



## A PROJECT OF STUDENTS OF IIEE, PCSIR WONS 2ND POSITION IN COMPETITION CONDUCTED BY SILICON VALLEY AND ASPIRE PAKISTAN THROUGH NATIONAL IDEA BANK

A final year project titled “Development of Electronic Skin Based on AI” by students of the Institute of Industrial Electronics Engineering (IIEE), PCSIR has been selected as the second prize winner in the entrepreneur program startup competition conducted by Silicon Valley and Aspire Pakistan through National Idea Bank. The project was awarded Rs. 50,000 with a certificate by the President, Islamic Republic of Pakistan, Dr. Arif Alvi. This achievement highlights the exceptional quality and innovative nature of the project, positioning it among one of the top ideas in the country. The project has been supervised of Dr. Farah Haroon and Dr. Muhammad Sameer Ahmed.



## TECHNOLOGY TRANSFERRED IN BIOTECH FROM COWAY, CHINA TO PCSIR FOR UPLIFTING PCSIR MANDATE EXPEDITIOUSLY LEAD BY DR. SYED HUSSAIN ABIDI, CHAIRMAN PCSIR

10 days International hands-on training regarding various bio-products including Lysine, DHA and  $\beta$ -carotene was attended by Dr. Syed Hussain Abidi (S.I.), Chairman PCSIR, Dr. Quratulain Syed, Director General PCSIR Labs Complex, Lahore, Dr. Yasar Saleem and Dr. Sania Mazhar, FBRC for capacity building at M/s Coway International Tech Trans, Laboratories, Beijing China from May 14<sup>th</sup>-23<sup>rd</sup>, 2023.



## FEDERAL MINISTER FOR S&T AGHA HASSAN BALOCH VISITS PCSIR LAHORE

The Federal Minister for S&T Mr. Agha Hassan Baloch, visited PCSIR Labs Complex, Lahore and had a meeting with Dr. Quratulain Syed, Director General PCSIR Labs Complex, Lahore on June 18, 2023.



## REGIONAL DIRECTORATE COMMANDER ANF PUNJAB, DIRECTOR RAJA TARIQ KIANI VISITES PCSIR LAHORE

Regional Directorate Commander ANF Punjab, Director Raja Tariq Kiani visited PCSIR Labs. Complex, Lahore on June 21, 2023. A meeting was arranged in committee room. He visited the Cannabis Green House, Processing Plant and Instrumentation developed at LLC along with Dr. Quratulain Syed, DG PCSIR Labs Complex, Lahore.



## PCSIR LAHORE CONDUCTS FOCUS GROUP MEETING WITH OFFICIALS FROM NCA R&D BOARD, STRATEGIC PLANS DIVISION (SPD)

PCSIR Lahore organized a focus group meeting with officials from NCA R&D Board, Strategic Plans Division (SPD) Islamabad on May 29, 2023 in the auditorium of PCSIR Labs Complex Lahore (LLC). The initial briefing was given by Dr. Quratulain Syed, Director General, LLC and the experts from different fields were introduced with each other. After meeting, the experts visited the centers for mutual discussion and possible R&D collaboration. Experts of metallurgy, alloys development, advanced engineering materials, nanomaterials, energy materials and powder metallurgy interacted with the engineers and scientists of PITMAEM. After detailed discussion, a briefed visit of available testing and R&D facilities of the centre was conducted. They show keen interest for collaboration in different engineering fields with PITMAEM



## CHAIRMAN R&D BOARD, STRATEGIC PLANS DIVISION (SPD) VISITS PCSIR LABS COMPLEX, LAHORE

A focus group meeting was organized by PCSIR Labs Complex, Lahore (LLC) with Chairman, R&D board, strategic plans division (SPD) Islamabad along with his team on June 7, 2023. Dr. Quratulain Syed, Director General, LLC welcomed the guests and a meeting was arranged in the auditorium of DG Office. The experts from different fields were introduced with each other and the Director General, LLC initially briefed about the activities of LLC after that The detailed mutual discussion on related topics like; metallurgy & materials, alloys development,

advanced engineering materials, nanomaterials, energy materials and thermal spraying techniques, polymer, pharmaceutical was conducted. The guests also visited ACRC, PITMAEM, G&CRC and MPRC and showed keen interest for collaboration in different fields with PCSIR Labs Complex, Lahore.



### KLC SIGNES MOU WITH NED UNIVERSITY OF ENGINEERING & TECHNOLOGY

NED University of Engineering and Technology joined hands with PCSIR Laboratories Complex Karachi for cooperation and collaboration in academics, research and development. In this regard a memorandum of understanding (MoU) was signed on April 6, 2023. Vice Chancellor of NED University Prof. Dr. Sarosh Hashmat Lodi and Dr. Hafiz Rab Nawaz DG KLC signed the document on behalf of NED and PCSIR Labs.

Complex, Karachi respectively. NED University is one of the oldest and best engineering universities in Pakistan. It is offering undergraduate, graduate, post graduate programs in major disciplines of engineering, science and technology. The university is acknowledged for its best teaching practices and graduates. The agreement will be beneficial for both organizations for progressive development of Research activities.



### PCSIR KARACHI SIGN TORS WITH NAZEER HUSSAIN UNIVERSITY

PCSIR Laboratories Complex Karachi and Nazeer Hussain University signed ToRs relating to “Collaboration in R&D activities, information technology & sciences and development of human resources” on 26.06.23. The event took place at Nazeer Hussain University Campus at Karachi. Dr. Hafiz Rub Nawaz, Director General, PCSIR Laboratories Complex Karachi and Engr. Farhat Khan, Chancellor, Nazeer Hussain University signed the ToRs on behalf of their respective organizations. Both the DG KLC and the Chancellor were hopeful that this ToRs will help to strengthen the relationship between two organizations.



## KLC SIGNS TERMS OF REFERENCES (TORS) WITH M/S AHNAAF ENTERPRISE

PCSIR Laboratories Complex Karachi leased out processes of improving / vetting and transferring of toxin free poultry, cattle and culture feed from indigenous resources to M/s. Ahnaaf Enterprises. The terms of references (TORs) was signed for the grant of these processes on non exclusive basis on A07-04-2023. Mr. Aftab Ahmed, CEO and Mr. Syed Tariq Mujtaba partner of M/s. Ahnaaf Enterprises, Karachi signed TORs on behalf of the party, whereas Dr. Hafiz Rab Nawaz Director General PCSIR Labs. Complex, Karachi signed these documents.

## DESULFURIZATION OF COAL

Scientists from PCSIR Labs Complex Peshawar (PLC) Dr. Waheed Ur Rehman and Mr. Sohail Noor visited Medicon (Pvt) Ltd Peshawar for meeting with Mr. Abdul Karim Tordher (Ex-Minister) Mr. Tariq (Chief Executive, Medicon). The main aim of the meeting was to discuss process development and technology transfer regarding desulfurization of coal for establishment of power plant in Deans industry, Industrial Estate Hayatabad, Peshawar



## IIEE, PCSIR STUDENTS AWARDED GOLD MEDAL

The final year project of Institute of Industrial Electronics Engineering (IIEE), PCSIR students has received the prestigious Gold Medal at the 38th IEEE symposium hosted at PC Hotel. titled "Development of Electronic Skin Based on AI," The project team initially presented their conference paper at DHA Suffa University, where their work was selected from a pool of 28 other conference research papers. The project garnered significant appreciation from both academia and industry professionals, who also provided valuable feedback.



## PCSIR PESHAWAR HELDS MEETING WITH TEAM FROM SARHAD RURAL SUPPORT PROGRAMME (SRSP) AUP MERGED DISTRICTS

A team of SRSP (Aid to Uprooted People of Pakistan) merged Districts headed by Mr. Awlad Hussain, Project Director & Ms. Salma, Programme Officer Livelihood held a focus group meeting at PCSIR Labs Complex Peshawar (PLC). Dr. Javed Abbas Bangash, Director (P&D), PLC and Dr. Arshad Hussain, head Food Technology Centre, PLC along with his team participated in the meeting held on 21-06-2023 at Director (P&D) office. Many issues of mutual interest were discussed in the meeting. Initially both the parties agreed for collaboration on training of local community on preservation of Wild Plum, abundantly available at Parachinar to control its post harvest losses. This activity may be extended further to all the merged Districts of KP. Other issues were also discussed including supply of Portable Solar Dehydrator and technical training on Marble Mosaic.



## PCSIR LABS ISLAMABAD PROVIDES RESEARCH SUPPORT AND TRAININGS

PCSIR Laboratories Islamabad is supporting the Academia in research and playing an important role in improving the analytical skills of students. A two month practical training has been provided to BS students from PMAS Arid Agriculture University Rawalpindi, Quaid-e-Azam University Islamabad and University of Haripur, Khyber Pakhtunkhwa during April and June 2023. Furthermore, PCSIR Laboratories Islamabad also organized a two day training on “An overview of ISO 17025:2017” from 8th - 9th May 2023. Trainees from Pakistan Atomic Energy Commission (PAEC), Chashma (Mr. Usman Arif, Principal Engineer and Mr. Khalil-ur-Rehman, Senior Engineer) attended the training. The Resource Person was Dr. Muhammad Tahseen Aslam, Director PCSIR Labs Islamabad.



## PROFESSIONAL TRAININGS AT PCSIR KARACHI

PCSIR Labs. Complex Karachi (KLC) conducted various training sessions during the month of May, 2023. One week training course on Suitability of Plastic Materials for food contact was offered to officials from Central ITD Labs, Chaklala. Another training session on Basic Working in Microbiology Lab & Microbiological contamination test of jet fuel was arranged on the request of PNS Mehran, Pakistan Navy regarding basic concepts, routine working in microbiology lab and performance of fuel stat testing kit to determine microbial contamination in jet fuel. A training was also organized for the QC/QA staff of M/s. National foods on understanding the principal and procedure requirements of ISO-17025:2017. Various sessions on major clauses of standard were conducted during this two days workshop. Two weeks training was organized for officials from Pakistan Marine Fisheries Department, Ministry of Maritime Affairs on Principals and handling of Atomic Absorption Spectrophotometry. Another training was organized for officials from PSQCA on “Risk Management” as per ISO-31000. Three days hand on training on Gas Chromatography-Mass Spectrometry (GCMS-QP2020 NX) was conducted for 7 individuals that included sample preparation, head space, method building, data acquisition and quantification, general soft-ware and hardware, system evaluation and application in different industries were explained in detail.



## IIEE, PCSIR SIGNS AGREEMENT WITH NAVTTC

The Director, NAVTTC and Principal, Institute of Industrial Electronics Engineering (IIEE), PCSIR signed an agreement to conduct NAVTTC training courses at IIEE on May 27, 2023. This agreement solidifies the partnership between the two entities and enables IIEE to offer training courses in Industrial Automation and Programmable Logic Controller, as awarded by the Government of Pakistan through NAVTTC.

The main objective of these courses is to develop skills and combat unemployment in Pakistan. Upon completing the courses, candidates will possess the necessary skills to establish their own businesses, provide consultation services to industries and effectively tackle industry-related challenges while enhancing their expertise.



## PNAC TEAM VISITS PCSIR LABS. COMPLEX PESHAWAR

Pakistan National Accreditation Council (PNAC) team conducted two day ISO/IEC-17025:2017 verification visit for 2nd Surveillance Assessment at PCSIR Laboratories Complex, Peshawar (PLC) from May 31 to June 01, 2023. All the labs successfully defended their accredited test parameters (102 Nos.). The lead assessor along with his team assessors recommended the continuation of the accredited scope of PLC.



## PNAC TEAM VISITS PCSIR LABS. COMPLEX PESHAWAR

Engineer Shabir Ahmad from “HA Shah and Sons”, Islamabad conducted a 03 day installation and demonstration session on Agilent GC-MS from May 02 to 05, 2023 at PCSIR Laboratories Complex, Peshawar. The scientists were briefed about the new high technology equipment Agilent GC-MS regarding its importance and various features. They were also briefed about installation of hardware and software and techniques to follow up while operating the equipment. The equipment’s have been procured under the PSDP Project “Upgradation of Medicinal Botanic Centre as National Centre for Herbal Medicine” which aims to develop commercial application of herbal products to local farmers, industry, and to export herbal products.



## INTERACTION WITH STAKE HOLDERS

A collaborative meeting was held between district Food Controller AJ&K Mr. Rashid Qureshi and officials of PCSIR Laboratory Islamabad (IL). Dr. Tahseen Aslam, Director, IL, Dr. Fouzia Noreen, Training coordinator / SSO and Mr. Abdullah Khalil, OIC Marketing / JTO attended the meeting. During the meeting it was decided to sign an MoU / ToR between PCSIR Labs Islamabad and AJK Food Authority to enhance the testing facilities and also to establish collection centers at Azad Jammu and Kashmir in future.



## IL SCIENTISTS SUCCESSFULLY COMPLETE ASSESSOR TRAINING COURSE

Dr. Muhammad Tahseen Aslam, Director, Dr. Uzma Rashid, SSO and Mrs. Razia Kalsoom, SSO from PCSIR Labs Islamabad (IL) have qualified “Assessor Training Course” based on ISO/IEC; 17025:2017. The result was announced by Pakistan National Accreditation Council (PNAC) on April 28, 2023. This course will enhance the assessment capabilities of scientists of PCSIR Labs Islamabad regarding accreditation of laboratories nationally and internationally as per requirements of ISO/IEC 17025:2017.



## CRUDE OIL PRODUCTION FROM NON TRADITIONAL MEANS

Dr. Naheed Kausar, Director, Fuel Research Center (FRC) Karachi participated in a meeting on Pakistan Crude Oil production held on May 4, 2023 at committee room of National Security Division, Prime Minister Office Islamabad. This meeting was conducted under chairmanship of Additional Secretary, National Security Division.

## STUDENTS OF AGRICULTURE UNIVERSITY VISITS PLC

Students and faculty members of KP Agricultural University Peshawar visited PCSIR Laboratories Complex, Peshawar (PLC) on June 13, 2023. An orientation visit of different Labs of PLC was arranged for the students to envision the delegation about demand driven and industrial research being carried out at PCSIR, Peshawar.



## FAREWELL PARTY OF MR. FAIDULLAH KHATTAK (EX-DG, PLC AND SECRETARY PCSIR) AT PLC AND IL

Employees of PCSIR Laboratories Complex, Peshwar organized a farewell party for Mr. Faidullah Khan Khattak on May 18, 2023. Mr. Faridullah Khan had served at the prominent positions of PCSIR including Director General, PLC, Member (Science) and Secretary-PCSIR. Mr. Jehangir Shah, Director General PLC presented a souvenir and addressed the occasion by conveying best wishes for future endeavors. A farewell party was also arranged on April 28, in the honor of Secretary PCSIR, Mr. Farid Ullah Khan Khattak, on his retirement as Secretary, PCSIR, at PCSIR Laboratories Islamabad. The Director Islamabad Labs. applauded him for his meritorious services at PCSIR Peshawar and PCSIR Head Office, Islamabad.



## MALL OF HUMANITY

The mall of humanity event, organized by Dr. Muhammad Sameer Ahmed in collaboration with "Helping Hand for Relief and Development (HHRD)," was organized on April 12, 2023 at IIEE, Karachi. This initiative aims to positively impact the lives of the dedicated staff at the Institute of Industrial Electronics Engineering (IIEE). Through a collective effort, the event seeks to provide meaningful support and enhance the well-being of these deserving individuals. Staff members of IIEE was invited to a unique shopping experience where they each received a budget of Rs. 10,000 for a clothing shopping spree. The event features carefully arranged stands, allowing staff to explore and choose clothing items that align with their personal preferences, all while maintaining their integrity and dignity. The mall of humanity event underscores the commitment to providing unwavering support to the IIEE staff in a respectful and sensitive manner, recognizing their invaluable worth within the community.



## PATENTS OBTAINED

- Title of Patent: A process for the production of "Body Scrub Enriched with Hemp Seed Oil" Inventors: Dr. Syed Hussain Abidi S.I., Dr. Quratulain Syed, Dr. Hafiz Rub Nawaz, Dr. Rashid Ali Khan, Dr. Shazia Yasmeen, Dr. M. Aijaz Anwar, Dr. Ghulam Fareed, Mr. Osama Bin Waseem, Ms. Hamna Rafiq, Ms. Syeda Aneeqa Zaidi. Application Number:204/2023 Dated: 03-04-2023.
- Title of Patent Testing Apparatus for Vehicle Indicator Lights Inventors: Naseem Ahmed, Farhan Aziz, Arif Karim, Faisal Ghazanfar, Kashif Hussain, Abid Karim, Dr. Hafiz Rub Nawaz, Aftab Usmani, Nighat Sultana, Noman Sayeed, Amanullah Lakho, Muhammad Faheem Application Number 019827/KHI/23 Dated 26-06-2023.
- Title of Patent Smart Alternate Energy Extractor Inventors: Abid Karim, Sheikh Kamaluddin, Mahmood Iqbal, Arif Karim, Faisal Ghazanfar, Tanvir Iqbal, Rabia Kaneez, Naseem Ahmed, Aqeel Ahmed Khan, M. Mansoor Hai, Farhan Aziz, Rehan Allauddin. Application Number: 019828/KHI/23 Dated 26-06-2023.
- Title of Patent: Universal Centrifuge Control Unit Inventors: Farhan Aziz, Faisal Ghazanfar, Arif Karim, Kashif Hussain, Naseem Ahmed, Abdul Rasheed Mangi, Abid Karim, S. Zain Ul Ibad, Razia Sultana, Nusrat Jalbani, Aqeel Ahmed Khan, Adeel Ahmed Khan, S. Junaid Hassan, Mujahid Hussain. Application Number: 019829/KHI/23 Dated: 26-06-2023.