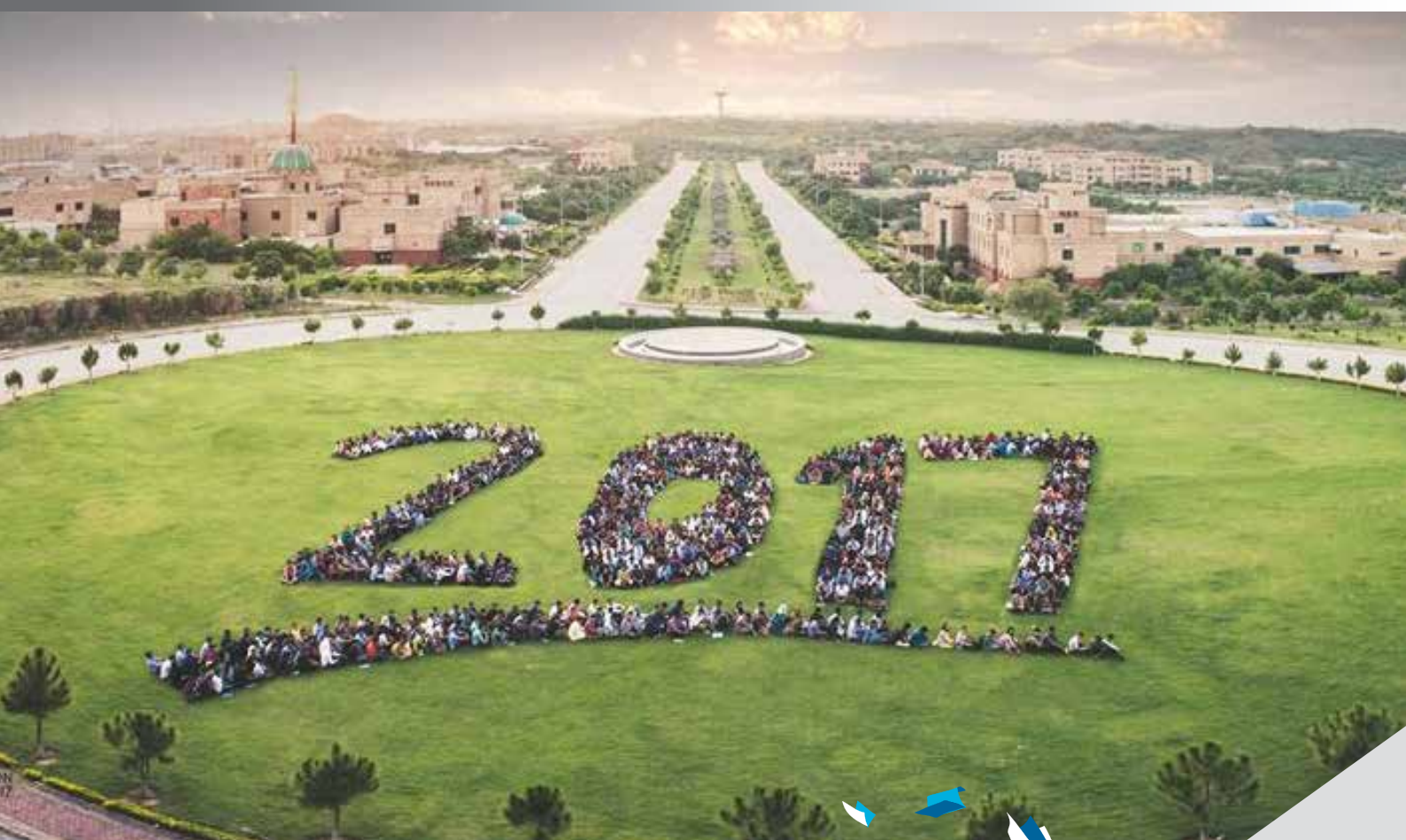


NUSTian

Quarterly Magazine



Orientation 2017

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News in *Focus*

CPEC Consortium of Business Schools launched at NUST

As part of China Pakistan Economic Corridor (CPEC), a consortium of business schools from China and Pakistan was launched at National University of Sciences and Technology (NUST) during a two-day forum from August 28 to 29. The consortium is a joint initiative of Higher Education Commission of Pakistan and Chinese Association of Higher Education, and focuses on bringing together the top business



schools of the two countries to collaborate in research related to CPEC projects. Minister for Federal Education and Professional Training Engr Baligh-ur-Rehman and Federal Interior Minister Prof Ahsan Iqbal graced the inaugural and closing ceremonies respectively. Top ten universities and business schools of Pakistan and leading nine universities and business schools from China participated in the event. NUST Business School (NBS) played a pivotal role in the organization of the event. Earlier speaking at the inaugural session, Lt Gen Naweed Zaman, Rector NUST termed the forum, "a window of opportunity to not only dwell deeper into the issues related to CPEC but also to learn from the success stories of our partner universities, some of which have a glorious history of more than 100 years."

15th Annual National Engineering Robotics Contest NERC' 2017

On July 15, 2017 NUST and STEM Career Program-HEC organized the 15th Annual National Engineering Robotics Contest NERC' 2017 (www.nerc.com.pk) at NUST College of Electrical & Mechanical Engineering (CEME) Rawalpindi. The five day event had 6 categories, including the Indigenous category where robots are constructed from scratch; Modular categories separately for University and School students, where robots are developed using Lego; Ready-to-Move in which robots are developed from ready-made kits; Robo Wars for indigenously developed robots with fighting capabilities; and Game of Drones for designing and integrating drones capable of performing assigned tasks.

The winners of NERC 2017 in different categories included teams from UET Taxila Chakwal Campus, Lahore Garrison University, Islamabad Model College for Boys, DHA Suffa University, FAST Islamabad, NUST Pakistan Navy Engineering College (PNEC) Karachi, LUMS, NED University Karachi, UET Lahore Faisalabad Campus, Habib University Karachi, NUST CEME, Army Public School CEME Campus Rawalpindi, Generation School Karachi and Head Start Schools. NUST's partners from the Industry and Government supported the project with great enthusiasm – their patronage enhanced the stature of the event and motivated the

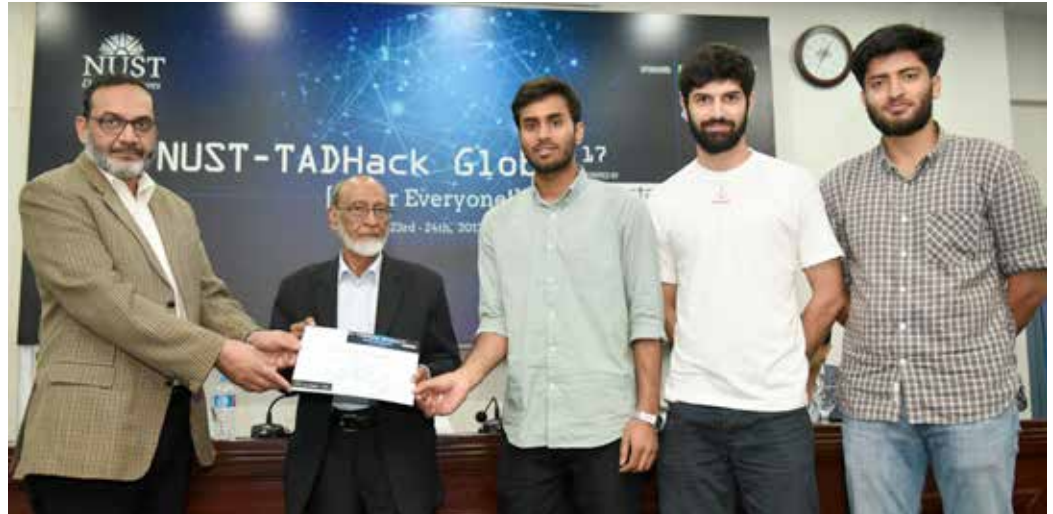
participating teams. Sponsors included HEC STEM Career Program, Devrim Technologies, National Radio & Telecom Corporation, Head Start School, Sybrid, LMKT, Kausar Group of Companies, Alfoze Technologies and Amreli Steels.

Lt Gen (Retd) Naweed Zaman HI(M), Rector NUST was the Chief Guest at this year's event. In his address the Chief Guest, while complimenting the efforts of CEME, termed NERC as a platform providing a complete engineering experience for the participants.



NUST holds Mega International Hackathon – TADHack 2017

Centre for Innovation and Entrepreneurship hosted a two-day mega international Hackathon – Telecom Application Development Hackathon (TADHack) 2017 from September 23 to 24 at the university's Islamabad and Karachi campus. The event was held in collaboration with Telex USA, Ufone, National Radio Telecommunication Corporation and Technology Innovators. It was attended by representatives from the industry, various govt organizations, etc. After the assessment of applications developed by the participants, "Moomble" by Mr Muhammad Hamza Zakir was declared the winner and "Sahulat" by Mr Osama Arshad Dar, Mr Shahzeb Naveed and Mr Haider Ali Cheema the runner-up. Speaking at the occasion, Pro-Rector RIC Rear Admiral Dr Nassar Ikram HI(M) highlighted the impor-



tance of Hackathons to instill the entrepreneurial capabilities amongst the youth and in bringing together the industry, businesses, developers and students. Chief guest, Mr Nooruddin Baqai, Chairman of ICT Think Tank distributed the certificates, prize money and souvenirs among the participants of the event.

HEC 15-year celebrations

NUST hosts regional showcasing of projects of HEIs

Centre for Innovation and Entrepreneurship (CIE) at NUST organized a mega regional event on September 22, 2017 to showcase the successful and innovative projects and products emerging out of universities. HEIs from Islamabad, Rawalpindi, AJK and GB displayed their projects at the university's Jinnah Auditorium. It was an integral part of a series of events being conducted by Higher Education Commission from September 11, 2017 till October 10, 2017 to mark 15 years of its inception.

A total of 65 innovative products/prototypes, industrial problem solutions, products of BIC startups, having strong impact on society and economy were showcased at this event. Executive Director HEC Dr Arshad Ali inaugurated the exhibition and appreciated the quality of projects. The chief guest admired the support extended by NUST to organize and host the event in such a befitting manner. The projects shortlisted by the panel of judges will now be displayed at the grand event to be held at Pak-China Center, Islamabad in October. Prime Minister of Pakistan is likely to grace the occasion as chief guest.



President AJK delivers talk on Kashmir at NUST

President Azad Jammu & Kashmir Sardar Masood Khan took part in an interactive session with faculty and students of NUST on September 28. Speaking at the occasion, he said Pakistan was incomplete without Kashmir and Kashmir had no persona sans Pakistan.

He said Kashmiris had been enduring the atrocities of Indian forces since 1947. "Their only aspiration is to unite with Pakistan and the youth of Pakistan must not harbour any doubts about it," he claimed. "What they rather need is to give their utmost to making Pakistan stronger in these epoch-making times, as the longstanding issue of Kashmir will be much easier to resolve with a politically, strategically and economically stable Pakistan. Lt Gen Naweed Zaman, HI (M), (Retd) Rector NUST, welcomed Mr Khan to the university, and said the idea of a Kashmir free of Indian occupation resonates ceaselessly in the collective consciousness of Pakistanis.



College of E&ME holds 23rd Convocation

NUST College of Electrical and Mechanical Engineering held its 23rd convocation on September 18, 2017. Lt Gen Anwar Ali Hyder, Hilal-e-Imtiaz (Military), Adjutant General, General Headquarters, Rawalpindi, graced the occasion as chief guest. A large number of faculty members, students, parents and other dignitaries attended the event.

Addressing at the august occasion, the chief guest congratulated the graduating students. He appreciated the College of EME for providing quality education and accreditation of its engineering programs by the Washington Accord.

At the occasion, the chief guest conferred degrees to as many as 318 undergraduate students and 112 postgraduate students in their respective disciplines.



23rd UG & 1st PG Convocation of MCE



The 23rd Undergraduate and 1st Postgraduate Convocation of Military College of Engineering (MCE) was held on September 8, 2017. Engineer-in-Chief Pakistan Army, Lt Gen Khaled Asghar, HI(M) graced the occasion as chief guest and congratulated the graduates and their parents and faculty. At the occasion, Bachelor of Civil Engineering degrees were awarded to 103 graduates of Officer Degree Course 76 / Cadets Engineering Degree Course 77, and 130 graduates of Officers Degree Course 78 /

Cadets Engineering Degree Course 79. A total of sixty six students of MS program in Disaster Mitigation & Reconstruction Engineering, Construction Engineering & Management and Disaster Management were also awarded degrees. Graduates who secured positions were given medals and awards. In recognition of their meritorious services in teaching and research, the best performing faculty were conferred the Best Teacher and Best Researcher awards.

4th Batch of Army's Young Officers graduates from NUST

The convocation for awarding bachelor's degree in Military Art and Science to the 4th batch of army officers, from 130 and 131 PMA Long Courses, was held on 30 August 2017 at the Jinnah Auditorium of NUST Campus, Sector H-12, Islamabad. Inspector General Training and Evaluation, Lt Gen Hidayat Ur Rehman, Hilal-e-Imtiaz (Military), was the chief guest on the occasion. A large number of parents and dignitaries graced the ceremony. In his convocation address, the chief guest said that Pakistan Army accords top most priority to the education of its officers' corps in producing 'Enlightened Soldiers' capable of yielding results in today's most complex operational environments. He expressed his pleasure that, NUST, which is among the top 500 universities of the world, is committed to assisting the Pakistan Army towards this



NUST expedites work to set up Medical Devices Development Center

On the special directive of Prime Minister Office, National University of Sciences and Technology (NUST) has expedited work on the establishment of Medical Devices Development Center (MDDC) at School of Mechanical and Manufacturing Engineering. Being established as a National Center of Excellence, MDDC is a landmark initiative for the first ever production of high-quality heart stents, i.e., BMS and DES in Pakistan at much lower prices. The center will ensure availability of BMS and DES to the poor and help save huge amount being spent every year on the imported stents. The project is the brainchild of Dr Murtaza Najabat Ali, Head of Medical Devices Development Centre who has been recognized world over for his extraordinary work.



Opening Minds, Shaping the Future

Nustians clinch Silver at PolyU Global Student Challenge, Hong Kong

Nustians extended their winning streak at the top-tier international competitions, as another group of students from National University of Sciences and Technology (NUST) clinched Silver Award at the recently concluded PolyU Global Student Challenge, Hong Kong. NUST team comprising three Electrical Engineering students, namely Syed Omer Ali, M Saad and M Shees Usman, pitched in with their project WISE – Enabling Water Smart Irrigation – supervised by Dr Syed Muhammad Raza Kazmi, a NUST faculty member at United States Pakistan Center for Advanced Studies in Energy (USPCAS-E). As many as 189 teams from 22 countries competed this year for the prestigious event held biennially. Only 4 teams could reserve berths for the decisive showdown, the NUST team being one of them. In the grand finale, WISE won the Silver Award after a rigorous adjudication by a panel of highly erudite professors from Imperial College London, University of Zurich as well as CEOs, angel investors and venture capitalists from all over the world.

Talking about the project, Dr Kazmi said that WISE is aimed at



water conservation through high efficiency of irrigation by developing a unique technology that combines the real time condition monitoring of soil through solar powered wireless sensor nodes with the weather data science; all with cost effectiveness to reach the common farmers of Pakistan. He expressed the passion behind, saying that WISE so far has been a completely self-sponsored project, adding “I embarked onto it out of the revelation that water lies at the heart of Energy-Water-Food Nexus which unfortunately is being lost at an excruciating rate, particularly in agriculture which is one of the major consumers of water as well as the major source of its loss.”

Nustians stand tall at IEEE Computer Society Global Student Challenge 2017

Abraham Ali Shah and Muhammad Asad Raza, students of College of Electrical and Mechanical Engineering, National University of Sciences & Technology (NUST), won the first prize for their project, Diagnosis, Monitoring and Rehabilitation of Parkinson's Disease using Machine Learning and Big Data, at the recently concluded IEEE Computer Society Global Student Challenge. The second and third place prizes were awarded to students of Penn State USA and University of Houston, respectively. The competition, open to all IEEE Computer Society student members, challenges students from all over the world to create an innovative solution, based on the IEEE Computer Society 2022 report, that will solve a real-world issue including Machine Learning and IOT. The event is the most prestigious 'student category' competition conducted by IEEE Computer Society. The winning team from NUST was invited to receive the award at the annual banquet of IEEE Computer Society, held in Hyatt Regency Phoenix, Arizona with all trip expenses covered by IEEE computer Society, including a round trip to the USA and a three-day stay at Hyatt Regency. At the ceremony, the winners were also awarded USD 1500 and a certificate as a token of appreciation.



TIC incubatee bags 1st prize at ITU Telecom 2017

Orbit, a product of TIC incubatee, Cygnus Solutions, bagged first position in the category "Ideas about CSRs and SDGs" of the Busan Global Smart Cities Challenge at the ITU Telecom World'17 held in Busan, South Korea from 25-28 September 2017. This is a big achievement for NUST and Pakistan, as participants from more than 60 countries competed in the event. Co-founders of Cygnus Solutions, techpreneurs Navera and Wajaha were invited to pitch at the ITU Telecom World'17 after they won first position at the Sustainable Development Goals (SDGs) Challenge 2017 held in Islamabad in August. Orbit, Is an Augmented Reality based educational application for smart phones that gives students a complete 3D experience.



PNEC student attends prestigious SUSI program at the US

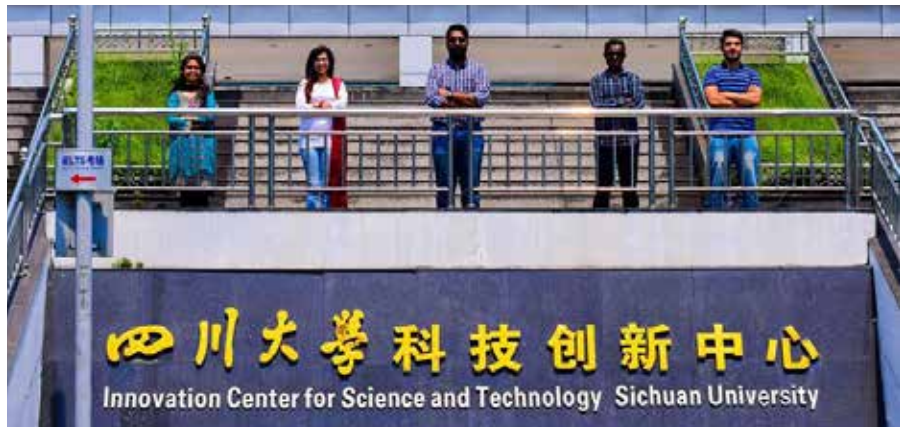
Tehreem Ashfaq, an Electrical Engineering student at PNEC, was selected for the Study of the US Institutes (SUSI) program of United States Educational Foundation in Pakistan from June 30 2017 to August 5, 2017, at University of Massachusetts, USA. It was a five-week academic exchange program for which only 30 students were selected from across Pakistan. The program enables the undergraduate students to have a deeper understanding of the US besides enhancement of their leadership skills. The coursework and classroom activities were complemented by educational travel around the U.S, site visits and volunteer opportunities within the local community. Ms Tehreem Ashfaq was awarded a completion certificate from the U.S. State Department in Washington DC.



PNEC students represent Pakistan at University Immersion Program, China

PNEC Electrical Engineering students namely Mr. Muhammad Omar Nawaz, Ms. Saniya Adeel, Ms. Zenab Junaid, Mr. Raza Ali, and Mr. Danish Habib were shortlisted for University Immersion Program 2017 by Sichuan University, China.

The two-week (01-15 July, 2017) University Immersion Program (UIP) organized by Sichuan University is a unique summer program for international faculties and students to experience the pulse at the heart of China. This program is designed to convene faculties from all over the world to give short courses and lectures to both domestic and international students at both undergraduate and graduate levels.



NBS student at PMI-INKOMPASS Global INCHALLENGE 2017

Hamza Arshad, a student of BS Accounting & Finance at NUST Business School, has risen to acclaim after his team bagged first prize at Philip Morris International (PMI) INKOMPASS Global INCHALLENGE 2017 in Switzerland. Hamza was partnered with another intern from Mexico along with four PMI employees.

INCHALLENGE is an international platform that tests interns' talent and level of intelligence against their peers in a live business environment. This year, 24 chosen INKOMPASS interns from across the globe got cracking on a business case and pitched live to the top brass of PMI in Switzerland. The interns were formed into teams along with PMI employees.

Hamza got selected in INKOMPASS Program in year 2016 after rigorous testing and efforts. He served as an Intern for 6 weeks in their corporate office, Karachi. Based upon his hard work and competitive evaluation, he was selected for the 2nd cycle of internship for year 2017. He was given Level 2 tasks as an intern and also went for market visits with Sales Teams. Considering his tremendous performance, positive approach and analytical skills, he was nominated and selected for PMI INKOMPASS Global INCHALLENGE 2017. Over 500 interns contested for the INCHALLENGE nomination from across the globe.



SADA students showcase creative potential at Thesis Show 2017

Lt Gen Naweed Zaman, HI (M), (Retd), Rector NUST, inaugurated Thesis Show 2017 for the third batch of Bachelors of Architecture and first batch of Bachelor of Industrial Design of School of Art, Design and Architecture, National University of Science and Technology on July 8, 2017. Besides faculty and parents of the graduating students, the event was attended by Pro-Rector (Planning & Resources), Registrar, Directors, Principals and luminaries from different walks of life. A total of 49 students from both the programs showcased their innovative projects at the 15-day show.

After visiting the exhibition, the Rector NUST appreciated stu-



dents for their creative talents and hard work. He encouraged them to stay put and setting precedents for other aspiring students to follow suit. At the occasion, the Rector also announced that the postgraduate programs in Architecture and Industrial Design would soon be launched at SADA.

Earlier in his welcome address, Principal SADA Ar. /Plnr.

Sikander Ajam Khan congratulated the students and acknowledged their determined efforts to achieve the goals. He also apprised the audience of some of the achievements made by SADA, adding the ultimate objective of the school is to produce good architects and industrial designers.

NUST celebrates Independence Day



National University of Sciences and Technology (NUST) celebrated Pakistan's 71st Independence Day on August 14 with national spirit and renewed pledges to strengthen the dear motherland. In a ceremony held at the Jinnah Auditorium, Dr Abdul Ghafoor, Principal NUST School of Mechanical and Manufacturing Engineering (SMME), hoisted the green and white flag followed by the national anthem.

Ensuing was screening of a documentary 'A Journey to Independence' and a series of heart-warming national songs amidst loud cheers from the audience comprising families of the faculty and staff, and an overwhelming number of students. Recounting the sacrifices of founding fathers, the chief guest in his address emphasized that every Pakistani must play their part, no matter big or small, towards making Pakistan a model Islamic State in the real sense.

Earlier, extending his heartiest wishes to the nation on the completion of 70 years of independence, Lt Gen Naweed Zaman, HI (M), (Retd), Rector NUST, urged, "Let us resolve that though each dusk might be a new challenge, each dawn should be a goal achieved and a step towards making our beloved country what it was envisioned to be – a safe, strong & prosperous motherland for our future generations."

SEECs students win PTV hosted national quiz competition

As part of the Independence Day celebrations, PTV Home annually organizes a quiz competition namely "Khawaab se Ta-beer Takk," both at regional and national level. Keeping up with the tradition, the competition was also held this year. Five renowned universities of the federal metropolis and five varsities each from every province of Pakistan participated at regional level competitions. Each team comprised two participants.

Amna Masood and Umair-bin-Tahir are two final year students of Electrical Engineering at SEECs who represented NUST at zonal level where they competed against 4 universities from twin cities viz. UET Taxilla, Pir Mehr Ali Shah Arid Agriculture University, NUML and Preston. They won the first prize after staying tall at the zonal level. As a result, they qualified for Grand Finale at National Level where they competed against four universities namely University Law College Quetta (Baluchistan), University of Chitral (KPK), and Jinnah University for Women Karachi (Sindh) and Punjab University Lahore (Punjab). After a tough fight for the national title, students of NUST managed to clinch first prize and were declared National Champions.



SADA student wins National Logo Design Competition

Saba Zaman, a student of SADA, won first prize at the national logo design competition held as part of the celebrations on the completion of Pakistan's 70 years of Independence. The competition, announced in April, 2017, was open for Pakistani nationals living anywhere in the world. About 400 entries from 200 artists were received, the designs were judged by a very competent jury. The winning logo was used on banners and backdrops at different flag hoisting ceremonies including the one held in Islamabad Convention Center on August 14, 2017.



NUST Outreach Program

NET preparatory classes held for Balochistan, FATA students



In continuation of its efforts to bring students from the underprivileged areas into the mainstream of education, National University of Sciences and Technology (NUST) recently launched a coaching program for the intermediate students from the Federally Administered Tribal Areas (FATA) and Balochistan. The program was aimed at preparing the pre-engineering and pre-medical students of these areas for the upcoming NUST Entry Test (NET) and, hence, enabling them to compete with their counterparts from the other provinces. In the first stage of

this program, as many as 100 students each from FATA and Balochistan were selected for the eight-weeklong coaching classes at College of Electrical and Mechanical Engineering, NUST, and Garrison Degree College, Quetta. A NUST team comprising four faculty members was detailed to Quetta for teaching the subjects of Mathematics, Physics, Chemistry and English. While, the College of EME faculty was engaged for the coaching of students from FATA. The outreach program has been widely appreciated as a national contribution by NUST.

ASAB students to partake in iGEM, USA

Two undergraduate students of Atta-ur-Rahman School of Applied Biosciences (ASAB) have been recently selected for Team iGEM Peshawar that will represent Pakistan at iGEM Boston, USA later this year. The students include Hassnain Qasim Bokhari and Ushma Farooq.

iGEM, International Genetically Engineered Machines, is an international synthetic biology competition held once a year in Boston, USA. During the course of event, interdisciplinary teams of undergraduate students present their projects. Its three main objectives are to promote the construction of systematic biological parts/living systems; promote the development of engineering biology tools that are freely available in the public domain; and enable the development of a society that utilizes biological technology in productive and safe manner.

In 2016, a total of 296 teams, including the likes of MIT, Harvard, Cambridge, Oxford, etc., took part in the competition. The year 2016 also marked the first year when a team from Pakistan made it to the competition. The team managed to win Bronze medal. This year, 336 teams have been registered as of now. Team Peshawar consists of 14 members, including two from NUST, from as diverse fields as Biology, Engineering, IT and Marketing.



UFONE Summer Internship Program-2017

Under its flagship Summer Internship Program (SIP) launched two years ago, Ufone conducts internship drives to find talented and intellectually bright individuals for their real-time on-going projects. This year too, Ufone SIP team visited as many as 13 top universities of Pakistan and a total of 886 students registered themselves for the online test. 636 students cleared the test and after reviewing their profiles and initial screening only 115 students made it to the final interview with HR and functional Managers. Finally, 41 interns were selected from across Pakistan to work on 41 live projects in SIP, 17.

From amongst the 41 interns, 18 were from NUST with 8 from NUST Business School. They were strategically placed in various departments like Marketing, HR, Contracts & Procurement, Finance, Sales etc. They all were given very challenging projects and were put under Line Managers for overall functional, technical and social evaluation.



Ms Yumna Dar of BS Accounting & Finance (NBS) was declared the Best Intern of Ufone SIP'17. The ceremony took place at Ufone Tower, Islamabad in the presence of Ufone senior management, senior management of participating universities, guests from academia and interns. Ms Dar served the Contracts & Procurement Department and proved herself to be a very devoting and valuable resource for the department. Her hard work and dedication on job was much appreciated by the line manager and HR department.

Rector chairs 4th steering committee meeting of USPCASE-E

The fourth Steering Committee meeting of USPCAS-E was held on September 25, 2017. Lt Gen Naweed Zaman, HI, (M), (Retd) chaired the meeting during which the project review was presented. The Rector welcomed Ms Jaime Oberlander, Acting Director Education, USAID, Ms. Asima Rehman AOR NUST, Ms Georgina Melendez from ASU and guests from UET and industry. He appreciated assistance provided by USAID for USPCAS-E.



Maj Gen Jamil Masud takes over as Commandant MCE



Maj Gen Jamil Masud HI (M) took over as Commandant Military College of Engineering on July 17, 2017. He was commissioned in the Corps of Engineers and joined 173 Engineer Battalion in 1985. He commanded a Mjd Infantry Battalion along the Line of Control (LoC) and then 100 Engineer Battalion from March 2003 to July 2004 at Naran and later moved the unit to 14 Div Okara in Nov 2003. He also served as Commandant Corps Engineer at Bahawalpur.

Maj General Jamil is a graduate of Command and Staff College Quetta and National Defence University Islamabad and College of Defence Studies China. He has also served as BM of an Infantry Brigade, GSO-1 of an Infantry Division and at MO Directorate, GHQ. He has been Dir Plans at Joint Staff Headquarters and DG W&CE (Army) at GHQ. Gen officer has also been on the faculty of MCE, Risalpur and NDU, Islamabad.

Orientation Week for freshmen

With a view to formally welcoming its freshmen batches of all disciplines and acclimatizing them to the university life, National University of Sciences and Technology (NUST) introduced the Orientation Week at its main campus from September 7 to 11, 2017. On the first day, the new entrants assembled at the main auditorium and various seminar halls and the respective Principals addressed them, besides screening of videos displaying campus facilities and some exciting and intriguing moments of the senior batches from the preceding years.

During the course of Orientation Week, the freshmen were conducted to various NUST schools, research centers and allied facilities including hostels, gymnasium, etc. The special feature of the Orientation Week was the organization of social events including Talent Hunt and Open Mic Show and Sports Fest.

NUST Entrepreneurs Club, being managed by School of Electrical Engineering & Computer Science (SEECs), made every effort to make the event a great success. The introduction of Orientation Week has been widely hailed by all students.



Rector inaugurates Khadija Hostel

Lt Gen Naweed Zaman, HI (M), (Retd), Rector NUST inaugurated Khadijah Hostel on August 31, 2017. It is a girls' hostel for undergraduate students, having the capacity of accommodating as many as 324 students. The hostel is equipped with facilities such as dining hall, gymnasium, TV lounge, badminton court, WiFi Internet, etc.



Lecturer conferred Best Teacher Award at RCMS

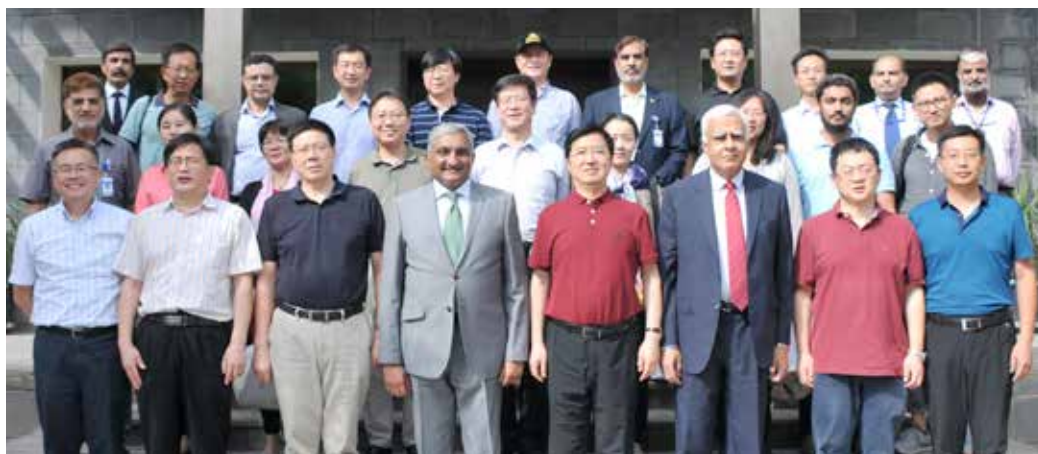
Lecturer Fawad Khan has won the Best Teacher Award for the Academic Year 2015-2016 at Research Center for Modeling and Simulation (RCMS), NUST. He was awarded with the "Best Teacher Certificate" and a cash prize of Rs.75,000.00.



VISITS

Chinese delegation

A 25-member delegation from different universities of China visited NUST on August 30, 2017. The delegation was led by Mr DU Yubo, President of China Association of Higher Education (CAHE). Upon arrival, the delegates were given a detailed briefing on NUST followed by a Q&A session. The visiting delegates appreciated NUST's performance and facilities provided for its faculty and students to ensure quality teaching, learning and research. The delegation highlighted importance of CPEC and One Belt One Road (OBOR) initiative and its positive impacts in the region.

**Delegation from Chinese Association of Higher Education (CAHE)**

Meanwhile, a six-member delegation led by Ms Xiamei Wang, Deputy Secretary General of Chinese Association of Higher Education (CAHE), China visited SMME on July 18, 2017. They were welcomed by Vice Principal Engr. Muhammad Sohail and HoD R&AI, Dr. Yasar Ayaz. They were conducted to several labs including RISE, MRC and Tribology lab. In their remarks, they lauded the endeavours of SMME faculty and students in managing and producing best research projects.

CASS delegation

A four-member delegation of CASS visited CIPS on August 8, 2017. The delegation was headed by Prof Wang Weiguang. The Professor is the President Chinese Academy of Social Sciences (CASS) and is also the member of the Chinese Communist Party. The visitors had an interactive session with Assoc Dean and CIPS faculty



PDVI team

A seven-member delegation from UN HQ, headed by Cdr Willester Robles ex Force Generation Service, UN HQ, visited Peacekeeping Training Dept/ CIPS on August 29, 2017. The purpose was to carry out Pre-deployment Verification Inspection (PDVI) of an Engineering Company and Level-II Hospital being deployed in UN Peacekeeping Missions in Central African Republic and South Sudan, respectively.

The delegation was received by Principal NIPCONS. They were briefed on NUST, CIPS and Peacekeeping Training Department activities. The team members were impressed by the infrastructure/ training facilities and the professional approach in which Pre-Deployment Training is conducted at CIPS. They were also taken to different setups of CIPS.



President RCCI

NUST welcomed Raja Amer Iqbal, President Rawalpindi Chamber of Commerce and Industry (RCCI) Rawalpindi on July 4, 2016. During his visit, Mr. Amir called on Lt Gen Naweed Zaman, HI (M), (Retd), Rector NUST and discussed matters of mutual interest. The honorable guest also visited Technology Incubation Center and interacted with Pro-Rector RIC Rear Admiral Dr Nassar Ikram HI (M). They explored possibilities of mutual collaboration between industry and academia.

President RCCI was introduced to some of the high achievers at the incubation centre. He conversed with the young entrepreneurs and shared words of encouragement, pointing out that the promotion of innovation and entrepreneurship is the need of the hour, especially for a country like Pakistan, where a vast majority of the population is below 25 years of age.



Students from PSF

Every year, Pakistan Science Foundation (PSF) provides coaching to about 300 high school graduates selected on merit from the whole of Pakistan. The purpose is to identify the future scientists right from the beginning and educate them in good colleges of the country.

As many as 256 students from the 3rd batch of this program, accompanied by 12 teachers, paid a visit to NUST on July 6. The visitors were briefed on NUST in general and its admission policy in particular. Later, they were conducted to School of Civil and Environmental Engineering (SCEE) and School of Mechanical and Manufacturing Engineering (SMME) and shown completed and ongoing projects.



POF delegation

A delegation from Pakistan Ordnance Factories (POF), Wah visited NUST Center for Innovation and Entrepreneurship on September 26, 2017. The purpose of meeting was to define a working relationship between NUST and POF Wah for providing opportunities for research and development projects.



Faculty Dawood UET Karachi

A delegation of 25 faculty members of Dawood UET Karachi visited NUST on July 5, 2017. Dawood University was granted the university status a couple of years ago. Headed by Engr Kashif Saleem, the delegates were received by Principal SEECs Dr S M Hassan Zaidi and Acting Director PSA Mr. Ehsan Ul Haq. Ensuing was a detailed briefing on NUST followed by a question and answer session. The Principal SEECs then thanked the DU faculty for visiting NUST and offered to cooperate in the areas of mutual interest. The guests were later conducted to various schools on H-12 campus.



Research & Innovation *Roundup*

► ASAB awarded grants for research

Atta-ur-Rahman School of Applied Biosciences has been awarded grants for research projects through the Higher Education Commission's National Research Program for Universities (NRPU). The total amount of research funding awarded in 2017 is approximately 24 million PKR. The projects will focus on a wide range of areas of social and economic significance. The principal investigators of the projects include Dr Peter John (investigating the potential of natural compounds against Rheumatoid Arthritis), Dr Hajra Sadia (assessing the role of certain viruses on the development of breast cancer), Dr Muhammad Tahir (Development of transgenic sugarcane for enhanced productivity), Dr Muhammad Jawad Hassan (Investigating genes associated with Epilepsy Syndromes), Dr Sadia Zahid (examining therapeutic strategies for type 2 diabetes and Alzheimer's disease) and Dr Aneela Javed (assessment of antiretroviral drug resistance among HIV infected patients)



► Dr Sobia wins Research Grant

Dr Sobia Manzoor, Assistant Professor, Department of Healthcare Biotechnology at ASAB has been awarded a grant by the Higher Education Commission through its Technology and Development Fund initiative. This grant is presented for the project entitled "Designing, Establishment and Validation of Non-Invasive Diagnostic Kit of Endemic Viral Infection in Pakistan."



► Dr Hammad secures funding from HEC, ICT R&D

Dr Hammad Cheema, a faculty member at Samar Mubarakmand Research Institute of Microwave and Millimeter-wave Studies (SM RIMMS-NUST), has been awarded research funding from HEC and ICT R&D. The HEC project is related to RF design and development; whereas ICT R&D project is related to wearable electronics for sports. Both the projects have wide commercial applications.



► College of EME faculty receives Research Productivity Award

Mr. Saheeb Ahmed Kayani, serving as Assistant Professor in the Department of Mechanical Engineering of College of E&ME, has been conferred 'Research Productivity Award (2015-16)' by Pakistan Council for Science and Technology (PCST). He has been ranked 24th most productive scientist in Pakistan for the year 2015-16 and the highest achievable 'Category A' scientist.

Mr. Saheeb Ahmed Kayani is a graduate of NUST. He has published many research papers in international journals and conferences of repute, and served as an invited reviewer for various international and national technical publications. Moreover, he has been granted one utility patent (for invention) and two design patents (for industrial designs) by the patent office, IPO-Pakistan in 2015 and 2017, respectively.



► Dr Usman awarded Charles Wallace Fellowship

Dr. Usman Qamar, faculty member at Department of Computer Engineering, College of Electrical & Mechanical Engineering (CEME), NUST has become the recipient of the prestigious Charles Wallace Fellowship. The Charles Wallace Trust was established in 1981 with the aim of enabling outstanding individuals to advance their professional development. The content of a fellowship normally takes the form of professional interaction, study and research. As a part of the fellowship, he shall be working with his host UK universities i.e. University of Manchester and University of Leeds on applying data sciences for healthcare.

Student essay published in *Science* magazine

Science (est. 1880) is the most prestigious multi-disciplinary scientific magazine which has an impact factor of 37.205 with more than 600,000 annual citations, as of 2016. Recently, AAAS, the publisher of *Science*, started an advocacy campaign "Force for Science" to highlight the importance of science in society, and the role of scientific research for human health and the future of the planet. For this campaign, AAAS invited scientists from all over the world to share their views about science and write either a feature or an essay on it.

More than 150 scientists from all over the world sent their entries. However, only 19 were selected for publishing in the magazine. Mr Hassnain Qasim Bokhari, an undergraduate student at ASAB, authored one of the essays shortlisted in the competition. His essay titled "Discovery and Wonder" was published in issue no. 6338 of 2017.



► Dr Amjad ranked among productive scientists of Pakistan

Dr Amjad Ali, Assistant Professor at ASAB has been added to the list of "Productive Scientists of Pakistan 2016-17." The list is released by Pakistan Council for Science and Technology and Dr Amjad has been ranked 47th in the country in the Biological Sciences discipline.



NUST graduate crosses Facebook, Google as top trending developer on GitHub

Emad, a SEECs alumnus, has been working on an engineering problem since he came across a newly released library of Google Chrome, from the Google Chrome team themselves on GitHub. Realizing the role the library could play in his project, Emad used the library and then went on to write a well thought-out tutorial on how to use it. A well-drafted tutorial written by him is bringing him applause from coders and techies from all over the world. The project which is basically a guide on getting started with a newly released Google Chrome library was posted on GitHub as well as HackerNews. It has since managed to gain immense traction on both platforms. Likewise, his Medium post has grabbed more than 3,000 views in a matter of a few days.



Australian Awards alumni at NUST

Representatives from The University of Queensland (UQ) were in Islamabad to deliver a workshop to budding entrepreneurs who participated in an Australian Awards short course on Business Incubation Management held in Brisbane earlier this year. In order to fulfill the program's mandatory requirement of conducting the AA alumni to a well-established, high index incubator of Pakistan, the UQ reps opted for NUST Technology Incubation Centre citing the prestige, meritorious achievements and sophistication attributed to it. Hence, the delegates visited NUST on September 13, 2017.

Adnan Faisal, GM TIC, gave the participants a detailed presentation on the Pakistani entrepreneurial ecosystem and then they were conducted to the centre. The participants were also introduced to the rising and successful entrepreneurs incubated at TIC.



Research Projects this Quarter

Research Projects	Numbers	Cost (PKR Million)	Title	Institute	Cost (PKR Million)
Submitted	37	347.601	Synthesis And Performance of Multifunctional polymer Nanocomposites	SNS	28.021
			Solar Energy Integrated Load Shifting for Peak Power Shaving	CE&ME	27.01
Approved	7	40.192	Controlled Synthesis Of Two-Dimensional Nanosheets and Multilayer For Electronic Device	CE&ME	14.355
			Development and characterization of high entropy foams for structural applications	SCME	12.767
Completed	4	90.235	Formalization of Information Theories and Application in Safety Critical Engineering System	SEECs	88.512
			A Functional Stent-Graft for the Treatment of Oesophageal Cancer	SMME	1

Formalization of Information Theories and Application in Safety Critical Engineering System

This project is mainly geared towards providing a comprehensive framework for formal probabilistic and information theoretic analysis, as an alternative to less accurate techniques like simulation and paper-and-pencil methods and to other less scalable techniques like probabilistic model checking. The solution developed is to conduct probabilistic model checking.

A Functional Stent-Graft for the Treatment of Oesophageal Cancer

The aim of present research was to design and manufacturing of Auxetic seamless stents as a novel structural support for the treatment of oesophageal cancer.

NUST to establish Technology Innovation Support Centers

HEC in collaboration with IP Organization (IPO), Pakistan has recently approved establishment of Technology and Innovation Support Centres (TISC) at 34 universities across Pakistan to facilitate researchers and inventors in their invention pursuits. In this connection, Center for Innovation and Entrepreneurship (CIE), NUST, will shortly establish TISC at the university for the convenience of NUST researchers / scientists. TISC, a program initiated by World IP Organization (WIPO), provides innovators in developing countries with access to locally based, high quality technology information and related services, helping them to exploit their innovative potential and to create, protect, and manage their intellectual property (IP) rights.



CYKIQ catching headlines globally



CYKIQ, a NUST Technology Incubation Center (TIC) incubatee offering Pakistan's first automated bicycle sharing service, has lately intrigued the international media as is manifest in its coverage by Reuters, a well-reputed international news agency, Times of India, The Rahnuma Daily- India, etc., besides reeling in the local media. Since its launch in May, CYKIQ has received an overwhelming response with over 250 members, half of which are women, benefitting from their services. CYKIQ is also poised to soon launch an Android mobile app, which will make it even more convenient to rent bicycles, track one's history and make mobile payments.





Robot waitress: an entrepreneurial adventure of SEECS graduate

Mr Usama Aziz, an electrical engineering graduate from SEECS, has been making headlines for having developed robot waitresses. Usama's invention is believed to have been currently put to test in his family owned restaurant in Multan. The robots have basic obstacle avoidance capability and can walk around fixed environment to deliver orders to whichever table instructed. They are partly navigated by remote control and have become very popular among the local public. A few reports on national media have helped the business grow exponentially. The news has recently been picked up by Al Jazeera and New York Times. The initiative has brought good name to NUST and Pakistan at the international level.

SEECS UG student works with CERN core communication engineering team

Every year, about 30 to 35 students are chosen from all around the world to work on a cutting-edge research project at CERN as part of the "CERN Openlab Summer Student Programme." This year, Muhammad Abdullah a BEE-6 Student of SEECS got selected, alongside students from universities like MIT, CMU, UPENN, etc., and represented NUST & Pakistan at CERN. Abdullah worked as an associate and a member of the core communication engineering team of CERN, despite being an undergrad student.

CERN has a very complex and huge network comprising millions of devices. He worked with two senior CERN engineers to develop a platform for automating CERN's network infrastructure. The platform that he created has now been practically implemented at CERN.



NUST 1st Patent Equivalence Meeting held at RIC

NUST first equivalence meeting on "Equivalence of Development of Crop Varieties / Animal Breeds / Patents / Technologies etc. with Publications Recognized by HEC" was held at Center for Innovation Entrepreneurship (CIE) on August 18, 2017. It was the committee meeting chaired by Pro-Rector (RIC) Rear Admiral Prof. Dr. Nassar Ikram to give equivalence to patents, and will be held regularly in future. A total of 6 patents were presented to the evaluation committee, which recommended three USA patents for equivalence while asking for commercial evidence for three Pakistani patents.



MCE widening collaborations to strengthen programs

With a view to providing its students with opportunities for specialization and enriched learning, Military College of Engineering (MCE) endeavors to collaborate with industry and academia both at national and international level. The last few months were no different as MCE could further its ties with local and foreign HEIs and orgs of repute. Besides signing into collaborative partnership with University of Engineering and Technology, Peshawar, the college's faculty was able to fetch 10 MS and 2 PhD scholarships to the students of MCE under the ongoing collaborative research with Southwest Jiaotong University China. Award of these scholarships to MCE students would be a regular feature henceforth. Establishment of CPEC Joint Research Center is also underway at both universities.

MCE is also establishing School of Advanced Geomechanical Engineering (SAGE) in collaboration with It will be one-of-its-kind research laboratory including four components, i.e., Geotechnical, Mining, Tunneling and CPEC Research Centre. MCE is also working hand in glove with the University of the Witwatersrand (which country), Johannesburg (Name)? for 21st century mining and Institute of Mountain Hazards and Environment (Country) for CPEC related research. MCE has also partnered with the World's first Digital Mine project at the Wits Mining Institute, University of the Witwatersrand, Johannesburg, South Africa along with the China University of Mining Technology.

Dr Noshewan Shoaib presents research paper in Canada

Dr. Noshewan Shoaib presented a research paper titled “Uncertainty analysis of circular iris waveguide verification standard for Vector Network Analyzers” at 32nd International Union of Radio Science General Assembly & Scientific Symposium at Montreal, Canada from August 19 to 26, 2017. It was one of the major conferences on Electromagnetic Fields and Waves organized by International Union of Radio Science (URSI) which provided ample opportunities for networking with scientists, researchers and engineers from around the world.



Visit of US Embassy officials to TIC

Mr Anthony Renzulli, Deputy Economic Counselor, and Ms. Marian Pernell, Country Coordinator, U.S. Pakistan Women's Council from US Embassy visited Technology Incubation Centre on August 24. The team had a healthy exchange of ideas with Pro-Rector TIC Rear Admiral Dr Nassar Ikram HI (M), and Mr. Adnan Faisal, General Manager TIC.

The highlight of the visit was the meetup with tech startups incubated at the centre. The dignitaries appreciated the efforts of management TIC to put forth such success stories as women led startup Orbit, Cygnus Solution.



Delegation of TechHub Connect, PITB at TIC

Ms. Mehak Jamal, Senior Program Manager and Ms. Warda Altaf, Assistant Program Manager from Tech Hub Connect, PITB visited Technology Incubation Centre, NUST on July 13, 2017. The team discussed issues of common interest with Mr. Sayaf Arbab, Program Manager TIC.

The delegation discussed provision of information regarding the Global Start-up Awards, and possibilities of a partnership between National Entrepreneurs Network (NEN) and Technology Incubation Centre-NUST, to initiate Global Start-up Awards-SAARC in Pakistan. The delegation also met with the tech entrepreneurs at the centre and appreciated the conducive environment provided to them.



College of EME faculty's paper published in Springer Journal of Silicon

Dr Muhammad Hanif, a senior faculty member at College of EME, has had his paper “Spectroscopic Studies of Silicon Plasma Produced by an Nd: YAG Laser” published in Springer Journal of Silicon on August 5, 2017. The professor has been serving in NUST constituent colleges since October 2002. Presently, he is working in the department of Basic Sciences & Humanities (BS&H).



Conferences/ Workshops

NUST holds International Conference on Refugee Crises: Lessons from Pakistan and Beyond

International Conference on Refugee Crises: Lessons from Pakistan and Beyond was arranged by the Center for International Peace and Stability, National University of Sciences & Technology, in collaboration with Hans Seidel Foundation on July 11, 2017. In his address, the chief guest, Lt Gen Abdul Qadir Baloch (Retd), Federal Minister for States and Frontier Regions (SAFRON), provided a deep insight into the issue of refugee crises and how it had affected Pakistan. He was of the view that Pakistan had not been given due recognition for its efforts to accommodate Afghan refugees. He invited recommendations from the conference participants to help the government better deal with the longstanding issue. Lt Gen Naweed Zaman, HI (M), (Retd), Rector NUST, welcomed the local and foreign guests to the two-day conference and highlighted its significance, saying the conference was an excellent opportunity for local and international researchers and experts to share their research and experiences. Pakistan's experience in terms of hosting millions of Afghan ref-



ugees for decades is of great value. A need was therefore felt to arrange such a conference so as to collect and collate this vast and unique knowledge and the empirical data that is lying scattered in the official files, and record the unique knowledge and skills honed over the years for the better management and administration of refugees all around the world.

Prominent among the conference participants include Afghan Ambassador Hazrat Omar Zakhilwal, Director General ISPR Maj Gen Asif Ghafoor, Lt Gen Asif Yasin Malik (Retd), Maj Gen Hassan Azhar Hayat and Dr Chris Kwaja from Nigeria.

UNESCO-sponsored International Conference on “Water Processing for Sustainable Development”

The development of new and sustainable means to supply water and to recycle and reuse it is amongst the most significant challenges facing governments, international organizations and research agencies in the 21st century. New approaches to water process engineering technology are vital in meeting this demand and for sustainable development. Rising energy costs and global warming, both linked to the use of fossil-fuels, drive the need for less energy-intensive



forms of water processing and reduced greenhouse gas production. In this perspective, NICE-SCEE (NUST), in collaboration with UNESCO, hosted an international conference titled “Water Processing for Sustainable Development” to address the potential technological solutions, the associated environmental, economic, societal and sustainability challenges in developing countries. The conference targeted the UN Sustainable Development Goal (SDGs) No. 6 Clean Water and Sanitation - Ensure availability and sustainable management of water and sanitation for all. The conference focused on the following three main objectives, drawing on interdisciplinary fields and concepts.

International CST Workshop on EM Solvers and Antenna Design

Samar Mubarakmand Research Institute for Microwave and Millimeter-Wave Studies (SM RIMMS) organized a three-day “International CST Workshop on EM Solvers and Antenna Design” in collaboration with Computer Simulation Technology (CST)[®] Germany, at NUST main campus from September 26 to 28, 2017. The aim of workshop was to give insight into the theoretical as well as hands-on usage of 3D EM Solvers and Antenna Design.



It brought together researchers and practitioners from academia, public and private sector industries, in order to develop and enhance collaboration. The workshop also provided an opportunity to the participants to interact with international experts in the field and visit the unique facility of Anechoic Chamber and EMC/EMI laboratories at RIMMS.

Computer Simulation Technology (CST)[®] is an industry standard software used by RF and Microwave community for providing computational solutions to a wide variety of EM designs and applications. In Pakistan, RIMMS is the only Institute to acquire CST license.

Awareness Seminar on “Quality Assurance in Higher Education”

An awareness seminar on “Quality Assurance in Higher Education” was organized at NUST by Quality Assurance Directorate on August 15, 2017. The seminar was chaired by Pro- Rector Academics Dr Asif Raza and attended by Commandants, Principals, Directors, faculty members and DLQEC’s of all NUST institu-



tions. Participants from Military College of Engineering, Pakistan Navy Engineering College and College of Aeronautical Engineering joined the event through video link. Topics covered in the three presentations included National and International Ranking, Outcome Based Education (OBE) and Self-Assessment Reports (SARs).

In his remarks, Dr Asif Raza lauded the contribution of all NUST institutions by means of which the university could improve its world ranking in 2018. It is pertinent to mention here that NUST now is the only Pakistani University among top 500 universities of the world as per QS (UK) university rankings. He added that the Washington Accord team of foreign experts had expressed great appreciation for NUST engineering programs after their evaluation.

Symposium on “Computer-aided Drug Design” at RCMS

NUST Research Centre for Modeling and Simulation (RCMS) organised a one-day symposium on “Computer Aided Drug Design” at NUST Islamabad Campus on September 27. The symposium aimed at bringing together specialists in computational drug design in the country to showcase their research outcomes. More than 200 graduate students and faculty members from 20 different Pakistani universities and representative from pharmaceutical company attended the event. The symposium was sponsored by Hewlett Packard enterprise (HPE). Dr Asif Raza, Pro-Rector (Academics), was the chief guest at the inaugural session. In his address, he emphasized the importance of mutual collaboration among national universities, as drug discovery is no longer an activity that any single institution, company or country could undertake.



Symposium on IoT: A key Enabler for the Connected World



A one-day symposium on Internet of Things (IoT) was organized in July, 2017, to recognize the embeddedness of ubiquitous computing to explore the power of IoT for a smart world. IoTs have given man a notion of a smartly connected world, being driven by a network of embedded devices or 'things'; observing, interacting and implementing feature(s) with minimal human intervention. The symposium was planned to introduce the IoT building-blocks to its participants, with an aim to understand its potential and motivate its adoption by the local industry. Chairman PTA inaugurated the symposium. It was followed by the talks of invited speakers, a show-case of local IoT projects, and interactive panel discussions by distinguished industrialists. The panel experts were from PTA, IBM, Interactive Group, and TeraData.

Training on Disaster Risk Reduction and Adaptation to Climate Change

Dr. Naeem Shahzad, Assistant Professor and Head of Department Disaster Management at Military College of Engineering, NUST was nominated by Mangroves for the Future (MFF) Programme, IUCN, Pakistan for International Training of Instructors on Ecosystem-based Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) held in Thailand. As a consequence to this training, Dr. Shahzad was lately invited by MFF Pakistan to disseminate the knowledge for the benefit of coastal stakeholders and MFF grantees.



Workshop on the Internet of Things Using Arduino

SEECs has launched a series of Internet of Things (IoT) events with a vision to highlight the significance of burgeoning IoT market and realizing the need to build and enable IoT ecosystem in Pakistan. In this context, the IoT event was organized in August, 2017, as a two-day workshop on IoT using Arduino. The workshop was steered by Dr. Zahid Anwar, who holds more than 15 years of experience in embedded systems design and application development. He has been a trainer for Internet of Things in the USA at the University of North Carolina at Charlotte and at Saint Louis Fontbonne University. Currently he is the Director of the Systems Research Group and a faculty member at NUST-SEECs.

The workshop focused on getting up and running with Arduino quickly, so that the basic building-blocks of the IoT could be understood, programmed, configured and integrated to develop IoT solutions with an independent effort.



Dr Bilal attends 3rd Asian Innovation Forum in Seoul



Dr Mohammad Bilal Khan, Principal and Dean USPCAS-E participated as Invited Speaker at the 3rd Asian Innovation Forum in Seoul, South Korea on August 29, 2017 on behalf of Economic Cooperation Organization (ECO). In his presentation, he underlined the impact of greenhouse gas emissions as a result of combustion of fossil fuel on the climate change with its devastating effects on the plant. He stressed that the nations and governments have to conserve energy and increase the adoption of renewables in order to reduce the impact of climate change.

Dr Hammad delivers tutorial in Korea

Dr. Hammad Cheema attended 39th Annual International Conference of the IEEE Engineering in Medicine and Biology held in Jeju, Korea from July 11 to 16, 2017. He delivered a tutorial titled, "Healthcare Revolution Through Wearable Electronics" to a large audience comprising academic and industrial professionals.



Teachers' training at C³A

Center for Counselling and Career advisory (C³A) conducted a two-day training for the teachers of NUST Creative and Learning School (NCLS). The training was aimed at helping teachers learn the skills to communicate and discipline their children in an effective and healthy way. Topics covered during the activity included An ideal Teacher, Effective Communication Skills, How to Discipline Children in a Healthy Way and How to Teach Body Protection to Children in an Age Appropriate Manner.



Course on "Remote Sensing and GIS Applications in Flood Management" at SCEE

Remote sensing and GIS techniques can replace, supplement or complement the existing flood management system. Extensive use of these technologies has great prospect in creating long-term database on flood proneness, risk assessment and relief management. Keeping in view of this, the first short course on "Remote Sensing and GIS Applications in Flood Management" was held at NICE/NUST from July 18 to 29, 2016 and in continuation of the same, a UNESCO sponsored Advanced Training Course was organized from 18 - 31 July 2017 at NICE/SCEE.

The objective of the capacity building and training program series was to enhance and strengthen the capacities of organizations dealing with early warning and flood management in Pakistan in utilizing geo-information, and applying spatial tools and techniques to support flood management.



MRC Vocational Course at SMME

A vocational course was conducted at MRC SMME on September 9, 2017. In the course several technical skills were taught to the participants from different backgrounds. Mechanical, wood work, welding and other skills were part of the course. Principal SMME distributed the certificates among the participants after the successful completion of course.



Lecture on Student Industrial Visits and Internships

Mr Imtiaz Rastgar (Rastgar Engg) delivered a "lecture on Student Industrial Visits and Internships" to SMME faculty on July 18, 2017. He is one of the best known entrepreneurs of the engineering sector in Pakistan. He has been a member of Boards of several government organizations. As Founder Charter Member of TiE Islamabad, Imtiaz Rastgar mentors young entrepreneurs and also chairs the Higher Education Commission's Committee on Knowledge Transfer. He particularly talked about the required set of skills in curriculum planning for students so as to bring an economic impact from interaction between businesses and the Universities of Pakistan.



Foreign students complete internships at SMME

A batch of foreign students from Saudia Arabia and Thailand completed their four-week internships at SMME on July 1, 2017. They were selected through IAESTE for working in well-equipped and sophisticated labs. During their internship, they got an opportunity to work in Manufacturing Resource Centre (MRC), Fluid Mechanics I, Thermo Lab, Heat and Mass Transfer and Vibrations Lab. They were given an exposure to contemporary methods of research alongside their interaction with faculty and lab engineers. Efforts were made to ensure holistic knowledge approach for the international students.



PNEC students stand out in GSC, Hong Kong

Mr Rabat Ali, Mr Hunain Saeed, and Mr Saad Sikandar, students of final year from PNEC Mechanical Engineering Department, participated in Global Student Challenge 2017 held from June 24-30, 2017 at The Hong Kong Polytechnic University. They contended against 180 teams from different countries. Their project was of interest to many judges and investors and was chosen among the top 20 projects of the competition. Every year PolyU invites young entrepreneurs on a fully funded event to Hong Kong where they present their innovative business ideas before eminent judges.



Seminar on “Software Defined Networks”

French professors Dr Isabelle Lassous and Dr. Thomas Begin delivered seminar on “Software Defined Networks” at PFAN Scientific Event at SEECS on August 29, 2017.



UN Staff Officer Course-14



UN Staff Officer Course-14 (UNSOC) was held from 3-14 July 2017. As many as 14 army officers and 14 x JCOs/NCS attended the course. Similarly, UN Military Observer Course -15 (UNMOC) was also held from 15-25 August 15 to 25, 2017. A total of 20 army officers attended the course.

TIC incubatee speaks at international conference in Colombo

TIC incubatee Shahryar Muhammad Khan, founder and CEO of SWAM Tech specializing in mobile app development, was invited to speak at an international conference on “ICTs for Innovation and Entrepreneurship,” held from September 12 to 15 in Colombo, Sri Lanka. The workshop was aimed at increasing the practical entrepreneurial skills of students.



NUST inks MoU with Inductin

NUST entered into an MoU with Inductin with an objective to prepare university graduates for market readiness by mutually running the Professional Development Courses as per the market demands; strengthen the innovative capacities of NUST graduates for which they will be offered freelancing opportunities with apt mentorship; facilitate them in accessing the industry for research activities and for employment; and provide internship to the selected students of NUST. The MoU Signing ceremony was held in PDC on September 8, 2017.



NUST hosts foreign students under IAESTE Internship Program

International Association for the Exchange of Students for Technical Experience (IAESTE) is an international organization exchanging students for technical work experience abroad. Students gain relevant technical training lasting from 4 weeks to 18 months. Pakistan became its member in 1990. More than 400 students have been offered internships worldwide. The National Secretary of IAESTE-PAKISTAN is Arshad Ali, Executive Director HEC and its head office is located in Islamabad. Pakistan has also hosted a number of foreign students in different universities and companies in the past few years.

A total of 17 students from 14 IAESTE-member countries including, Saudi Arabia, Palestine, Canada, Greece, UAE, Thailand, Austria, Oman and Turkey were nominated to attend the internship program for 2017 in Pakistan. Out of these 17 students, 8 joined the internships at NUST. They were accommodated in different schools-including SMME, SEECS, SCEE, SCME and US-PCASE-based on their field of study and area of interest. Each intern attended a very well-structured internship program under the supervision of assigned faculty sponsor. The program also included recreational trips to Lahore and the suburbs of Islamabad.



Meanwhile, nine students have been shortlisted from Pakistan in 2017 for the internships abroad. Two of the selected students are from NUST. Umair Hassan from School of Mechanical and Manufacturing Engineering (SMME) is being hosted in Belgium at Robotics and MultiBody Mechanics Research Group, Vrije Universiteit Brussels (VUB). While, the other student, Abdullah Gulraiz from College of EME is being hosted in Austria at Montanuniversität Leoben-Institut für Automation.

SNS faculty declared 1st among young scientists in Mathematics

Dr. Mubasher Jamil, a promising faculty from School of Natural Sciences (SNS), has been declared first among the young scientists (under 40 years of age) of Pakistan in the field of Mathematics, which is in fact another feather in his cap and a matter of great pride for SNS and NUST. It is worth mentioning that the ranking of scientists in various subjects is carried out by the Pakistan Council for Sciences and Technology in the Directory of the Productive Scientists of Pakistan. This list includes life-long record of publications, books, PhDs produced and other parameters. His H-index is 32 with total impact factor of 271.



PDC Events

Workshop on Handling Some Specific Issues in Construction Projects & Contract Management

Professional Development Centre organized a one-day workshop on “Handling Some Specific Issues in Construction Projects & Contract Management” on Sept 26, 2017 at NUST Center for Innovation and Entrepreneurship. The resource persons were renowned industry experts and academicians.



Workshop on Presentation Skills

The Professional Development Center also held a two-day workshop on “The Art of Presentation Skills” from September 19 to 20, 2017. The workshop covered techniques of overcoming nervousness; sins of presentations; structuring and designing presentations; powerful opening and closing; non-verbal communication and dealing with difficult people and situations.



Professional Diploma in Project Management

Professional Diploma in Project Management (PDPM) is part of “DIP Series” of PDC. The PDPM is a four-month fast-track 8-module program. The program awards 96 PDUs to the professionals and trains them to appear in Project Management Professional (PMP) exam, internationally conducted by PMI (Project Management Institute). The 2nd batch of PDPM commenced from September 26, 2017 at CIE Building, NUST.



What's On!

PDC Trainings for November 2017

S.No	Title	Duration	Date
1	Teach the Teacher Program- Outcome Based Education for HEI	5 Days	6th-10th
2	Contract Management	3 Days	8th-10th
3	Employee Engagement	2 Days	16th -17th
4	Managing Sales Team	2 Days	20th – 21st
5	A 35 Hours Preparatory Course for PMP Certification	5 Days	20th-24th
6	Knowing Labor Laws for HR Professionals (03 Hours Session)	1 Day	24th
7	Mobile Forensics	2 Days	27th-28th

Co-curriculars

Faiza Zafar wins 8th National Women Squash Championship

Faiza Zafar, a student of School of Social Sciences and Humanities (S3 H), defeated Pakistan's No. 1 Sadia Gul by 3-2 in the five-set final of recently concluded National Women Squash Championship. A total of 16 players from all across Pakistan participated in the championship carrying a purse prize of Rs. 0.1 million. The thrilling final had the spectators on their feet, as Faiza staged a strong comeback after conceding the first set. She won two back-to-back sets to take the lead to 2-1. However, Sadia showed some resilience by striking back in the penultimate set and leveled the tally 2-2. In the fifth and decisive set, Faiza sent her opponent packing after securing an unassailable lead of 11-7 and lifted the championship trophy.



Rumi enactment draws great applause

A group of students from NUST Dramatics Club (NDC) recently enacted a play "Rumi," based on Elif Shafak's famed novel "The Forty Rules of Love." Staged at NUST main auditorium, the play solely themed around the life of Rumi and his bond with Shams of Tabriz that inspires him to see the world from a different perspective.

With their spellbinding performance and exceptional dialogue delivery, the members of NDC pulled off a great show with Raja Ardsheer and Rafay Ahmed playing the characters of Shams and Rumi respectively. The audience expressed their appreciation throughout with rounds of applause.



MCE students bag top 3 positions in Bridge Competition at Techno Fest 2017

The Institution of Civil Engineers (ICE) Student Chapter UET Peshawar recently arranged a three-day event 'TECHNO-FEST 2017' at UET Peshawar. During the Techno Fest, a bridge competition was held in which 130 teams from all across the country participated. Military College of Engineering (MCE) students bagged all three top positions in this competition. The winning team comprised Paying Cadets Mohammed Aizaaz-ul-Haq and Mohammed Abdullah Saeed. Their bridge was 108 grams and lifted a weight of 84 kilograms which was tested on a UTM. With an efficiency of almost 800% (778 % to be precise) they topped the competition.

The team that won the second place comprised Paying Cadets Jahanzeb Ahmad, Usman Shabbir, and Baber Ali. Their bridge's efficiency was 539 % and the team that won the 3rd prize had an efficiency of 524 %.



SADA students refurbish Senate library

Bachelor of Architecture (Batch 2013) students were tasked to refurbish the existing Senate library. Competition was open to the whole class. Groups were formed and designs were presented to Chairman Senate and other members of the Senate. After a series of meetings, a design was selected and finalized. The team developing the winning design comprised Iqra Imtiaz, Naqi Ejaz, Osama Jamil, Nadir Zamir and Suha Shuaib Azim. The final selected design was subsequently handed over to CDA for implementation. The inauguration ceremony of refurbished Senate library was held on August 23, 2017. In his talk at the occasion, Chairman Senate Mian Raza Rabbani highly appreciated the role of NUST-SADA in refurbishing the library.



Monsoon plantation drive

With the commencement of monsoon, National University of Sciences and Technology (NUST) kick started tree plantation drive at the Islamabad campus on July 18. During the environment friendly campaign, around 1000 fruit saplings were planted across the earmarked area alongside the Chenab Avenue. The inaugural ceremony was preceded by an on-campus Green Walk joined in by an overwhelming number of students, faculty and staff. Pro-Rector Planning & Resources Maj Gen (Retd) M Shahid and Pro-Rector Academics Dr Asif Raza inaugurated the drive by planting citrus trees.



Student entrepreneurs launch cafés at NUST

Launch of cafés by student entrepreneurs at three different places on the H-12 campus is the latest manifestation of entrepreneurial spirit ubiquitous at National University of Sciences and Technology (NUST). Lt Gen Naweed Zaman HI (M), (Retd), Rector NUST, inaugurated the new cafes on the eve of September 21. The outlets namely Jango, Café 309 and The Wall are the brainchild of students of NUST Business School (NBS) set up in serene spots at different locations. These have to offer sumptuous

deals from traditional to Continental and Chinese cuisine that too at remarkably affordable prices. At the occasion, the Rector was flanked by university's senior management, faculty and an overwhelming number of students. Talking to the student proprietors, he appreciated them for the implementation of a very creative concept and hoped that the endeavors would well serve the food lovers on the campus.



Mehfil-e-Mushaira arranged at SEECS

For the last about thirteen years, *Mushaira* has become a standing tradition at SEECS. It is a regular feature of SEECS life and is equally enjoyed by faculty, staff and students. On August 30, a *Mushaira* was arranged in the seminar hall. The event continued for more than an hour and was thoroughly enjoyed by audience through warm participation and appreciation. Principal SEECS Dr Hassan Zaidi thanked the guest poets and audience for showing zeal for Urdu poetry. He also shared some of his verses which were greatly appreciated by the audience.



MCE organizes summer camp for children

Since the extreme weather conditions in Risalpur do not allow for a lot of outdoor activities for children, Student Affairs Office at MCE conducted a summer camp for the children of Risalpur Cantt from July 24 to August 4, 2017. Dean Civil Engineering Wing Brig Dr Sarfraz took the initiative to reach out to the families in Risalpur and involve them in extra-curricular activities. Activities held during the camp included coaching of cricket and football, tug of war, indoor games, mental math, a movie, essay competition, story writing, calligraphy, singing competition, arts and crafts, drone flying and the highlight of the summer camp being a puppet and magic show, for which a team was called in from Rawalpindi.



NUST PNEC appointment holders ceremony 2017

As the Fall Semester 2017 commenced, various students were selected after rigorous evaluation for the college appointments on the basis of their overall performance. The appointment holders' ceremony took place in the Parade Ground on August 18, 2017 at NUST PNEC, Karachi. The appointment holders play a great role in advancing the core values of Pakistan Navy Engineering College (PNEC). The prime aim of this policy is to groom the students professionally so that they unfold their true potentials.



NUST makes a clean sweep at NUML All Pakistan Drama Festival

NUST made a clean sweep at a two-day "All Pakistan Drama Festival" recently organized by National University of Modern Languages (NUML). As many as 10 universities from across Pakistan participated in the festival and mesmerized the audience with their performance.

Nustians managed to clinch five major awards including Best Actor (awarded to Syed Haider Ali), Best Actress (awarded to Aaleena Kynat), Best Supporting Actor (awarded to Saadullah Shah), Best Supporting Actress (awarded to Sauleha Imtiaz) and Best Production Award. which is indeed another feather in their cap after being runners-up at GIKI Drama Festival. Director General Pakistan National Council of Arts (PNCA) Syed Jamal Shah was the chief guest at the closing ceremony.



Community Service

Fundraising dinner reception in Gujranwala

Lt Gen Naweed Zaman, HI (M), (Retd) Rector NUST hosted a fundraising dinner reception in the honor of industrialists and philanthropists at Gujranwala on Monday, May 22, 2017. The event helped raise funds for NUST Need-based Scholarship Program. At the occasion, a Memorandum of Understanding was also signed between NUST & Gujranwala Chamber of Commerce & Industry for greater partnership in enhancing Industry Academia Linkage. The event was attended by around 50 industrialists of the region including President Gujranwala Chamber of Commerce & Industries.



NUST delegation visits KCCI

A delegation of University Advancement Office (UAO) visited Karachi Chamber of Commerce & Industry (KCCI) on Saturday, September 16, 2017, and met with President KCCI Mr. Shamim Firpo. Both sides discussed multiple avenues of partnership between NUST & KCCI. President KCCI thanked NUST delegation for the visit and vowed full support of the chamber for the cause.



Vocational Training 2017 culminates with Kit Distribution Ceremony

NUST School of Mechanical & Manufacturing Engineering (SMME), in collaboration with United We Reach (UWR), conducted a vocational training for machinists, welders and supervisory technicians during the last summer. UWR, a non-profit USA-based organization, has been supporting the vocational training in Pakistan since 2016.

On August 3, a kit distribution ceremony was held at SMME for participants of the 2017 training course. Ms Sabahat Rafiq, Executive Director of United We Reach (UWR), was the chief guest at the ceremony and distributed essential tool kits among the participants who underwent training at Manufacturing Resource Center (MRC) of SMME.



'#PlayToEducate: Cricket Gala 2017'

University Advancement Office held '#PlayToEducate: Cricket Gala 2017' in the month of September to raise funds for the needy students under the NEED initiative. Teams comprising a mix of University employees and faculty exuberantly took part in the event.



Over 200 families served through StreetStore

July 3 marked the commencement of 16th StreetStore by Chadar, a team of NUST students that aspires to serve the underprivileged by offering free clothes. This time around, they set up a similar store at an Islamabad-based charity school, Mount Hira, where the children receive free-of-cost education.



The street store was wrapped up around 7 pm when there were no more customers left to be served. After a tiring day, the volunteers were filled with a sense of accomplishment as they were grateful to be a part of this monumental event.

Street store, the flagship project of *Chadar* successfully conducted in different cities including Lahore and Islamabad, aims to provide underprivileged individuals with a dignified shopping experience. This is done by setting up a 'store' in a disadvantaged area on a selected day and distributing clothes and other utilities, thus giving to the less fortunate and emulating a spirit of compassion and sharing. It is made sure that the clothes donated are ironed, folded and packed. The StreetStores are accompanied by a bunch of recreational activities for children. *Chadar* continues to make these stores more effective by organizing workshops on hygiene, women health, the importance of education and basic lifesaving skills.



The team comprised over 40 volunteers of *Chadar* from various universities including NUST. These volunteers being students showed great perseverance and helped tirelessly in gathering donations and setting up the store. Also helping along the way were collaborators which included HHRD (Helping Hand Relief and Development USA) and Akhuwat Clothes Bank. The volunteers also mingled with the children by doing face-painting and handing out goodie bags. The children formed a quick bond with members of the team and happily played around with them.



SMME student attends TN Leadership Conference at Mexico

Faizan Rashid, student of SMME, recently attended the Talloires Network Leadership Conference in Mexico as a student fellow of TN Elephant Initiative. The conference themed around social responsibility and human dignity in higher education. Student delegates actively participated in the dialogue sessions alongside the renowned academics from different universities.

Faizan, as a student fellow of the EI, worked online with various mentors and five other students to prepare and facilitate an action-planning process 11 weeks prior to the conference. The planning focused on developing strategies for responding to TNLC's three calls to action, i.e., the right to access to education, leadership opportunities and livelihood. The work included making motivational matrix of the stakeholders involved, problem trees and solution trees, etc.

PNEC students spend day at *Dar-ul-Sukoon*

Education and Community Service Society (ECSS-PNEC) has always tried to bring forth the social issues and work for the welfare of the society. Continuing the legacy, ECSS recently organized a visit to *Dar-ul-Sukoon* a shelter for elderly people living away from their families. Students first had lunch with the senior citizens and then intriguingly listened to them as they shared some of their life-long experiences with the younger lot. Students also engaged the old home residents in games, singing, painting, etc.



MCE faculty, students attend Laajverd Visiting School, Hunza

Lecturer Somana Riaz, a faculty member at Military College of Engineering (MCE), along with two postgraduate students Sidra Tabassum and Mayram Asghar attended a two-week summer visiting school (July 1 to July 14, 2017) at Gojal Valley, Hunza. Laajverd Visiting School provides a dynamic environment for students and researchers to have firsthand experience of working in areas that are vulnerable to natural hazards.



Participation in 24th International Conference on Teaching, Education & Learning

Ms Sehrish Hamid, Assistant Manager Community Service NUST, participated as oral presenter in 24th International Conference on Teaching, Education and Learning, held at Imperial College London, South Kensington Campus from September 12 to 13, 2017. She presented two research papers on NUST initiatives on Civic Engagement, i.e., "Impact Assessment of Service Learning at NUST and Analyses of Student Choices and trends towards service learning field activities." Besides the conference proceedings, both papers have been published in the International Journal of Social Sciences (ISSN 2454-5899).



Annual TABA Day observed

Like every year, NUST Community Service Club (NCSC) organised annual TABA day at School of Electrical Engineering and Computer Science (SEECs) on September 13, 2017. Target audience mainly were the freshmen. The purpose of organising the event was to give students a brief introduction to TABA., an NCSC allied team that primarily works in the area of "Disaster Relief" and "Education for Empowerment."

NCSC selects new office bearers

NUST Community Service Club (NCSC) recently selected its new office bearers for the council of 2017-18. The posts were advertised for 10 days on NCSC social media via Facebook & Twitter. Ms Maha Khan from ASAB is now the new President of NCSC, whereas Mr. Azan Akhtar from SMME is the new General Secretary of the club.

Alumni Affairs

Rector meets alumni in Dubai

NUST Alumni Office hosted a get together for its alumni based in Dubai with Rector NUST Lt Gen Naweed Zaman, HI (M), (Retd). As many as 69 alumni of different NUST schools and colleges attended the event.

Speaking at the occasion, the Rector said that the alumni are the ones having the first-hand experience of industry and are closely overseeing the changes taking place in industry trends. Based on their experiences, he added, they can facilitate NUST in its R&D endeavours on the one hand and in mentoring the currently enrolled students as well as young graduates on the other.



PNEC alumni from Germany, Saudi Arabia visit alma mater to guide juniors

NUST-PNEC alumni Mr Muhammad Shahruxh Saeed from Germany and Mr Arsalan Jawed from the Kingdom of Saudi Arabia visited the college on August 24, 2017. They shared their experiences with the students and guided them on career paths they might adopt in future. The student-alumni interactive session was organized by University Advancement Officer and PNEC Alumni and Industrial Relations Society, a student-run body which aims to connect students with the alumni mentors.



NUST Alumni CSS Club launched

Inauguration ceremony of NUST Alumni CSS Club at NUST was held on August 7, 2017. Rector NUST Lt Gen Naweed Zaman, HI (M), (Retd), graced the occasion with his presence and met with the alumni who have made a mark on Central Superior Services of Pakistan.

"Alumni are an asset for their alma mater. We are proud that our graduates have proven capable of all the key attributes required for one of the most competitive examinations of Pakistan," Rector NUST said as he addressed the gathering. He also highlighted the role alumni can play in progress and growth of their university.



RCMS holds first "Alumni Homecoming"

Research Center for Modeling and Simulation (RCMS) "Alumni Homecoming" was organized for the first time on August 19, 2017. Principal RCMS AVM Engr Shahid Niaz graced the event as chief guest. He encouraged the alumni to attend such events in future; mentor the present students; contribute to the development of curriculum as per the industrial requirements and help boost the academia-industry relationship.



List of Abbreviations (NUST Institutions/Directorates)

NBS	NUST Business School
ASAB	Atta-ur-Rahman School of Applied Biosciences
SADA	School of Art, Design and Architecture
SCEE	School of Civil & Environmental Engineering
NICE	NUST Institute of Civil Engineering
NIT	National Institute of Transportation
IESE	Institute of Environmental Sciences & Engineering
IGIS	Institute of Geographical Information Systems
SCME	School of Chemical & Materials Engineering
SEECs	School of Electrical Engineering & Computer Science
SMRIMMS	Samar Mubarakmand Research Institute of Microwave and Millimeterwave Studies
SMME	School of Mechanical & Manufacturing Engineering
S³H	School of Social Sciences & Humanities
SNS	School of Natural Sciences
CAE	College of Aeronautical Engineering
CEME	College of Electrical & Mechanical Engineering
MCE	Military College of Engineering
MCS	Military College of Signals
PNEC	Pakistan Navy Engineering College
NIPCONS	NUST Institute of Peace & Conflict Studies
C³A	Center for Counseling and Career Advisory
USPCAS-E	US Pakistan Center for Advanced Studies in Energy
RCMS	Research Center for Modeling & Simulation
CIPS	Centre for International Peace & Stability
CIE	Centre for Innovation & Entrepreneurship
CDC	Career Development Center
CIE	Centre for Innovation & Entrepreneurship
PDC	Professional Development Center
TIC	Technology Incubation Center
ILO	Industrial Liaison Office
PSA	Publishing & Student Affairs
Acad	Academics
HR	Human Resource
P&MR	Press & Media Relations
QA	Quality Assurance
P&D	Planning & Development
CAC	Corporate Advisory Council
ORIC	Office of Research Innovation & Entrepreneurship
TIC	Technology Incubation Center



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