ENGINEERING PULSE

LogiX SOLUTIONS

VOLUME # 06

ENGINEERING PULSE

A PROJECT OF LOGIX SOLUTIONS

IN THIS ISSUE

EDITOR
MR. AHSAN QAMAR

ASSOCIATE EDITOR
ENGR. IQRA JAMALI

SUB - EDITOR
ENGR. MARYAM

SUB - EDITOR
ENGR. SHAZIA MUMTAZ

LAYOUT & DESIGN
MR. IMTIAZ AHMED

THE BATTLE FOR PEC LEADERSHIP: A VOTE THAT SHAPES ENGINEERING

WHAT IS PEC?

The Pakistan Engineering Council (PEC) constituted under the PEC Act of 1976, responsible for regulating the engineering profession in Pakistan. Its primary mandate is to accredit engineering programs, register professional engineers, and ensure that engineering practices in Pakistan meet International standards.

As a regulator of engineering profession, it also acts as an advisory body to the Government on engineering-related issues, providing expert opinions on national policies, infrastructure projects, and technical matters. Its major role includes Accreditation of different engineering programs at universities and technical institutions across Pakistan. This ensures that engineering graduates meet the requisite educational standards. PEC also registers professional engineers, consulting engineers, and constructors as registration is mandatory for engineers to practice legally in Pakistan. PEC also organizes workshops, seminars,

It also serves as a mediator in disputes involving engineering practices, ensuring ethical standards are maintained

and training programs to promote continuous professional development. It also collaborates with international engineering bodies to align Pakistan's engineering standards with global practices.

PEC also conducts professional engineering exams and issues certifications. This includes the Engineering Practice Examination (EPE) for acquiring the title of Professional Engineer (PE). It also serves as a mediator in disputes involving engineering practices, ensuring ethical standards are maintained.

PEC operates through it's headquarter in Islamabad, with regional offices across Pakistan. Its operations are funded through registration fees, accreditation fees, and other service charges.

The Governing Body is headed by the Chairman, who is elected from among the registered engineers

Governance & Governing Body:

PEC is governed by a Governing Body, which includes representatives from various engineering disciplines, academia, and industry. The Governing Body is headed by the Chairman, who is elected from among the registered engineers. Members include elected and nominated representatives from the engineering community.

PEC ELECTIONS:

Details and Procedure

The PEC conducts elections for its Governing body every three years. These elections are conducted for the offices of Chairman, Senior Vice Chairman, Vice Chairmen for each province and 40 members of the Governing Body from all over Pakistan.

PEC ELECTIONS FOR THE TERM OF 2024-27:

PEC Elections for the term 2024-27 are to be held on August 18, 2024. Process of casting vote typically involves the following steps:

1. Eligibility of Voters: All registered and professional engineers having lifetime subscription or valid registration with PEC are eligible voters and can cast their votes. You can check your eligibility criteria at PEC portal. (https://verification.pec.org.pk).

2. Polling Timings: Polling shall start at 8:00 a.m. and continue till 5:00 p.m. without any break.

3. Polling Stations and Balloting Procedure: PEC has made arrangements of physical balloting at designated NADRA offices across Pakistan. For the convenience of voters, PEC has uploaded the list of polling stations on their website. Voters can check their nearest polling station through this link (https://www.pec.org.pk/elections2024/polling-station). All voters must bring their original CNIC and PEC registration cards on polling day to avoid any inconvenience.

4. Ballot Papers: Voters would be given three ballot papers according to their discipline, and domicile province. One ballot paper for Chairman and Sr. Vice Chairman, one for the Vice Chairman of respective province and one for the members of relevant discipline.

5. Verification: After-casting vote, voters should ensure that their vote has been recorded as per the instructions provided.

Seat Distribution:

In general there is one seat for the office of Chairman and one for Senior Vice Chairman and one seat for Vice Chairman of each province. Seats for the members of the PEC Governing Body province wise are:

PUNJAB: Punjab has 19 seats in total: (Civil=3, Mechanical=3, Mechatronics / Nuclear / Textile /Automotive=1, Metallurgy / Agriculture / Mining / Petroleum and Gas=1, Chemical / Polymer / Food=2, Computer=1, Telecom/Aerospace/Avionics=1, Electronics / Engineering Science=1, Electrical / Biomedical / Energy=6).

SINDH: Sindh has 12 seats (Civil=3, Mechanical/Mechatronics / Indus / Nuclear / Textile / Automotive=2, Metallurgy / Mining / Agriculture / PetroGas / Chemical=1, Computer / Telecom / Aerospace / Avionics=2, Electronics / Engineering science=2, Electrical / Biomedical=2).

KPK: KPK has 6 seats (Civil / Architecture=2, Mechanical / Mechatronics / Nuclear / Textile / Automotive / Mining / Metallurgy / Agriculture=1,Chemical / Computer / Telecom / Aerospace / Avionics / Electronics=1, Electrical=2).

Balochistan: Balochistan has 3 seats (Civil / Architecture=1, Mechanical / Mechatronics / Textile / Nuclear / Mining / Computer=1, Electrical / Electronic=1).

The Pakistan Engineering Council (PEC) elections are a vital aspect of its governance, allowing registered engineers to choose their representatives who will guide the Council's activities and policies. These elections ensure that the Council remains an effective and true representative body of engineers.

PROMINENT CANDIDATES:

a. For the office of Chairman:

1. Engr. Waseem Nazir:

Engr. Waseem Nazir appears to be a highly accomplished professional with a rich and diverse background in engineering. His extensive experience spanning over four decades across Europe, the Middle East, and Asia underscores his broad expertise and global perspective.

Holding a Civil Engineering degree from UET, Lahore and advanced degree including an MBA from the UK reflects his strong educational foundation and commitment to continuous learning. As the Managing Director of MMP, a leading engineering firm with over 1,000 employees, he demonstrates significant leadership and management skills.

His career reflects a blend of technical expertise, leadership, and global engagement

His election as Vice President of a global forum with 78 member countries from 2016 to 2019 highlights his influence and recognition in the international engineering community.

His career reflects a blend of technical expertise, leadership, and global engagement. Engineer Waseem Nazeer has been nominated as a joint` candidate by the Pakistan Engineer Group and the National Engineer Alliance for the position of Chairman in the Pakistan Engineering Council election 2024.

+92 319 3441850
+92 21 34370336
info@logix-solutions.net
logix-solutions.net
Suite No. 612, Park Avenue, Main Shahrah-e-faisal, Block-6 PECHS, Karachi

2. Engr. Javed Saleem Qureshi:

Engr. Javed Saleem Qureshi seems to have a distinguished career with a broad range of responsibilities and contributions. As a former Chairman of the Pakistan Engineering Council (2015-18 & 2018-21) and Chairman of the Four Brothers Group of Pakistan, he has likely played a significant role in shaping engineering standards and industry practices in Pakistan. His involvement with the Prime Minister IT Task Force suggests a focus on advancing information technology in the country. His membership on the governing bodies of prominent universities like NUST, NUML and PIEAS indicates a strong commitment to education and academic development. His diverse roles reflect a blend of leadership in both industry and academia. Engineer Javed Saleem Qureshi has been nominated by The Engineer Pakistan (TEP) for PEC election 2024 as a candidate of Chairman.

He has likely played a significant role in shaping engineering standards and industry practices in Pakistan

3. Engr. Najeeb Haroon:

Engr. Muhammad Najeeb Haroon is the current Chairman of PEC (2021-24). He is also the founder and Chief Executive of Principal Group, is a distinguished Civil Engineer and successful entrepreneur in the construction industry. He earned his Bachelor's Degree in Civil Engineering from NED-UET, Karachi and a Master's degree in Civil Engineering from Oregon State University USA. Having 45 years of professional experience, he has established himself as a leading figure in the construction industry. In addition to his engineering and entrepreneurial achievements.Engr. Muhammad Haroon is a prominent national figure, had served as an elected Member of National Assembly (MNA) from (2018-2023) where he was Chairman of the standing Committee for Housing and works. He was elected Chairman of PEC from (2021-24).

As the Chairman of PEC, he has introduced numerous initiatives to elevate engineering profession. The Graduate Internship Training (GIT) Program for fresh engineers is one of his significant achievements. Engr. Muhammad Najeeb Haroon is a candidate for Chairman Pakistan Engineering Council from National Engineer's Development Force (NEDF).

4. Engr. Al-Kazim Mansoor:

Engr. Al Kazim Mansoor, a Civil Engineer with a MS in Geotechnical Engineering from Louisiana State University and a degree in Geotechnical Engineering from the University of Washington, has been active in engineer's issues and was elected as its first Senior Vice Chairman in 2011. He serves as President of Pakistan Engineers Forum and contesting this election under their umbrella.

He has been nominated by Pakistan Engineers Forum (PEF) as the candidate of Chairman in Pakistan Engineering Council (PEC) election 2024.

5. Engr. Syed Ashfaq Hussain Shah:

Engr. Ashfaq Shah is a Mechanical Engineer, graduated from Engineering College Peshawar. He has held notable positions such as Cadet Captain and President Student Union at Peshawar University. He has also made significant contributions to various boards, including PESCO, PRIMACO, TEVTA, CCH, NICS, and LRH.He is the Founder and Chairman of the Syed Zada Group of Companies, Daily Maidan, and the Syed Zada Foundation. He is also the Chairman of the Constructor Association of Pakistan (CAP). Engr. Ashfaque Shah will contest PEC election 2024 as a candidate of Chairman under his UEP (United Engineer Pakistan) Group.

The Graduate Internship Training (GIT) Program for fresh engineers is one of his significant achievements

b. For the Office of Sr. Vice Chairman:

1. Engr. Syed Raghib Abbas Shah:

He is graduated from NED Collage, Karachi in 1970 in the Civil Engineering. Joined WAPDA in 1974 as junior Engineer and retired as Chairman WAPDA in 2014. He had remained member of International Commission of Irrigation and Drainage (ICID). After retirement, he did his Masters in Civil Engineering & recently in 2023 did his PhD in Geo Technology (Civil Engineering) from Mehran University of Engineering & Technology, Jamshoro. Nowadays, he is the Member of Syndicate of Mehran University of Engineering & Technology, Jamshoro and also the Member of the Senate of Dawood University of Engineering & Technology, Karachi. In addition to this, he is Member of Independent Panel of Experts working for (PEDO) under World Bank. Engr. Raghib Abbas Shah is running for the office of the Senior Vice Chairman on the panel of PEG/NEA alliance in the PEC elections 2024. He is considered as one of the important candidates for this seat.

He is Member of Independent Panel of Experts working for (PEDO) under World Bank

+92 319 3441850
+92 21 34370336
info@logix-solutions.net
logix-solutions.net
Suite No. 612, Park Avenue, Main Shahrah-e-faisal, Block-6 PECHS, Karachi

2. Engr. Prof. Dr. Sarosh Hashmat Lodhi:

Dr. Sarosh Hashmat Lodhi, a distinguished academician and has been serving as the Vice Chancellor of NED University of Engineering and Technology, Karachi since 2017. He has transformed the University's strategic direction towards academic excellence and played a pivotal role in modernizing engineering education and fostering innovation. He has been working on financial sustainability mechanisms for NED University, including the establishment of the National Incubation Center in 2018 and Pakistan's first Technology Park, a multi-million-dollar project through a Private Public Partnership. The park is expected to become a hub for technology enthusiasts, entrepreneurs, and multinational corporations. Dr. Sarosh Hashmat Lodhi will contest for Sr.Vice Chairman under the umbrella of TEP (The Engineer Pakistan) Group. He is also an important candidate for this seat.

He has transformed the University's strategic direction towards academic excellence and played a pivotal role in modernizing engineering education and fostering innovation.

3. Engr. Syed Imtiaz Hussain Shah:

Engr. Imtiaz Hussain Shah is a highly accomplished engineer with over 37 years of experience in the engineering field; hold a BSc. degree in Civil Engineering from UET Lahore. He has made significant contributions to Civil and Consulting Engineering. His expertise spans across consulting; construction field, making him a versatile and skilled professional in theengineering community. He is an active member of Institute of Engineers Pakistan (IEP) and Association of Consulting Engineers Pakistan (ACEP). Engr. Imtiaz Hussain Shah is committed to enhancing the role of PEC in the professional development of engineers across Pakistan. He is contesting election as a candidate of Sr. Vice Chairman Engr. Syed Imtiaz Hussain Shah will contest PEC Election 2024 from Pakistan Engineer's Forum (PEF) Group.

---

c. Vice Chairman Punjab:

1. Engineer Haider Ali Khan:

Engr. Haider Ali Khan is a graduate of University of Engineering and Technology (UET), Lahore inCivil Engineering. He has worked with various companies in Pakistan and outside for 34 years. Nowadays; Engr. Haider is the Head of Engineering Department at Lahore Leeds University (LLU). He has been elected to the Pakistan Engineering Council's (PEC) Governing Body three times. He is contesting PEC elections for the office of the Vice Chairman Punjab from Pakistan Engineering Forum (PEF) Group panel.

---

2. Engr. Mujahid Pervez Chattha:

With over 35 years of distinguished service in the power distribution sector, he brings extensive expertise as an engineer. He served as Chief Executive Officer of Lahore Electric Supply Company (LESCO) from February 2018 to January 2021, where he demonstrated exceptional leadership and strategic vision. His career spans over three decades with LESCO/FESCO, encompassing roles in distribution and operation engineering, with a strong focus on commercial and revenue generation, customer service, and energy conservation. He has also been involved in inspecting and testing power sector materials, repairing distribution transformers, and installing and testingenergy meters. Engr.Mujahid Pervez has undergone rigorous trainings, achieving top positions in senior, middle, and junior management courses at WAPDA Staff College and Engineering Academy. In addition to his engineering expertise, he has also contributed to corporate governance and renewable energy research, specifically in solar energy. Engr. Mujahid Pervez Chattha is contesting PEC elections 2024 as a Vice Chairman, Punjab as a candidate of NEA-PEG Alliance.

He has also been involved in inspecting and testing power sector materials, repairing distribution transformers, and installing and testing energy meters

---

3. Engr. Prof. Dr. Suhail Aftab

Engr. Prof. Dr. Suhail Aftab Qureshi is a graduate of UET Lahore in Electrical Engineering. Dr. Suhail Aftab did his MSc and PhD in Power Engineering from UMIST, UK. Dr. Suhail Aftab has served as a faculty member at the Department of Electrical Engineering, UET Lahore, for almost 35 years. He also received the best University teacher award from HEC in year 2003. He also remained Chairman of the department of electrical engineering at UET Lahore and served as the Dean of Electrical Engineering Faculty as well. Dr. Suhail Aftab is a very active researcher during his professional career and has published 174, international as well as local research papers.

He also received the best University teacher award from HEC in year 2003

Engr. Suhail Aftab is contesting PEC elections 2024 as a Vice Chairman, Punjab as a candidate of TEP Alliance.

+92 319 3441850
+92 21 34370336
info@logix-solutions.net
logix-solutions.net
Suite No. 612, Park Avenue, Main Shahrah-e-faisal, Block-6 PECHS, Karachi

d. Vice Chairman Sindh:

1- Engr. Mukhtiar Ali Shaikh:

Remarkable Engineer Engr. Mukhtiar Ali Shaikh received his Electronics Engineering degree from Dawood College of Engineering and Science, Karachi. He began working for Pakistan Customs in 1984, and for seven terms in a row, he presided over the Customs Officers Association of Pakistan without opposition. The management and staff both greatly value his leadership and dedication.

PEC had arranged two international job fairs one in Karachi and the other in Peshawar in 2015, facilitating the hiring of Pakistani Engineers by International firms

He has served three terms as the Vice Chairman of PEC Sindh province (2012-2015, 2015-2018 and 2021-2024). As the Vice Chairman of Sindh province (2012-2015), he organized two international job fairs in Karachi and Peshawar in 2015, facilitating the hiring of Pakistani Engineers by International firms. As the first chair of PEC's Public Relations Committee, he started the publication of an engineering magazine and negotiated special prices for engineers across the country on a range of services and goods. He fervently

The engineering community has benefited greatly from Engr. Mukhtiar Shaikh's services

of 34 years, he became the youngest elected member of PEC Governing Body in the history and has served in the Governing body three times. The engineering community has benefited greatly from Engr. Mukhtiar Shaikh's services. This is why; he is also known as the VOICE of the HEARTS of the engineering fraternity. At the age

supports engineers who successfully establish on-the-job training (OJT) programs for recent graduates. Numerous honors have been given to him in recognition of his accomplishments, including the PEC Excellence award by the President of Pakistan in 2024 and a gold medal from the Prime Minister of Pakistan in 2017 for his

exceptional services to the engineering community. His professional background is evidence of his unrelenting dedication to the advancement and recognition of Pakistani engineers. Engr. Mukhtiar Shaikh is contesting PEC Election as Vice Chairman of Sindh from PEG-NEA Alliance. According to the analysts, he is the most favorite candidate for this seat.

HUMBLE ADVICE:

Dear engineers, we have provided you with a comprehensive overview about PEC, its status, functions and its electoral procedure. We have also tried to accommodate you with the necessary information about candidates and their services rendered for the Engineering fraternity.

Elections approach on August 18th, it is imperative that every engineer from you exercises their right to vote. Each vote holds immense value in shaping the future of engineering profession. By casting your vote, you contribute to the selection of leaders who will advocate for your rights and work towards the betterment of the engineering community. So let's ensure you choose the right individuals who are committed to making significant positive changes for engineers across Pakistan. Your vote is not just a right; it's a responsibility towards a brighter future for all engineers.

So make your voice heard and vote wisely!

In Memoriam: Engineer Muhammad Shafique (1952 - 2024)

With profound sadness and deep respect, Logix Solutions pays tribute to Engineer Muhammad Shafique, a luminary in the field of Civil Engineering and a stalwart of the engineering community in Pakistan. Born on March 1, 1952, in Jacobabad, Sindh, Engineer Shafique dedicated his life to the advancement of civil engineering and left an indelible mark on our nation through his exemplary service, unwavering dedication, and exceptional expertise.

A proud alumnus of NED University of Engineering & Technology, where he earned his Bachelor of Engineering in Civil in 1971, Engineer Shafique's professional journey was nothing short of remarkable and held esteemed positions as a Fellow Member of the Institution of Engineering Pakistan and a member of the Association of Consulting Engineers Pakistan. His career was distinguished by roles such as Senior Director (Retd.) in the Structure Section of the Sindh Building Control Authority (SBCA) and Chief Consultant for Planning & Development at Sir Syed University of Engineering and Technology, Karachi.

Engineer Shafique's leadership extended beyond the confines of his professional roles. He served as the Vice Chairman Sindh of the Pakistan Engineering Council, he was also elected is a member of PEC governing body multiple times and was a valued member of the Senate at NED University. His contributions to the Committee for Seismic Zoning of Karachi and his involvement as Vice President Civil of the Institution of Engineering Pakistan highlight his commitment to enhancing structural safety and engineering standards. His participation in various committees, including the Pakistan Engineering Council Building Committee Karachi and the Committee for Enlistment of Proof Engineers, further underscores his dedication to upholding engineering excellence and public safety.

His influence was also felt in the legal and regulatory realms, where he served as a member of the Selection Committee for the Sindh High Court/City Court of Karachi and contributed to the Accreditation and Construction Committees of the Pakistan Engineering Council. His work as a structural and vetting engineer for multiple cantonment boards and the Sindh Building Control Authority demonstrated his deep expertise and commitment to ensuring the integrity of structures across the region.

The passing of Engineer Muhammad Shafique on July 24, 2024, is a profound loss to the engineering profession and to our nation. His unparalleled expertise, visionary leadership, and dedication to public safety have set benchmarks that will be challenging to surpass. As we reflect on his remarkable career and the significant impact he had on the field of civil engineering, we honor his memory and extend our deepest condolences to his family, colleagues, and all who were touched by his work.

Logix Solutions extends its heartfelt gratitude and admiration for Engineer Muhammad Shafique's outstanding contributions and service. His legacy will endure through the many structures he helped design, the standards he helped establish, and the lives he positively influenced. Rest in peace, Engineer Shafique. Your pioneering spirit and relentless pursuit of excellence will continue to inspire and guide future generations of engineers.

Engr. Muhammad Shafique
1st March 1952 - 23th July 2024

Scan this QR for audio version

Engr Prof. Dr. Tufail Ahmed Jokhio: His exceptional work and achievements have raised NED University's profile considerably

With a spectacular twenty-four-year career, Engr. Prof. Dr. Muhammad Tufail Jokhio is a recognized personality committed to the academic arena. He has been serving as NED University's Pro Vice-Chancellor since 2017. After graduating from NED University with a degree in Mechanical Engineering, he continued his education at the University of Nottingham in the United Kingdom. In addition, Dr. Jokhio has demonstrated his dedication to the engineering community by serving as a member of the Pakistan Engineering Council (PEC) Governing Body. His exceptional work and achievements have raised NED University's profile considerably.

Engineering Pulse:

Tell us about yourself and your journey?

Engr.Prof.Dr Muhammad Tufail Jokhio:

I received my schooling from government schools and graduated in 1990 from NED University in Mechanical Engineering. After that, I pursued my Masters and Ph.D. in U.K. I returned back to Pakistan in 1999 and began my journey as an Associate Professor in Mechanical Engineering Department of NED University and later moved to Industrial and Manufacturing Department. In 2017, I got an opportunity to serve as Pro Vice-Chancellor for four years. After completing my first tenure, I got appointed again and this is my second tenure which will end in July, 2025.

Engineering Pulse:

What led you to choose a career in Teaching and what motivated in that decision?

Engr.Prof.Dr Muhammad Tufail Jokhio:

I always wanted to serve industry but when I came back after my Ph.D. and tried to enter in the domain of industry then they offered me a position of Trainee Engineer which was not acceptable to me. My friends suggested to me that I should approach NED University and spend some time there. Abdul Kalam was the Vice Chancellor of NED University and he has contributed a lot in uplifting the status of the University. At that time, I was not planning to stay there more than a semester but gradually that ambiance attracted me and I enjoyed my time. I continued and it's been now 24 years that I am serving this profession.

Engineering Pulse:

The majority of individuals in our generation often lack an inclination towards pursuing a career in Teaching. What could be the underlying reasons for this trend?

Engr.Prof.Dr Muhammad Tufail Jokhio:

When I started, people did not aspire for teaching as a profession because they were not facilitated by the universities. It completely changed the system and now people prefer universities because the things have changed now. Sadly, the condition of public sector schools and colleges is worsening day by day. We have a mechanism of entry aptitude test and somehow students manage to pass this test but they face difficulty in their first year because of poor basic. Government should focus on betterment of public sector schooling and colleges to improve the overall quality of education.

Engineering Pulse:

Tell us about the vision and administration of NED University?

Engr.Prof.Dr Muhammad Tufail Jokhio:

People usually are not aware of the background and abbreviation of NED University. Back in 1921, the British ruling regime was constructing a barrage on the River Indus which now we call Sukkur Barrage. At that time there was no single institute which could produce civil engineers. So they decided to build an institute which could provide graduates in civil engineering. They founded Prince of Wales Engineering College which got its affiliation from University of Bombay with the efforts of Mr. P.K Shahwani. The College received a donation of Rupee 150,000 from heirs of Nadirshaw Edulji Dinshaw, a philanthropist. After separation of Bombay from Sindh, NED got affiliated from Sindh University first and then Karachi University in 1952. In 1997, we got the charter of university. At undergraduate level, we are offering around 35 degree programs in which 19 are engineering and rest are non-engineering. Right now more than 100 programs are there in NED University. In 2019, with the support of Sindh Government, we constructed a College in Mithi, Sindh. The purpose of this institute was the provision of quality education in remote areas of Sindh.

Engineering Pulse:

In recent years, there has been a significant expansion in engineering disciplines, leading to a surge in graduates. However, the market demand has not proportionally increased, resulting in job search challenges for many. Do you believe this expansion has contributed to unemployment?

Engr.Prof.Dr Muhammad Tufail Jokhio:

Quality of education is the most important thing. Expansion has occurred but not on the cause of losing quality of education. It is hard to maintain the quality of education while expanding disciplines. Unfortunately, in private sector, there is no specific attention on quality of education and that is why their graduates face multiple issues when they complete their studies. I'm not saying that all of the private universities are like this.

+92 319 3441850
+92 21 34370336
info@logix-solutions.net
logix-solutions.net
Suite No. 612, Park Avenue, Main Shahrah-e-faisal, Block-6 PECHS, Karachi

UNIVERSITIES OFTEN CRITICIZED FOR FAILING TO PRODUCE INDUSTRY RELEVANT TALENT

Engineering Pulse:

According to you, what is the difference between a graduate of NED University and other universities?

Engr.Prof.Dr Muhammad Tufail Jokhio:

One thing I would like to say is that when we take feedback of our graduates, we get a positive response. All of these programs adhere to strict compliance, and this is the reason we follow rigorous guidelines. We receive positive feedback, which gives us confidence in the capabilities of our students.

Engineering Pulse:

What was the status of the Pakistan Engineering Council when you started your career and how it has evolved over time? And how can its functioning be improved more?

Engr.Prof.Dr Muhammad Tufail Jokhio:

As a Pro Vice Chancellor, my responsibility is to follow the instructions of the Vice Chancellor. In 2015, I was elected as the member of Central Executive Committee of PEC. After becoming signatory to Washington Accord, PEC has introduced its strict policies for monitoring of universities. The role of PEC as per their act is responsible for monitoring of universities, contractors and consultants. I feel that its role should be expanded further and it should be visible in the industrial sector also.

Engineering Pulse:

Industries claim that universities do not produce talent according to their requirements and that is the reason that when a graduate enters in their professional domain, they face serious issues in applying their knowledge in practical life. What is the reason for this gap?

Engr.Prof.Dr Muhammad Tufail Jokhio:

It is not practical anywhere in the world for students to graduate from university and immediately grasp everything on their very first day in the industry.

Industries should understand that we cannot produce graduates specifically tailored to the needs of a particular industry or company. NED University has implemented this from the start and we have an Industry Advisory Board for every program. We are working on the model and this idea has originated from our Vice Chancellor. Our plan is to have an industry visit in the first year, where industries should select two or three students.

Engineering Pulse:

Elaborate on the functioning of Regulatory Authorities and how it can be improved more?

Engr.Prof.Dr Muhammad Tufail Jokhio:

HEC has its own requirements and guidelines and HEC is playing a fruitful role and we gain much support from Higher Education Commission. Unfortunately, HEC is dealing with multiple issues since 2018. HEC is responsible for funding of public sectors universities.In 2018, the Government of Pakistan has decreased the budget of Higher Education Commission and this budget was constant till 2022. HEC is dealing with low funds and this can harm the survival of Public sector universities. Before HEC funding was more than 50% but now we generate 52% from our own revenue, 28% are funded by Government of Sindh and remaining is covered by HEC. Government should consider this advice and increase the recurring grant of HEC so that public sector universities can survive.

Engineering Pulse:

Students are now more inclined towards Entrepreneurship rather than jobs. How NED University is facilitating its students in this regard?

Engr.Prof.Dr Muhammad Tufail Jokhio:

Under the umbrella of HEC, NED University has established an incubation center in the campus. After that the Government has announced the establishment of National Incubation Centers in major cities. The purpose of these incubation centers is to encourage entrepreneurship among students. The incubation center that has been established in NED University is a successful model. In this way students will get a good platform to showcase their skills and creativity.

Engineering Pulse:

What steps are taken by NED University to ensure student well-being?

Engr.Prof.Dr Muhammad Tufail Jokhio:

For all of our programs, we have student's chapters where students can display their activities. Apart from that we have Department of Student Affairs which is having multiple societies to showcase the activities of students. We are lucky enough that most of this amount comes from our alumnus.

NED University plays a pivotal role in fostering research and innovation within its academic community

Engineering Pulse:

The role of Artificial Intelligence is expanding rapidly. How NED University is incorporating AI in Engineering and Non-Engineering Programs?

Engr.Prof.Dr Muhammad Tufail Jokhio:

Seven to eight years ago, the Government of Pakistan announced the establishment of a Center of Excellence in multiple universities. Luckily we have four centers right now and Artificial Intelligence Center is one of them. The center of AI is doing well in NED University. One of the requirements of Government was that these centers should make them sustainable in four to five years because after that they will not be funded by the Government.

Engineering Pulse:

How NED University is playing a role in promoting Research and Innovation?

Engr.Prof.Dr Muhammad Tufail Jokhio:

Our faculty members take part in multiple Research competitions.

Apart from that we have our own Research and Development Fund in which the every enrolled Ph.D. scholar receive one million rupees to bear their expenses. If any of our faculty member publish their research papers in renowned journals then we appreciate that too by giving those rewards. These steps encourage our faculty and they try to make progress in the domain of Research and Innovation (R&I).

Engineering Pulse:

Any challenging situation in your journey?

Engr.Prof.Dr Muhammad Tufail Jokhio:

Honestly I do not have faced such kind of situation. Our VC was my senior and colleague from the beginning and we have a friendly relation. I have been with supporting people. They never left me alone in any situation so I never experienced such kind of issue.

Engineering Pulse:

Any message for the readers of Engineering Pulse and all Engineering Community?

Engr.Prof.Dr Muhammad Tufail Jokhio:

I would like to request the Government of Pakistan to increase the budget of Higher Education Commission. Secondly, I will say that PEC is doing a wonderful job and it should focus more on enhancing their role in monitoring universities. I would like to suggest to all engineers that they should continuously work on their professional development. They should enhance their learning about the world.

Engineering Pulse:

Thank you so much sir for your time. It was great to know about your life and views. Definitely you have contributed in knowledge of our readers.

Scan this QR for video

+92 319 3441850
+92 21 34370336
info@logix-solutions.net
logix-solutions.net
Suite No. 612, Park Avenue, Main Shahrah-e-faisal,
Block-6 PECHS, Karachi

NCA and PIFD Campuses Will Soon Open in Karachi

Soon, there will be campuses for two of the most prestigious colleges in Lahore the National College of Arts (NCA) and the Pakistan Institute of Fashion and Design (PIFD) in Karachi.

This statement was issued by Dr. Khalid Maqbool Siddique Federal Minister for Ministry of Science and Technology.

Dr. Siddiqui was accompanied by the Chairman of the Higher Education Commission (HEC), the Vice-Chancellors of NCA and PIFD, and other senior officials. Through the new campuses, he said, the youth of Sindh will have access to "employable skill-based short courses."

Dr. Siddiqui emphasized the federal education ministry's nationwide reach and disproved the notion that it only conducted business in Islamabad. He stressed the need of educating the younger generation to capitalize on this demographic, which comprises 60% of the population of the country.

To leverage their large populations for technical advancement, Dr. Siddiqui drew comparisons with neighboring countries that had successfully concentrated on workforce development. Emphasizing that Pakistan should follow suit and provide its youth with employable skills, he said.

Dr. Siddiqui said that the National Vocational and Technical Training Commission (NAVTTC) will be expanding its institutes and courses, as well as adding more campuses. To provide Pakistani youth with better training alternatives, he stressed collaborations with regional, multinational corporations such as Huawei and Microsoft.

Speaking on the quickly evolving global trends, Dr. Siddiqui emphasized the need for education for Pakistan's survival and development. He stressed how critical it is to act quickly to set the nation up for success in the face of upcoming difficulties.

When asked if brain drain was a good thing, Dr. Siddiqui said that young people leaving Pakistan for other countries will eventually result in more remittances and a greater presence for Pakistan internationally.

Scan this QR for audio version

Departments Appointed to Computer Emergency Response Teams in All Four Provinces

Punjab, Khyber Pakhtunkhwa (KP), Sindh, and Balochistan are the four provinces of Pakistan. Each province has assigned particular departments to act as its Provincial Computer Emergency Response Teams (CERTs).

Sindh has identified its Science Department as its CERT, while Punjab has selected the Punjab Information Technology Board (PITB). In addition to the KP Computer Emergency Response Center (CERC), which is now operational, Khyber Pakhtunkhwa has designated the KP IT Board as its own CERT. Additionally, Balochistan has decided to handle its CERT responsibilities through its Science Department.

The provinces have conveyed their decisions, and the Ministry has begun action to form a CERT Council, according to representatives from the Ministry of IT and Telecom. Academic institutions, business associations, and members of the public have already nominated people to the CERT Council to the Ministry of IT and Telecom.

Important CERTs will be formed by the CERT council, which will serve as the supreme authority regulating cybersecurity measures. It will forward suggestions for Sectoral and Provincial CERT formation. The Federal Government shall formally notify the designated provincial CERTs by these suggestions.

The National, Provincial, Government, and Sectoral CERTs will be part of the organization, as per the CERT Rules, 2023. The National CERT was already informed by the Federal Government in March of this year. Coordination of efforts to address cybersecurity vulnerabilities across the country will pick up steam with the establishment of the CERT Council.

Scan this QR for audio version

+92 319 3441850
+92 21 34370336
info@logix-solutions.net
logix-solutions.net
Suite No. 612, Park Avenue, Main Shahrah-e-faisal,
Block-6 PECHS, Karachi

A Day with HR Professionals at Mohammad Ali Jinnah University

The Faculty of Business Administration at Mohammad Ali University (MAJU), with collaboration Logix Solutions, an esteemed HR services provider, orchestrated a momentous event titled "A Day with HR Professionals" last month. This enlightening affair was tailored to benefit both final-year students and recent graduates, offering a wealth of knowledge and invaluable professional insights.

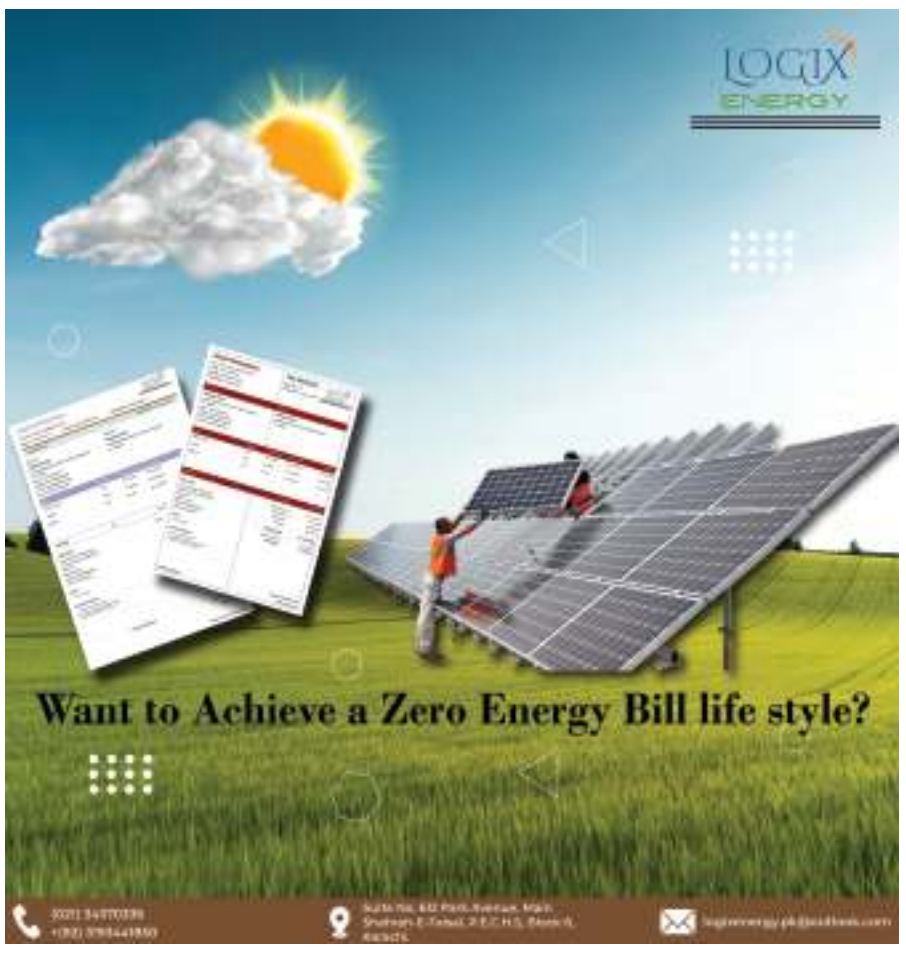
The event was graced by a cadre of distinguished HR professionals, including Mr. Adil Riaz, Director of HR at Pakistan Cables, Ms. Unsa Farhan, Manager HR at Taj Gasoline and Mr. Muhammad Umair Raisi, HR Manager at Dawat e Islami Trust. Also present were Mr. Waheed Murad, HR Manager at Total Parco, Mr. Sikandar Rizvi, Manager HRBP at Young Food, Mr. Hassan Ghufran, HR Manager at Fatimiyah Hospital, and Mr. Irfan Zaidi, Deputy Manager HR at AGI Denim. Adding to the prestige of the event, Irfan Soomro (DG MOFA) attended as the Chief Guest.

Throughout the day, participants were immersed in sessions on social media strategies, modern resume crafting techniques, interview methodologies for novices, career development trajectories, and prevailing HR challenges. Each esteemed HR delegate was honored with a commemorative shield, signifying their invaluable contributions.

In addition to that, Logix Solutions graciously presented souvenirs to all the distinguished guests, further commemorating the significance of their participation. The sessions were expertly moderated by Miss Sana Jawed, a faculty member at MAJU and Seasoned HR Professional , Mr Qurban Udhano (MAJU Alumni).

Mr. Ahsan Qamar (MD-Logix Solutions) and Dr Asif Qureshi (Associate Professor, MAJU) welcomed and thanked the distinguished guests.

Scan this QR for audio version



Analyzing the Impact of Pakistan's Climate Change Strategies

Syed Abid Ali Shah received the PhD degree from Aston University Birmingham, United Kingdom in 2019. Dr. Abid Shah has successfully completed the Associate Fellowship from Higher education academy UK. He is working as a Chairman of Electrical Engineering Department and an Associate Professor at The University of Larkano. His research interests include the environmental friendly design and optimization of electrical machines and drives with sustainable development and analyzing especial machines.

His major interest is on the future industrial demands with respect to climate change in the field of Solar system, Wind Power Generation and Electrical Vehicles. He is a HEC Recognized Supervisor. He is a registered engineer of Pakistan Engineering Council and member of IEEE and IET of UK and Ireland section.

SYED ABID ALI SHAH BUKHARI
Chairman of Electrical Engineering Department
University of Larkano

Climate change is a pressing global issue that influences countries all over the planet, including Pakistan. With a developing acknowledgment of the need to address environmental concerns, Pakistan has been effectively dealing with strategies to moderate the effects of climate change lately. The year 2024 imprints an essential period for assessing the effect of Pakistan's climate change strategies and understanding the current climate change condition in the country. Pakistan, in the same way as other different countries, is encountering the effects of climate change, including rising temperatures, changing weather patterns, expanded recurrence of extreme weather events, and dangers to agriculture and water resources. These effects have driven the Pakistani government to foster far reaching strategies and initiatives to handle the challenges presented by climate change.

In 2024, it is necessary to break down the effectiveness of Pakistan's climate change strategies. By assessing the progress made in regions like renewable energy improvement, carbon emission reduction, protection efforts, and adaptation measures, we can acquire significant insights into the strengths and weaknesses of current initiatives. Top to bottom examination of the effect of the country's climate change strategies reveals insight into both progress and challenges faced. Noteworthy initiatives, for example, the Renewable Energy Policy, the Ten Billion Tree Tsunami Project, and the Electric Vehicle Policy have been instrumental in driving change. For example, the Renewable Energy Policy has brought about a 15% increment in renewable energy production, despite the fact that there stays a 50% shortfall in funding to meet the 2030 target of creating 30% of electricity from renewable sources. Essentially, the Ten Billion Tree Tsunami Project has taken huge steps by establishing 3 billion trees, yet faces a 75% funding hole to accomplish its full target. Nonetheless, a few challenges persevere, including issues connected with execution and enforcement, lacking funding, limited public awareness, insufficient data and monitoring, and obliged institutional capacity. These obstacles frustrate the effective execution of climate change strategies in Pakistan. For example, funding shortfalls across different initiatives require a significant expansion in financial resources, with an extra $1.8 billion expected to reinforce climate change efforts. Also, upgrading policy enforcement, expanding public awareness, further developing data collection, and strengthening institutional capacity are important steps toward address the predominant challenges.To defeat these obstacles and drive significant change, proposals include expanding funding by 50%, improving policy execution and enforcement, expanding public awareness and schooling efforts, creating strong climate monitoring systems, and supporting institutional capacity through targeted expertise and resources. By decisively tending to these proposals, Pakistan can strengthen its climate change agenda and endeavor towards an additional sustainable and strong future.

One critical part of Pakistan's climate change strategies is the advancement of renewable energy sources, for example, solar and wind power, to lessen dependence on petroleum products and abatement greenhouse gas emissions. By putting resources into renewable energy systems and boosting clean energy production, Pakistan means to progress towards a more sustainable and environmentally friendly energy sector.

Besides, Pakistan has been carrying out preservation projects to safeguard its normal resources, including forests, wildlife, and water bodies. These efforts assist with safeguarding biodiversity and ecosystems as well as add to relieving the effects of climate change by sequestering carbon and advancing biological system resilience.Notwithstanding moderation measures, Pakistan has been zeroing in on building resilience to climate change influences through adaptation strategies. This includes carrying out early warning systems for extreme weather events, further developing water management practices, and improving agricultural techniques to adapt to changing climate conditions. By assessing the effectiveness of current strategies, distinguishing regions for improvement, and advancing cooperation between government, civil society, and the private sector, Pakistan can upgrade its resilience to climate change and add to global efforts to resolve this pressing issue.

In conclusion, Pakistan's climate change condition in 2024 reflects a critical crossroads in the country's efforts to handle environmental challenges and advance sustainable turn of events. By breaking down the effect of Pakistan's climate change strategies, partners can acquire significant insights into the progress made and the areas of improvement.

Scan this QR for audio version

+92 319 3441850
+92 21 34370336
info@logix-solutions.net
logix-solutions.net
Suite No. 612, Park Avenue, Main Shahrah-e-faisal,
Block-6 PECHS, Karachi

THE EVOLVING LANDSCAPE OF SOFTWARE ENGINEERING IN PAKISTAN

Following the years after COVID, Pakistan has experienced a significant transformation in the emerging field of software engineering, thanks to several government initiatives and the ongoing digital revolution. The demand for skilled IT professionals has soared and has shaped software engineering to become one of the most sought-after career paths in the country. Due to the rapid advancements in information technology coupled with an increase in reliance on digital solutions across various sectors, software engineering has positioned itself as a foundation of Pakistan's economic and technological growth. This outpouring demand is not only opening up rewarding career opportunities for software engineers but also driving the overall development of the country's IT infrastructure.

Khuram Shaikh

Khuram Shaikh is a seasoned HR profes sional, trainer and educationist. Having a rich experience in different roles of HR and education makes him a prominent role model for others. He holds an MBA, MS in Management Science, LLB, and he is also an ongoing Ph.D. pursuit.

The Demand for skilled IT Professionals has soared and has shaped Software Engineering to become one of the most sought-after career paths in the country

Increasing Demand and Competitive Salaries:

The COVID-19 pandemic has increased the demand for digital solutions, leading to a surge in demand for IT professionals like software engineers, web developers, and mobile app developers in Pakistan. Salary prospects for these professionals have become attractive, with entry-level salaries ranging from PKR 40,000 to PKR 150,000, and senior positions attracting PKR 150,000. On average, software engineers earn PKR 142,399 per month, with additional cash compensation ranging from PKR 3,958 to PKR 20,833.

A Degree in High Demand:

The software engineering degree is gaining popularity in Pakistan's government and private sectors due to its relevance in the dynamism of the sector and the increasing reliance on digital solutions in various aspects of life and business.

Exciting Career Opportunities:

The future of software engineering in Pakistan is promising, with the industry expected to grow and offer numerous opportunities for professionals to contribute to the national economy. The best jobs in this field include specialized roles and leadership positions, such as team lead, project management, and senior software engineering positions, as well as niche areas requiring expertise in specific programming languages and software types.

Top Job Roles for Software Engineers:

Pakistan offers numerous career paths for software engineers, including video game designers, SQA engineers, cyber security engineers, application analysts, applications architects, software project managers, software developers, software testers, full stack engineers, JavaScript engineers, software development engineers, mobile engineers, cloud engineers, data scientists, Android engineers, backend engineers, application security engineers, software architects, and machine learning engineers.

Accredited Institutions Offering Software Engineering Degrees

Many Pakistani institutions offer software engineering degrees accredited by the Higher Education Commission (HEC) and Pakistan Engineering Council (PEC). These institutions include Sir Syed CASE Institute of Technology in Islamabad, Abasyn University in Peshawar, Bahria University, Air University, The Islamia University of Bahawalpur, University of Engineering and Technology in Taxila, University of Science and Technology in Bannu, Mehran University of Engineering and Technology in Jamshoro, NED University of Engineering and Technology in Karachi, Balochistan University of Information Technology, Engineering and Management Sciences in Quetta, Mirpur University of Science and Technology in Mirpur (AJ&K), University of Azad Jammu and Kashmir in Muzaffarabad,

Ghulam Ishaq Khan Institute of Engineering Science & Technology in Swabi, Army Public College of Management & Sciences (APCOMS), Capital University of Science & Technology, COMSATS University Islamabad, DHA Suffa University, Foundation University, Federal Urdu University of Arts, Sciences & Technology, GIFT University, Government College University, Hazara University, HITEC University, IBADAT International University, University of the Punjab, Indus University, Imperial College of Business Studies, Iqra University, Zia-ud-Din University, University of Management & Technology, University of Lahore, University of Chenab, Shaheed Zulfikar Ali Bhutto Institute of Science & Technology, Riphah International University, Qarshi University, Pir Mehr Ali Shah Arid Agriculture University, Pak-Austria Fachhochschule Institute of Applied Sciences and Technology.

The salary prospects for Software Engineers in Pakistan have become ever quite attractive

Conclusion:

The Engineering landscape in Pakistan is evolving rapidly, with new highly technical fields pose themselves as viable options to be pursued, and chief among them being Software engineering, promising much and attracting many. This change in the dynamics is driven by a combination of governmental support, technological advancements, and the digital revolution spurred by the pandemic. With competitive salaries, a growing demand for skills and numerous prestigious institutions offering high-class education, software engineering is a suitable field for aspiring professionals in Pakistan.

The future looks bright for those willing to embrace the opportunities and face the challenges that come with this ever-evolving industry, and reaping the rewards that come with it. As Pakistan continues to invest in its IT infrastructure and digital economy, software engineers will play a crucial role in shaping the country's technological future, driving innovation, and contributing to sustained economic growth. The prospects for software engineering professionals are not only promising but also pivotal in steering Pakistan towards a more digitally advanced and economically sound future.

Scan this QR for audio version

Chinese researchers on the space station made significant progress in their study of rare metals

High-performance refractory alloys have been the subject of several recent scientific breakthroughs by Chinese scientists. These findings stem from research carried out on China's orbiting space station, the Chinese Academy of Sciences' Technology and Engineering Center for Space Utilization.

Their work represents a significant advancement in the theoretical study of space materials science and was spearheaded by a team from Northwestern Polytechnical University (NPU) in China. Rare metal materials having melting points of more than 2,000 degrees Celsius are known as high-performance refractory alloys.

Six rounds of in-orbit experiments have been conducted on more than ten high-performance refractory alloy sample types created by the research team in the space station's containerless experiment cabinet since April 2021.

To prevent samples from changing form when they come into touch with a container surface, the cabinet can keep samples in a suspended condition. Under these microgravity circumstances, significant experiments have been carried out, including those about solidification, heating and melting, electrostatic levitation, and the assessment of the thermophysical characteristics of refractory alloys.According to Wang Haipeng, an NPU professor and part of the research team, "We determined the key properties of refractory alloys at ultra-high temperatures through our analysis of the returned samples. Our results include a series of discoveries with important scientific value."

PREPARING YOUNG PROFESSIONALS FOR THE MODERN CHALLENGES

The event was organized by Hamdard University with collaboration of IEEE YP, IEEE HIET SB, IEEE HIET WIE AG at Hamdard University Karachi main campus on 23 of May 2024. In this session respected speakers provide valuable opportunities and knowledge about different modern challenges at industrial level.

The session commenced with a recitation in the name of Allah, followed by Fatima Mohsin Zakai (Advisor of IEEE WIE HIET AG and a faculty member in computer science at Hamdard University) who shared valuable insights on the benefits of joining IEEE YP after graduation. Subsequently, Engr. Ali Raza Larik(a Lecturer and internship coordinator in the Department of Electrical Engineering at FEST, Hamdard University) delivered a brief but informative session on Power System Generation, Transmission, and Distribution in Pakistan. Following this, Engr. Adeel Khan, a Lecturer and Lab Coordinator in the same department, conducted an engaging workshop on ETAP software.

This workshop provided participants with thorough knowledge and practical experience in electrical power system analysis and design using ETAP, covering topics such as load flow analysis, short circuit analysis, TCC curve and system optimization. The sessions, led by esteemed speakers who demonstrated the software's capabilities and facilitated hands-on exercises, were well-received by students and faculty members alike. Attendees praised the workshop's comprehensive coverage, interactive format, and the presenters' clarity and expertise.

The practical application of theoretical knowledge and the valuable insights into ETAP's practical uses were particularly appreciated. The workshop concluded with a Q&A session and a vote of thanks, marking it as a successful and enriching learning experience. Overall, the ETAP software workshop was a resounding success, achieving its goals of enhancing participants' understanding and skills in electrical power system analysis, fostering a collaborative learning environment, and providing significant practical insights. The organizing team expressed gratitude to all speakers, participants, and volunteers for their contributions.

Pakistan is sending two thousand IT specialists to Japan

Japan will receive 2,000 IT specialists from Pakistan, according to Chaudhry Salik Hussain, Federal Minister for Overseas Pakistanis and Human Resource Development.

Speaking to the media at the OPF headquarters, the minister said that Pakistanis living abroad serve as the country's ambassadors and that the government does all in its power to support them.

According to him, internet property transfer services will be advantageous for Pakistanis living abroad. Pakistani expatriates living in the UK, Saudi Arabia, the UAE, Italy, and Spain will also have access to the service, which was once only available to those residing in the US.

Pakistanis living abroad will be able to transfer property while they are away, he said. The majority of grievances lodged by Pakistanis living abroad concern property transfers. He also promised to address complaints about property transfers in a matter of 20 days.

Scan this QR for audio version

Ask the Experts

This section offers you the opportunity to ask questions directly from the experts in the field of engineering or engineering education. Our experts will assist you regarding your issues related to various aspects anything starting from the career counseling till the advanced technical queries. You can send your questions at ***ep@logix-solutions.net***

What skills and qualifications do employers look for when hiring engineers? How can I best prepare for these requirements?

Employers typically seek engineers with strong technical skills, problem-solving abilities, teamwork experience, and communication skills. They may also value practical experience, internships, and certifications relevant to the field. To prepare, consider gaining hands-on experience through projects, participating in professional organizations, and continuing education in specialized areas.

As a student pursuing chemical engineering, how can I align my studies with the growing demand for sustainable practices in industries like renewable energy and environmental engineering? What career paths should I consider to make a meaningful impact?

Aligning your studies with the growing demand for sustainable practices in chemical engineering involves focusing on areas such as renewable energy production, sustainable manufacturing processes, and environmental remediation. Skills in process optimization, green chemistry principles, and familiarity with environmental regulations are essential. Consider pursuing internships or co-op programs in industries embracing sustainability initiatives, obtaining certifications in sustainable engineering practices, and engaging in research projects that explore sustainable chemical processes.

How does continuing education and professional development impact engineering career progression?

Continuing education, such as earning advanced degrees, attending workshops, obtaining certifications, and staying updated with industry trends, enhances technical expertise and adaptability. It demonstrates commitment to professional growth, improves job prospects, and opens doors to leadership roles and specialized positions.

In the current cybersecurity landscape, what are the key skills and certifications that employers look for in computer engineering graduates interested in cybersecurity roles? How competitive is the job market in cybersecurity compared to software development?

The demand for cybersecurity professionals continues to rise with the increasing frequency and sophistication of cyber threats. Employers seek computer engineering graduates with skills in network security, penetration testing, and incident response. Certifications such as Certified Information Systems Security Professional (CISSP) or Certified Ethical Hacker (CEH) are highly regarded. The cybersecurity job market is competitive but offers rewarding career paths in cybersecurity consulting firms, financial institutions, and government agencies focused on cybersecurity defense.

As a student deciding between Civil and Mechanical Engineering, how do I determine which field offers better job stability and growth opportunities in the next decade?

Both Civil and Mechanical Engineering offer strong career prospects. Civil Engineering tends to focus on infrastructure projects which are vital for urbanization and sustainability initiatives. Mechanical Engineering, on the other hand, spans across various industries including automotive, aerospace, and manufacturing. Consider your interests in design versus infrastructure development and research the demand in your desired geographic area.

How is the demand for renewable energy affecting career opportunities for engineers?

The demand for renewable energy is significantly increasing career opportunities for engineers. There's a growing need for engineers skilled in designing, developing, and optimizing renewable energy systems such as solar, wind, and hydroelectric power.

Roles span from research and development to project management and system integration, offering diverse opportunities in a rapidly expanding sector focused on sustainability and clean energy solutions.

What are the emerging career paths for biomedical engineers in the healthcare industry?

Biomedical engineers have diverse and expanding career opportunities in the healthcare industry. They play a critical role in designing and developing cutting-edge medical devices, from prosthetics to advanced imaging systems, that enhance diagnosis and treatment efficacy. Additionally, biomedical engineers contribute to biomedical research, exploring new therapies and drug delivery methods to address medical challenges. In regulatory affairs, they ensure compliance with stringent healthcare standards for the safety and efficacy of medical technologies. Clinical engineering is another vital area where biomedical engineers support the installation, maintenance, and operation of medical equipment in healthcare settings. Emerging fields like biomechanics and rehabilitation engineering focus on improving mobility and quality of life through innovative devices. Furthermore, bioinformatics utilizes computational methods to analyze biological data, driving advancements in personalized medicine and healthcare delivery. These career paths highlight the interdisciplinary nature of biomedical engineering, combining engineering principles with medical knowledge to innovate and improve healthcare outcomes globally.

Scan this QR for audio version

Logix SOLUTIONS

Logix Solutions provides the ultimate human resources solutions for every business. We Act accordingly and engage in the solutions for your company to provide you the ideas for the best options based on your needs.

HR CONSULTANCY

Recruiting - Executive Search and Mass Hiring
Human Resources Outsourcing
Payroll Services
Training and Development (T&D)
Performance Management
HR Audit Service
Employee's Primary Verification - Corroboration

ACADEMIC EXCELLENCE PROGRAM

School Improvement Program (SIP)
Professional Development Program (PDP)

WHY LOGIX SOLUTIONS?

Strategic HR support
Tailored Solutions
Technology-driven
Compliance Expertise
Talent Acquisition

INNOVATION BUSINESS SOLUTIONS

Web Designing/Development
Mobile Application
Human Resource Management System
Human Resource Information System
Inventory Control Management System
School Management System

+92 319 3441850
+92 21 34370336
info@logix-solutions.net
logix-solutions.net
Suite No. 612, Park Avenue, Main Shahrah-e-faisal,
Block-6 PECHS, Karachi