp the
concept of programing and get a good grip on different programing languages as the new world is of data scientists. Students were also explained the importance of Program Learning Outcome (PLO)

**Impact of Event on Community:** After the session Departmental tour was given to the freshmen. They were very sufficiently guided about the EE course a clear articulation of the role and importance of lab in the Engineering course was given to the students. Lab Safety Rules and a short discription of instruments was also explained. The Lab included were Machine Lab, Semiconductor Devices Lab, Digital Logic Design Lab, Advance Project Lab, Control System Lab.

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**Free-lancing Webinar**

**Type of Activity: Technical**

**Description:** IEEE UET KSK is pleased to announce an exclusive webinar on Secrets of Successful Freelancing. Freelancing is a booming industry around the world now it has got much more attention in current times. As the World is shifting to E-World for their business so people are also preferring to earn from home over a conventional Job. You will find a lot of webinars online but this is an exclusive one with top-notch freelancers working in the field for over 15 years in both Technical (MATLAB, Labview) and non-technical aspects (Video Editing, Web Designing, Graphic Designing, Content Writing). We will talk about some key secrets which usually people don't when they are in a freelancing career. The tips and ways which we learned over the years to help you guys with a bright start in freelancing.

Waleed Mushtaq is an award-winning Art Director with a combined experience of 15+ years in the field of Advertising, Design, and Freelancing. Waleed has been a part of renowned advertising agencies across the Middle East & Australia, where he has led campaigns for top-tier global clients such as Samsung, Nissan, Mitsubishi Motors, World Food Programme (WFP), TEDx and The Islamic Development Bank. An Award-winning Art Director, Waleed Mushtaq is joining us on 11th December 2020 who has experience of 15+ years in the field of Advertising, Design, and Freelancing. He has an aim to educate, guide, and inspire the young ones looking to diversify their skillsets and explore the world of freelancing.

Abdul Samad as the second guest speaker for the webinar of "Secrets of Successful Freelancing" for covering the technical section. Abdul Samad has vast experience in technical subfields in freelancing. As the skills and software, we learn in our Engineering course and great implications and advantages in the freelancer world. So Abdul Samad will be guiding us about that. IEEE UET KSK handling the spotlight over to second guest speaker who is known for his work. Our guest of honour is not only hardworking but also has a pioneering
spirit and willingness to achieve success. Abdul Samad has done 100 projects related to electrical engineering in 6 months. He is a Certified LabView Associate Developer by National Instruments. He has expertise in MATLAB-Simulink, LabView. He is currently serving as an intern research officer at KICS UET. He will guide young engineers and educate them that learning is the most important factor and we should make ourself busy learning new things every day.

**Impact of Event on Community:** Due to the increment in unemployment during a pandemic, freelancing has become the most rising field. In this regard, IEEE is organizing a webinar to provide you with the best strategies to earn quickly. This will prove so beneficial for newbies and as well as for those who are linked with this field and want to learn more.

**Recreational Tour**

**Type of Activity:** Non-Technical

**Description:** As the semester is going to be over and is time for recreation To enjoy this winter vacation nothing is more attracting then exploring the northern area of Pakistan, for that purpose IEEE UET KSK is Organizing a one day trip. DISCOVER MUSHKPURI TOP It is a one day tour to Mushkpuri Top passing through Murree Hill Station, Ayubia Park and snowy water track.

**Impact of Event on Community:**

It was for recreational purpose only.

**B.1.5: IEEE UCP Student Branch**

**Personal Development**

**Type of Activity:** Non-Technical

**Description:** This event was held to polish the soft skills like communication, personality development and grooming of student. This event was conducted live from IEEEUCP Facebook page and was the number of participation was 170+. The speaker was Mr. Razzam Malik (CEO Appers tech).

**Impact of Event on Community:** In this event, Students learned about soft skills and personal development which will help them in their professional carrier.
Learn to Earn

Type of Activity: Technical

Description: The main focus of this event was introduction to online earning and to develop freelancing skills in students. We mainly focused on how to earn money during this pandemic of COVID-19.

-Gig Creation
-Skill Selection
-Acquiring best platform
-Bidding

The participation of this event was 200+. The speaker was Mr. Umair Abdul Wahab (CEO KIWI CREATIONS)

Impact of Event on Community: Our attendees learned how to set up their freelancing accounts. How to create gigs and start earning and which platforms are best for us to earn.

Road to Freelance 2.0

Type of Activity: Technical

Description: In this event, we assured that our participants should able to implement their freelancing ideas and gigs they have created in market. We had a Q&A session to overcome the problems faced by student Freelancers. The participation was 200+ and the speaker was Mr. Umair Abdul Wahab (CEO KIWI CREATIONS)

Impact of Event on Community: In this session we solved the issues faced by the attendees creating their freelancing accounts and gigs.

PUBG Quarantine Challenge

Type of Activity: Gaming

Description: It was a gaming competition organized to give students a break from their online classes in the pandemic situation. The participation was 100 participants.

Impact of Event on Community: It was just an escape from the hectic and stressed routine of pandemic for students.
Code is Life

Type of Activity: Technical

Description: This event was on DevOps and Security of .NET CORE. This session guided everyone about today's need for DevOps and how we have to add security to our cloud networks and daily lives. The participation was 250+.

Impact of Event on Community: Students learned about what is DevOps and security and how it is booming nowadays.

Multi Cloud Infrastructure as Code

Type of Activity: Technical

Description: In this session, we guided our participants about Azure Fundamentals, Azure Administration, Terraform Associate, and AWS Cloud Practitioner. The participation was 200+.

Impact of Event on Community: Provided the latest information about cloud computing and how world is shifting towards cloud.

Tech Session

Type of Activity: Technical

Description: This session was held for Tech evolving in now a days. The participation was 100+.

Impact of Event on Community: Students learned about the new technical trends in market.

IEEEEXTREME PROMOTIONAL AND AWARENESS EVENT

Type of Activity: Technical

Description: The purpose was to bring large audience including students interested to buy IEEE membership and participate in the competition. Not only had this but the events were designed in a manner that other volunteers are trained to spread the message in all public / private educational institutions. Thankfully the goal and purpose was successfully met.

The participation was 400+. The speaker was Mr. Saleem Bakhet (IEEE international REM Ambassador, Harvard Delegate and young Global leader)
Impact of Event on Community: Participants get information IEEE Xtreme Programming Competition.

**AI Bootcamp**

**Type of Activity:** Technical

**Description:** This event was in collaboration with Microsoft learn community. The purpose of this event was to introduce Artificial Intelligence and giving awareness about the different fields in Artificial Intelligence. The speaker was Mr. Saad Aslam (associate software engineer at 12c Inc., Microsoft learn Ambassador). The participation was 150+.

**Impact of Event on Community:** Participants got awareness about Artificial Intelligence and its different fields.

**CYBER TALK WITH CYBER BOY**

**Type of Activity:** Technical

**Description:** This was a mega event in collaboration with Microsoft learn community. This session was held for the cybersecurity evolving nowadays. In 2021. This event was for guiding participants on how to get expertizes in cybersecurity. The speaker was Mr. Saad Aslam (associate software engineer at 12c Inc., Microsoft learn Ambassador). The participation in this event was 400+.

**Impact of Event on Community:** Participants were guided what is Cyber Security and how to get expertise in Cyber Security.

**LET’S GET HIRED**

**Type of Activity:** Non-Technical

**Description:** This event was in collaboration with Microsoft learn community. This session was held for the professionals for how to get hired in industries and how to create your own CV. The speaker was Mr. Saad Aslam (associate software engineer at 12c Inc., Microsoft learn Ambassador). The participation in this event was 200+.

**Impact of Event on Community:** We guided our participants about how to create their resumes attractive and techniques for job hunting.
**B.1.6: IEEE FAST-NU Student Branch**

**TECHNOVATE’20**

*Type of Activity: Technical and Non-Technical*

**Description:** Technovate’20 is one day event which covers more than 5 domains of industry including Data Science, Artificial Intelligence, Big Data, Block Chain and Machine Learning. Speakers from all over Lahore will give sessions on different topics. Technovate’20 is joint venture of IEEE and IEEE-WIE which held every year in FAST-NUCES Lahore Campus.

**Impact of Event on Community:** IEEE as whole provides various resources to students and professionals to get funds for their research and development in different fields and get them published for other people to see through online libraries, journals etc. the communication barrier for students to communicate with professionals and for professionals to communicate with other professionals is lifted off with ieee.

**Volunteer Drive Session 20**

*Type of Activity: Non-Technical*

**Description:** In this session there will be many interesting activities, workshops, competitions and seminars, that requires large number of team members. These members are needed to organize and lead in various tasks. This is a great opportunity for you to interact with known technologists, experienced industry personnel, faculty members and learned seniors from all over Pakistan. Furthermore, this opportunity holds great potential to help you gain organisational and interpersonal skills, increase your know how regarding your fields of interest and immense knowledge of how industries work.

**Impact of Event on Community:** This opportunity holds great potential to help you gain organisational and interpersonal skills, increase your know how regarding your fields of interest and immense knowledge of how industries work.

**Volunteer Drive ‘20**

*Type of Activity: Non-Technical*

**Description:**
In this session there will be many interesting activities, workshops, competitions and seminars, that requires large number of team members. These members are needed to organize and lead in various tasks. This is a great opportunity for you to interact with known technologists, experienced industry personnel, faculty members and learned seniors from all over Pakistan. Furthermore, this opportunity holds great potential to help you gain organisational and interpersonal skills, increase your know how regarding your fields of interest and immense knowledge of how industries work.

**Impact of Event on Community:** This opportunity holds great potential to help you gain organisational and interpersonal skills, increase your know how regarding your fields of interest and immense knowledge of how industries work.

**B.1.7: IEEE FCCU Student Branch**

**ICT for Development**

**Type of Activity:** Technical

**Description:** With the coming of the Fourth Industrial Revolution, the innovations such as AI, Blockchain and the Internet of things have an increasing impact on the economies and societies towards the sustainable development. Such advanced technologies of Fourth Industrial Revolution could do more to accelerate progress towards the Sustainable Development Goals (SDGs)

**Impact of Event on Community:**

Educating community about the Fourth Industrial Revolution technologies and how these technologies make a significant contribution towards Sustainable Development Goals.

**An Overview of Software Quality Assurance and the ISO/IEC 29110 Series of Standards and Guides for Very Small Entities**

**Type of Activity:** Technical

**Description:** Software Quality Assurance is an integral part of the software engineering life cycle but it is often ignored. It is very important for delivering services and products on time, in budget and up to the mark. It is a very broad field that pertains to the confidence of the consumer and the end user in the end result. It increases the efficiency and effectiveness of the development team as well. The session hosted by IEEE FCCU was honored by Professor Claude Laporte the editor of the ISO IEC 29110 standards.
Impact of Event on Community: Creating awareness in the community about why quality assurance is important when pertaining to software and what the ISO 291110 Series of standards entails regarding to it.

B.1.8: IEEE UCET Student Branch

Meeting with Past Branch Chairperson

Description:

1. The meeting had conducted at the IEEE office. The physical meeting commenced at noon and was one hour and 36 minutes long. This event consists of three sessions.
2. During the first session, the honourable Chairperson (Owais Liaqat) discussed how could approach the local projects in present times. The second session was about how one should be targeting international projects and experts. In the end, he explained how advance in your academic plays a vital role in your career.
3. The Past Chairperson (Muhammad Farid Zamir) IEEE UCET IUB Student Branch gave valuable time and attention to the question-answer session. He made sure that the queries of all members had answered. Overall, the question-answer session concluded with satisfied students having significant insight about the requisite to get a piece of valuable knowledge to run the IEEE successfully.

Impact of Event on Community: During the session, all the members with supplementary knowledge about the latest market trends discussed how to develop and polish an adequate skill set to survive in the global competition. The volunteers consulted the past chair for their relevant queries, which were all answered satisfactorily by the past chairperson. The session gave new hopes to the attendees and inculcated the spirit of innovation and growth in them that should require in their fields. The past chairperson in the session helped the members to think positively. And they understand what is important professionally and personally to remain put and persevere in the IEEE Student Branch. Overall, the session indeed paved the way for a guiding light for the volunteers. To strive and struggle in their personal and professional life.

Inauguration of IEEE Foundation Bio-Gas Project

Description:

- IEEE UCET IUB Student Branch visited IEEE Foundation Bio-Gas Project named "Awareness and Production of Sustainable Electricity from Bio-Gas", a site located at Basti Abdul Ghani, Near Uch Sharif.
- Worthy Dean Faculty of Engineering, Prof. Dr Muhammad Amjad, Counselor IEEE UCET-IUB, Dr Asjad Amin, Respected Faculty Members and IEEE Student Members of Branch contribute their precious time to this visit.
- Moreover, two Media Channels, 7News, and PTV News cover the Project Site.

IEEE, the Islamia University of Bahawalpur collaborated with the IEEE Foundation, worked on a clean and green energy project using Animal waste. A biogas plant has constructed in a village near Uch Sharif. The
produced gas will use for Electricity generation and household usage. A 12 KVA generator installed at the site funded by IEEE. The project achieves awareness of green and clean energy to the local community, production of clean and green energy, efficient decomposition of animal waste is harmful for the environment of super fertilizer. Talking with media, Engr. Prof. Dr Athar Mahboob, Vice-Chancellor, the Islamia University of Bahawalpur said that electricity through biogas is not a new idea. A lot of work had done around the Globe on this technology. As a third-world country, this renewable technology has not much flourished in Pakistan. As an Agricultural country, where 70% of the population belongs to the rural area, this renewable technology can help people a lot by providing cheap electricity and gas. Moreover, the project reduces waste, cleanses the environment, reduces the greenhouse effect, and provide excellent fertilizer for the fields. Engr. Dr Muhammad Amjad, Dean Faculty of Engineering, and Dr Asjad Amin further described that for the awareness about this project. We took multiple workshops, panel discussions and public awareness sessions. The implementation of one complete plant in the local area so, it will make it clear to people of the region about Sustainable Electricity through Bio-Gas.

IEEE HAC Awareness Seminar on Utilization of Robotics and Drones against Locust Attack

Description: This seminar designed for “Awareness of Utilization of Robotics & Drones against Locust Attack” had unique aspects to tell the people about the role of robotics and drone technologies. The session started with the address of moderator “Sameea Abbasi”, she first thanked all the participants and then welcomed the distinguished speaker “Dr Ayesha Hakim”. The speaker was thankful to the student branch for arranging the seminar and inviting her to discuss one of the most important topics. Most people are unaware of the technological advancement of robotics and drones and their use in situations such as locusts attack. She initiated her session through a presentation in which she highlighted the following prospects:

- Life Cycle of locusts
- Control of locusts
- Challenges associated with the locust attack
- Utilization of robotics and drones against locust attack

Impact of Event on Community:
During the session, all the students got significant knowledge about the” Role of robotics and Drone technology against Locust attack”. The students consulted the speaker for their relevant queries, which were
all answered rationally by the speaker. This seminar indeed gave new knowledge about the locust and their attack on the crop. Overall, the session paved the way for guiding light for the students.

IEEE UCET-IUB ORIENTATION 2020
Activity: Non-Technical

Description: IEEE Orientation is the signature event of the IEEE UCET IUB Student Branch. IEEE Orientation seminar aimed is providing the newcomers, of engineering students of Islamia University, with an insight of IEEE, its aim, vision, and benefits. Moreover, brief them on how they can improve their professional skills through this platform. Although also improving their technical skills through various platforms provided by the IEEE. The preparations for the event began two weeks prior. The initial plans made to make this event successful. The targets achieved through the successful campaign and social media promotions. The IEEE Chairperson Owais Liaqat, his convincing team members, led this campaign. This promising campaign under the leadership of our chair made an impact on the students. Following the protocols of the pandemic, this event organized through the online Zoom app. The Orientation began with the recitation of the Holy Quran. After that, our most proficient moderator Sameea Abbasi welcomed and thanked the audience and asked newcomers to take part in co-curricular activities during their time in university and highlighted all the achievements of the IEEE Student Branch and its affiliated chapters. Then, the moderator honoured Dr Asjad Amin counsellor IEEE UCET IUB Student Branch, for their valuable commitment towards the IEEE. He briefly introduced IEEE, its benefits & complete structure. He discussed the slogan IEEE (Advancing technology for humanity) and some famous IEEEian's in the world. He reflected some of the most common technology negative impacts on social, communication and technical in the latest young generation. He urged students to join the IEEE, which in return gives some of the most promising results for their professional life stability. He discussed some of the most endorsing benefits of the IEEE for its members in their careers. IEEE members have complete access to research papers. And insights were hardly available. Later on, he gave a brief introduction of the Student branch, affinity group WIE and its chapters (PES, IAS, SPS, ComSoc, ASI, SMCS, EMBS), and their respective members. Asjad Amin also highlighted the positive role of the IEEE student branch during pandemic situations. He also explained the achievements of the IEEE UCET IUB Student Branch throughout the previous year. Later on, at the end of the session.

IEEE YOUNG PROFESSIONALS’ LOCAL ACTIVITY
Activity: Non-Technical
Description: The online event conducted by IEEE UCET IUB Student Branch on the Zoom Meeting Application. The seminar “I Have a Degree, Now What?” commenced at Noon and was one hour and 36 minutes long. This event consists of three sessions. During the first session, the honourable speaker, Usman Ghani discussed the techniques, how to approach the local market in present times and the required skill set to approach the local market. The second session started by Haissam Khan on the topic of how to approach the international market. In the end, the third session by Dr Asjad Amin explained the process of how to advance in your academic? Which plays a vital role in your career.

Impact of Event on Community: During the session, all the students got supplementary knowledge about the latest market trends with knowledge about how to develop and polish an adequate skill set to survive in the job market. The students consulted the speaker for their relevant queries, which were all answered satisfactorily by the speaker. This seminar gave new hope to the attendees and inculcated the spirit of innovation and growth in them that required in their fields. The speaker helped the students to think positively and made them understand what is important professionally and personally to remain put and persevere in the present job market. The session paved a way guiding light for the students to strive and struggle in

IEEE FOUNDATION PROJECT “Awareness and Production of Sustainable Electricity through Bio Gas”

Activity: Non-Technical

Description: This seminar was indeed a very informative collaborative effort of the IEEE UCET IUB Student Branch and IEEE Foundation. These seminars provide the students with information about the present and practical market situation also develops their skills exceptionally. Seminar designed on such a course of actions also educates the students about the requisite capabilities to grow as future engineers. The unique aspect of this seminar, it touched all the dimensions concerning the problems and probable solutions that can be faced by job seekers, especially in the present situation. It gave due guidance to the students regarding the current issues prevalent in the job market, also educated them about the various strategies to be adapted to fight the long-term consequences of the ongoing pandemic.

Our honourable moderator Uzair ul Hassan (Vice-Chair, International Affairs) introduced the respectable panellists and then invited our first panellist Dr Abdul Gaffar. He described Biogas production through animal dung. According to his statics, one cubic meter of biogas can produce 2.5Kw of electricity. And 6kg cow dung can produce 2.5 cubic meter biogas. About 3.6 to 5 million kW/day of electricity generated to statics. He also
said that proceed dung acts as a good fertilizer rather than direct use because it contains methane gas and heat. He also explained why the death happen near plants if the mandatory precautions not observe.

Impact of Event on Community:
After the session, all the students had supplementary knowledge about the latest trends toward renewable energy source and to develop sustainable biogas plants. The students consulted the panellists for their relevant queries, which were all answered satisfactorily by the speaker. The speaker helped the students to think positively and made them understand what is important professionally and personally to remain put and persevere in the present job market. Overall, the session indeed paved a way with guiding light for the students to strive and struggle in their personal and professional life.

Annual Engineering Project Exhibition 2020
Activity: Technical
Description: Annual Engineering Project Exhibition (AEPEX) is one of the mega-events in UCET IUB IEEE Bahawalpur Sub-Section held annually. All the disciples of engineering take part in this event and work together to make it successful. It is simply a platform to display the ability and efforts of our graduates.

This Year APEX was arranged online due to the extra-ordinary situation of Covid-19. Preparations started two weeks before the event, the event conducted virtually. The students displayed their projects online through a webcam. The final year project included different projects like Design and Analysis of DC to AC three-phase inverter, Humanoid Animatronic robotic hand, Breath Control System of ventilator, Implementation of swarm Robotic Intelligent technique and many more intriguing and innovative projects. Many of these projects were also ICT funded. The event concluded around 4:00 pm. The final year students asked to open their cameras for group photo. All the disciplines arranged themselves for the group photo with the dean and the faculty members. In the end, the organizing team also took the group photo with the dean and faculty members.

ADOPTING ENTREPRENEURSHIP DURING THE TIMES OF PANDEMIC
Activity: Non-Technical
Description: The main objective of conducting the online live event held by the Islamia University of Bahawalpur to tell the new generation about what is being an entrepreneur in practical lives. Can everyone
have the ability to become an entrepreneur like the world's most prominent entrepreneurs by examining their biography and earn inspiration from their harsh times in which they did not lose their heart, believe in you when nobody does?

The seminar conducted virtually on the zoom meeting application. It was on the professional skills for successful entrepreneurs. The speaker shared her own experience and real-life examples, in which she shared her concerns of pandemic negative effect on business, how to remain focus on such situations. And set up your small start-ups. Students took part in activities and learned about how to tackle external pressure. How to develop business?

**Impact of Event on Community:** Students became familiar with entrepreneurship and learned from the examples of successful entrepreneurs who changed the world of their perspectives on universal importance in professional lives. Moreover, they learned how to develop and implement these business ideas? How to tackle your business during pandemic conditions?

**Role of Entrepreneurship in the Resolution of Unemployment in the Society**

**Activity: Non-Technical**

**Description:** The main objective of conducting the online event was to alleviate the students to perceive the healthy privileges of being entrepreneur, along with academics. They can reflect high standard performance and get rid of unemployment eternally. These skills are an essential part of one’s professional life. It is the prime duty of an institute to provide them.

The seminar conducted on a zoom meeting application. Aimed at promoting professional skills regarding successful entrepreneurs, the speakers shared their own experiences and real-life examples. Students took part in activities and learned about unemployment vs entrepreneurship. How to select the right business and balance passion with wisdom? The session started at noon by the moderator Muhammad Nawaz Abbasi. He thanked all the participants and welcomed the distinguished speaker. The speaker Mr. Saqlain Sher appreciated all the participants and organizers for conducting such a session in the pandemic, then he shared a video about COVID-19’s precautions and asked everyone to observe the precautionary measures in their daily life. The speaker started the session with a poll on “What is your plan”.

**Impact of Event on Community:** Students became familiar with entrepreneurship and its universal importance in Professional lives. Moreover, they learned how to implement these business ideas? And how they become beneficial to them as well as the society in the end.
ONLINE CAREER COUNSELING SESSION

Activity: Non-Technical

Description: The main objective of the online session was to provide ethical assistance to our new batch members. To make a beneficial decision in the future were not unfortunately taken by our seniors. And also for the betterment of current graduates to make sure not to waste their time during the pandemic. How to grow together in some practical issue? To inform the students how to use career strategy in the future for job hunting skills. And how to overcome some personal issues. The session was about seeking proper skills, which includes communication skills and technical skills to prevail in competition.

The seminar conducted virtually through the zoom application. During the first session, the honourable speaker Saqib Jameel discussed the related issues during the pandemic phase. He advised the students to stay at home and avoid any social gathering during the condition. He also discussed the new graduates’ issues and gave a reasonable solution regarding problems. The speaker delivered the session for about 30 to 50 minutes. The speaker also provided a long question-answer session which proved to be extraordinarily powerful for the students. Thus, students got valuable information regarding their careers.

Everyone got satisfied with the speaker’s views and opinions. All participants queries were answered side by side. He provided information and also initiated valuable courses by him for the students who wanted to get additional skills.

3rd Episode of IEEE SPAA Week

Activity: Non-Technical

Objective of the Event: The main objective of conducting the SPAA event in the Islamia University of Bahawalpur was to help the students in polishing their professional skills along with their academics so they can show high standard performance in their professional careers. These skills are an essential part of one’s professional life and it is the prime duty of an institute to provide them.

The main purpose was to instill these skills in the students through various exercises, workshops, and talks. So that they may develop these skills, assess themselves, and see where they stand in the world.

Event description: The 3-days event, held at auditorium Faculty of Engineering IUB, included four seminars namely: Professional Ethics, Mock Interviews and CV workshop, Effective Leadership Skills, and A Professional Adventure: Search for Job.
The first seminar was on professional ethics in which the speaker shared his own experience and real-life examples. The second day hosted the next two seminars in which students took part in activities and learned about CV making, interviews, and leadership skills.

The last seminar was arranged on the third day in which students interacted with the speaker to discuss their queries about job hunting and workplace behaviors.

Name of the speakers along with their brief profile:

i. **Muhammad Bux Alvi**: Assistant Professor, Department of Computer Systems Engineering, The Islamia University of Bahawalpur, Pakistan.

ii. **Mr. Saqlain Sher**: Senior HR Manager, Pakistan Telecommunications Company Limited (PTCL).

iii. **Muhammad Ilyas**: General Manager Technology, Pakistan Telecommunications Company Limited (PTCL), Multan Region.

iv. **Dr. Muhammad Ali Qureshi**: Chairman, Department of Telecommunications Engineering, The Islamia University of Bahawalpur.

**FOSTER FLAGSHIP TRAINING PROGRAM “IMAGINE YOUR FUTURE”**

Activity: Non-Technical

**Description**: IEEE UCET IUB Student Branch and IEEE SPS UCET IUB Student chapter organizes a seminar titled “Imagine Your Future” in collaboration with the Foster Learning Institute Pakistan. The Foster Learning Institute is Pakistan’s largest leadership and Entrepreneurial program for youth. The speaker described the details about the different module which are provided by the foster institute. He elaborated about the foster carnival, their startup support funding, jobs placement opportunity, industrial links and recognized certificates of world’s renewed university. These features made foster learning institute different and a standout among all other competitors. Moreover, the speaker discusses about the Growth of mindset as the first module of flagship learning. He elaborated about the personal evaluation as well as lifelong learning techniques. The second module was the leadership in which the speaker elaborated the different aspects of a leader. He emphasized that the skills like problem solving, critical thinking, team work, communication and analytical skill must be developed in a leader. The third module discussed by the speaker is key employability skills. He discussed that the student must focus on their CV/Resume as well as letter of reference and recommendation to get the right job. Forth module was Professional development in which the e learning
courses are taught and the freelancing kick starts were discussed. The fifth and the last module was entrepreneurship in which the lean business plans were discussed.

**Debate Contest**

**Activity:** Non-Technical

**Description:** This Event was organized by the members of the WIE team from University College of Engineering & Technology, IUB Bahawalpur. The members of the WIE team specially conduct this event to promote fun learning and showcase their skills. The session was headed by the Urdu skilled professor of SE College and the most senior professor from the department of Computer System Engineering Mr. Muhammad Bux Alvi on “میں تو شرممہ پور اس دور کا انسان پوکر“. The purpose of this event was to help students to show their views on such topic in a professional manner. Cash prize was arranged along with certificates to boost the enthusiasm of students. Despite being informative, the knowledge gaining session was beneficial not just for students but also for teachers.

**Impact of Event on Community:** This event which continued for around 120 minutes was very helpful for students especially for students with extraordinary expressive skills. The worthy judges gave their remarks about every individual participant which helped students improve their abilities more. The event went in a very pleasant environment and in a professional way. It was up to the expectations of the people. In the end the honourable judges were presented with a framed certificate by the advisor of WIE on the successful completion of contest.

**Exhibition of Engineering Term Projects**

**Activity:** Non-Technical

**Description:** IEEE COMSOC has arranged an “Exhibition of Engineering Term Projects” on 23rd Jan 2020 to appreciate the technically creative struggles of the students. The mini Projects are carried out by the students of 3rd semester of Telecommunication and Electrical Engineering related to their course of “Electronic Devices and Circuits” under the supervision of Engr. Abdul Rehman Rizvi and Engr. Faizan Farhat. The event is organized to enhance the technical skills of premature engineers. Projects tasks with innovative additions were completed by the 18 groups and each group consists of two members. The chief guest of the exhibition is the Dean of the Engineering Faculty Dr. Muhammad Amjad. The Dean and all the faculty members visited the term project exhibition and saw their productive efforts in the beginning of their degree. The doors were also opened for the students and teachers of other departments. They also visited
and appreciated the endeavour of students. This project competition is judged by the Dean of Faculty of Engineering Dr. Muhammad Amjad for top three projects. Winners awarded with shields and certificates.

**AUTOMATED HOSPITAL ASSISTANCE SYSTEM FOR ISOLATED PATIENTS OF COVID-19**

**Description:** As the world is in medical emergency due to COVID-19 outbreak. Initially the government of china locked so many people is restricted rooms after that the whole world is lock downed and home quarantines were created all over the world and hospital quarantine setups were built. To deal with the thousands of people at the same time remained a difficult task for paramedical staff. Also, so many doctors and paramedical staff got infected due to their dealing with patients. We proposed to set up to accommodate them to deal with more patients who are kept in quarantine in less critical conditions maintaining the distancing of maximum medical staff. It will enable them to pay maximum attention to critical patients.

Our aim is to develop a remote assistance system to facilitate the patients and hospital staff. We will develop a system with an LCD screen that can be fixed with the bed of the patient and in the office table of the doctor. It displays the medical record of the patients to the doctor. Also the iconized list of medicines that doctors can request for the patient from the pharmacist quarter. Another feature is added to call the doctor or attendant. A patient can give a call from his bed with the system to deliver the message for the case of any need or emergency.

**UCET EMBS Student Chapter**

**Activity:** Non-Technical

**Description:** Miss. Mehak Azeem is a dedicated volunteer of IEEE Pakistan. She is currently serving as IEEE Region10 SAC Member as Social Media Coordinator, International Speaker, Professional Trainer and IEEE Region10 Collaborate Coordinator. She is a graduate researcher of Biomedical Engineering at Ziauddin University, Pakistan. She plans to give back to the community by pursuing her passions for Technologies.

IEEE EMBS UCET IUB organized a virtual session on the topic of "Biomedical Robotics for Sustainable future". At the start of the event, the Chairperson of IEEE EMBS Mr. Ahad Rehman introduced the Speaker. After that, he asked the speaker to proceed with the session. She started with greetings and told the audience about her achievements regarding IEEE. Then, she started representing the topic through PowerPoint slides. First of all, the speaker defined "Biomedical Robotics". After that, she briefly explained the role of robots in different medical fields and how these robots can revolutionize the future of the medical field. She told their
importance in this pandemic as we implemented robotic machines to take care of Corona patients. Further, she made aware the audience of the different types of medical robots which help the doctors to diagnose the disease. Moreover, she made the audience familiar with the names of medical robots and their jobs. Such as companion robots that help the patients who need a regular check-up but do not have professional caretakers. The other one is prostheses which can be replaced with damaged human organs. Obi robots that help the disabled person in eating and she told that she is also working on this eating assistant robot. In the end, there was a question-answer session. After that, the chairperson thanked the speaker for giving us her precious time.

HEPATITIS FREE WORLD

Activity: Non-Technical

Description: This is the pilot project of Hepatitis free university was organized by the mutual collaboration of IEEE EMBS UCET IUB with District Health Authority & the Islamia University of Bahawalpur, held in Main Auditorium of the Islamia University of Bahawalpur. Members of IEEE EMBS UCET IUB Chapters volunteered for the execution of this leading project. Awareness Campaign was initiated by the Islamia University of Bahawalpur & district health authority Bahawalpur from October 2019 till the start of the Hepatitis free University Camp. Hepatitis refers to an inflammatory condition of the liver. It’s commonly caused by a viral infection, but there are other possible causes of hepatitis. These include autoimmune hepatitis and hepatitis that occurs as a secondary result of medications, drugs, toxins, and alcohol. Autoimmune hepatitis is a disease that occurs when your body makes antibodies against your liver tissue. Our 5-day camp includes the registration Counters, Screening counters, Vaccination counters & IT team. These are working parallel and finished their tasks day by day. This camp of The Islamia University of Bahawalpur is working under the Supervision of the focal person from District health Authority DHA, Dr. Aurangzaib and the Focal person from The Islamia University Bahawalpur, Dr. Asif Ranjha.

Orientation of the IEEE EMBS UCET IUB

Activity: Non-Technical

Description: The Orientation of IEEE Engineering in Medicine & Biology Society (EMBS) was held on 26 October 2020 at 8:00 pm through the virtual ZOOM platform for the newly enrolled students of the Faculty of Engineering, The Islamia University Bahawalpur, Pakistan. This was a major non-technological event of the faculty of engineering and IEEE Pakistan. This event was attended by all executive committee and extended executive committee members along with (newly admitted and currently enrolled) students of the engineering. The key agenda of the event was to provide a platform for students to collaborate and discuss
the advancements and involvements of IEEE and Engineering in their respective fields. This orientation session was conducted by Dr. Khan Bahadar Khattak, the Advisor of the EMBS chapter. The event started with an explanation of the “IEEE structure, EMBS chapter orientation, and IEEE benefits for student’s faculty and university ranking” delivered by Dr. Khan Bahadar Khattak, Advisor of IEEE EMBS chapter. The session started with the IEEE mission and vision followed by the introduction of IEEE governance, organizational structure, IEEE Geographic Regions, IEEE Divisions, IEEE Societies, and Councils. Then, the IEEE EMBS mission and vision were introduced along with the motivation of EMBS Benefits-Reasons to Join EMBS. A brief overview of IEEE EMBS Chapter Awards, EMBS Sponsored Journals, and Co-Sponsored Journals, Major EMBS Sponsored Conferences and Co-Sponsored Conferences was provided to the audience. Benefits of IEEE Student Membership and different IEEE student volunteer’s awards and grants were shared in detail. The contribution of IEEE in faculty profile development and university ranking was also enlightening in detail. The IEEE EMBS society orientation event was successfully conducted and organized by the indefatigable efforts of the IEEE EMBS chairperson Ahad Rehman and EMBS volunteers. After the session, a question and answer session was hosted by Dr. Khan Bahadar Khattak in which he entertained queries from participants, clearing their doubts. At the end, he thanked participants for their time and encourage them to apply. The event was closed with the concluding remarks by Dr Khan Bahadar Khattak. The e-certificates were sent via email to participants.

THE INTERNATIONAL CONFERENCE ON ONE HEALTH (ICOH) 2020
Activity: Technical

The International Conference on One Health (ICOH) 2020 was a collaborative effort between several prestigious and reputable bodies of the country and the world.

- IEEE EMBS UCET – IUB
- Faculty of Veterinary and Animal Sciences, the Islamia University of Bahawalpur
- International Veterinary Students’ Association (IVSA) Pakistan – Bahawalpur
- IVSA Rampur, Nepal
- IVSA Portugal
- International Federation of Medical Students’ Associations Pakistan (IFMSA)- FMU LC.

Conference Highlights
• It was a two-day event held virtually on zoom and at the same time went live on Facebook too so a
great many participants could make the most of this informative event.
• The two-day event comprised of 10 speakers who gave presentations on different topics.
• After each session, a question and answer session was held by the respective moderator or speaker.
• We received 386 registrations from 35 countries. Many of them attended the conference through
Zoom and Facebook Live. There were 8 presentations in 2 days and 2 guest speakers with important
talks on One Health. This was a great opportunity for everyone to learn something beneficial about
One Health.
• The virtual conference opened on zoom at 7 pm (PST) by Ammun Bashir and Dr. Umer Farooq who
welcomed the participants and discussed briefly about One Health.

B.1.9: IEEE Information Technology University Student Branch

Industrial Automation Workshop 2.0
Activity: Technical

Description: The main objective of this workshop is to make the aspiring engineers acquainted with the
conceptual as well as practical knowledge of the Industrial Automation & latest technologies used in the
field. The idea of organizing this workshop is to inculcate the basic fundamentals of automation in the
students and provide them with a platform to get hands on experience to work on Siemens S7-1200, VFD,
Induction Motor & HMI.

Impact of Event on Community: The participants were given intro to HMI, Siemens S7-1200, VFD, Induction
Motor with high quality practical training and hands on practical experience.

STRUCTURING AND PROCESSING DATA INTO ELASTIC SEARCH
Type of Activity: Technical

Description: Indexing and structuring data into Elasticsearch is critical for establishing efficient search criteria
and effective results. Logstash filters and ingest pipelines makes processing unstructured data easier by
providing a set of common processors to efficiently parse, transform, and index that data into the desired
structure.
Impact of Event on Community: The session explained concepts from the new Elastic Stack logging courses, including how to process and structure data using a variety of common filters and processors. Demonstrated various solutions and built-in features that convert, enrich, process, and structure different types of fields from unstructured data.

Digital Marketing

Description: Course includes the ways of Organic & Paid Marketing such as Digital Marketing Overview, Website Planning & Creation, SEO (Google Penalties Removal, On Page/Off Page SEO, Tools), Google Analytics, Lead Generation, Google Adwords (Display Ads, Search Ads, Video Ads, Campaign Designing)

Impact of Event on Community: The session was helpful to get to learn about the course and what was to be taught in it. It encouraged people to register for the course and pave their way for better digital marketing.

INTERNET OF THINGS (IOT)

Description: The main objective of this Boot Camp is to acquaint young people and professionals with field of IoT and the latest tools and technologies used in this domain. The idea of organizing this workshop is to inculcate the fundamentals of IoT in students, graduates and professionals and provide them with hands-on practical experience.

Impact of Event on Community: The participants were given intro to IoT boards like esp32, Raspberry Pi, cloud platforms (AWS, Azure), communication protocols such as MQTT with high quality practical/application training and hands on practical experience.

MEET & GREET

Description: A series of interviews with the professionals of ITU-iMAL, U-blox, and Ebryx. Those professionals shared their experiences and skills that brought them to the current stage of their respective careers.

Impact of Event on Community: The session helped students learn the practical aspects and, to a certain extent, the know-how of industrial work so that they will be able to translate theories and concepts into practice. It helped enhance students’ understanding and learning process of various topics.
IEEE Xtreme Programming Competition 14.0
Type of Activity: Technical

**Description:** IEEE Xtreme is a global challenge in which teams of IEEE Student members who are advised and proctored by an IEEE member, compete in a 24-hour time span against each other to solve a set of programming problems. Participants must compete as part of a team of up to three IEEE Student or Graduate Student members. Teams should only include a maximum of two Graduate Student members per team. Each team must have a proctor to supervise during the 24-hour programming competition.

A proctor is mandatory for each team participating in the competition. Proctors should be an IEEE member of higher membership grade (not an undergraduate or Graduate Student member).

**Impact of Event on Community:** It was of great experience for the participants as they got to learn a lot and how to tackle problems using different programming languages.

AWS Beginner Series Episode 4
Event Type: Technical

**Description:** Introduction to Server Less and hands-on lab on AWS Lambda. AWS Community Pakistan excitedly announces the fourth Episode of AWS Beginner Series. The Hands-on Lab will be conducted in the session, attendees can follow it up side by side.

**Impact of Event on Community:** The attendees got to learn a lot and got a chance to experience hands on lab.
B.1.9: IEEE University of Agriculture Faisalabad Student Branch

TEACHER’S DAY
Type of Activity: Non-Technical

Description: In order to give the honor to all the teachers throughout our university WIE (Women in Engineering) IEEE UAF student branch at University of Agriculture Faisalabad under the kind Supervision of Dr. Waseem Amjad (Assistant prof, Energy Systems Engineering) organized the event of Teacher’s Day on 5th May, 2020 to acknowledge teachers crucial role, loyal service and dedicated commitment in developing globally minded citizens, nurturing families, strengthening communities and building the nation. We celebrated this event by distributing the cards and cake cutting ceremony with our respected teachers.

Impact of Event on Community: We took the event as an opportunity in building the image of teaching as an attractive and fulfilling profession and tried to Generate a widespread support and assistance for teachers.

FINAL YEAR PROJECTS: PROBLEMS AND SOLUTION
Type of Activity: Technical

Description: A Seminar on "Final Year Projects: Problems and Solution" was organized by the Society of Engineers and Technologists (SET) for the students of final year at the faculty. The Dean Faculty of Agricultural Engineering and Technology briefed about the importance of FYP under OBE and stressed to come up with productive and innovative ideas and projects. Later, Dr. Muhammad Usman Farid presented a comprehensive structure and execution road map for the Final Year Projects.

Impact of Event on Community: The session help the student to select their final year project and learn the significance of the project in the field and safety parameters to provide recommendation.

GREEN ENERGY CONFERENCE
Type of Activity: Technical
Description: Two-day event International Conference on Green Energy Technologies: Opportunities and Challenges were accompanied in different slots includes Scientific Talks and Paper Presentations, Keynote addresses, Poster Session, CPD Workshop and much more. It was organized by Department of “Energy Systems Engineering” with the collaboration ICDD Germany, DAAD Germany and HEC Pakistan at the University of Agriculture, Faisalabad under the kind supervision of Dr. Waseem Amjad (Assistant Prof. Energy Systems Engineering and branch counselor, IEEE UAF SB). Society of Engineers & Technologist played a vital role to organize this event successful by serving as a managing committee. One-day CPD sessional activity on “Instrumentation & Control Systems”, was the part of the 2-day event on Green Energy Conference, in which a delegation of German scholars was invited. Moreover, other science related departments also took part in this event and submitted their abstracts and postures. And the refreshment was also arranged.

CPD ACTIVITY-INSTRUMENTATION & CONTROL SYSTEMS
Type of Activity: Technical

Description: One-day CPD sessional activity on “Instrumentation & Control Systems”, was the part of the 2-day event on Green Energy Conference, in which a delegation of German scholars was invited. It was organized by the Department of Energy Systems Engineering with the collaboration of WIE (women in engineering) IEEE UAF student branch at the University of Agriculture, Faisalabad under the kind supervision of Dr. Waseem Amjad (Assistant prof, Energy Systems Engineering).

Impact of Event on Community: Introduced the Instrumentation and Control Systems and highlights the Significance of ICE in the Fields of the targeted audience. Also includes the safety parameters to provide recommendations and guidance on IC &S, Design and implementation of the system.

WOMEN ENTREPRENEURSHIP (START-UP BUSINESS)
Type of Activity: Non-Technical

Description: Two-day seminar/ Business Start-up camp on “Women Entrepreneurship” was organized by IEEE UAF student branch with the collaboration of ORIC, UAF & PEP Foundation and in the supervision of Dr. Zaheer Ahmad Zaheer (Director ORIC-UAF) & Dr. Waseem Amjad (Assistant prof. Energy Systems Engineering).

Impact of Event on Community: This session help to start a business and also help to reducing the gender gap in the workplace.
ENTREPRENEURIAL DEVELOPMENT
Type of Activity: Non-Technical

Description: One-day seminar on “Entrepreneurial Development” was organized by WIE (women in engineering) IEEE UAF student branch, University of Agriculture, Faisalabad in the supervision of Dr. Waseem Amjad (Assistant prof, Energy Systems Engineering).

Impact of Event on Community: The session introduced the audience the term entrepreneurship and highlights the significance of Entrepreneurship in the Engineering Fields of targeted audience. It also includes importance of developing a USP, Finance and Cash-flow management.

FREELANCING
Type of Activity: Technical

Description: One-day seminar on “Free Lancing” was organized by WIE (women in engineering) IEEE UAF student branch with the collaboration of TECHNO LANGS, University of Agriculture, and Faisalabad in the supervision of Dr. Waseem Amjad (Assistant prof, Energy Systems Engineering).

Impact of Event on Community: The session introduced the Free Lancing and its Significance in the Engineering Fields of targeted audience. It also covered the importance of online market and methods of online earning.

WORKSHOP ON SEO: DIGITAL MARKETING
Type of Activity: Technical

Description: One-day workshop on “Digital Marketing and SEO”. It was organized by IEEE UAF student branch at the University of Agriculture. And the speaker was Sir Ahmad Raza Mughal CEO and founder of WAPEXP having 14 year experience in IT field and works with different multimedia companies.

Impact of Event on Community: In this session participants learn what is digital marketing, how to get maximum online clients and how to achieve rating.
B.1.10: IEEE University of Lahore Student Branch

DECODING ENTREPRENEURSHIP IN COVID 19 - CHEAT FORMULA TO QUICKLY BECOME SUCCESSFUL IN THE BUSINESS

Type of Activity: Professional Webinar

Description: Decoding entrepreneurship in COVID 19 - cheat formula to quickly become successful in the business was organized in collaboration with IEEE WIE UOL SB and IEEE WIE Lahore Section on 20th December, 2020. Mr. Muhammad Arslan Shahid - Public Relations Officer hosted the event. The well-known entrepreneur Dr. Khalid Abbas was invited as a guest speaker. Khalid Abbas is an entrepreneur, investor and speaker based in Oslo, Norway. He has 16 years of experience in customer service, sales, marketing, product and project management. He hosts a TV talk show “Redesign Your Thinking” in Pakistan and a radio show in Italy for youth.

The objective of this webinar was to find out the solutions of the mentioned problems:

- COVID-19 is eliminating the traditional jobs while creating the new ones.
- Graduates in 2020 find it difficult to get their dream jobs.
- Should we get worried and do nothing?
- Or start looking for a new job?
- Or take control of your own life and start your own business?

Our honourable speaker highlighted that inexpensive technologies, virtual markets and easy funding through crowdsourcing is changing entrepreneurship. Today’s entrepreneurs are willing to take more risks than previous generations and are willing to work from home or small office or co-working space. Apart from bank loans, venture capitals, seed funding are some of funding options which have decreased barriers to entry in entrepreneurship. The Internet has opened worldwide markets for all and a person with a website and social media presence can reach consumers across the world easily and cheaply.

Impact of Event on Community: The feedback of this event was excellent. Students enjoyed this season the most and learnt that:

- It is a great time to start your own business – the best time in history!
- How can one start business from scratch?
- A perfect recipe to start successful businesses and step by step guide.
- Resources which are available to people to prevent them from reinventing the wheel.
DISTRIBUTED SYSTEMS & ITS MODERN APPLICATIONS

Type of Activity: Technical

**Description:** Distributed systems and its modern applications was organized in collaboration with IEEE WIE UOL SB and IEEE WIE Lahore Section on 25th January, 2021. Dr. Ashish Khanna - Prof. MAIT IP University Delhi, India was invited to conduct a workshop. Mr. Muhammad Arslan Shahid - Public Relations Officer of IEEE WIE Lahore Section hosted this event virtually. Our honourable speaker spoke about the modern applications that can be found everywhere today. Distributed microservices, cloud-native, managed resources, and serverless are parts of this complex whole. He also explained how we can keep track of so many elements in our production environments? In these distributed environments, distributed systems help to communicate with each other in synchronous and asynchronous ways, such as message queues, HTTP calls, gRPC, and more. Distributed tracing has become a crucial component of observability — both for performance monitoring and troubleshooting. He also defines the complete process of distributed systems and how we can handle them.

To encourage participants, we announced the contest of “TWO BEST AUDIENCE AWARDS” in the middle of the workshop and ensured that this award should be given to the most passionate participant at all levels of the workshop to show recognition. Students took part in the Q/A sessions with great interest.

**Impact of Event on Community:** The feedback of this event was excellent as it helped students to understand:

- Fundamentals of distributed tracing using Open Tracing and instrumentation techniques.
- Hands-on experience of tracing messages

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**BLOOD CAMP - FEBRUARY BLOOD DRIVE**

Type of Activity: Humanitarian Activity

**Description:** Blood donation has taken a serious hit amid COVID19 outbreak, and blood is in short supply, leaving patients of thalassemia and others to suffer. By considering this issue, IEEE WIE UOL student branch and IEEE WIE Lahore Section arranged a 2- days blood camp from 20th Feb, 2021 to 21st Feb, 2021 at Fatimid Foundation Blood Bank. WIE Lahore offered the:

- Completely hygienic environment
- Free full body checkup
• Free full body test
• Certificates to donors
• Goodie bags

Mr. Malik Salman Aslam - Barrister at Lahore High Court Bar inaugurated the activity by donating his blood to the thalassemia patients. All the team members including women donated blood to make a difference and spent a full day with patients. Overwhelming responses from blood donors had made this drive successful. Every willing donor came to the blood bank and donated the blood.

**Impact of Event on Community:** They understand that this time needs collaborative efforts from blood donors, community, blood transfusion services and administration. The message was clearly sent out that “To wipe out society issues, we bid for social distancing, not social disengagement”

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**CELEBRATING RESPECT - INTERNATIONAL WOMEN'S DAY**

**Description:** International Women’s Day is the day to pay tribute to every woman and to salute her immense contribution in shaping the society. Our world would mean nothing without women. Their courage that exists in perfect harmony with amazing tenderness saves our world every day. So, to support every woman around us, IEEE WIE UOL student branch and IEEE WIE Lahore Section organized an event titled as “Celebrating Respect - International Women’s Day 2021” on 8th March, 2020 to:

- Celebrating women's achievements
- Raise awareness about women's equality
- Lobby for accelerated gender parity
- Fundraise for female-focused charities

The purpose of this event is to support the supporters, and in doing so it provides a platform to help forge positive change for women. Ladies including engineers, doctors, designers, artists, accountant, lawyer, officer, housemakers, and others participated and appreciated this initiative of IEEE WIE Lahore Section. They also display their cards to respect and motivate the women across the globe.

**Impact of Event on Community:** Three central impacts underpin the purpose and provisions of the International Women’s Day event:

- Identifying, celebrating and increasing visibility of women's achievements help can forge equality
• Strategic collaborations based on a foundation of shared purpose, trust and appreciation can impact positive change for women

• Worldwide awareness raising via meaningful narratives, resources and activity can help combat gender bias and discrimination to accelerate gender parity
B.2: IEEE Lahore Section Technical Chapters Activities.
B.2.1: IEEE Communication Society

IEEE LAHORE SECTION ANNUAL GENERAL MEETING PRESENTATION

Type of Activity: Technical

Description: Chair IEEE COMSOC Lahore chapter Mr. Kashif Bashir participated in IEEE Lahore Section Annual General Meeting which was held on 10th Feb 2021 at Al-Khawarizmi Institute of Computer Science UET Lahore. Mr Kashif Bashir delivered a presentation on the year 2020 activities organized in the different Universities of Pakistan. He especially mentioned IEEE National Workshop on Big Data & Cloud Computing 2020, IEEE Comsoc 3 Virtual Distinguished lecturers and two International Conferences IEEE 23rd International Multitopic Conference (INMIC) 2020 held at IUB, and ICOSST-2019 held at KICS-UET Lahore. The AGM was attended by the senior technical experts from academia and industry including the CEOs, CFOs and Directors of the Universities and Institutes respectively.

Meeting with University of Management and Technology Faculty

Type of Activity: Administrative

Description: Mr. Kashif Bashir Chair IEEE Comsoc Lahore Chapter attended a Meeting along with the IEEE Lahore Section officials. Mr. Kashif Bashir gave a comprehensive presentation regarding the services IEEE
and IEEE Comsoc renders to the scientific community and their benefits. A two hour of interactive session was attended by the faculty members of UMT.

VIRTUAL SUMMIT ON ARTIFICIAL INTELLIGENCE IN INFORMATION AND COMMUNICATION 2021

Type of Activity: Technical

Description: IEEE Comsoc Lahore Chapter in Collaboration of KICS-UET organized virtual summit on artificial intelligence in information and communication 2022 on 7th October 2021. Mr. Kashif Bashir, Chair IEEE Comsoc Lahore Chapter said, we have witnessed fast developments of various artificial intelligence (AI) technologies, and many forms of information and communication systems with AI are becoming core parts of our daily lives. With the proliferation of future information, communication, and electronic devices, there is a fast-growing interest in information and communication technology (ICT) with AI. This summit promotes artificial intelligence applications in the areas of Control and Decision Systems, Energy Storage, Cyber Security, Image Processing, Computer Vision, Data Science and Health care. Mr. Kashif Bashir also expressed his gratitude to all the participants to attend the Summit. Dr. Waqar Mahmood, said “This summit is very important in the sense that AI becoming the part of everyday life and it is extremely important to grow in the field of AI to meet the need of the hour”. Dr. Amjad Hussain, Chair IEEE Lahore Section briefed the audience with great achievements of IEEE Lahore Section and history of IEEE and IEEE Lahore Section. Dr. Wajahat Qazi from Comsats Institute of Information and Technology (CIIT) was invited as a speaker to give
thoughtful insights on Control and Decision Systems, Dr. Ijaz Haider Naqvi from Syed Babar Ali School of Science & Engineering, Lahore University of Management Science (LUMS) shared his work and experience in Data-driven techniques for Battery Health Degradation Analysis whereas Dr. Ubaid Ullah Fayyaz & Dr. Usman Ghani from UET Lahore, and Dr. Sheikh Faisal Rashid from Fast NUCES Islamabad were invited to talk on Artificial Intelligence for Cyber Security, Artificial Intelligence at the Intelligent Criminology Lab, KICS, and Applications of Artificial Intelligence in Healthcare respectively. The online summit was kicked off through CISCO WebEx and a great number of audiences from research and academia across the country participated online. Prof. Dr. Muhammad Kamran, Dean Electrical Engineering Department, UET Lahore congratulated the management committee for organizing a great summit dedicated to AI while giving his closing remarks.

4th International Conference on Innovating Computing

Type of Activity: Technical

Description: IEEE Communication Society Lahore with the collaboration of UMT organized 4th International Conference on Innovative Computing virtually on 9-10 October 2021. The main purpose of the Conference to provide a platform for the researcher and faculty around the globe to share their ideas in the field of ICT. This year the main topics of the conference were Innovative Computing Systems and Applications, Algorithms Design, Big Data Analytics, Artificial Intelligence, Data Warehousing, Data Mining, Data Science, Bioinformatics, Cloud Computing, IOT, Network and information security and Many ICT topics. This year ICIC-2021 received 270 Research articles from 22 different countries (including the USA, China, and Russia), 973 authors, researchers, scientists from 22 different countries contributed their research work to ICIC-2021. Around 140 research articles presented in ICIC-2021 by national and international authors. ICIC-2021 received research articles from 120 different universities including 39 foreign universities. The Invited speakers of ICIC were Prof. Dr. YangQuan Chen, University of California-Merced, Prof. Dr. Mohd Shafry Mohd Rahim Media and Game Innovation Centre of Excellence (MaGICX), University Technology Malaysia, Associate Prof. Dr. Hoshang Kolivand, Intelligent Mixed, Computer Science Liverpool John Moores University-UK, Dr. Kashif Nisar, Associate Professor Faculty of Computing and Informatics University Malaysia Sabah, Prof. Dr. Imran Zualkernan, American Univeristy of Sharjah, Dr. Ameena Saad Al-Sumaiti Associate Professor Khalifa University-UAE, Dr. Marton Gergely, Assistant Professor Information Systems and Security-(CIT) United Arab Emirates University, Prof. Omar H. Alhazmi Department of Computer Science College of Computer Science and Engineering Taibah University, Saudi Arabia. Almost 500 plus student, faculty members, industry members from all over the world joined the Conference.
**15th International Conference on Open-Source Systems and Technologies (ICOSST)**

**Type of Activity:** Technical

**Description:** IEEE COMSOC Lahore Chapter in collaboration with Al-Khawarizmi Institute of Computer Science UET Lahore organized the 15th International Conference on Open-Source system and technologies ICOSST’ 2021 on 15-16 December, 2021 virtually. Collectively 243 researchers submitted their manuscripts from various countries including Pakistan, China, India, Thailand, Indonesia, Malaysia; only a handful top quality 21 papers were accepted by the Technical Evaluation Committee qualifying the merit-based criteria. Speakers were invited from prestigious universities of Pakistan and other countries like Canada, Malaysia, Estonia, USA, Qatar, China to deliver talks in the areas of Artificial Intelligence, Cyber Security, Big data & Cloud computing, Robotics, Blockchain, and the Internet of Things (IOT). A panel discussion was also held as a module of the conference themed ‘Future of Knowledge-based Economy in Pakistan’ moderated by Dr. Ali Hammad from the Computer Science Department, UET Lahore. The distinguished panel comprised Dr. Waqar Mahmood, Dr. Muhammad Tahir, Mr. Irfan Zafar, CEO Arham Soft, Mr. Ahmed Muzammil, CEO Gaper, Mr. Shahzeb Rathore, CEO Advanced Systems. The virtual industrial exposition was also arranged in a virtual mode. The virtual exposition also has an option of live chat with the exhibitors.

Almost 500 plus student, faculty members, industry members from all over the world joined the conference.

**BRAINIAC’21**

**Type of Activity:** Technical

**Description:** Under the banner of the International Conference on Open-Source Systems & Technologies (ICOSST) 2021, a student competition “BRAINIAC’21” was organized by Al-Khawarizmi Institute of Computer Science (KICS), UET Lahore with co-sponsorship of IEEE ComSoc Lahore Chapter on 14-16 December 2021. This was the first on-campus event after COVID19 where students from various universities of the country participated zealously. BRAINIAC is a national technical competition that provides opportunities for students to enhance and showcase their technical skills through a country-wide competition and win attractive cash prizes. The 3-day competition comprises different modules including project video, full-stack functional website, code champ, circuit genie, math gauge, and league of your own (gaming competition) in which students unleashed their technical skills and cherished a healthy competitive environment with the cash prizes of Rs. 1 Lac. Around 180 participants from the universities including the University of Lahore, Information Technology University, FAST National University, Punjab University College of Information &
Technology, and other campuses of the University of Engineering & Technology Lahore participated in the competition. The winners of all the modules were announced at the closing ceremony of the 15th International Conference on Open-Source Systems & Technologies (ICOSST) 2021. “The technical competitions foster the mindset that allows creativity to grow”, said Vice Chancellor UET Lahore, Prof. Dr. Syed Mansoor Sarwar while speaking at the closing ceremony. Worthy Vice-Chancellor UET along with Director Al-Khawarizmi Institute of Computer Science (KICS), Prof. Dr. Waqar Mahmood and Mr. Kashif Bashir Chair IEEE Comsoc distributed the cash prizes of Rs. 100,000 amongst the winners.

B.2.2: IEEE Power and Energy Society

4TH INTERNATIONAL CONFERENCE ON ENERGY CONSERVATION AND EFFICIENCY 2021

Type of Activity: Technical

Description: 4th International Conference on Energy Conservation and Efficiency (ICECE) 2021 goes virtual this year. ICECE is a flagship event of the Centre for Energy Research & Development (CERAD), UET Lahore that has been happening consistently for the last four years with the spirit of providing an opportunity and platform to the researchers, engineers, and energy experts to explore and exchange ideas in the rapidly developing domain of Energy Efficiency and Conservation strategies. Powered by Punjab Energy Department and in collaboration with Punjab Energy Efficiency and Conservation Agency (PEECA), IEEE Power and Energy Society, IEEE Industry Application Society Lahore Chapter, and IEEE Lahore Section. The conference happened virtually this year considering COVID 19 impact. 116 scholars from 17 countries submitted their research papers at the conference and 31 out of them were selected. Researchers from Japan and South Korea presented their research papers. Researchers from Italy, Turkey, Saudi Arabia, Canada, Bangladesh, Indonesia, Sri Lanka, Portugal, Poland, and Iraq also submitted their papers at the conference. The opening ceremony of the conference was graced by the presence of Provincial Minister for Energy Government of the Punjab, Dr. Muhammad Akhtar Malik as Chief Guest. Chairman Prime Minister Task Force on Science & Technology, Prof. Dr. Ata-ur-Rehman, Chairman Punjab Higher Education Commission Dr. Fazal Ahmad Khalid, MD PEECA, Mr. Adnan Mudassir were invited as distinguished guests. The opening ceremony kicked off with the welcome note by worthy Vice-Chancellor UET Lahore and a brief presentation by Director CERAD, Dr. Waqar Mahmood.
On the occasion, Director CERAD, Dr. Waqar Mahmood briefed about the purpose of the conference. According to him these type of conferences plays an important role in the improvement of energy storage systems in Pakistan and we can improve energy storage systems by using natural resources. Vice-Chancellor, Dr. Mansoor Sarwar expressed his determination to continue the efforts of UET to overcome the energy crisis in Pakistan. He said that UET is quite active and working in the energy sector by collaborating with the Government on various successful projects and this conference is another giant initiative to spread awareness about the much-needed requirement of energy efficiency and conservation. The Chairman of the Prime Minister’s Task Force, Dr. Ata-ur-Rehman briefed the participants about the vision of the Government of Pakistan. He said that massive efforts are being made for the promotion of green energy in Pakistan which would help in controlling pollution in the country and also save millions of rupees.

Minister for Energy, Dr. Akhtar Malik congratulated UET for holding an international conference. He said that such conferences are necessary to spread awareness to overcome the energy crisis in the country. According to the Energy Minister, the Punjab government has saved a large amount of energy by setting up four major departments on modern lines and started using modern equipment in these departments, abolishing the old methods of electricity. A panel discussion was also organized among the representatives of various organizations at the conference in which Punjab Energy Efficiency and People from Conservation Agency, National Energy Efficiency and Conservation Authority, Pak Solar Association, Coal and Mining Departments of UET participated. At the Digital Exposition, more than 20 national and international industries from Pakistan, Germany, China, and labs of CERAD showcased their projects in a 3d virtual environment.

The ICECE 2021 proceedings containing presented papers at the conference will be submitted for inclusion to the IEEE Xplore® Digital Library registered.

**Impact of event on community:** 4th IEEE International Conference on Energy Conservation and Efficiency (ICECE) 2021. The conference organized by CERAD-UET Lahore, was held on 16th-17th March 2021 virtually in collaboration with IEEE Power & Energy Society (PES), IEEE Industry Application Society (IAS) Lahore Chapter, IEEE Lahore Section and in Joint Collaboration with Al-Khawarizmi Institute of Computer Science (KICS-UET Lahore). The conference is targeting engineers, researchers, energy experts, manufacturers and building designers to meet, discuss, explore and exchange ideas in the rapidly developing domain of Energy Efficiency and Conservation strategies. The demand management and optimization has been recognized as the fastest viable solution for energy situation of developing countries. Therefore, the event will be an excellent networking opportunity for professionals as well as academia together.
2021 1ST PES LAHORE CHAPTER MEETING

Type of Activity: Administrative

Members have detailed meeting with IEEE Lahore Section and Faculty Members. Following points were discussed:

- Planning of events during COVID-19
- Effective communication between IEEE PES Members
- Increase IEEE Members
- Organizing conferences and workshops
- EXCOM visit to industry

2021 PES ORIENTATION

Type of Activity: Non-Technical

Description of the event:

IEEE PES Orientation was arranged at PU Student branch.

Mr. Shahid Zulfiqar discussed following points:

- IEEE Importance and its history
- PES History
- IEEE Power & Energy Society Membership benefits
- Competition and Awards program
- Conferences and Publications
- Student to Senior Member story
- Motivation and professionalism

2021 PES LAHORE CHAPTER Faculty MEETING

Type of Activity: Administrative

IEEE Power & Energy Society Members meet in person on 14 July and discuss following:

- COVID-19 Pandemic effect on PES memberships.
• Increase awareness session for new IEEE members.
• First year PES membership free opportunity to students.
• Review 6 month progress and goals achieved.
• Presented Next 6 month budget and planning of events.

B.2.3: IEEE Industry Application Society

4TH INTERNATIONAL CONFERENCE ON ENERGY CONSERVATION AND EFFICIENCY 2021

Type of Activity: Technical

Description: 4th International Conference on Energy Conservation and Efficiency (ICECE) 2021 goes virtual this year. ICECE is a flagship event of the Centre for Energy Research & Development (CERAD), UET Lahore that has been happening consistently for the last four years with the spirit of providing an opportunity and platform to the researchers, engineers, and energy experts to explore and exchange ideas in the rapidly developing domain of Energy Efficiency and Conservation strategies. Powered by Punjab Energy Department and in collaboration with Punjab Energy Efficiency and Conservation Agency (PEECA), IEEE Power and Energy Society, IEEE Industry Application Society Lahore Chapter, and IEEE Lahore Section. The conference happened virtually this year considering COVID 19 impact. 116 scholars from 17 countries submitted their research papers at the conference and 31 out of them were selected. Researchers from Japan and South Korea presented their research papers. Researchers from Italy, Turkey, Saudi Arabia, Canada, Bangladesh, Indonesia, Sri Lanka, Portugal, Poland, and Iraq also submitted their papers at the conference. The opening ceremony of the conference was graced by the presence of Provincial Minister for Energy Government of the Punjab, Dr. Muhammad Akhtar Malik as Chief Guest. Chairman Prime Minister Task Force on Science & Technology, Prof. Dr. Ata-ur-Rehman, Chairman Punjab Higher Education Commission Dr. Fazal Ahmad Khalid, MD PEECA, Mr. Adnan Mudassir were invited as distinguished guests. The opening ceremony kicked off with the welcome note by worthy Vice-Chancellor UET Lahore and a brief presentation by Director CERAD, Dr. Waqar Mahmood.

On the occasion, Director CERAD, Dr. Waqar Mahmood briefed about the purpose of the conference. According to him these type of conferences plays an important role in the improvement of energy storage systems in Pakistan, and we can improve energy storage systems by using natural resources. Vice-Chancellor, Dr. Mansoor Sarwar expressed his determination to continue the efforts of UET to overcome the energy
crisis in Pakistan. He said that UET is quite active and working in the energy sector by collaborating with the Government on various successful projects and this conference is another giant initiative to spread awareness about the much-needed requirement of energy efficiency and conservation. The Chairman of the Prime Minister’s Task Force, Dr. Ata-ur-Rehman briefed the participants about the vision of the Government of Pakistan. He said that massive efforts are being made for the promotion of green energy in Pakistan which would help in controlling pollution in the country and also save millions of rupees.

Minister for Energy, Dr. Akhtar Malik congratulated UET for holding an international conference. He said that such conferences are necessary to spread awareness to overcome the energy crisis in the country. According to the Energy Minister, the Punjab government has saved a large amount of energy by setting up four major departments on modern lines and started using modern equipment in these departments, abolishing the old methods of electricity. A panel discussion was also organized among the representatives of various organizations at the conference in which Punjab Energy Efficiency and People from Conservation Agency, National Energy Efficiency and Conservation Authority, Pak Solar Association, Coal and Mining Departments of UET participated. At the Digital Exposition, more than 20 national and international industries from Pakistan, Germany, China, and labs of CERAD showcased their projects in a 3d virtual environment.

The ICECE 2021 proceedings containing presented papers at the conference will be submitted for inclusion to the IEEE Xplore® Digital Library registered.

**Impact of event on community:** 4th IEEE International Conference on Energy Conservation and Efficiency (ICECE) 2021. The conference organized by CERAD-UET Lahore, was held on 16th-17th March 2021 virtually in collaboration with IEEE Power & Energy Society (PES), IEEE Industry Application Society (IAS) Lahore Chapter, IEEE Lahore Section and in Joint Collaboration with Al-Khawarizmi Institute of Computer Science (KICS-UET Lahore). The conference is targeting engineers, researchers, energy experts, manufacturers and building designers to meet, discuss, explore and exchange ideas in the rapidly developing domain of Energy Efficiency and Conservation strategies. The demand management and optimization has been recognized as the fastest viable solution for energy situation of developing countries. Therefore, the event will be an excellent networking opportunity for professionals as well as academia together.

**2021 IAS LAHORE CHAPTER Faculty MEETING**

**Type of Activity:** Administrative

IEEE IAS Members meet in person discuss following:

- Increase awareness session for new IEEE members.
• IEEE IAS CMD Programs Awareness
• IEEE CMD Myron Zucker Student Faculty Grant Opportunity
• Membership Development Strategies.

**IEEE IAS CMD Webinar**

**Type of Activity:** Non-Technical

**Description of the event:**

IEEE IAS CMD Webinar was organized and discussed following points:

• IEEE Importance and its history
• IEEE IAS History
• Student Opportunities
• Faculty Opportunities
• IEEE IAS CMD Programs
• IEEE IAS CMD Competition and Awards.
• Motivation and professionalism

**IEEE International Conference on Emerging Power Technologies (IEEE ICEPT)**

**Type of Activity:** Technical

**Description:** The aim of the conference was to provide a premier platform for engineers and researchers to present their works and to share experiences and ideas in power engineering with experts and scholars from around the world. The conference program was feature technical sessions and paper presentations. Distinguished speaker was also be invited to deliver keynote speeches and invited talks on emerging technologies in power engineering. Attendees had the opportunity to interface with experts from all related fields.

The conference was organized with the Collaboration of IEEE IAS Lahore Section Chapter, IEEE PES Islamabad Section Chapter, IEEE GIKI and IEEE Islamabad Section.

The ICEPT 2021 proceedings containing presented papers at the conference will be submitted for inclusion to the IEEE Xplore® Digital Library registered.
BRAINIA’C21

Type of Activity: Technical

Description: Under the banner of the International Conference on Open-Source Systems & Technologies (ICOSST) 2021, a student competition “BRAINIA’C21” was organized by Al-Khawarizmi Institute of Computer Science (KICS), UET Lahore with co-sponsorship of IEEE ComSoc Lahore Chapter on 14-16 December 2021. This was the first on-campus event after COVID-19 where students from various universities of the country participated zealously. BRAINIA is a national technical competition that provides opportunities for students to enhance and showcase their technical skills through a country-wide competition and win attractive cash prizes. The 3-day competition comprises different modules including project video, full-stack functional website, code champ, circuit genie, math gauge, and league of your own (gaming competition) in which students unleashed their technical skills and cherished a healthy competitive environment with the cash prizes of Rs. 1 Lac. Around 180 participants from the universities including the University of Lahore, Information Technology University, FAST National University, Punjab University College of Information & Technology, and other campuses of the University of Engineering & Technology Lahore participated in the competition. The winners of all the modules were announced at the closing ceremony of the 15th International Conference on Open-Source Systems & Technologies (ICOSST) 2021. “The technical competitions foster the mindset that allows creativity to grow”, said Vice Chancellor UET Lahore, Prof. Dr. Syed Mansoor Sarwar while speaking at the closing ceremony. Worthy Vice-Chancellor UET along with Director Al-Khawarizmi Institute of Computer Science (KICS), Prof. Dr. Waqar Mahmood and Mr. Kashif Bashir Chair IEEE Comsoc distributed the cash prizes of Rs. 100,000 amongst the winners.

B.2.4: IEEE Computer Society

15th International Conference on Open-Source Systems and Technologies (ICOSST)

Type of Activity: Technical

Description: IEEE COMSOC Lahore Chapter in collaboration with Al-Khawarizmi Institute of Computer Science UET Lahore organized the 15th International Conference on Open-Source system and technologies ICOSST’ 2021 on 15-16 December, 2021 virtually. Collectively 243 researchers submitted their manuscripts from various countries including Pakistan, China, India, Thailand, Indonesia, Malaysia; only a handful top quality 21 papers were accepted by the Technical Evaluation Committee qualifying the merit-based criteria. Speakers were invited from prestigious universities of Pakistan and other countries like Canada, Malaysia,
Estonia, USA, Qatar, China to deliver talks in the areas of Artificial Intelligence, Cyber Security, Big data & Cloud computing, Robotics, Blockchain, and the Internet of Things (IoT). A panel discussion was also held as a module of the conference themed ‘Future of Knowledge-based Economy in Pakistan’ moderated by Dr. Ali Hammad from the Computer Science Department, UET Lahore. The distinguished panel comprised Dr. Waqar Mahmood, Dr. Muhammad Tahir, Mr. Irfan Zafar, CEO Arham Soft, Mr. Ahmed Muzammil, CEO Gaper, Mr. Shahzeb Rathore, CEO Advanced Systems. The virtual industrial exposition was also arranged in a virtual mode. The virtual exposition also has an option of live chat with the exhibitors.

Almost 500 plus student, faculty members, industry members from all over the world joined the conference.
B.3: IEEE Subsection Activities
B.3.1: IEEE Faisalabad Subsection

1st IEEE Faisalabad-subsection Executive Committee Meeting

Meeting Location: Faisalabad Chamber of Commerce and Industry

Important Discussion Points:

1- The meeting was started with the recitation of the Holy Quran.

2- Dr. Ghufran welcome all the participants.

3- President, FCCI, Mr. Hafiz Ahtasham Javed, presented his intellectual thoughts on the importance of engineering societies, increase in society professional memberships, and the linkage of industry and academia to nourish out-of-the-box brains for society.

4- Mr. Nawaz Alvi was nominated as the coordinator from FCCI to work with the IEEE FSD sub-section.

5- FCCI will engage professionals from the industry for the upcoming meeting to collaborate with academia

Agenda Details:

The house discussed and agreed with the following important points:

1. Previous FSD sub-section executive committee members will perform their nominated duties for the year 2021.

2. A budget of 1000$ is released for the FSD subsection to the Lahore section. Mr. Zubair will contact to Lahore section to further consult about the budget and its utilization.

3. Mr. Zubair will do the needful to open a sub-section bank account to deal with money matters appropriately. Till then, he will use his account to deal with the released budget.

4. A meeting will be arranged to provide a platform for Heads of universities (IT and Engineering departments) to collaborate with industry professionals to highlight current industry demands and their solutions, the arrangement of student internships and jobs, etc.

5. Responsibilities were assigned to all members as per their roles. Details are as follows:
   a. Educational activities plan regarding students and professional training/workshops etc (Ms. Asma Sajid, Mr. Talha, and Mr. Hasnain)
   b. A membership development plan for students, GSM, and professionals (Mr. Aftab)
   c. The budget plan, contact to Lahore sub-section for budget release and utilization details (Mr. Zubair Gill)
   d. Industry-Academia linkage plan (Mr. Saleem)
   e. IEEE FSD sub-section broucher and presentation making to highlight congress and other events of FSD sub-section (Mr. Hasnain)
   f. Annual section report (Dr. Uzma Jamil)
2\textsuperscript{nd} IEEE Faisalabad-subsection Executive Committee Meeting

\textbf{Meeting Location:} Faisalabad Chamber of Commerce and Industry

\textbf{Important Discussion Points:}

1. The meeting was started with the recitation of the Holy Quran.
2. Dr. Ghufran welcome all the participants.

The house discussed and agreed with the following important points:

1. It was decided that from now onwards, on every first Saturday of each month, there will be a physical meeting of IEEE Faisalabad Excom members. Follow-up meetings will be arranged online as per requirement. Dr. Uzma Jamil shall manage the meetings.
2. A meeting of professionals with IEEE Faisalabad Excom and FCCI members is scheduled to be held at the end of June 2021, to gather them under one platform.
3. The media committee will make and finalize the banner, brochure about the upcoming event (mentioned in section 2) to make people well aware of the event. (Respectable members will present and get it finalized in the follow-up online meeting)
4. General introductory presentation/slideshow of IEEE Faisalabad sub-section will be made by Mr. Talha and Mr. Husnain. (Respectable members will present and get it finalized in the follow-up online meeting)
5. Professionals and IEEE FSD Ex-com member's meet-up program planning will be done in the upcoming meeting.
6. Mr. Zubair in coordination with Mr. Talha will make a budget for the event and present it in an online follow-up meeting to request for event advance.
7. Sponsorship for goodie bags for meeting with professionals will be arranged by Mr. Saleem.
8. Ms. Asma Sajid will plan a series of seminars (after every 15 days) and present a plan in the upcoming follow-up meeting.
9. Ph.D. 3MT competition of GCUF Ph.D. students is going to be arranged by IEEE Faisalabad Sub-section in the 4\textsuperscript{th} week of June 2021. Dr. Uzma Jamil will arrange and conduct the event in coordination with Ms. Asma Sajid and Mr. Talha.
10. A Committee “Industry-Academia Linkage” is established to manage all the related activities. Following members will be part of this committee:
   i. Academic professional (Max 02 / institution)
   ii. Industry persons (5-7)
   iii. Mr. Nawaz Alvi (FCCI)
   iv. Mr. Saleem and Mr. Aftab (IEEE Faisalabad Sub-section)
11. A tentative meeting/event schedule is decided as:
    i. Online follow-up meeting (Saturday, 12-06-2021)
    ii. Meeting of professionals with IEEE FSD Ex-com members (Wednesday, 23-06-2021)
iii. Next Physical Meeting of IEEE FSD Ex-com members (Saturday, 03-07-2021)

3rd IEEE Faisalabad-subsection Executive Committee Meeting

Meeting Location: Online

Important Discussion Points:

1. The meeting was started with the recitation of the Holy Quran.
2. Dr. Uzma Jamil, honored all the participants.

The house discussed and agreed with the following important points:

1. A meeting of Industry Professionals with IEEE Faisalabad Excom, Academic institute members and FCCI members is scheduled to be held on 29-06-2021, to gather them under one platform.
2. The media committee (Mr. Talha, Mr. Hussnain in coordination with Mr. Aftab) will make and finalize the banner, brochure about the upcoming event to make people well aware of the event and general introductory presentation/slideshow of IEEE Faisalabad sub-section and its members, active student branches and other committees. (Respectable members will present and get it finalized in the follow-up online meeting)
3. Mr. Zubair in coordination with Mr. Talha and Mr. Aftab, will contact to Lahore section to make a budget for the event advance request and present it in upcoming online follow-up meeting on 19-06-2021, to request for event advance.
4. Sponsorship for goodie bags for meeting with professionals will be arranged by Mr. Saleem.
5. Mr. Talha will make Google form to enter academic institution focal person’s record. Dr. Gufran Khan will contact to academic institutes and Mr. Saleem and Mr. Aftab will contact to industry members. Nomination record will be shared with all members.
6. Dr. Abid will contact to Mr. Nawaz Alvi, for the availability of the FCCI, to arrange the upcoming event.
7. Mr. Aftab will design a one-page proposal for the upcoming event and finalized proposal will be sent to Mr. Nawaz (FCCI) for venue arrangements.
8. Dr. Uzma Jamil will share the detailed event plan in upcoming online meeting.
4th IEEE Faisalabad-subsection Executive Committee Meeting

Meeting Location: Online

Important Discussion Points:

1- Contact branch councilors for a meeting with Excom members
2- Arrangement of speakers from industry with the help of Mr. Saleem and other Excom members
3- FSD sub section activities discussion is done (Activity at Chamber of Commerce)
4- Work on project exhibition at FCCI should be started (Around 15 projects display)
5- Dr Gufran and Dr Irfan will make a Proposal to present in front of FCCI members for project display for one-day activity. Proposed sections of the proposal are as discussed:
   a. FYP Display
   b. Business startup ideas
   c. Seminar / Talk of a good speaker
6- Tentative time of the event is 2-6 pm
7- Suggest name of the event that should reflect academia and industry
8- Working on making IEEE FSD-Section be the part of FCCI web portal
9- Tentative date can be the end of September 2021
10-Another mega event can be planned in the end of the year
11- Celebration of IEEE day with ExCom and branch councilors (Planning will be done by Talha, Husnain and Mr. Aftab). Ms Asma Sajid with supervise this event and make a proposal to present in FCCI.
12- Make a list of speakers for TechBites and select suitable speakers.
13- 03 speakers will be suggested by all ExCom members for TechBites
14- 02 committees are made for Event management.
   a. Committee No: 01
      Dr. Gufran and Dr Abid will make a proposal and present to FCCI.
   b. Committee No: 02
      Mr. Aftab and Talha will manage event
5th IEEE Faisalabad-subsection Executive Committee Meeting
Meeting Location: Online

Important Discussion Points:

1. **Dr. Gufran** suggested for physical IEEE Day celebration at any restaurant.
2. Tentative date for event at **FCCI is decided on 27th October.**
3. 2nd IEEE Faisalabad Congress will be in December 2021, tentatively.
4. Summer Schools (Physical) on different technical topics, each session after 3 days will take place.
5. **Dr. Irfan** suggested initiating an online IEEE Conference to continue on annual basis.
6. A committee will be decided for IEEE Conferences in up-coming meeting.
7. **Mr. Aftab** will focus on IEEE Memberships i.e. Student memberships and on Professional memberships.
8. **Mr. Husnain** and **Hafiz Talha** make an online Introductory Session for **IEEE Day** and invite all branches for this session.
9. **Mr. Zubair** will contact with IEEE Lahore Section for funding for the said event.
10. Arrange one to one meeting (Physical) with student branches to increase the number of IEEE memberships.
11. **Mr. Zubair** will contact with his friends who are interested in IEEE Professional Memberships.

6th IEEE Faisalabad-subsection Executive Committee Meeting
Meeting Location: Online

Important Discussion Points:

1. Meeting started with the recitation of Holy Quran.
2. Discussed about Faisalabad sub section congress and Pakistan level congress.
3. All members agreed to focus on Faisalabad sub section congress.
4. Tentative date of the event is decided in the mid of February 2022.
5. A get together is planned with Sub-section Excom members and members of student branches in December 2021.
6. **Mr. Talha and Hasnain** will finalize the volunteer teams and announce the date of get together after discussing with student branches.
**B.3.2: IEEE Bahawalpur Subsection**

**IEEE UCET-IUB ORIENTATION 2020**

**Activity:** Non-Technical

**Description:** IEEE Orientation is the signature event of the IEEE UCET IUB Student Branch. IEEE Orientation seminar aimed is providing the newcomers, of engineering students of Islamia University, with an insight of IEEE, its aim, vision, and benefits. Moreover, brief them on how they can improve their professional skills through this platform. Although also improving their technical skills through various platforms provided by the IEEE. The preparations for the event began two weeks prior. The initial plans made to make this event successful. The targets achieved through the successful campaign and social media promotions. The IEEE Chairperson Owais Liaqat, his convincing team members, led this campaign. This promising campaign under the leadership of our chair made an impact on the students. Following the protocols of the pandemic, this event organized through the online Zoom app. The Orientation began with the recitation of the Holy Quran. After that, our most proficient moderator Sameea Abbasi welcomed and thanked the audience and asked newcomers to take part in co-curricular activities during their time in university and highlighted all the achievements of the IEEE Student Branch and its affiliated chapters. Then, the moderator honoured Dr Asjad Amin counsellor IEEE UCET IUB Student Branch, for their valuable commitment towards the IEEE. He briefly introduced IEEE, its benefits & complete structure. He discussed the slogan IEEE (Advancing technology for humanity) and some famous IEEEian's in the world. He reflected some of the most common technology negative impacts on social, communication and technical in the latest young generation. He urged students to join the IEEE, which in return gives some of the most promising results for their professional life stability. He discussed some of the most endorsing benefits of the IEEE for its members in their careers. IEEE members have complete access to research papers. And insights were hardly available. Later on, he gave a brief introduction of the Student branch, affinity group WIE and its chapters (PES, IAS, SPS, ComSoc, ASI, SMCS, EMBS), and their respective members. Asjad Amin also highlighted the positive role of the IEEE student branch during pandemic situations. He also explained the achievements of the IEEE UCET IUB Student Branch throughout the previous year. Later on, at the end of the session.

**IEEE YOUNG PROFESSIONALS’ LOCAL ACTIVITY**

**Activity:** Non-Technical

**Description:** The online event conducted by IEEE UCET IUB Student Branch on the Zoom Meeting Application. The seminar “I Have a Degree, Now What?” commenced at Noon and was one hour and 36 minutes long.
This event consists of three sessions. During the first session, the honourable speaker, Usman Ghani discussed the techniques, how to approach the local market in present times and the required skill set to approach the local market. The second session started by Haissam Khan on the topic of how to approach the international market. In the end, the third session by Dr Asjad Amin explained the process of how to advance in your academic? Which plays a vital role in your career.

Impact of Event on Community: During the session, all the students got supplementary knowledge about the latest market trends with knowledge about how to develop and polish an adequate skill set to survive in the job market. The students consulted the speaker for their relevant queries, which were all answered satisfactorily by the speaker. This seminar gave new hope to the attendees and inculcated the spirit of innovation and growth in them that required in their fields. The speaker helped the students to think positively and made them understand what is important professionally and personally to remain put and persevere in the present job market. The session paved a way guiding light for the students to strive and struggle in

IEEE FOUNDATION PROJECT “Awareness and Production of Sustainable Electricity through Bio Gas”

Activity: Non-Technical

Description: This seminar was indeed a very informative collaborative effort of the IEEE UCET IUB Student Branch and IEEE Foundation. These seminars provide the students with information about the present and practical market situation also develops their skills exceptionally. Seminar designed on such a course of actions also educates the students about the requisite capabilities to grow as future engineers. The unique aspect of this seminar, it touched all the dimensions concerning the problems and probable solutions that can be faced by job seekers, especially in the present situation. It gave due guidance to the students regarding the current issues prevalent in the job market, also educated them about the various strategies to be adapted to fight the long-term consequences of the ongoing pandemic.

Our honourable moderator Uzair ul Hassan (Vice-Chair, International Affairs) introduced the respectable panellists and then invited our first panellist Dr Abdul Gaffar. He described Biogas production through animal dung. According to his statics, one cubic meter of biogas can produce 2.5Kw of electricity. And 6kg cow dung can produce 2.5 cubic meter biogas. About 3.6 to 5 million kW/day of electricity generated to statics. He also
said that proceed dung acts as a good fertilizer rather than direct use because it contains methane gas and heat. He also explained why the death happen near plants if the mandatory precautions not observe.

**Impact of Event on Community:**

After the session, all the students had supplementary knowledge about the latest trends toward renewable energy source and to develop sustainable biogas plants. The students consulted the panellists for their relevant queries, which were all answered satisfactorily by the speaker. The speaker helped the students to think positively and made them understand what is important professionally and personally to remain put and persevere in the present job market. Overall, the session indeed paved a way with guiding light for the students to strive and struggle in their personal and professional life.

**ONLINE CAREER COUNSELING SESSION**

**Activity:** Non-Technical

**Description:** The main objective of the online session was to provide ethical assistance to our new batch members. To make a beneficial decision in the future were not unfortunately taken by our seniors. And also for the betterment of current graduates to make sure not to waste their time during the pandemic. How to grow together in some practical issue? To inform the students how to use career strategy in the future for job hunting skills. And how to overcome some personal issues. The session was about seeking proper skills, which includes communication skills and technical skills to prevail in competition.

The seminar conducted virtually through the zoom application. During the first session, the honourable speaker *Saqib Jameel* discussed the related issues during the pandemic phase. He advised the students to stay at home and avoid any social gathering during the condition. He also discussed the new graduates' issues and gave a reasonable solution regarding problems. The speaker delivered the session for about 30 to 50 minutes. The speaker also provided a long question-answer session which proved to be extraordinarily powerful for the students. Thus, students got valuable information regarding their careers.

Everyone got satisfied with the speaker’s views and opinions. All participants queries were answered side by side. He provided information and also initiated valuable courses by him for the students who wanted to get additional skills.

**3rd Episode of IEEE SPAA Week**

**Activity:** Non-Technical
Objective of the Event: The main objective of conducting the SPAA event in the Islamia University of Bahawalpur was to help the students in polishing their professional skills along with their academics so they can show high standard performance in their professional careers. These skills are an essential part of one’s professional life and it is the prime duty of an institute to provide them.

The main purpose was to instill these skills in the students through various exercises, workshops, and talks. So that they may develop these skills, assess themselves, and see where they stand in the world.

Event description: The 3-days event, held at auditorium Faculty of Engineering IUB, included four seminars namely: Professional Ethics, Mock Interviews and CV workshop, Effective Leadership Skills, and A Professional Adventure: Search for Job.

The first seminar was on professional ethics in which the speaker shared his own experience and real-life examples. The second day hosted the next two seminars in which students took part in activities and learned about CV making, interviews, and leadership skills.

The last seminar was arranged on the third day in which students interacted with the speaker to discuss their queries about job hunting and workplace behaviors.

Name of the speakers along with their brief profile:

i. Muhammad Bux Alvi: Assistant Professor, Department of Computer Systems Engineering, The Islamia University of Bahawalpur, Pakistan.

ii. Mr. Saqlain Sher: Senior HR Manager, Pakistan Telecommunications Company Limited (PTCL).

iii. Muhammad Ilyas: General Manager Technology, Pakistan Telecommunications Company Limited (PTCL), Multan Region.

iv. Dr. Muhammad Ali Qureshi: Chairman, Department of Telecommunications Engineering, The Islamia University of Bahawalpur.
B.4: IEEE Affinity Group Activities
B.4.1: IEEE Young Professionals

**PLC Training Workshop**

*Type of Activity:* Technical

**Description:** It was a training workshop on PLC (Programmable Logic Controller) from 22-24 2021. Mr. Muhammad Awais joined it as a speaker,

**Impact of Event on Community:** This event was proved to be very informative and brought learning opportunity for all the attendees.

**Professional Development Program**

*Type of Activity:* Non-Technical

**Description:** This was a series of 7 sessions for developing essential skills to land your very first job and be successful in the professional workplace. This was an initiative of IEEE LUMS’ social welfare initiative. Speakers from Ufone (a well-known telecommunications company) gave sessions on essentials skills and habits like work ethic, cv making, presenting, Ms Excel.

**Impact of Event on Community:** This took place from Aug 23 till 2nd September during which all in person courses and interactions were restricted. During this period schools and colleges were also closed.

**Personal Development**

*Type of Activity:* Non-Technical

**Description:** This event was held to polish the soft skills like communication, personality development and grooming of student. This event was conducted live from IEEEUCP Facebook page and was the number of participation was 170+.The speaker was Mr. Razzam Malik (CEO Appers tech).

**Impact of Event on Community:** In this event, Students learned about soft skills and personal development which will help them in their professional carrier.

**IEEE YOUNG PROFESSIONALS’ LOCAL ACTIVITY**

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**Impact of Event on Community:** During the session, all the students got supplementary knowledge about the latest market trends with knowledge about how to develop and polish an adequate skill set to survive in the job market. The students consulted the speaker for their relevant queries, which were all answered satisfactorily by the speaker. This seminar gave new hope to the attendees and inculcated the spirit of innovation and growth in them that required in their fields. The speaker helped the students to think positively and made them understand what is important professionally and personally to remain put and persevere in the present job market. The session paved a way guiding light for the students to strive and struggle in.

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### 3rd Episode of IEEE SPAA Week

**Activity: Non-Technical**

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The main purpose was to instill these skills in the students through various exercises, workshops, and talks. So that they may develop these skills, assess themselves, and see where they stand in the world.

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The first seminar was on professional ethics in which the speaker shared his own experience and real-life examples. The second day hosted the next two seminars in which students took part in activities and learned about CV making, interviews, and leadership skills.
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iv. Dr. Muhammad Ali Qureshi: Chairman, Department of Telecommunications Engineering, The Islamia University of Bahawalpur.

BRAINIAC’21

Type of Activity: Technical

Description: Under the banner of the International Conference on Open-Source Systems & Technologies (ICOSST) 2021, a student competition “BRAINIAC’21” was organized by Al-Khawarizmi Institute of Computer Science (KICS), UET Lahore with co-sponsorship of IEEE ComSoc Lahore Chapter on 14-16 December 2021. This was the first on-campus event after COVID19 where students from various universities of the country participated zealously. BRAINIAC is a national technical competition that provides opportunities for students to enhance and showcase their technical skills through a country-wide competition and win attractive cash prizes. The 3-day competition comprises different modules including project video, full-stack functional website, code champ, circuit genie, math gauge, and league of your own (gaming competition) in which students unleashed their technical skills and cherished a healthy competitive environment with the cash prizes of Rs. 1 Lac. Around 180 participants from the universities including the University of Lahore, Information Technology University, FAST National University, Punjab University College of Information & Technology, and other campuses of the University of Engineering & Technology Lahore participated in the competition. The winners of all the modules were announced at the closing ceremony of the 15th International Conference on Open-Source Systems & Technologies (ICOSST) 2021. “The technical competitions foster the mindset that allows creativity to grow”, said Vice Chancellor UET Lahore, Prof. Dr. Syed Mansoor Sarwar while speaking at the closing ceremony. Worthy Vice-Chancellor UET along with
Director Al-Khawarizmi Institute of Computer Science (KICS), Prof. Dr. Waqar Mahmood and Mr. Kashif Bashir Chair IEEE Comsoc distributed the cash prizes of Rs. 100,000 amongst the winners.

B.4.2: IEEE Women in Engineering AG

**Tech**

*Type of Activity:* Technical

**Description:** Tech was the IEEE WIE Lahore Section Affinity group’s mega event where we were made trending technology stacks accessible for anyone to celebrate the technology trends with tech enthusiasts. This was a celebration for a technology & IT industry revolution around the globe. Tech consisted of technical and non-technical sessions from industry experts having national & international experience around the globe. In this event, all IEEE Pakistan student branches collaborated with WIE IEEE Lahore. There were 130 collaborations and 2500+ students participated in this event.

**Tech Content:**

1. Building web apps with modern stack by Mr. Afzal Ahmad
2. Fundamentals and differences among Data Engineering, Data Sciences, and Data Analyst by Mr. Ahsan Ellahi
3. COLABS Vision, Pakistan Market and Ecosystem Opportunities by Omar Shah
4. How to win jobs on Upwork by Mr. Shajeel Afzal
5. Modern Threat Protection Landscape using Microsoft Security Solutions by Mr. Khalid Hussain
6. Towards Collaborative Machine Learning Federated Learning and Analytics by Ms. Mehreen Tahir
7. Digitalization and Automation of Businesses by Mr. Ali Ayub Khan
8. It’s time to GO by Mr. Jawad Sadiq

**Awards & Prizes:** As we were celebrating technologies, so we had some awards for the winners of Tech.

- Goodie Bag from Devsinc
- 100$ Azure Credits
- 1 day pass for Winners from Colabs
- Jetbrains Annual Licenses of Jetbrains
- Top 30 performers will get the chance to get featured on the MLSA Website.
COVID-19, INFORMATION, RESOURCES & VACCINES

Type of Activity: Humanitarian

Description: Pakistan is facing the most difficult time in its fight against COVID-19. In a country with over 212 million inhabitants, to date thousands of cases have been recorded and the curve of new infections has reached the peak. Effective and secure vaccines against the coronavirus – alongside better treatments – are the most promising way out of the COVID-19 pandemic. Several vaccine candidates have registered, many more are under the process, and some are being tested in clinical trials. However, there are still huge challenges ahead. We are facing a crisis in almost every field due to this pandemic.

To explore approaches to address these challenges in COVID-19 vaccination and to discuss other aspects of this pandemic in different areas (scientific, social, government, law, industry, IT, doctors and common person perspective), **Women in Engineering, IEEE Lahore Section** organized a panel discussion on **COVID-19, INFORMATION, RESOURCES & VACCINES** to talk about the most important thing that we’re all facing around the world today.

Women in Engineering, IEEE Lahore Section invited the outstanding and matchless top global minds, people who the industry and the world follow for their thoughts and knowledge. They represented some of the best in the industry for talks, consulting and coaching and each one has multiple accolades including books they have written or services or people and organizations they have worked with.

Blockchain & Cryptocurrency - Opportunities and Challenges in the Age of Digital Disruption

Type of Activity: Technical

Description: Since the launch of Bitcoin in 2009, blockchain and crypto currency technologies have rapidly expanded. A decade on, distributed ledger technology and digital currencies are reshaping the way businesses operate, offering a number of benefits including increased efficiency and lower transaction costs. However, like all new technologies, blockchain and crypto currencies are not without risks. Price volatility and cybersecurity threats pose major obstacles to more widespread adoption, while governments and regulatory agencies are struggling to keep pace with the rapid rate of change.

To raise awareness about the complexities related to blockchain and its related technologies **IEEE WIE Lahore Section Affinity Group** arranged a panel discussion with leading interdisciplinary experts from vast domains ranging from business, law and technology. The panelists deep dived into the opportunities and
challenges related to block chain technology and digital currencies for industry, investors, regulators and policy makers.

Innovation Conference of Electrical & Emerging Engineering

**Type of Activity:** Technical

**Description:** Innovation Conference of Electrical & Emerging Engineering was organized and hosted by WIE Lahore Section in collaboration with IEEE MUET SB, IEEE NEDUET Student Branch, IEEE SEECS, ICE - Student Chapter Mehran UET, SZAB Campus, RAS Robotics & Automation Society MUET SZAB Campus, MLSA MUET SZAB Campus, Developer Student Club MUET SZAB Campus, IEEE – WIE DUET Karachi, IEEE Sukkur IBA, IEEE MUET Jamshoro, Department of Electrical Engineering QUEST Nawabshah, IEEE - WIE NUST PNEC Chapter, IEEE DUET Student Branch, IEEE QUEST Larkana, ASME MUET SZAB Campus, STE- Society of Telecommunication Engineers DUET Karachi, IEEE PAF-KIET Student Branch, Mechatronics Society of Robotics & Automation MUET Jamshoro, Society of Automation UET, PlugIn PlugIn, IEEE PES Student Transition and Elevation Partnership and Opportunities Network.

**Goal of the event:** To Organize such an online conference on innovation in electrical & Electronics engineering where youth from all different universities can share their innovative and creative ideas based on their field. Conference will provide an opportunity for the engineering student of all level undergraduate/postgraduate to network and share thoughts and Innovative ideas in front of experienced audience and experiences with some of the most relevant national and international players in Innovation and Engineering, answering to societal challenges, bringing added value for the society in a more sustainable world. Our research has been oriented to emergent industrial and societal challenges and tackling these challenges by creating added value.

**Event Achievement:** ICEEE made a remarkable achievement in all sessions (technical, non-technical and competitions) and more than 300 participants joined from different universities of the country.

Youth Leadership Summit & Camp

**Type of Activity:** Tech & Non-Tech

**Description:** Youth Leadership Summit & Camp 2021 (YLSC’21) was organized by IEEE WIE Lahore Section Affinity Group that helped students & professionals to learn & develop leadership skills and to explore their potential through challenging paths. This summit provided a unique opportunity to:
Empower emerging leaders
Teach strategies for leadership, advocacy and activism
Inspire young women to become agents of change
Build a network of globally minded leaders

Cloud Development Bootcamp
Type of Activity: Technical

Description: Cloud development bootcamp was organized by IEEE WIE Lahore Section Affinity Group from October 31, 2021 - December 31, 2021. The purpose of this training was to dive into the world of cloud technologies. Cloud computing is one of the next future technologies to learn to implement in highly recommended tech jobs.

Bootcamp Content:

- Session 1: Cloud Concepts
- Session 2: Cloud Azure Services
- Session 3: Core Solutions & Management Tools
- Session 4: General Security & Network Security Features
- Session 5: Identity, Governance, Privacy & Compliance Features
- Session 6: Azure Pricing & Life Cycle
- Session 7: Creating Azure App Service Web Apps
- Session 8: Implement Azure Functions
- Session 9: Develop Solutions That Use BLOB Storage
- Session 10: Implement IAAS Solutions
- Session 11: Implement User Authentication and Authorization
- Session 12: Implement Secure Cloud Solutions
- Session 13: Implement API Management
- Session 14: Event Based Messaging
- Session 15: Message Based Messaging

PYTHON BOOTCAMP
Type of Activity: Technical Workshop
Description: Python Bootcamp was organized and hosted by IEEE WIE Lahore Section on November 03, 2021. It was a two months long virtual training. The purpose of this training was to learn Python like a professional, start from the basics and go all the way to creating your own applications & games.

Panel discussion on STEM FOR ALL
Type of Activity: Technical Workshop

Description: IEEE WIE Lahore Section Affinity Group in collaboration with AMERICAN ASSOCIATION OF ROBOTICS & TECHNOLOGY organized a Panel discussion on STEM for All by women in STEM Career on May 27, 2021. The purpose of this discussion was to highlight how we make STEM education relevant and accessible for all, considering learners' different profiles and socio-economic backgrounds.

We organized this panel discussion to learn from each other how to help students with STEM Education best practices. We intended to identify relevant grassroots programs for implementation in each country. That helped non-tech background students from various socio-economic segments to gain skills that prepared them for the era of Digital Transformation and how it is affecting the Future of Work globally.

Boost Your Career in 4 Weeks - Career Building Training
Type of Activity: Technical & Non-Technical Training

Description: Boost Your Career in 4 Weeks - Career Building Training workshop was organized and hosted by IEEE WIE Lahore Section Affinity group from November 13, 2021 - December 04, 2021 that aims to resonate with potential talent and develop their career plans by providing workshops revolving around improvement of soft skills as well as advancing into the technical field and prospering professionally. Most students who have devoted their time to start their career for a while now might be thinking what the next step to take, or how they can advance themselves career-wise. This is quite important to address these challenges especially in today’s age and time because there are lots of revolutions taking place which has led to the demand for more skills over the other, so considering this, IEEE WIE Lahore Section Affinity Group is organizing this 4-weeks training to improve one's personal branding & technical skills.
Summer Camp Leadership Training  
**Type of Activity:** Technical

**Description:** IEEE WIE Lahore Section Affinity Group organized a *Summer Camp Leadership Training* from July 31, 2021 - August 5, 2021. The prime focus of this training was based on leadership workshops, activities and adventures. The students embarked on a journey of self-discovery while leading, managing uncertainty, making decisions, managing teams and solving problems. In depth facilitated reviews helped them reflect upon their behaviors & leadership styles, thus preparing them to be effective leaders. Participants learnt about leadership directly from the top leaders of Pakistan.

Blood Camp - February Blood Drive  
**Type of Activity:** Humanitarian Activity

**Description:** Blood donation has taken a serious hit amid COVID19 outbreak, and blood is in short supply, leaving patients of thalassemia and others to suffer. By considering this issue, IEEE WIE Lahore Section arranged a 2- days blood camp from 20th Feb, 2021 to 21st Feb, 2021 at Fatimid Foundation Blood Bank.

WIE Lahore offered the:

- Completely hygienic environment
- Free full body check-up
- Free full body test
- Certificates to donors
- Goodie bags

Celebrating Respect - International Women’s Day  
**Type of Activity:** Humanitarian Activity

**Description:** International Women’s Day is the day to pay tribute to every woman and to salute her immense contribution in shaping the society. Our world would mean nothing without women. Their courage that exists in perfect harmony with amazing tenderness saves our world every day. So, to support every woman around us, IEEE WIE Lahore Section organized an event titled as “**Celebrating Respect - International Women’s Day 2021**” on 8th March, 2020 to:

1. celebrating women's achievements
2. raise awareness about women's equality
3. lobby for accelerated gender parity
4. fundraise for female-focused charities

**Leveling Up Your Freelancing Brand**

*Type of Activity:* Technical Workshop

**Description:** Leveling up your freelancing brand was organized and hosted by IEEE WIE Lahore Section on 10th January 2021. The highly-rated 5-stars freelancer Mr. Waleed Najam - Founder and Digital Marketing Professional of Rankistan was invited as a guest speaker to conduct a workshop. Mr. Zunair Asad Khan - Media Marketing Head of IEEE WIE Lahore Section hosted this event virtually. The objective of this workshop was that the industry of individual entrepreneurship has been growing dramatically in the last decade. The question is, how are you going to stand out from the crowd, get noticed and help clients remember you and the type of projects you do? The answer could be ‘Leveling up your freelance brand’. Our honorable speaker shared the best tricks and tips with the audience from scratch.

To encourage participants, we announced the contest of “TWO BEST AUDIENCE AWARDS” in the middle of the workshop and ensured that this award should be given to the most passionate participant at all levels of the workshop to show recognition.

At the end of the session, a virtual shield was presented to the speaker as a token of appreciation, and certificates were awarded to all the participants who marked their attendance during the session. 330 students participated in the session. Students took part in the Q/A sessions with great interest.

**Impact of Event on Community:** The feedback of this event was excellent as it helped students to understand:

1. How to make a profile that stands out to prospects
2. How to write a proposal that converts prospects to clients
3. How to charge higher rates and have your clients

**Distributed Systems and Its Modern Applications**

*Type of Activity:* Technical Workshop

**Description:** Distributed systems and its modern applications was organized and hosted by IEEE WIE Lahore Section on 25th January, 2021. Dr. Ashish Khanna - Prof. MAIT IP University Delhi, India was invited to conduct a workshop. Mr. Muhammad Arslan Shahid - Public Relations Officer of IEEE WIE Lahore Section
hosted this event virtually. Our honorable speaker spoke about the modern applications that can be found everywhere today. Distributed microservices, cloud-native, managed resources, and serverless are parts of this complex whole. He also explained how we can keep track of so many elements in our production environments. In these distributed environments, distributed systems help to communicate with each other in synchronous and asynchronous ways, such as message queues, HTTP calls, gRPC, and more. Distributed tracing has become a crucial component of observability — both for performance monitoring and troubleshooting. He also defines the complete process of distributed systems and how we can handle them.

To encourage participants, we announced the contest of “TWO BEST AUDIENCE AWARDS” in the middle of the workshop and ensured that this award should be given to the most passionate participant at all levels of the workshop to show recognition. Students took part in the Q/A sessions with great interest. At the end of the session, a virtual shield was presented to the speaker as a token of appreciation and certificates were awarded to all the participants who marked their attendance during the session. 228 students participated in the session.

**Impact of Event on Community:** The feedback of this event was excellent as it helped students to understand:

- Fundamentals of distributed tracing using OpenTracing and instrumentation techniques
- Hands-on experience of tracing messages

**Start Your Articles With A Bang - MS Excel Professional Training**

**Type of Activity:** Technical

**Description:** Start your articles with a bang - MS Excel professional training was organized and hosted by IEEE WIE Lahore Section Affinity Group in collaboration with E-Learners Pakistan on March 27, 2021. Our honorable trainer Mr. Hassan Saleem | Chartered Accountant - A.F Ferguson designed this course to provide the students with basic working knowledge for using Excel spreadsheets for Data Analysis. He covered some of the first steps for working with spreadsheets and their usage in the process of analyzing data. Also included plenty of videos, demos, and examples to learn, followed by step-by-step instructions to apply and practice on a live spreadsheet.

**Learning Objectives:**

This learning objectives are intended to provide the students with the following specific knowledge and skills:

- How to perform basic spreadsheet tasks
• About the importance of data quality
• How to import file data into Excel

To encourage participants, we announced the contest of “TWO BEST AUDIENCE AWARDS” in the middle of the workshop and ensured that this award should be given to the most passionate participant at all levels of the workshop to show recognition.

A 20-minute Q/A session was conducted to answer all the queries

At the end of the session, a virtual shield was presented to the speaker as a token of appreciation and certificates were awarded to all the participants who marked their attendance during the session. 228 students participated in the session.

Social Media Contest | FREE Consultation Session

Type of Activity: Non-Technical

Description: During COVID19, IEEE WIE Lahore Section Affinity group organized a free consultation session with well-known psychologist Dr. Moafia Malik (Clinical Psychologist at Singapore Medical Center) on April 12, 2021.

Procedure of the contest:

Only three steps to win:

• Make a poster: Design or simply write a text (anything) about IEEE Lahore Section, Women In Engineering
• Post on facebook Profile: Post the poster on your Facebook profile [PUBLIC] with hashtag #IEEEWIELahoreSection
• Tag WIE FB Page: Tag IEEE Lahore Section, Women In Engineering page in your post (IEEE Lahore Section, Women In Engineering)

The names of winners were not announced for the sale of their privacy. Automatic emails and WhatsApp messages were sent to the first 5 winners of this contest.

Be More You

Type of Activity: Tech & Non-Tech

Description: Be more you workshop was organized and hosted by IEEE WIE Lahore Section Affinity Group on June 19, 2021. In this workshop, Mr. Ahmed Manzoor | CEO of Pakistan Blockchain Institute helped the students to unleash themselves and conquer the world. Following points were discussed in this workshop:
Are you a student & confused in choosing the next degree?
Have completed your degree but still confused what career to choose?
Want to do something big but not getting how to?

Learning Objectives:

This learning objectives are intended to provide the students with the following specific knowledge and skills:

- Entrepreneurship skills
- Education (University career choice and educational crisis around the globe)
- Raising empathic listening in the inner self
- Self-transformation
- Tech and innovation

Ration Distribution Drive

Type of Activity: Humanitarian Activity

Description: The Holy month of Ramadan is the month of giving and a time to show support for the cause of humanity by helping the less privileged and underserved within our communities. The objective of this project is to reach out to the most underprivileged segment of our society and directly engage with them and show them our support by distributing the basic food items and products for hygiene. Our goal is to promote a healthy lifestyle in addition to delivering the message of sharing and caring amongst the underserved citizens of our nation. We were highly supported by our community, collected around 70k within our circle and by the support of our collaboration partners.

In summary, the objective of the Ramadan Ration Drive Campaign is to:

- To help the underserved segment of our society
- To give relief to the needy during the holy month of Ramadan
- To feed the hungry and less fortunate with fresh and quality consumables.

Hands-on Training On Linear Regression

Type of Activity: Technical Workshop

Description: Hands-On Training on linear regression was organized & hosted by IEEE WIE Lahore Section in collaboration with IEEE PES DAY 2021, IEEE GCU Lahore Student Branch and IEEE UOL Student Branch on
April 28, 2021. In this training, our trainer Dr. Junaid Qazi (Founder & Director - Science Academy | Data Science Consultant - Ministry of Health Saudi Arabia) demonstrated how to make sense of & build linear regression models within SPSS Statistics & how to apply these models against new data to generate estimates and predictions.

**Learning Objectives:**
This learning objectives are intended to provide the students with the following specific knowledge and skills:

- How to illustrate linear relationships with correlations and scatter plots
- Applying a linear regression model
- Linear regression output
- The regression equation
- Building a linear regression model interpreting

**Ramadan Iftar Drive**

*Type of Activity:* Humanitarian

**Description:** IEEE Lahore Section and WIE Affinity Group volunteers started the Ramadan campaign and showed unity with the ummah, the hungry, the thirsty and those in need. With this initiative of Iftar Ramadan Drive we reached upto 700 daily wagers, street vendors and guards at roadside. The volunteers came forward and helped in preparing and distributing iftar to the lower staff. The fasting people are served traditional delicacies -- including samosa (a deep-fried triangular savory pastry filled with potato and spices), pakora (deep-fried spicy snacks made from gram flour), Biryani, fruit chaat, dates, and juices.

**Mompreneur - CELEBRATING WORKING MOMS BEYOND THE HASHTAG**

*Type of Activity:* Non-Technical

**Description:** This Mother’s Day IEEE WIE Lahore Section Affinity Group came up with the idea of celebrating working mothers as we know that MOMPRENEUR isn’t a chic hashtag – it’s an exhaustive journey in finding the right balance between work & family. Mompreneur is a slang term describing women who start or run their own businesses while also acting as a full-time parent. We make sure all the mompreneurs out there take time to celebrate themselves for once. We interviewed around 40 to 50 mompreneurs and featured them into our page to recognize them and to motivate them.
WiFi Controlled Robot
Type of Activity: Technical Workshop

Description: WiFi Controlled Robot workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on May 25, 2021. This workshop was conducted to build a WiFi Controlled Robot that can be operated remotely via a computer/website using Wi-Fi. The robot is connected to the internet with the help of ESP 8266 Wi-Fi module and can be controlled through commands on a web page that anyone designs.

Learning Objectives:

- Networking concepts
- Wireless communication
- Working of DC motors - actuators
- Arduino Architecture and its Programming

Impact of Event on Community: The feedback of this event was excellent. This session had a great impact on students, industrialists and professionals from academia.

AI Intelligence & Future of Work
Type of Activity: Technical Workshop

Description: AI Intelligence & Future of Work workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on May 26, 2021. Our honorable speaker Mr. Anees ur Rehman - CEO & Founder of GamiMatricz focused on how AI works can maximize occupational safety and health (OSH) advantages as well as minimize potential setbacks. Although the application of AI in the workplace is still emerging, OSH professionals, practitioners, researchers, employers, and workers can benefit from developing a greater understanding of workplace AI applications. The main agenda of this talk was to get the students to understand the importance & future of Artificial Intelligence and to guide them for their career lines. He also discussed how to achieve success & how to take initiatives in the area of artificial intelligence and addressed the risks and beliefs of scientists who work for robots.
**National Youth Creative Event 2021 - NYCE’21**

**Type of Activity:** Technical

**Description:** National Youth Creative Event 2021 was organized by IEEE WIE Lahore Section Affinity Group in collaboration with IEEE MUET SB, where youth from different universities of Pakistan shared their creative ideas and showcased their talent. The NYCE’21 provided an opportunity for the students of undergraduate/postgraduate level to learn new skills and knowledge from the most relevant national and international speakers. NYCE’21 made a remarkable achievement in all sessions (technical, non-technical and competitions) and received a huge number of participants from different universities of the country.

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**Industrial Heat Pumps for Steam and Fuel Savings**

**Type of Activity:** Technical Workshop

**Description:** Industrial Heat Pumps for Steam and Fuel Savings workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on June 8, 2021. In this workshop, our honorable speaker Dr. Parkash Sinah described why heat pumps save money, how heat pumps work, how much energy heat pumps can save, common types of heat pumps, heat pump applications and examples of heat-pump applications. He added that Industrial heat pumps are a class of active heat-recovery equipment that allows the temperature of a waste-heat stream to be increased to a higher, more useful temperature.

**Learning Objectives:**

This learning objectives are intended to provide the students with the following specific knowledge and skills:

- Why heat pumps save money
- How heat pumps work
- How much energy heat pumps can save
- Common types of heat pumps
- Heat pump applications
- Examples of heat-pump applications
Image Processing

**Type of Activity:** Technical Workshop

**Description:** Image Processing workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on June 10, 2021. In this workshop, our honorable speaker Dr. Manooj Kumar delivered the basics of 2D and 3D image processing, including various lighting technologies and target applications. This webinar enables the audience to select the best suitable image processing technology for any application.

Our honorable speaker covers the following points:

- Basics for 2D and 3D image processing
- Explanation of terms (lens, focal length, gain..)
- Comparison of the individual technologies
- Basic lighting (means of light, reflection,...)
- Lighting technologies (ring field lighting, dark field lighting,...)
- Application examples 2D and 3D

**Impact of Event on Community:** The reviews and ratings of this workshop were excellent. Students had the opportunity to learn the basic foundations of image processing.

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Robotics Solutions for Small-to-Medium Manufacturers

**Type of Activity:** Technical Workshop

**Description:** Robotics Solutions for Small-to-Medium Manufacturers workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on June 11, 2021. In this workshop, our honorable speaker talked about new products and services that support small-to-medium manufacturers. He also addressed that a large percentage of small-to-medium manufacturers have missed out on the many benefits of robotic industrial automation such as increased productivity, improved quality and enhanced competitiveness. Both traditional industrial robotics companies, as well as a number of new vendors, are providing products and services specifically designed to satisfy the requirements and support the culture of this sizable and under-served market. Real world case studies was also presented in the workshop, to illustrate salient points.

Attendees of this workshop got to know about the
• Collaborative Robotics
• Bench-top Systems
• Grippers and Gripping Systems
• Application Specific Systems
• Mobile Robots
• Robotics-as-a-Service
• Non-Traditional Manufacturing and Novel Application Areas
• Flexible Automation
• Rapid Deployment and Simplified Programming

Image Analysis & Processing For The Non-Specialist With The Image Freeware

**Type of Activity:** Technical Workshop

**Description:** Image Analysis & Processing For The Non-Specialist With The Image Freeware workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on June 12, 2021. In this workshop, our honorable speaker Chris Zugates took the students through a typical workflow of image analysis, delivering them how to easily process your data and find the objects of interest quickly and interactively creating meaningful results for publication.

In this workshop, audience had learnt:

• How to handle and process large image data quickly
• How to detect cells, nuclei, membranes and cellular structures easily with interactive image analysis including the use of virtual reality for editing
• How your research can benefit from using server environments for higher throughput and collaboration with other researchers.

International Women In Engineering Day 2021

**Type of Activity:** Technical

**Description:** International days are occasions to educate the public on issues of concern, to mobilize political will and resources to address global problems. Such days also call for celebration and reinforcement of
achievements of humanity. Similarly, IEEE Women in Engineering Day took place annually on June 23, 2021; which was an international awareness campaign celebrating the work and achievements of women engineers. This day provided an important opportunity to raise the profile of women engineers and highlight the amazing career opportunities available.

IEEE WIE Lahore Section Affinity Group conducted the following activities:

- Women in STEM quiz
- Women in Technology (Interactive Session)
- To celebrate women in engineering, we interviewed young women engineers to find out what inspired them to choose engineering as their career
- Writing Contest (On any one of these topics: Ways to encourage women in STEM | Role of women in engineering)
- Best Video Contest

Winners were awarded with certificates and cash prizes.

COVID-19 EMERGENCY RELIEF FUND - A NATIONAL LEVEL PROJECT

Type of Activity: Non-Technical

Description: The recent economic recession due to the COVID’19 Pandemic has made the life of a common man more difficult as the purchasing power of people is declining with every passing day. People living under the poverty line are compelled to bear hunger as they can’t buy food to serve themselves. So, to help them sustain their lives, IEEE WIE Lahore Section Affinity Group volunteers stepped up with the initiative to reach the maximum affected and their families.

Execution of Plan:

- Obtained authentic data of needy and zakat eligible individuals from various trusts working in this domain.
- Make contact with those people and validate the obtained record.
- Scheduled distribution of goods, area wise.
- Assigned resources for the distribution activity.
- Target to distribute among 60 families in 3-4 days during the month of Ramadan.
AMAZON Dropshipping - Make An E-Commerce Easy For Pakistan

Type of Activity: Technical

Description: AMAZON Dropshipping - Make An E-Commerce Easy For Pakistan workshop was organized and hosted by IEEE WIE Lahore Section on July 03, 2021. This was a highly demanding workshop due to the Online working interest of people around the globe. Our honorable speaker Mr. Usman Akhtar - CEO at Barkley Digital Limited covered basic aspects of selling on Amazon and its huge potential in the current age. After completion of the session, the participants had enough knowledge to make a decision and start on their journey of Amazon Business.

Learning Objectives:
This learning objectives are intended to provide the students with the following specific knowledge and skills:

● How to find retailers in a specific Market
● How to hunt dropship products
● How to find dead listings and make them Alive
● What are the policies of dropshipping on Amazon
● How to use different tools
● How to manage orders shipment
● How to handle customer support

Effective Leadership

Type of Activity: Technical

Description: Effective Leadership workshop was organized and hosted by IEEE WIE Lahore Section on August 7, 2021. In this webinar, Ms. Safoora Saleem Shahnazi - Chairperson of IEEE WIE Lahore Section Affinity Group explored the steps leaders can take to transform grading and assessment practices within any context. She highlighted the natural evolution of new ideas, the ways to plan for short-term wins, ideas for handling the inevitable challenges and roadblocks, and how to develop acceptable alternatives that make the first step more manageable for those who are hesitant. She also disclosed the simple truths about leadership that distinguished careers to help bring common sense into common practice.

Learning Objectives
This learning objectives are intended to provide the students with the following specific knowledge and skills:

- Unlocking innovation
- Breaking through gridlock to influence change
- Embedding values and personal purpose within organizational culture
- Balancing long-term objectives with short-term business imperatives

**Why Projects, Internships & Trainings In IoT?**

*Type of Activity: Technical*

Description: Why Projects, Internships & Trainings In IoT workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IIE on August 10, 2021. Our honorable speaker Mr. Yaseen Nasir - Lecturer at University of Punjab started by introducing the importance and future scope of IoT. He also conducted the in-detail training for students.

**Learning Objectives**

This learning objectives are intended to provide the students with the following specific knowledge and skills:

- Introduction to IoT and the overview of its applications
- Overview of Arduino Architecture
- Arduino IDE and Embedded C Programming
- Interface LED with Arduino
- Interface with Serial Communication UART
- Introduction and Working Principle of Sensors
- Working and Interface of Ultrasonic, IR Sensor to Arduino & Programing
- Think Speak API Configuration and Cloud Interface
- Mini Project Application Design - Garbage Monitoring
- Working of MQTT Protocol
- Application Development using MQTT

**Democratizing Data Science With No-Code**

*Type of Activity: Technical*

Description: Democratizing Data Science With No-Code workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on October 12, 2021. In this workshop, Ms. Garima Sharma - Senior Director, Data Analyst Engineering at MICROSOFT addressed decision makers, students, data scientists, data enthusiasts, solution specialists, architects; and walked them through the various disruptive strategies and the importance of fluid and fast data platforms.
Data Science vs. Data Engineering – Can you really separate them?

**Type of Activity:** Technical

Description: Data Science vs. Data Engineering – Can you really separate them, the workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on September 15, 2021. This webinar was a great opportunity for students to hear from eminent industry experts who have seen both the data science and data engineering industries up close. Our honorable speaker Mr. Kunal Jain (Founder & CEO, Analytics Vidhya) counsel the students by guiding them which career option to pursue - data science or data engineering. He differentiated these two vast fields to understand them and pointed out that Data Engineers are not only more valuable than Data Scientists, they are almost indispensable for the success of Big Data projects.

More Threats, More Systems, More Locations The Challenges of Scaling Security

**Type of Activity:** Technical

Description: More Threats, More Systems, More Locations The Challenges of Scaling Security workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on August 17, 2021. This webinar spotlighted trending cyber threats, students and professionals need to know more about. The topics included ransomware, trojans, backdoors, RATs, information stealers, and more, plus their impact on businesses in 2021.

Our honorable speaker Mr. Adnan Rafique - Cyber Security Expert took a deep dive into these threats and empower students and professionals with the information needed to craft a successful security strategy that helps mitigate the risks, identify vulnerable points in the networks, and gain infrastructure improvements to help investigate threats, simplify operations, and scale security.

Automatic Learning of Lexical Relations

**Type of Activity:** Technical

Description: Automatic Learning of Lexical Relations workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on August 19, 2021. This workshop was an opportunity for students to discuss their work or research projects, learn about the latest advancements in
the field, and exchange ideas or brainstorm. Topics included computational linguistics, machine learning, text analytics, data mining, information extraction, speech processing, sentiment analysis, and much more.

**Explainable Data Science Workflows**  
*Type of Activity: Technical*

Description: Explainable data science workflows workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on August 21, 2021. In this workshop, our guest speaker Mr. Austin Eovita - Data Scientist at IBM presented explainable workflows using open source software, semi-automated pipelines, and Python! He included that from data ingestion, cleaning, piping, and modeling, explainability and trust are at the forefront of enterprise data science initiatives.

**Fighting AI Bias With High-Quality Training Data**  
*Type of Activity: Technical*

Description: Fighting AI Bias With High-Quality Training Data workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on August 22, 2021. This workshop explored the latest technology advancements as well as practical examples to apply AI to solve challenges in business and society. It brings together a mix of academia and industry to share the learnings and insights, offering new perspectives for students to take away, as well as the chance for them to ask burning questions and continue conversations with the community after the workshop, forming new relationships to solve the unthinkable with AI.

**Azure Stack HCI Webinar | Enable Multi-tenancy with Self-service Provisioning Experience**  
*Type of Activity: Technical*

Description: Azure stack HCI Webinar | Enable multi-tenancy with self-service provisioning experience workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on August 23, 2021. Bring more security and performance to hybrid cloud infrastructure with new features and workloads from Azure Stack HCI. With demos and best practices, this webinar was organized to explore how the latest hybrid capabilities delivered by Azure Stack HCI empower to achieve more, wherever anyone is. Attendees gained a deep understanding of the new Azure Stack HCI features and workloads such as GPU integration for virtual desktop performance improvement, new machine learning
capabilities and Arc enablement for every Azure Stack HCI node, and intent based networking to improve management and network deployment capabilities.

The Top Technology Trends Impacting DevOps
Type of Activity: Technical

Description: The top technology trends impacting DevOps workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on August 24, 2021. In this workshop, the presenter highlighted the technology trends that will have the greatest impact on agile and DevOps initiatives. This insight enabled IT students to upskill their teams, modernize their practices and adopt new tools. This complimentary workshop looked at the latest trends around product, platform and resilience engineering.

Breaking into Tech at any Age or Career Stage
Type of Activity: Technical

Description: Breaking into Tech at any Age or Career Stage workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on August 25, 2021. This workshop was conducted to dive into the question that can tech be adapted at any stage. Tech career was also highlighted in this webinar.

Making the Product Strategy Effective with A Tech
Type of Activity: Technical

Description: Making the product strategy effective with a tech workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on August 26, 2021. In this webinar, our speaker Dr. Satish Jha - Sr. Product Manager highlighted the real life strategies in creating and iterating startups. She identified the most important metrics to monitor, best practices for aligning on key goals, and how to combine automated tech touches and compelling email campaigns.

The Challenge of calibrating Smart Instrumentation
Type of Activity: Technical
Description: The Challenge of calibrating Smart Instrumentation workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on September 01, 2021. In this workshop, our honorable speaker discussed how you can make your instrumentation calibration process digital and more efficient. He also focused on a solution to calibrate the instrumentation loop simultaneously with practical demonstration. A 20-minute question-and-answer session followed the presentation.

ARPDT’21 - Academic Research & Professional Development Training Program 2021

Type of Activity: Technical

Description: ARPDT’21 - Academic Research & Professional Development Training Program 2021 was organized and hosted by IEEE WIE Lahore Section to train the students for publishing academic research papers of different kinds. We covered processes and requirements for publishing papers, conference proceedings, and other innovative products, such as videos and online course modules. We also touched upon ethics, permissions, and other pertinent factors related to publishing. This training also focused on:

- the global publishing landscape (including open access)
- identifying a target journal
- writing style – getting the right tone
- developing your argument and structuring your paper
- writing concisely
- avoiding plagiarism with good citation practices and paraphrasing
- writing productivity tips

Machine Learning Informed AI In Healthcare

Type of Activity: Technical

Description: Machine Learning Informed AI In Healthcare workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on October 2, 2021. In this workshop Mr. Micheal McGinnis explored an interactive discussion, how AI and machine learning tools can be applied and why they will play a key role in the achievement of the WHO Development Goals for Health and Nutrition. Current and emerging AI technologies for drug development and their potential benefits; challenges to the
development and adoption of these technologies; and policy options to address challenges to the use of machine learning in drug development were also discussed.

**Learning Objectives:** The purpose of this workshop was to spread that machine learning has the potential to increase the efficiency and effectiveness of the drug development process, decreasing the time and cost required to bring new drugs to market, but several challenges hinder its adoption and impact. The session identifies policy options to address these challenges centered around promoting basic research, increasing data access and sharing, establishing standards, developing human capital, clarifying regulatory certainty, and maintaining the status quo.

**How AI & ML Are Solving the World's Most Difficult Problems?**

**Type of Activity:** Technical

Description: How AI & ML Are Solving the World’s Most Difficult Problems workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on October 04, 2021. In this workshop, our honorable speaker Mr. Bill Richmond from AWS cuts through the hype by providing concrete examples of practical AI/ML-applications being used today, such as computer vision, automatic speech recognition, natural language processing, and other related capabilities. The webinar also includes a technical demo of an AI-powered speech analytics application that automates and accelerates speech-to-text transcription, language translation, keyword detection, data classification, sentiment analysis, and recommendation engines – with more accurate results. To conclude the webinar, Bill provides specific use cases that demonstrate how governments, nonprofits, and inter-governmental organizations are using AWS AI/ML services today to deliver solutions that further the United Nations’ Sustainable Development Goals.

**Learning Objectives:**

This learning objective is intended to provide the students with the following specific knowledge and skills:

- AI/ML-enabled solutions designed to solve environmental and humanitarian crises
- Convergence of IoT and AI at the edge
- Digital disruption
- AI philosophy and ethics and many more

**How To Defend Your Thesis Successfully**

**Type of Activity:** Technical
Description: How To Defend Your Thesis Successfully workshop was organized and hosted by IEEE WIE Lahore Section on October 09, 2021. This training was designed to prepare students optimally for the situation. In the first part of the training the participants got practical tips for their introductory presentation: how to structure the presentation, how to build up the central argument, what language to use, etc. The second part of the training deals with typical problems that occur during the discussion: How to respond to criticism and "killer questions", how to deal with stage fright and black-outs, etc. In the third part, participants got the chance to discuss their presentation method and to receive feedback from the group and the trainer.

Learning Objectives

This learning objectives are intended to provide the students with the following specific knowledge and skills:

- To give a convincing and well-structured presentation
- To deal confidently with counter arguments and critical questions
- To be well prepared and feel confident about their thesis defense
- Outline important tips about thesis defense
- How to handle examiners
- Impressive presentation style
- General questions which might ask by examiners
- How to hide shortcomings effectively

SIXTH SENSE ROBOTICS

Type of Activity: Technical

Description: Sixth Sense Robotics workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on October 11, 2021. In this workshop, the speaker introduced the students to the amazing world of sixth sense technology and its fascinating applications. He said that using an Arduino board and other electronic components, the students developed a robot that can be controlled through digital information. Apart from gaining practical skills on Sixth Sense technology, attendees were to learn about the Arduino Architecture, Arduino Programming, and Image Processing technology.
**HANDWRITTEN DIGITS RECOGNITION - ML**

**Type of Activity:** Technical

**Description:** Handwritten Digits Recognition - ML workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on October 13, 2021. This workshop was designed to make the students grab the concepts of Machine Learning, that provided a deep understanding of Machine Learning and its mechanism. Attendees were able to learn the importance of Machine Learning and its implementation in the python programming language. This workshop highlighted different classes of machine learning algorithms like supervised, unsupervised and reinforcement algorithms, that imparts the necessary skills like data pre-processing, dimensional reduction, model evaluation and also exposed different machine learning algorithms like regression, clustering, decision trees, random forest, Naive Bayes and Q-Learning.

**Learning Objectives**

This learning objectives are intended to provide the students with the following specific knowledge and skills:

- Introduction
- Handwritten recognition
- Datasets
- Steps to build Recognition System
- Output

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**Interpersonal Skills for Engineers - Not A Choice But A Requisition**

**Type of Activity:** Non-Technical

**Description:** Interpersonal Skills for Engineers - Not A Choice But A Requisition workshop was organized and hosted by IEEE WIE Lahore Section on December 17, 2021. Days when engineers were limited to the fields only are gone. Today an engineer is holding an office, a leader’s position, a mentor, and whatnot! Thus, it is about time we realized the significance of interpersonal and communication skills in our professional life. Thus to spread the importance of these skills, WIE IEEE Lahore conducted a real-world workshop on "Interpersonal Skills for Engineers - Not A Choice But A Requisition! by Ms. Komal Malik - A Communication Specialist

**Learning Objectives:**

This learning objectives are intended to provide the students with the following specific knowledge and skills:
Understand interpersonal skills as more of a need than choice
Comprehend and apply basic interpersonal skills in routine
Cope with the contemporary workplace environment
What is the significance of Interpersonal skills for Engineers
How to enhance the interpersonal skills of engineers
Prepare yourself to Engineers for the contemporary workplace environment

The First Step Of Automation Workshop

Type of Activity: Non-Technical

Description: The First Step Of Automation Workshop workshop was organized and hosted by IEEE WIE Lahore Section on October 20, 2021. In this workshop, our honorable speaker Mr. Chris Wiegandt - General Manager, America's highlights the value of 3D Process Simulation software that brings to the automation planning process and the ROI factor associated with 3D Simulation software. He said 3D Process Simulation software is becoming an integral aspect of automation planning, validation of robot integration, the interaction between human capital and automation, and Digital Twin (or virtual commissioning). This workshop illustrated the value of Simulation software at the automation planning stage, enabling engineers (process, industrial and manufacturing), as well as plant costing analysts and even sales personnel to plan with confidence.

Ready To Change Your Perspective? Ready To Do Something Positive For Yourself?

Type of Activity: Non-Technical

Description: Ready To Change Your Perspective? Ready To Do Something Positive For Yourself workshop was organized and hosted by IEEE WIE Lahore Section on October 22, 2021. Our honourable speaker Mr. Ritesh Sahu - Founder | Client Accelerator Academy started the session in a very unique way. He wanted to challenge the students to change their life. He said, making changes in one’s life can be difficult but using the tools and tips on this session, anyone can make change a little bit more palatable, motivating, and feasible.

Specifics he tackled on this session are:

- The critical first step of self-assessment before initiating change.
- Decisions: What guides us through them, ones we have to take, and the path it takes us to.
- Why we default to our comfort zone and the value in challenging ourselves to go beyond it to foster growth and expand our opportunities.
● The messages that we live by – the sources where we hear it from, how it influences us and gets ingrained into us, and how it affects our actions and decisions.
● How our personal core values greatly impact our decision making and life path, and why it is crucial that we align our choices with our values.
● The concept of post-traumatic growth as it relates to change – how traumatic events can bring about positive life changes.
● Why it is necessary to have a plan that lays out the steps and goals when employing change.
● The importance of remembering to maintain balance in your life amidst changes through rest, stillness, reflection, and assessment.
● Exercises to develop resiliency that can propel us to remain driven to make positive changes amidst adversity.
● The elements that must be integrated into our life plan that ensure congruence with our values and assessing regularly for progress.

Your Mind Matters

Type of Activity: Humanitarian

Description: Your mind matters workshop was organized and hosted by IEEE WIE Lahore Section on November 24, 2021. Our honourable speaker Dr. Carolyn Curtis - Philanthropist demonstrated how to balance the different aspects of our lives. He said, when things in our life change, we must re-establish the balance. He mentioned that No one experiences perfect mental health or well-being all the time. Mental health is just as important to our lives as our physical health. He also added that mental health is not the same thing as the absence of a mental illness. Mental health includes emotional, psychological, and social well-being.

Hackmafesto 2k21

Type of Activity: Technical

Description: Hackmafesto 2k21 was a weeklong festival to welcome hackers to hacker communities and hackathons, there was a 7-day in-person(with limited attendees) and also Digital hackathon was held from October 25, 2021 - October 31, 202. We called hackers, artists, coders, designers, tech evangelists, creatives, and developers from all disciplines to take part to win awesome prizes and collaborate with other developers. Throughout the weekend hackers at Hackmafesto had unique opportunities to learn from each other trying hands in new technologies, on the most latest equipment provided by the organizers during the hackathon. We were determined to have an all-inclusive and diverse group of students attending.

Training Content:
Complete session on Freelancing (Job vs Freelancing, Requirements of freelancing, Freelancing Platforms, Top High Paying skills in Freelancing, Tips to be successful on Upwork) by Mr. Shajeel Afzal | Freelancer & Software Engineer

Webgoat hacking by Mr. Waqar Ahmed | DevSecOps at Fiserv

Web designing by Ms. Belle See | Fronted Developer

Flutter for Hackathons by Mr. Waleed Arshad | Mobile technologist

Networking 101 by Ms. Galicia Goldon | Founder of Leading Learners

Imposter Syndrome by Ms. Siddhi Gupta | Co-founder at Design Hat

React basics, Next.js, Gatsby, and ChakraUI by Ms. Anthony kuong | Versatile Software Professional

Data driven marketing and how it drives growth by Mr. Maaz Khan | Business Intelligence Analyst

Future Of Industrial Engineers In Healthcare Quality

Type of Activity: Technical

Description: Future Of Industrial Engineers In Healthcare Quality workshop was organized and hosted by IEEE WIE Lahore Section on November 15, 2021. The concept of “Quality Management” as advocated by management theorists and industrial engineers has been adopted by healthcare leaders. Healthcare quality professionals use knowledge, experience, evidence, performance, and process improvement tools to manage and improve the health of the individual and populations. Our honourable speaker Dr. Quaratualain Shakoor - Shaukat Khanum Memorial Cancer Hospital & Research Center (SKMCH&RC) said Industrial Engineers are desperately required in healthcare setups especially in an underdeveloped country like Pakistan as IE’s possess all the training and experience required in improving factors such as productivity, safety, and effectiveness. IE’s are able to play an essential role in improving the efficiency of the healthcare system.

Learning Objectives:
This learning objectives are intended to provide the students with the following specific knowledge and skills:

- What healthcare Quality is all about
- How IE’s are the best fit for this job

Digital Marketing

Type of Activity: Non-Technical
Description: Digital Marketing workshop was organized and hosted by IEEE WIE Lahore Section on November 16, 2021. Our honourable speaker Ms. Quaratualin Shahid - Digital Marketer started the latest strategies that will help the business be found and chosen by more customers online. This webinar included live demos of keyword research techniques and tools. She enabled the participants to:

- Gain an in-depth understanding of the various digital marketing disciplines: search engine optimization (SEO), social media marketing, pay-per-click (PPC), website conversion rate optimization, web analytics, content marketing, mobile marketing, email marketing, programmatic buying, marketing automation and digital marketing strategy
- Master digital marketing execution tools: Google Analytics, Google Ads, Facebook Marketing, Twitter Advertising, and YouTube Marketing
- Become a virtual digital marketing manager for an e-commerce company with Mimic Pro simulations included in our course. Practice SEO, SEM, Website Conversion Rate Optimization, email marketing and more.
- Gain real-life experience by completing projects using Google Analytics, Google Ads, Facebook Marketing, and YouTube Marketing
- Create the right marketing messages tailored for the right audiences

How AI Is Changing Industry Today
Type of Activity: Technical

Description: How AI is changing industry today workshop was organized and hosted by IEEE WIE Lahore Section on November 17, 2021. Our honourable speaker Dr. Pardeep Singh started the session by introducing the current status of AI, the impact it can make in this sector and how it can be used to drive innovation. He highlighted how Artificial intelligence, machine learning and big data are the emerging technologies reshaping just about every industry today. And, according to him it’s a question of when and not if that AI-powered digital transformation in the construction and infrastructure sector takes place.

Social Media Tactics
Type of Activity: Non-Technical

Description: Social media tactics workshop was organized and hosted by IEEE WIE Lahore Section on November 18, 2021. Our honourable speaker Ms. Safoora Saleem - Chairperson of IEEE WIE Lahore Section Affinity Group focused on what social media should be doing for business. She provided the resources that anyone needed to tackle the biggest social marketing challenges, while making the most of Sprout. She told how to measure ROI against social media efforts and included some chin stroking topics at the end.
Ethereum Development Course

Type of Activity: Non-Technical

Description: Ethereum Development Course was organized and hosted by IEEE WIE Lahore Section. This course was designed for programmers and developers who want to take a comprehensive deep dive in writing Smart Contracts and building applications that interact with them. It began by learning the landscape of Ethereum and completed labs to set up an Ethereum private network. This course introduced the Web3 & Truffle framework and linked everything together by building a Full Web Project with Ethereum.

This Ethereum Developer training had been meticulously put together and taught by world-class subject matter expert Mr. Ahmed Manzoor - CEO of Pakistan Blockchain Institute. He walked through deep dive topics, such as steps to integrate/develop an application with Ethereum. There were use cases, proof of concepts, as well as interactive lab work about the concepts.

SOC Operations Training

Type of Activity: Technical

Description: SOC Operation Training was organized and hosted by IEEE WIE Lahore Section, a two months long virtual training. As cyber-attacks are rising, Companies are required to build a Security Operation Center. There is a lot of demand for SOC Analysts (L1, L2, L3). SOC Analyst is responsible to monitor the company infrastructure 24*7 and to detect & respond to all kinds of cyber-attacks. SOC Analyst works on SIEM tool for monitoring and analysis of cyber-attack. By considering the scenario, IEEE WIE Lahore Section Affinity group organized SOC Operation training. Ms. Sehrish Asif (Pioneer of SOC Operations Training in Pakistan | Boards of Experts - CGSS | Vice President - WiCys Pakistan | Standing Committee Member - FPCCI Cyber Security Committee).

The Importance of Communication Skill in Facing Pandemic

Type of Activity: Non-Technical

Description: The Importance of Communication Skill in Facing Pandemic workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on November 21, 2021. Our honourable speaker Dr. Amit Kumar Lal - Founder at Skill Learning Solutions said that Pandemic demands strengthening the personal relevance of effective communications. During the COVID-19
pandemic, many companies, organizations, institutes and corporates are finding a variety of ways to communicate with their customers. Organizations may use teledetailing/telemarketing through email, social media or other third-party functions for video conferencing. These communications may have varying impacts than do traditional face-to-face meetings, it is important for them to be conducted under a company's policies, guidelines and training because they are permanent, recorded and easily searchable. He said that no matter the form of communication, whether during our current pandemic state-of-affairs or not, these communications may pose legal, regulatory and compliance risks if the proper precautions are not taken. not in any special order of importance and can apply in many situations.

**Offline Robot Programming and How It Can Impact Your Business**

*Type of Activity:* Technical

**Description:** Offline Robot Programming and How It Can Impact Your Business workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on November 22, 2021. Our honourable speaker Mr. Muhammad Adnan - Cloud Solution Architect - MICROSOFT highlighted that the manufacturing industry is experiencing a shortage of skilled labor and struggling to be profitable in high-mix, low-volume production runs. Owners and managers can benefit from investigating new technologies that help them overcome the workforce shortage, remain competitive, and attract and retain talent. He said Offline robot programming software is a key technology innovation manufacturers are implementing to be successful and combat many of their current challenges.

**Vision Systems with Artificial Intelligence Perform the Highest Level of Quality Inspection**

*Type of Activity:* Technical

**Description:** Vision Systems with Artificial Intelligence Perform the Highest Level of Quality Inspection workshop was organized and hosted by IEEE WIE Lahore Section on November 23, 2021. Our honourable speaker Mr. Syed Hassan - Sr. Software Engineer at i2c., started it by introducing a combination of vision systems with artificial intelligence. He said that the new Artificial Intelligent Fine Matching inspection uses a specialized scoring system allowing a user to program an inspection in three quick steps. On-the-screen settings guide a user through the process of creating a good product model with a minimum number of images. This type of technology eliminates the needs for high-end computing hardware or specialized engineers to configure a system to suit an application's requirements. He emphasized on learning an Artificial
Intelligent Scratch Detection Filter – the industry’s first AI component that captures defects with human-like sensitivity without pre-learning.

**Learning Objectives:**

This learning objectives are intended to provide the students with the following specific knowledge and skills:

- How to recognize Vision applications suitable for solutions with a Vision System and Artificial Intelligence
- How to quickly setup and run an Artificial Intelligent Fine Matching inspection on a Vision System
- How to use Artificial Intelligent Scratch Detection Filter to solve quality control Vision inspections with various types of product materials

**From Machine Learning To Native GPU Code Generation All In One Language**

**Type of Activity:** Technical

**Description:** From Machine Learning To Native GPU Code Generation All In One Language workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on **November 24, 2021**. This workshop introduced the audience to the power of programming language and its basic syntax, efficient development setup, the type system and multiple dispatch. Attendees also got to how to analyze the performance of programs, and enable the maximum possible performance from the hardware. After a quick introduction, this workshop focused on native code generation on GPUs. Using this foundation, our trainer demonstrated how a novel machine learning ecosystem is falling into place - one that addresses the two language problem of writing machine learning systems in Python and C/CUDA. Programming across multiple languages splinters teams and communities, whereas having a common language for productivity as well as performance leads to new powerful possibilities.

**Learning Objectives:** This learning objectives are intended to provide the students with the following specific knowledge and skills:

- Why heat pumps save money
- How heat pumps work
- How much energy heat pumps can save
- Common types of heat pumps
- Heat pump applications
- Examples of heat-pump applications
JAVA Servlet

Type of Activity: Technical

Description: JAVA Servlet was organized and hosted by IEEE WIE Lahore Section on December 06, 2021. It was a one day long virtual training. Learning Objectives: This learning objectives are intended to provide the students with the following specific knowledge and skills:

Why Engineers Go For In-Depth Training In Power Electronics?

Type of Activity: Technical

Description: Why Engineers Go For In-Depth Training In Power Electronics workshop was organized and hosted by IEEE WIE Lahore Section on December 06, 2021. Our honourable speaker Mr. Zain Nadeem - Power Engineer explains in-depth the benefits and opportunities of power electronics. Attendees gain in-depth knowledge of the interaction of power electronics and digital control; that includes sampling and aliasing in the context of fixed and variable frequency switching power converters. He presented methods and steps to solve design issues such as one sample noise, precision limits in filters and controllers, non-linearity, quantization and other digital effects.

How To Build An Online Shop?

Type of Activity: Technical

Description: How To Build An Online Shop workshop was organized and hosted by IEEE WIE Lahore Section on December 07, 2021. Our honourable speaker Mr. Hamood Najam - Top rated Freelancer demonstrated how anyone can easily build an online store and go live in less than an hour. He also focused on fully featured eCommerce:

- Creating awesome product pages
- How to increase revenue per order
- How to target new markets
- How to fine-tune a catalog
- How to acquire new customers
- Invoicing and accounting integration
- Clean check out process
Making Your Presence As A Student

Type of Activity: Non-Technical

Description: Making Your Presence As A Student workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 07, 2021. In this webinar, our honourable speaker Mr. Waleed Anjum presented desired leadership skills that help advance individuals in their careers and shared the tips and tricks that will help them to stand out from the crowd. He presented examples of leadership components that are being incorporated into existing professional and bachelors, masters and postdoctoral programs. He also introduced elements of leadership that can help shape students as future leaders. He provided the tools necessary to enable components of leadership training to be integrated into graduate programs. This webinar was conducted to enhance student’s abilities to become the next generation of effective leaders.

Learning Objectives:
This learning objectives are intended to provide the students with the following specific knowledge and skills:

- the key elements of an effective leadership program as a student
- why emotional intelligence is an essential leadership capacity to develop as a student
- the habits of the mind that contribute to effective leadership and how to encourage them in students
- why mentoring and modeling are an essential part of student leadership development
- how to engage parents and carers in your leadership program

Digital Strategy In A Time Of Crisis

Type of Activity: Technical

Description: Digital Strategy In A Time Of Crisis workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 08, 2021. Our honourable speaker Mr. Daniel Fitouri shared the digital marketing lessons learned at the time of the COVID 19 pandemic. The session focused on lessons and cases to illustrate the development of content that connects during the pandemic and beyond by being empathetic and relevant to customers’ pain and trust points.

Learning Objectives

This learning objectives are intended to provide the students with the following specific knowledge and skills:
• Reflection on lessons learned by others in digital marketing at the time of crisis
• Get inspiration from other marketers by observing the shared stories by the speaker
• See a wide range of organizations reflect on the use of digital marketing strategy and communications during the COVID 19 global pandemic.

How To Achieve Anything In Life

**Type of Activity:** Non-Technical

**Description:** How To Achieve Anything In Life workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 12, 2021. Our honourable speaker Dr. Muntaha Asif - Psychologist at Shaukat Khanum Hospital uncovered the most important key points that make everyone unique, and focused on how to discover your life’s purpose! Dr. highlighted how to identify best practices for setting goals, aligning planning to achieve them, and optimizing time to overcome the “What did I even accomplish today?” feeling. She said most of us will admit to having “one of those days” from time to time, but perhaps these days they are happening more often than you would like. The challenge is not that you didn’t accomplish anything – most likely you accomplished a great deal. While speaking to the audience, she said whether you love the work you currently do or wish you did something different, identifying your purpose can help give your career and life more meaning and happiness. She said that when it comes to both your work and your personal priorities, if you haven’t decided what you really want to achieve, it’s hard to get the most out of your professional experience.

This webinar is developed with a specific focus on achieving our goals in a manner that they align with our vision or purpose thus creating synergy and a sense of accomplishment or impact

**Learning Objectives**

This learning objectives are intended to provide the students with the following specific knowledge and skills:

- A deeper understanding of life purpose, what it is, and why it matters
- Exercises to use in the formula for discovering your purpose
- How to connect with others and take action on how you are meant to grow and give in this life

How Emerging Technology Will Make Your Event More Efficient

**Type of Activity:** Technical
Description: How Emerging Technology Will Make Your Event More Efficient workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with The Islamic University Of Bahawalpur on December 30, 2021. This was an online seminar compulsory for Final year students of computer Science and management science department. Seminar started with the Quran recitation and Naat. Later the host introduced the IEEE , WIE and guest speaker. The Guest speaker Mr. Ahmad Manzoor - CEO of Pakistan Blockchain Institute gave the lecture on different technologies that help final year students to get to know how they earn money through technologies like bitcoin. How they get advantages through these IT technologies. They explained it very well and this seminar is very informative for the students.

CORONAVIRUS (COVID-19): MANAGING THE IMPACT ON GLOBAL SUPPLY CHAINS

Type of Activity: Technical

Description: CORONAVIRUS (COVID-19): MANAGING THE IMPACT ON GLOBAL SUPPLY CHAINS workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 20, 2021. Our honourable speaker Mr. Ehtisham Ullah presented the COVID-19 impacts on global supply chains including insights, facts and figures. He said Covid-19 has impacted global supply chains since the beginning of the year. The impact on different supply chain networks and logistics markets has been varied and some networks have suffered more than others. He added the pandemic has also amplified pre-existing concerns over the suitability of global supply chains.

Start-up Online Agency

Type of Activity: Technical

Description: Startup online agency workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with XPERTEQ on December 20, 2021. In this workshop, Ms. Safoora Saleem - Chairperson of IEEE WIE Lahore Section Affinity Group | CEO of Xperteq demonstrated step by step how to create an online agency from scratch! She gave a live demo of how to make a wordpress website using the essentials theme. The essentials theme is geared more for online agencies and the websites look great. Then she shared the tips and tricks of how to start any online startup agency. After that, she talked about the marketing and SEO work in order to start marketing an online agency. She also highlighted the essential building blocks to bring a new product or service to market and build for its success.
Learning Objectives

This learning objectives are intended to provide the students with the following specific knowledge and skills:

- **Branding** – Build a brand and create a trusted source for mobile app design.
- **New Features** – How to market the new app solution as value added to your existing platform.
- **Client Relations** – Help clients market their new apps. If the client can market the app, their users will go up and they’re more likely to stay on board.
- **Mindshare** – “Be known before you’re needed” is the key to any marketing campaign. Become the go-to for mobile marketing and mobile app solutions.
- **Leading the pack** – Become an industry leader and turn your new business into a trusted source in your company.

**AI in R&D - Reimaging the Data Science Life-Cycle & Portfolio**

**Type of Activity:** Technical

**Description:** AI in R&D - Reimaging the Data Science Life-Cycle & Portfolio workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 21, 2021. Applications of AI, machine learning and data science are increasing rapidly in the life sciences industry, with the proliferation of data and emergence of novel analytical techniques. To date, most data science functions in the industry follow a similar approach to selecting, prioritizing and implementing projects in conjunction with the business. Within R&D, we believe a new approach is required – one that is aligned with the needs of R&D organizations and acknowledges the uniqueness of data science in healthcare R&D.

**Learning Objectives**

This learning objectives are intended to provide the students with the following specific knowledge and skills:

- What makes data science in life sciences R&D unique?
  - How does it differ from other healthcare functions (such as commercials)?
  - Can we learn from other industries?
- How should we manage a portfolio of data science projects in R&D?
  - How do we measure and articulate impact?
  - Can we adopt a gated approach, inspired by the drug development process?
  - How do we maintain focus and prioritize effectively?
- What is the right mix of skills and mindset required?
  - Where do we focus: enriching insights, enabling actions, or driving change?
Digital Transformation & Convergence Through Automation Of Processes And Enrichment Of Analytics

Type of Activity: Technical

Description: Digital Transformation & Convergence Through Automation Of Processes And Enrichment Of Analytics workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 22, 2021. Our honourable speaker Mr. Bharath - Cloud/Dev-ops Engineer at AMM explored ‘hyper automation’ including the application of advanced technologies including RPA (Robotic Process Automation), AI, Machine Learning, and Process Mining that augment workers and automate processes in ways that are more impactful than traditional automation capabilities. He added that moving beyond manual business processes, especially with limited budgets, requires creativity and innovation. When organizations don’t have the time and capacity to meet demands for building better business applications, competitors get ahead. Lack of automation for manual tasks and processes impacts efficiency and customer experiences. Without intelligent automation, progress slows and efforts are duplicated.

An Introduction to Transfer Learning in NLP using HuggingFace

Type of Activity: Technical

Description: An Introduction to Transfer Learning in NLP using HuggingFace workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 23, 2021. Our honourable speaker Mr. Thomas Wolf - Co-Founder and CSO, HuggingFace started by introducing the recent breakthroughs in NLP that resulted from the combination of Transfer Learning schemes and Transformer architectures. He said that the NLP field has come leaps and bounds in the last 3-4 years. And HuggingFace has been at the forefront of bringing the state-of-the-art NLP libraries to the NLP community.

The second part of the workshop was dedicated to an introduction of the open-source tools released by HuggingFace, in particular HuggingFace's Transformers, Tokenizers and Datasets libraries, and models.

Learning Objectives

This learning objectives are intended to provide the students with the following specific knowledge and skills:

- What is transfer learning
- What can it be used for
- What tools is HuggingFace providing
Deep Dive: Rapidly Develop ML Pipelines for Graph Completion

Type of Activity: Technical

Description: Deep Dive: Rapidly Develop ML Pipelines for Graph Completion workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 23, 2021. In this workshop, our honourable speaker, Mr. Aqib Javaid - Trainer at Dece Analytics demonstrated how to use Graph Data Science (GDS) library to rapidly develop supervised ML pipelines. He also talked about the Graph-based approaches to entity resolution that allow you to use not only the traditional identifiers of an entity.

Learning Objectives
This learning objectives are intended to provide the students with the following specific knowledge and skills:

- Quick review of Entity Resolution (ER) and ER in Graph
- Dive into an example based on real-world data
- Go over quick procedures for generating resolved entity
- Query resolved entities out of the graph

Data Science & Machine Learning For Non-Programmers

Type of Activity: Technical

Description: Data Science & Machine Learning For Non-Programmers workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 24, 2021. Our honorable speaker Mr. Jawad Ahmed - Alumni Canada Chapter said that with the continuous generation of data, the need for Machine Learning and Data Science has increased exponentially. This demand has pulled a lot of non-IT professionals into the field of Data Science. This workshop on Data Science and Machine Learning For Non-Programmers was specifically dedicated to non-IT professionals who are trying to make a career in Data Science and Machine Learning without the experience of working on programming languages.

Text Classification With NLP

Type of Activity: Technical

Description: Text Classification with NLP workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 24, 2021. Our honourable speaker Mr. Fakhar Abbas - Data Scientist at IBM presented that Artificial intelligence has been improved tremendously without
needing to change the underlying hardware infrastructure. Users can run an Artificial intelligence program in an old computer system. On the other hand, the beneficial effect of machine learning is unlimited. Natural Language Processing is one of the branches of AI that gives the machines the ability to read, understand, and deliver meaning. NLP has been very successful in healthcare, media, finance, and human resources.

He added that the most common form of unstructured data is texts and speeches. It’s plenty but hard to extract useful information. If not, it would take a long time to mine the information. Written text and speech contain rich information. It’s because we, as intelligent beings, use writing and speaking as the primary form of communication. NLP can analyze these data for us and do tasks like sentiment analysis, cognitive assistant, span filtering, identifying fake news, and real-time language translation.

This workshop covered how NLP understands the texts or parts of speech. Mainly it focused on Words and Sequence Analysis. It included text classification, vector semantic and word embedding, probabilistic language model, sequential labeling, and speech reorganization.

The Secret of Optimizing Web Conversions

Type of Activity: Technical

Description: The Secret Of Optimizing Web Conversions workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 26, 2021. In this workshop, Inbound marketing expert, Mr. Muhammad Saqib Ali talked about the website conversion optimization and 10 ways to improve traffic, leads and revenue for website.

How IEEE Supports Technical Innovation for Humanity & Profession?

Type of Activity: Humanitarian

Description: How IEEE supports technical innovation for humanity and profession webinar was organized and hosted by IEEE WIE Lahore Section on December 27, 2021. In this webinar, Ms. Safoora Saleem Shahnazi - Chairperson of IEEE WIE Lahore presented how IEEE inspires and enables IEEE programs that improve access to technology, enhance technological literacy, and support education and the IEEE professional community. She added IEEE membership provides everyone with the resources and opportunities one needs to keep on top of changes in technology, network with other professionals in the local area or within a specific technical interest.
Description: **NoSQL: Thinking beyond RDBMS** workshop was organized and hosted by **IEEE WIE Lahore Section** in collaboration with **IEEE UOL Student Branch** on **December 27, 2021**. As the rate of data growth continues to grow and more and more sources of data become relevant for businesses, organizations are forced to look beyond traditional databases. Companies need to store data inexpensively, access it quickly and be able to apply analytics to it to understand its meaning for their business. With the uninterrupted growth of data volumes ever since the primitive ages of computing, storage of information, support and maintenance has been the biggest challenge. The massive scale, high performance, and never-go-down nature of the applications has forged a new set of database technologies. Used today by numerous modern businesses to manage their critical data infrastructure, this workshop explored how it compares to Relational database management systems we’re used to, and how it is uniquely positioned to address the next phase of growth in the modern database marketplace.

**Achieving IoT Best Practices in a 5G-enabled World**

Description: **Achieving IoT Best Practices in a 5G-enabled World** workshop was organized and hosted by **IEEE WIE Lahore Section** in collaboration with **IEEE UOL Student Branch** on **December 27, 2021**. In this webinar, our guest speaker Mr. Sadiq Ali presented findings from its research and report. He said IoT is rapidly evolving with 5G now a reality, promising significant improvements in bandwidth, latency, and power-consumption. There is a growing demand for high bandwidth services including video, security cameras and digital vending resulting from the arrival of 5G. He added, over three-quarters of IoT projects are never completed or shelved before they are brought to market and navigating the changing IoT connectivity landscape and maintaining business-critical and always-on IoT connectivity is challenging and choosing the right connectivity partner from an overwhelming list of options is critical to IoT success.

**Secure The Hybrid Workplace Across Global Enterprises**

Type of Activity: Technical
Description: Secure the hybrid workplace across global enterprises workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 30, 2021. Our expert, Ms. Ayesha Sajid explored the factors global enterprises need to consider to effectively secure the hybrid work environment.

Computer Vision Based Text Scanner
Type of Activity: Technical

Description: Computer vision based text scanner workshop was organized and hosted by IEEE WIE Lahore Section on December 28, 2021. In this workshop, our honorable speaker Mr. Saad Mahmood trained the students to develop a computer vision based text scanner that can scan any text from an image using the optical character recognition algorithm and display the text on your screen.

Computer Vision Based Smart Selfie
Type of Activity: Technical

Description: Computer vision based smart selfie workshop was organized and hosted by IEEE WIE Lahore Section on December 28, 2021. In this workshop, our honorable speaker Mr. Saad Mahmood trained the students to develop a computer vision based smart selfie that can take snaps automatically when one smiles using facial feature recognition algorithm and store it on your device.

How to win IEEE Technical Innovation Project Grants
Type of Activity: Non-Technical

Description: How to win IEEE Technical Innovation Project Grants workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 29, 2021. In this workshop, Ms. Safoora Saleem Shahnazi - Chairperson of IEEE WIE Lahore Section Affinity Group addressed the link among new initiative, chapter and nature of a proposal and also the power of a strong proposal Collaboration- complementing strengths. She also highlighted how IEEE Grants supports potential IEEE services, products, and other creations that could significantly benefit members, the public, customers, or the technical community. She trained the IEEE members about how Members, volunteers, and IEEE organizational units can submit their ideas for consideration.
Machine Learning & Deep Learning on AWS

Type of Activity: Technical

Description: Industrial Heat Pumps for Steam and Fuel Savings workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 29, 2021. In this workshop, our honorable speaker Dr. Kamran Imtiaz highlighted how to enable software developers, solutions architects, and DevOps to understand the must-have requirements for ML in today's environment. That includes on/off-premises integration, computer vision, voice and language processing as well as the required terminology and roles for stakeholders.

Learning Objectives: This learning objectives are intended to provide the students with the following specific knowledge and skills:

- Introduction to Machine Learning & AI
- Detecting patterns of fraud, waste, abuse
- Automating document management and improving search and discovery
- Improving student outcomes
- Extracting insights from unstructured medical data
- Forecasting service demand and planning capacity
- Modifying models when major events occur

How To Design a Chatbots?

Type of Activity: Technical

Description: How to Design A Chatbots workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 29, 2021. This session gives a short overview of the chatbot history, from the very beginning to the current situation. It also set expectations about what we can do with chatbots and explained how to deal with current problems we face when creating a chatbot design that works.

Learning Objectives:

This workshop conducted to get a complete design framework to build great chatbots. The learning objective is to understand the history of chatbots and where we are heading.
Know where we on the user-chatbot interaction are
Learn what to take into account about chatbot design before writing single line of code
Get a complete chatbot design framework

How to Connect and Secure Medical Robotics to Improve Patient Outcomes
Type of Activity: Technical

Description: How to Connect and Secure Medical Robotics to Improve Patient Outcomes workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 30, 2021. In this workshop, our honorable speaker Cameron Emery presented a data-centric architecture for medical robotics. He demonstrated how to use off-the-shelf technology to lower costs, shorten development time and meet the needs of a fast-growing, yet rapidly changing market. He also highlighted that from diagnostics to the operating room to rehabilitation, medical robotics help surgeons perform delicate, complex procedures with accuracy, flexibility and reliability. When medical robotics are used, patients recover faster with less pain and fewer complications. However, medical robotic applications, such as surgical robotics systems, rehabilitation robotics systems, pharmacy robotics systems, and laboratory robotic systems are extremely complex. Behind this complexity lies an architecture composed of multiple components that must work together seamlessly. Additionally, he told the students that the system must analyze and act on terabytes of accurate, real-time data with zero fault tolerance.

Advanced Motion Control Solutions for Healthcare Robotics Applications
Type of Activity: Technical

Description: Advanced Motion Control Solutions for Healthcare Robotics Applications workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 30, 2021. In this workshop, our honorable speaker Mr. Dana Kara explained how the latest products and technologies support the development of advanced healthcare robotics systems and allow for new capabilities, new applications, and entry into new markets.

Efficient Processing for Deep Learning: Challenges and Opportunities
Type of Activity: Technical
Description: Efficient Processing for Deep Learning: Challenges and Opportunities workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 30, 2021. In this workshop, our honorable speaker Dr. Cagatay Catal described that deep neural networks (DNNs) are proving very effective for a variety of challenging machine perception tasks. But these algorithms are very computationally demanding. To enable DNNs to be used in practical applications, it’s critical to find efficient ways to implement them. This workshop explored how DNNs are being mapped onto today’s processor architectures, and how both DNN algorithms and specialized processors are evolving to enable improved efficiency. Dr. Catal concludes with suggestions on how to evaluate competing processor solutions in order to address your particular application and design requirements. A 45-minute question-and-answer session followed the presentation.

Imaging and Sensing: From Enhanced Photography to an Enabling Technology for AR and VR

Type of Activity: Technical

Description: 3D Imaging and Sensing: From Enhanced Photography to an Enabling Technology for AR and VR workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 30, 2021. In this workshop, our honorable speaker Dr. Shahid Qureshi described the application roadmap, market value and cost of the highly anticipated mobile 3D sensing modules, including topics such as CMOS image sensors, optical elements and VCSEL illumination.

He highlighted that the beginning in late 2017, Apple brought an innovative use case to mobile devices: by means of a structured light-based 3D sensing camera module that the company built into the front bezels of smartphones (and later, tablets), users were able to rapidly and reliably unlock their devices using only their faces. Android-based mobile device manufacturers have added front depth sensors to their products in response, and are now striving to enable applications that additionally leverage rear-side-mounted depth sensors.

Adding Embedded Cameras to Your Next Industrial Product Design

Type of Activity: Technical

Description: Adding Embedded Cameras to Your Next Industrial Product Design workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 30,
Our honourable speaker Dr. Ejaz Khan demonstrated multiple ways to integrate camera technology in hardware designs. He also shared the know-how and experience, from the invention of the first industrial-grade intelligent camera 25 years ago to state-of-the-art Mipi-Modules, board-level cameras and ready-to-use solutions. A question-and-answer session with the audience was also carried for the best understanding of students and the professionals.

**Web Development Training**

*Type of Activity:* Technical

**Description:** Web Development Training was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 30, 2021. This training was for 2-months. The HTML, CSS, React JS, Node JS, Saas & Restful API training is modeled to impart participants with comprehensive practical knowledge on HTML - programming language for the web, CSS - formatting language for defining how the web page looks, and Saas & JS – client side programming language for enabling user interaction on web pages.

**Microchip Technologies Workshop – Enabling Small Form Factor, Anti-tamper, High-reliability, Fanless**

*Type of Activity:* Technical

**Description:** Microchip Technologies Workshop – Enabling Small Form Factor, Anti-tamper, High-reliability, Fanless was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch & MicrochipTechnologies on December 30, 2021. Microchip's technologies offer a power-efficient 4K video and imaging fabric with in-built anti-tamper protection, reliability against single-event upsets and the industry's first integrated quad core RISC-V microprocessor subsystem in a FPGA. Along with the easy-to-deploy VectorBlox™ AI SDK, users can develop next-generation smart vision platforms that do not require a heat sink or a thermal fan. In this workshop, product marketing manager of Microtechnologies Diptesh Nandi, described how innovative technology products help the community to overcome the challenges of designing edge devices that need security, reliability, have a small form factor, and are able to run in battery backup and be field-upgradable. A question-and-answer session was also conducted in the end of the presentation.
Therapeutic and Diagnostic Uses of Electromagnetic Energy in Emerging Medical Technologies

Type of Activity: Technical

Description: Therapeutic and Diagnostic Uses of Electromagnetic Energy in Emerging Medical Technologies workshop was organized and hosted by IEEE WIE Lahore Section in collaboration with IEEE UOL Student Branch on December 31, 2021. The purpose of this workshop is to introduce medical physicists to new tools and methods that can be applied in QA routines to improve efficiency and quality of work. These methods include automation of image-based QA, application of model observers and AI-based image quality analysis. The course also includes topics related to patient specific dosimetry, dose tracking and protocol management systems; tools that are essential for a medical physicist. The speaker also discussed how to adopt these topics in the training of future medical physicists. This webinar also included a practical demonstration of a QA- or dosimetry-related topic. A question-and-answer session was also conducted at the end of the presentation.
Annexure C: IEEE Lahore Section Awards, Recognition and Other Activities.

C.1: Award constituted by the Section

- Outstanding Student Volunteer Award (Winner)
- Outstanding Student Volunteer Award (Runner up)
- Outstanding Student Branch (Winner)
- Outstanding Student Branch (Runner Up)
- Outstanding WIE Student Volunteer Award (Winner)
- Outstanding WIE Student Volunteer Award (Runner Up)
- Outstanding Branch Counselor Award (Winner)
- Outstanding Affinity Group/Student Chapter Award (Winner)
- Outstanding Affinity Group/Student Chapter Award (Runner Up)
- Outstanding Volunteer Award (Winner)
- Outstanding Volunteer Award (Runner Up)
- Outstanding Young Professional Award (Winner)
- Outstanding Young Professional Award (Runner Up)

C.2: Awards and Recognitions received by the Section and the Member in the Section from R10 and IEEE HQ

1. Mr. Syed Tanweer Shah Bukhari selected in IEEE Robotics and Automation Society (RAS) Developing Country Faculty Engagement Program.
2. University of South Asia Student Branch won $300 for the proposal submitted under IEEE R-10 EAC’s Call for Proposal For “Reaching Local Initiatives.
3. IEEE UCET-IUB won “IEEE Regional Exemplary Student Branch Award 2021”
4. IEEE UCET-IUB won “IEEE R10 Student Branch of the Month - July 2021
5. IEEE UCET-IUB won “Outstanding Branch Counselor Award by IEEE Lahore Section
6. IEEE UCET-IUB won “Outstanding Student Volunteer Award by IEEE Lahore Section
7. 2021, proposal of the project "Awareness on Social Distancing Alert and System Implementation during COVID’19” in response to the IEEE Region 10 & IEEE HAC Special Call for Proposals: Addressing Local Needs During COVID Time, has been accepted the funding $450
8. IEEE UCET-IUB won “Approved $600 Funding by IEEE YP Local Activity –
9. IEEE UCET-IUB won “Approved $400 by IEEE Region 10 SAC MDLT Fund for "Leading my Branch to Success"

10. IEEE UCET-IUB won “Approved $500 YP STEP Funding - "Are top Grades Enough for Career?"

11. Ms. Alina Munir, University of Engineering and Technology won COMSOC Honory Mention on her project “Diagnosis of Specific Phobic Anxiety Disorders Using Virtual Reality Environment” in IEEE COMSOC Student Competition.

12. Mr. Fahad Tanveer, University of Engineering and Technology won COMSOC Honory Mention on his project “Live Radar” in IEEE COMSOC Student Competition.


15. Mr. Muhammad Hamza Ihtisham won IEEE IAS Outstanding Young Member service award 2021.

16. Mr. Muhammad Hamza Ihtisham serving as IEEE YP EMB Global Committee.

17. Mr. Muhammad Hamza Ihtisham serving as IEEE IAS CMD Evaluation Committee Panel.
C.3: IEEE Lahore Section International Conferences.

15th International Conference on Open-Source Systems and Technologies (ICOSST)

Type of Activity: Technical

Description: IEEE Lahore Section in collaboration with IEEE COMSOC Lahore Chapter, Al-Khawarizmi Institute of Computer Science UET Lahore organized the 15th International Conference on Open-Source system and technologies ICOSST’ 2021 on 15-16 December 2021 virtually. Collectively 243 researchers submitted their manuscripts from various countries including Pakistan, China, India, Thailand, Indonesia, Malaysia; only a handful top quality 21 papers were accepted by the Technical Evaluation Committee qualifying the merit-based criteria. Speakers were invited from prestigious universities of Pakistan and other countries like Canada, Malaysia, Estonia, USA, Qatar, China to deliver talks in the areas of Artificial Intelligence, Cyber Security, Big data & Cloud computing, Robotics, Blockchain, and the Internet of Things (lot). A panel discussion was also held as a module of the conference themed ‘Future of Knowledge-based Economy in Pakistan’ moderated by Dr. Ali Hammad from the Computer Science Department, UET Lahore. The distinguished panel comprised Dr. Waqar Mahmood, Dr. Muhammad Tahir, Mr. Irfan Zafar, CEO Arham Soft, Mr. Ahmed Muzammil, CEO Gaper, Mr. Shahzeb Rathore, CEO Advanced Systems. The virtual industrial exposition was also arranged in a virtual mode. The virtual exposition also has an option of live chat with the exhibitors.

Almost 500 plus student, faculty members, industry members from all over the world joined the conference.

4TH INTERNATIONAL CONFERENCE ON ENERGY CONSERVATION AND EFFICIENCY 2021

Type of Activity: Technical

Description: 4th International Conference on Energy Conservation and Efficiency (ICECE) 2021 goes virtual this year. ICECE is a flagship event of the Centre for Energy Research & Development (CERAD), UET Lahore that has been happening consistently for the last four years with the spirit of providing an opportunity and platform to the researchers, engineers, and energy experts to explore and exchange ideas in the rapidly developing domain of Energy Efficiency and Conservation strategies. Powered by Punjab Energy Department and in collaboration with Punjab Energy Efficiency and Conservation Agency (PEECA), IEEE Power and Energy Society, IEEE Industry Application Society Lahore Chapter, and IEEE Lahore Section. The conference happened virtually this year considering COVID 19 impact. 116 scholars from 17 countries submitted their
research papers at the conference and 31 out of them were selected. Researchers from Japan and South Korea presented their research papers. Researchers from Italy, Turkey, Saudi Arabia, Canada, Bangladesh, Indonesia, Sri Lanka, Portugal, Poland, and Iraq also submitted their papers at the conference. The opening ceremony of the conference was graced by the presence of Provincial Minister for Energy Government of the Punjab, Dr. Muhammad Akhtar Malik as Chief Guest. Chairman Prime Minister Task Force on Science & Technology, Prof. Dr. Ata-ur-Rehman, Chairman Punjab Higher Education Commission Dr. Fazal Ahmad Khalid, MD PEECA, Mr. Adnan Mudassir were invited as distinguished guests. The opening ceremony kicked off with the welcome note by worthy Vice-Chancellor UET Lahore and a brief presentation by Director CERAD, Dr. Waqar Mahmood.

On the occasion, Director CERAD, Dr. Waqar Mahmood briefed about the purpose of the conference. According to him these type of conferences plays an important role in the improvement of energy storage systems in Pakistan, and we can improve energy storage systems by using natural resources. Vice-Chancellor, Dr. Mansoor Sarwar expressed his determination to continue the efforts of UET to overcome the energy crisis in Pakistan. He said that UET is quite active and working in the energy sector by collaborating with the Government on various successful projects and this conference is another giant initiative to spread awareness about the much-needed requirement of energy efficiency and conservation. The Chairman of the Prime Minister’s Task Force, Dr. Ata-ur-Rehman briefed the participants about the vision of the Government of Pakistan. He said that massive efforts are being made for the promotion of green energy in Pakistan which would help in controlling pollution in the country and save millions of rupees.

Minister for Energy, Dr. Akhtar Malik congratulated UET for holding an international conference. He said that such conferences are necessary to spread awareness to overcome the energy crisis in the country. According to the energy minister, the Punjab government has saved a large amount of energy by setting up four major departments on modern lines and started using modern equipment in these departments, abolishing the old methods of electricity. A panel discussion was also organized among the representatives of various organizations at the conference in which Punjab Energy Efficiency and People from Conservation Agency, National Energy Efficiency and Conservation Authority, Pak Solar Association, Coal and Mining Departments of UET participated. At the Digital Exposition, more than 20 national and international industries from Pakistan, Germany, China, and labs of CERAD showcased their projects in a 3d virtual environment.
The ICECE 2021 proceedings containing presented papers at the conference will be submitted for inclusion to the IEEE Xplore® Digital Library registered.

**Impact of event on community:** 4th IEEE International Conference on Energy Conservation and Efficiency (ICECE) 2021. The conference organized by CERAD-UET Lahore, was held on 16th-17th March 2021 virtually in collaboration with IEEE Power & Energy Society (PES), IEEE Industry Application Society (IAS) Lahore Chapter, IEEE Lahore Section and in Joint Collaboration with Al-Khawarizmi Institute of Computer Science (KICS-UET Lahore). The conference is targeting engineers, researchers, energy experts, manufacturers and building designers to meet, discuss, explore and exchange ideas in the rapidly developing domain of Energy Efficiency and Conservation strategies. The demand management and optimization has been recognized as the fastest viable solution for energy situation of developing countries. Therefore, the event will be an excellent networking opportunity for professionals as well as academia together.

**IEEE International Conference on Emerging Power Technologies (IEEE ICEPT)**

**Type of Activity:** Technical

**Description:** The aim of the conference was to provide a premier platform for engineers and researchers to present their works and to share experiences and ideas in power engineering with experts and scholars from around the world. The conference program was feature technical sessions and paper presentations. Distinguished speaker was also be invited to deliver keynote speeches and invited talks on emerging technologies in power engineering. Attendees had the opportunity to interface with experts from all related fields.

The conference was organized with the Collaboration of IEEE IAS Lahore Section Chapter, IEEE PES Islamabad Section Chapter, IEEE GIKI and IEEE Islamabad Section.

The ICEPT 2021 proceedings containing presented papers at the conference will be submitted for inclusion to the IEEE Xplore® Digital Library registered.

**C.4: IEEE Lahore Section OU Humanitarian Activities.**
IEEE FOUNDATION PROJECT “Awareness and Production of Sustainable Electricity through Bio Gas”

Activity: Non-Technical

Description: This seminar was indeed a very informative collaborative effort of the IEEE UCET IUB Student Branch and IEEE Foundation. These seminars provide the students with information about the present and practical market situation also develops their skills exceptionally. Seminar designed on such a course of actions also educates the students about the requisite capabilities to grow as future engineers. The unique aspect of this seminar, it touched all the dimensions concerning the problems and probable solutions that can be faced by job seekers, especially in the present situation. It gave due guidance to the students regarding the current issues prevalent in the job market, also educated them about the various strategies to be adapted to fight the long-term consequences of the ongoing pandemic.

Our honourable moderator Uzair ul Hassan (Vice-Chair, International Affairs) introduced the respectable panellists and then invited our first panellist Dr Abdul Gaffar. He described Biogas production through animal dung. According to his statics, one cubic meter of biogas can produce 2.5Kw of electricity. And 6kg cow dung can produce 2.5 cubic meter biogas. About 3.6 to 5 million kW/day of electricity generated to statics. He also said that proceed dung acts as a good fertilizer rather than direct use because it contains methane gas and heat. He also explained why the death happen near plants if the mandatory precautions not observe.

Impact of Event on Community:

After the session, all the students had supplementary knowledge about the latest trends toward renewable energy source and to develop sustainable biogas plants. The students consulted the panellists for their relevant queries, which were all answered satisfactorily by the speaker. The speaker helped the students to think positively and made them understand what is important professionally and personally to remain put and persevere in the present job market. Overall, the session indeed paved a way with guiding light for the students to strive and struggle in their personal and professional life.

Blood Camp - February Blood Drive

Type of Activity: Humanitarian Activity
Description: Blood donation has taken a serious hit amid COVID19 outbreak, and blood is in short supply, leaving patients of thalassemia and others to suffer. By considering this issue, IEEE WIE Lahore Section arranged a 2- days blood camp from **20th Feb 2021 to 21st Feb, 2021** at Fatimid Foundation Blood Bank.

WIE Lahore offered the:

- Completely hygienic environment
- Free full body check-up
- Free full body test
- Certificates to donors
- Goodie bags

**How IEEE Supports Technical Innovation for Humanity & Profession?**

**Type of Activity:** Humanitarian

**Description:** How IEEE supports technical innovation for humanity and profession webinar was organized and hosted by IEEE WIE Lahore Section on **December 27, 2021**. In this webinar, Ms. Safoora Saleem Shahnazi - Chairperson of IEEE WIE Lahore presented how IEEE inspires and enables IEEE programs that improve access to technology, enhance technological literacy, and support education and the IEEE professional community. She added IEEE membership provides everyone with the resources and opportunities one needs to keep on top of changes in technology, network with other professionals in the local area or within a specific technical interest.

**Your Mind Matters**

**Type of Activity:** Humanitarian

**Description:** Your mind matters workshop was organized and hosted by IEEE WIE Lahore Section on **November 24, 2021**. Our honourable speaker Dr. Carolyn Curtis - Philanthropist demonstrated how to balance the different aspects of our lives. He said, when things in our life change, we must re-establish the balance. He mentioned that No one experiences perfect mental health or well-being all the time. Mental health is just as important to our lives as our physical health. He also added that mental health is not the same thing as the absence of a mental illness. Mental health includes emotional, psychological, and social well-being.
COVID-19, INFORMATION, RESOURCES & VACCINES

**Type of Activity:** Humanitarian

**Description:** Pakistan is facing the most difficult time in its fight against COVID19. In a country with over 212 million inhabitants, to date thousands of cases have been recorded and the curve of new infections has reached the peak. Effective and secure vaccines against the coronavirus – alongside better treatments – are the most promising way out of the COVID-19 pandemic. Several vaccine candidates have registered, many more are under the process, and some are being tested in clinical trials. However, there are still huge challenges ahead. We are facing a crisis in almost every field due to this pandemic.

To explore approaches to address these challenges in COVID-19 vaccination and to discuss other aspects of this pandemic in different areas (scientific, social, government, law, industry, IT, doctors and common person perspective), **Women in Engineering, IEEE Lahore Section** organized a panel discussion on COVID-19, INFORMATION, RESOURCES & VACCINES to talk about the most important thing that we’re all facing around the world today.

Women in Engineering, IEEE Lahore Section invited the outstanding and matchless top global minds, people who the industry and the world follow for their thoughts and knowledge. They represented some of the best in the industry for talks, consulting and coaching and each one has multiple accolades including books they have written or services or people and organizations they have worked with.

**Ramadan Iftar Drive**

**Type of Activity:** Humanitarian

**Description:** IEEE Lahore Section and WIE Affinity Group volunteers started the Ramadan campaign and showed unity with the ummah, the hungry, the thirsty and those in need. With this initiative of Iftar Ramadan Drive we reached upto 700 daily wagers, street vendors and guards at roadside. The volunteers came forward and helped in preparing and distributing iftar to the lower staff. The fasting people are served traditional delicacies -- including samosa (a deep-fried triangular savory pastry filled with potato and spices), pakora (deep-fried spicy snacks made from gram flour), Biryani, fruit chaat, dates, and juices.

**Ration Distribution Drive**

**Type of Activity:** Humanitarian Activity
Description: The Holy month of Ramadan is the month of giving and a time to show support for the cause of humanity by helping the less privileged and underserved within our communities. The objective of this project is to reach out to the most underprivileged segment of our society and directly engage with them and show them our support by distributing the basic food items and products for hygiene. Our goal is to promote a healthy lifestyle in addition to delivering the message of sharing and caring amongst the underserved citizens of our nation. We were highly supported by our community, collected around 70k within our circle and by the support of our collaboration partners.

In summary, the objective of the Ramadan Ration Drive Campaign is to:

- To help the underserved segment of our society
- To give relief to the needy during the holy month of Ramadan
- To feed the hungry and less fortunate with fresh and quality consumables.

IEEE HAC Awareness Seminar on Utilization of Robotics and Drones against Locust Attack

Description: This seminar designed for “Awareness of Utilization of Robotics & Drones against Locust Attack” had unique aspects to tell the people about the role of robotics and drone technologies. The session started with the address of moderator “Sameea Abbasi”, she first thanked all the participants and then welcomed the distinguished speaker “Dr Ayesha Hakim”. The speaker was thankful to the student branch for arranging the seminar and inviting her to discuss one of the most important topics. Most people are unaware of the technological advancement of robotics and drones and their use in situations such as locusts attack. She initiated her session through a presentation in which she highlighted the following prospects:

- Life Cycle of locusts
- Control of locusts
- Challenges associated with the locust attack
- Utilization of robotics and drones against locust attack

Impact of Event on Community:
During the session, all the students got significant knowledge about the” Role of robotics and Drone technology against Locust attack”. The students consulted the speaker for their relevant queries, which were all answered rationally by the speaker. This seminar indeed gave new knowledge about the locust and their attack on the crop. Overall, the session paved the way for guiding light for the students.
HEPATITIS FREE WORLD

**Activity:** Non-Technical

**Description:** This is the pilot project of Hepatitis free university was organized by the mutual collaboration of IEEE EMBS UCET IUB with District Health Authority & the Islamia University of Bahawalpur, held in Main Auditorium of the Islamia University of Bahawalpur. Members of IEEE EMBS UCET IUB Chapters volunteered for the execution of this leading project. Awareness Campaign was initiated by the Islamia University of Bahawalpur & district health authority Bahawalpur from October 2019 till the start of the Hepatitis free University Camp. Hepatitis refers to an inflammatory condition of the liver. It’s commonly caused by a viral infection, but there are other possible causes of hepatitis. These include autoimmune hepatitis and hepatitis that occurs as a secondary result of medications, drugs, toxins, and alcohol. Autoimmune hepatitis is a disease that occurs when your body makes antibodies against your liver tissue. Our 5-day camp includes the registration Counters, Screening counters, Vaccination counters & IT team. These are working parallel and finished their tasks day by day. This camp of The Islamia University of Bahawalpur is working under the Supervision of the focal person from District health Authority DHA, Dr. Aurangzaib and the Focal person from The Islamia University Bahawalpur, Dr. Asif Ranjha.

C.5: IEEE Lahore Section OU Professional Activities.

**Professional Development Program**

**Type of Activity:** Non-Technical

**Description:** This was a series of 7 sessions for developing essential skills to land your very first job and be successful in the professional workplace. This was an initiative of IEEE LUMS’ social welfare initiative. Speakers from Ufone (a well-known telecommunications company) gave sessions on essentials skills and habits like work ethic, cv making, presenting, Ms Excel.

**Impact of Event on Community:** This took place from Aug 23 till 2nd September during which all in person courses and interactions were restricted. During this period schools and colleges were also closed.
BRAINIAC’21

Type of Activity: Technical

Description: Under the banner of the International Conference on Open-Source Systems & Technologies (ICOSST) 2021, a student competition “BRAINIAC’21” was organized by Al-Khawarizmi Institute of Computer Science (KICS), UET Lahore with co-sponsorship of IEEE ComSoc Lahore Chapter on 14-16 December 2021. This was the first on-campus event after COVID19 where students from various universities of the country participated zealously. BRAINIAC is a national technical competition that provides opportunities for students to enhance and showcase their technical skills through a country-wide competition and win attractive cash prizes. The 3-day competition comprises different modules including project video, full-stack functional website, code champ, circuit genie, math gauge, and league of your own (gaming competition) in which students unleashed their technical skills and cherished a healthy competitive environment with the cash prizes of Rs. 1 Lac. Around 180 participants from the universities including the University of Lahore, Information Technology University, FAST National University, Punjab University College of Information & Technology, and other campuses of the University of Engineering & Technology Lahore participated in the competition. The winners of all the modules were announced at the closing ceremony of the 15th International Conference on Open-Source Systems & Technologies (ICOSST) 2021. “The technical competitions foster the mindset that allows creativity to grow”, said Vice Chancellor UET Lahore, Prof. Dr. Syed Mansoor Sarwar while speaking at the closing ceremony. Worthy Vice-Chancellor UET along with Director Al-Khawarizmi Institute of Computer Science (KICS), Prof. Dr. Waqar Mahmood and Mr. Kashif Bashir Chair IEEE Comsoc distributed the cash prizes of Rs. 100,000 amongst the winners.

IEEE YOUNG PROFESSIONALS’ LOCAL ACTIVITY

Activity: Non-Technical

Description: The online event conducted by IEEE UCET IUB Student Branch on the Zoom Meeting Application. The seminar “I Have a Degree, Now What?” commenced at Noon and was one hour and 36 minutes long. This event consists of three sessions. During the first session, the honourable speaker, Usman Ghani discussed the techniques, how to approach the local market in present times and the required skill set to approach the local market. The second session started by Haissam Khan on the topic of how to
approach the international market. In the end, the third session by Dr Asjad Amin explained the process of how to advance in your academic? Which plays a vital role in your career.

**Impact of Event on Community:** During the session, all the students got supplementary knowledge about the latest market trends with knowledge about how to develop and polish an adequate skill set to survive in the job market. The students consulted the speaker for their relevant queries, which were all answered satisfactorily by the speaker. This seminar gave new hope to the attendees and inculcated the spirit of innovation and growth in them that required in their fields. The speaker helped the students to think positively and made them understand what is important professionally and personally to remain put and persevere in the present job market. The session paved a way guiding light for the students to strive and struggle in.

**IEEE IAS CMD Webinar**

**Type of Activity:** Non-Technical

**Description of the event:**

IEEE IAS CMD Webinar was organized and discussed following points:

- IEEE Importance and its history
- IEEE IAS History
- Student Opportunities
- Faculty Opportunities
- IEEE IAS CMD Programs
- IEEE IAS CMD Competition and Awards.
- Motivation and professionalism

**ONLINE CAREER COUNSELING SESSION**

**Activity:** Non-Technical

**Description:** The main objective of the online session was to provide ethical assistance to our new batch members. To make a beneficial decision in the future were not unfortunately taken by our seniors. And also
for the betterment of current graduates to make sure not to waste their time during the pandemic. How to grow together in some practical issue? To inform the students how to use career strategy in the future for job hunting skills. And how to overcome some personal issues. The session was about seeking proper skills, which includes communication skills and technical skills to prevail in competition.

The seminar conducted virtually through the zoom application. During the first session, the honourable speaker **Saqib Jameel** discussed the related issues during the pandemic phase. He advised the students to stay at home and avoid any social gathering during the condition. He also discussed the new graduates' issues and gave a reasonable solution regarding problems. The speaker delivered the session for about 30 to 50 minutes. The speaker also provided a long question-answer session which proved to be extraordinarily powerful for the students. Thus, students got valuable information regarding their careers.

Everyone got satisfied with the speaker's views and opinions. All participants queries were answered side by side. He provided information and also initiated valuable courses by him for the students who wanted to get additional skills.
Annexure D: IEEE Lahore Section Future Goals and Plans.

D.1: Continuation of project/activity in progress and their implementation plans

- IEEE ICOSST 2022
- IEEE ICECE 2022
- IEEE ComSoc Summer School Program 2022
- IEEE International Workshop on Artificial Intelligence and Frontiers.
- IEEE National workshop on Smart Grid
- IEEE National Workshop on Robotics and Industrial Automation
- IEEE Lahore Section Student/Young Professional/Women in Engineering/Technical Congress.

D.2: Goals and Future Plans

- To provide a platform for networking for EE/CS/IT professionals
- To help in sharing knowledge and expertise at local level and International Level.
- To strengthen Industry-Academia Links
- To encourage and support student activities
- To organize Technical Meetings, Conferences, Summer Schools and Symposium for Development of Country
- To represent Lahore Section at international IEEE Forums
- To Initiate Professional Development Program which will help professionals to get engage and know about updated technology. Workshop/course under this program will be industry or research driven.
- Summer Champs, workshops, and International Conferences will be conducted which will be effective for IEEE members in Pakistan.
- Develop closer ties with R10 management.
- Increase membership through a concerted drive and activate dormant members
- Offer value for membership.
- Effective use of web and social media presence for realization of goals
- Invitation to industry professionals’
- Developing Calendar of Events and Activities


- IEEE National Workshop on Robotics and Industrial automation.
• IEEE National Big Data Workshop
• IEEE National Workshop of Smart Grid
• IEEE Career Counselling Symposium
• IEEE Lahore Section Final Year Project Exhibition
• IEEE Summer Schools
• IEEE MINIPOCO
• IEEE LSYWTC
• IEEE ICACS Conference, UOL
• IEEE ICECE Conference, UET
• IEEE ICOSST Conference, UET