



National University of
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*25^{Years}
of Academic
Excellence*



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NUSTNEWS is a bi-monthly publication of Publishing and Student Affairs Directorate, covering various activities from across the University.



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1 IN THE SPOTLIGHT

Seminar on “Role of Universities in Community Development and Empowerment”

Pakistan Chapter of The Talloires Network (PCTN) held its third seminar titled “Role of Universities in Community Development and Empowerment” at the main campus of National University of Sciences and Technology (NUST). Chairman Higher Education Commission (HEC) Dr Mukhtar Ahmad was the chief guest at the event. Students, faculty and Vice Chancellors from different PCTN member universities attended the seminar.

Chief Coordinator PCTN Dr Abdul Ghafoor welcomed the guests to the seminar and apprised them of the fast-paced growth the network had made in a period less than three years.

Executive Director of The Talloires Network, Mr Robert Hollister, through a video message, congratulated everyone on the exponential growth of PCTN and termed it a source of inspiration for all the other TN chapters around the world. He also expressed great appreciation for Rector NUST Engr Muhammad Asghar and acknowledged his importance as the Steering Committee member of The Talloires Network at Tufts University, USA.

In his keynote address, Rector NUST Engr Muhammad Asghar shed light on what community development and empowerment was and how universities could play their part in it through civic engagement activities. He maintained that the academia must do research pertinent to the problems facing the community, and provide every possible support might it be financial, physical or emotional. The Rector NUST en-



Rector NUST Engr Muhammad Asghar presenting event souvenir to Chairman HEC Dr Mukhtar Ahmad

couraged further enhancement of the collaboration among the universities of Pakistan under the umbrella of PCTN.

In their talks, Vice Chancellor University of Agriculture, Faisalabad Dr Iqar Ahmad Khan and Vice Chancellor Veterinary and Animal Sciences Dr Talat Naseer Pasha talked about the contributions of their respective universities in the area of community engagement.

The chief guest, Dr Mukhtar Ahmad, in his speech emphasized the importance of role of universities in community development. He said the need of the hour was not just exceptional students with extraordinary grades, but well-rounded human-beings who benefitted others around them. He also announced that HEC was going to introduce mandatory service learning courses at HEIs in Pakistan. He mentioned how HEC and British Council were collaborating successfully to run a civic

engagement program in 42 universities in Pakistan. He commended Rector NUST in bringing together universities of Pakistan for this noble cause of serving communities.

The second session of the seminar was a panel discussion on how students could contribute towards school education in Pakistan. The esteemed panelists included Air Commodore Shabbir A Khan (CEO Rashidabad City), Dr Ayesha Khan (CEO Research and Development Solutions), and Mrs Asma Tughrul (Head Saya School, Islamabad).

Students and faculty present were really inspired to know how Rashidabad City was set up by a single person's determination to give back to his country. The panelists urged the students and faculty to educate the underprivileged as it was the equal responsibility of every educated person in the country.

After the seminar the PCTN Steering Committee met to decide the way forward.

Defining Futures: NUST at Open Silicon Valley, USA



NUST was awarded a 45-minute window to highlight its entrepreneurial endeavors at Open Silicon Valley 2016 (April 30, 2016), the largest chapter of the OPEN forums. OPEN is a network of entrepreneurs and professionals who help each other via mentoring sessions, major conferences, networking events and workshops. Moderated by Mr Ashar Aziz, Founder FireEye, the event was attended by as many as 60 people including entrepreneurs, angel investors, full-bright scholars, and NUST alumni from United States.

Representing the university, Rector NUST Engr Muhammad Asghar informed the audience of the initiatives such as entrepreneurship propagation through Technology Incubation Centre (TIC), planned National Science and Technology Park (NSTP), and the endowment ecosystem development at NUST.

Mr Shiraz Bashir (NTF International Alumni member), and Ms Ramla Qureshi (CEO Women Engineers Pakistan), represented NUST in their alumnus and entrepreneurial capacities. Moreover, CEO Touch'd, Mr Muhammad Mansoor, an incubatee business owner at TIC, also showcased his business model and was awarded the third prize by the judges.

OPEN Silicon Valley 2016 has paved a new path for research, innovation and commercialization for the Pakistani economy. Moreover, with a representation at the esteemed event, a more comprehensive entrepreneurial ecosystem can also be established at NUST, allowing it to write the new chapters of entrepreneurial development, while creating a sustainable social and economic impact.

UWR to support 92 UG students

United We Reach (UWR) and National University of Sciences and Technology (NUST) have reached a joint understanding by signing an MoU to further the cause of education. Mr Irfan Akhtar and Ms Sabahat Rafiq signed the MoU on behalf of NUST and

UWR, respectively. UWR is a non-profit organization working for educational equity and consequent economic development, with the use of modern day technological resource bundling. An understanding between the two parties has been materialized



whereby, UWR has pledged USD 2 million in endowments and USD 0.27 million in annual fund to support 92 financially constrained undergraduate students at NUST. With this initiative, 92 deserving students throughout the life of NUST will have the opportunity of attaining world-class higher education, without having to worry about the financial cost.

The initiative has taken NUST a step forward in the direction of being a needs-blind institution. With

the aspiration of having a needs-blind policy in place, NUST yearns to establish a model where no admitted student is held back by the cost, and by working hand-in-hand with the qualifying students, we aim to tailor a plan suitable to their unique circumstances. Similar community support and the exploration of newer avenues shall ever be, and continually explored by NUST, and consequently have its significant role played in drafting a brighter future for Pakistan.

ASAB Laboratory Animal House Inauguration and Green House Earth Breaking Ceremonies



Animal House and Green House facilities are pivotal to biological research. Advanced, cutting-edge and applied research in the field of biotechnology cannot flourish in the absence of these facilities. ASAB Laboratory Animal House Inauguration and Green House Earth Breaking Ceremonies took place on April 21, 2016. Rector NUST Engr Muhammad Asghar unveiled the plaques. He was flanked by Pro-Rector P&R Eng. M Shahid, Pro-Rector Academics Dr Asif Raza, Directors, and Principal ASAB Dr Peter John. Rector NUST, while speaking on the occasion, highlighted the importance of such facilities and encouraged ASAB faculty and students to keep up the good work. ASAB Laboratory Animal House provides

international standard housing and management of animals for quality research data and testing programs in which animals are used. The facility is run by qualified staff and Dr Tehseen Alam (veterinarian) under the guidance of Dr Najam-us-Sahar Sadaf Zaidi. The animal house is currently housing over 1500 laboratory animals.

The green house facility is a promising venture by the Plant Biotechnology Department, ASAB under the leadership of Dr M Tahir. The controlled environment seeks to attain the same atmosphere as that found in the colder or warmer areas where the plants like cotton, wheat, tomatoes, peanut, lettuce, chilli and others can thrive and flourish.

Success Story

Striving for uplift of power sector in Pakistan through indigenous research and training

Pakistan is facing an intense energy crisis. Over the past few years, the energy crisis has cost Pakistan up to 4% of GDP downfall. Closure of hundreds of factories, paralyzed production and increased unemployment are the worst effects of the energy crisis and these factors have made energy one of the most critical challenges for Pakistan. The country lacks competent and energetic workforce in this important sector, both in the industry as well as the academia.

The launch of U.S.-Pakistan Center for Advanced Studies in Energy at National University of Sciences and Technology (USPCAS-E) project by USAID in collaboration with Higher Education Commission (HEC) and Arizona State University (ASU), is an effort to fulfill this national need.

Mr Akif Zia Khan, faculty member at USPCAS-E, NUST visited Arizona State University (ASU) from Jan – Mar 2016 for this purpose and held a series of meetings on curriculum, lab equipment and applied research projects with peer faculty and fellow researchers in Power Systems Research Center (PSERC) at ASU. During his stay at ASU, the collaborative work with Dr George Karaday of PSERC played an instrumental role in the development of curriculum and power hardware in the loop smart grids laboratory for Electrical Energy Engineering Program at USPCAS-E at National University of Sciences and Technology (NUST), Pakistan. The participation in different technical work-



shops and events hosted by the IEEE PES Chapter at ASU resulted in extraordinary capacity building of the faculty under this exchange program and became a true reason of replication of teaching and experimental facilities.

Meanwhile, Dr Naseem Iqbal, Assistant Professor at USPCAS-E, NUST, specialized in fuel cells technology, particularly in the area of catalysis, visited ASU under the similar exchange program and worked in the Fuel Cell research group at the Polytechnic School, ASU. The supervision was provided by Prof. A. M Kannan, a renowned expert in Fuel Cell technology at ASU.

“The main bottleneck in the Fuel Cell development is the Pt loading on catalyst which increases the overall cost for this technology. I developed a process to lower the Pt loading on electrocatalyst for PEMFC. This contribution will help the industry in low-

ering the cost of Fuel Cell.”, stated Dr Naseem Iqbal. On the basis of these studies, a feasibility analysis was conducted in collaboration with Hyundai Motors Group for the development of novel electrocatalyst with ultra-low Pt loading for Fuel cell vehicles.

During the Exchange Program with ASU, a detailed research collaboration was formed which helped the faculty at USPCAS-E in building a strong research collaboration with ASU faculty working in different areas of energy and executed different research projects. Some of the major projects to benefit from energy resources of Pakistan were PEM Fuel, hydrogen storage materials, batteries fabrication and testing for efficient energy storage and electrochemical reduction of CO₂ for improved environment and converting CO₂ into useful chemicals.

The U.S.-Pakistan Center for Advanced Studies in Energy ini-

tiative is part of USAID's larger \$ 127 million investment in collaboration with Higher Education Commission (HEC) that will harness applied research to find innovative and practical solution for Pakistan's energy, water, agriculture, and food security challenges. USPCAS-E is designed to support Pakistan's economic development by strengthening the relevance and responsiveness of universities products, including applied and policy research and skilled graduates, to the needs of the public and private sector. The program is working in partnership of Two (02) Pakistani Universities, National University of Sciences and Technology (NUST)-Islamabad, University of Engineering and Technology (UET)-Peshawar and One (01) International University, i.e., Ari-

zona State University (ASU) from United States of America.

The major goals of USPCAS-E are to substantially improve the capacity of Pakistani higher education institutions to find innovative solutions to Pakistan's greatest development challenges related to energy through – applied research and education of graduates & post graduates to meet the needs of Pakistan by enhancing the capacity of academia, industry, communities and leadership in policy dialogue. Besides the funding of 14.9mn USD for programmatic activities like tertiary education development programs, scholarships, exchange program and capacity building; USAID is also funding 5mn USD for infrastructural development of USPCAS-E building.



ASAB faculty conferred “One-Health Fellowship Award” by NAS, USA

Dr Aneela Javed, Assistant Professor at ASAB, has been awarded a 12-month fellowship as part of “One-Health initiative in Pakistan”. One-Health Fellowship is an enterprise of National Academy of Sciences USA (NAS-USA) to foster international research collaborations with an aim to combat the most pressing global health threats. Dr Aneela Javed along with her team members Dr Peter John, Dr Attiya Bhatti and Dr Sobia Manzoor submitted their project proposal entitled “Molecular surveillance and risk factor evaluation of Crimean Congo Haemorrhagic fever (CCHF) in Pakistan”. Out of several projects submitted from 45 different universities and research institutes of Pakistan, initially 9 projects were shortlisted by NAS-USA and project team was invited to defend the proposal in “Pakistan One-Health Fellowship Symposium in Dubai from February 29 to March 4, 2016. The fellowship will comprise two phases, an abroad research component at the National University of Singapore Graduate Medical School (DUKE-NUS) in Singapore (up to 5 months) and the implementation of her project at home research facility in Pakistan. Dr Linfa Wang will be the



Host collaborator in DUKE-NUS and Dr Peter John, Principal ASAB will be the Mentor of the project in Pakistan. The US-NAS envisions Dr Aneela Javed to become an Ambassador for this innovative pilot program that aims to link environmental change, human and animal health.

College of EME students stand out at NEO, GIKI

National Electronics Olympiad (NEO) is being hosted for the past 8 years by Ghulam Ishaq Khan Institute, IEEE GIKI. Team College of EME participated in the latest competition and won titles in several categories such as Robo Maze, Project Exhibition, PCB Design, MIC Night and Speak It Up. The college team comprised Muhammad Shehroz Khalid, Waleed Pervaiz, Haris Sohail, Muhammad Ahsan Sami, Muhammad Mujtaba and Ahmad Abdullah.



SMME wins Human-powered Vehicle Competition GIKI 2016

School of Mechanical and Manufacturing Engineering (SMME) won "Human-powered Vehicle Competition" held at GIKI from April 10 to 12. A group of students of mechanical engineering, i.e., Ramish Durab Khan, Fazeel Ahmed, Abdul Rehman, Hamza Javed, Umer Farooq, Ibrahim Bin Yasir and Haseeb-ud-Din Ahmed did a great job in designing the vehicles.



NUST participates in 120-year celebrations of Xi'an Jiatong University, China

Xi'an Jiatong University (XJTU), China celebrated its 120th anniversary along with the 60th anniversary of its Western Relocation from April 6 to 10, 2016. Prominent among the participants were three Nobel Laureates, besides former Japanese Prime Minister, Cuba's Minister of Education. In addition, university representatives, most of whom were presidents from 140 Chinese and other universities, and fifty-thousand students and faculty made it to the celebrations. Moreover, XJTU also called first meeting of Executive Council of University Alliance of Silk Route.

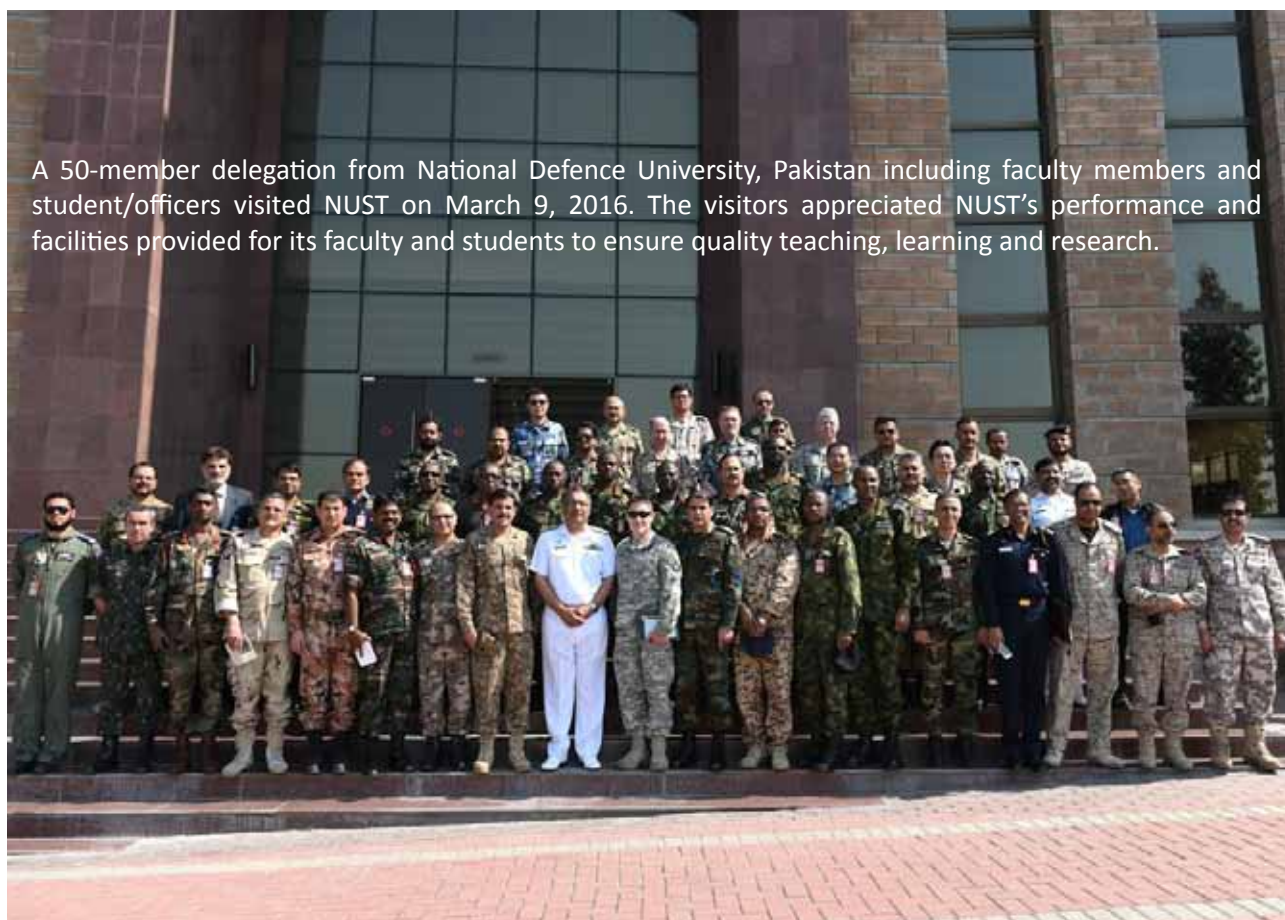
NUST was the only university from Pakistan to have been invited for the historic occasion. Top 140 world universities, including 28 from USA and 12 from UK, participated in the celebrations. MIT, Harvard, Stanford, UC Berkley, Cambridge, Oxford and Imperial College were also part of the invitees.

It is pertinent to mention that NUST is also a member of XJTU initiative of University Alliance of Silk Route Steering Committee formed for jointly working for the peace and prosperity of the Chinese Silk



routes. NUST was represented by Dr Abdul Ghafoor, Principal School of Mechanical and Manufacturing Engineering and Ambassador (R) Syed Hassan Javed, Director of Chinese Study Center at NUST. NUST has been included in the Executive Council by XJTU based on its international standing and world renowned programs. The participation of NUST in the event has helped connect with the world's leading universities for students and faculty exchange programs and joint research to address the future challenges pertaining to environment, water and energy.

2 VISITS



A 50-member delegation from National Defence University, Pakistan including faculty members and student/officers visited NUST on March 9, 2016. The visitors appreciated NUST's performance and facilities provided for its faculty and students to ensure quality teaching, learning and research.



Mr Talat Mehmood Abbasi, Director Enforcement, Pakistan Telecommunication Authority (PTA), led a team of officials from PTA to visit Military College of Signals (MCS) on March 15, 2016. The purpose of the visit was to conduct a survey for the quality of 3G and 4G services provided by the mobile networks.



Maj Gen Adrian Foster, Deputy Military Adviser Peacekeeping Operations, UNDPKO visited CIPS on April 29, 2016. He appreciated the standard of training at the centre.



The Members of House of Rockville along with their Italian partners paid a visit to SMME on April 26, 2016. They were peculiarly interested in functioning of different labs and ongoing activities.



DG Institute of Optronics, NESCOM visited SMME on April 21, 2016. He was briefed on the projects undertaken by students and other ongoing academic activities in different labs.



KRL delegation paid a visit to different labs at School of Mechanical and Manufacturing Engineering. (SMME)

3 CONFERENCES & WORKSHOPS

International workshop on “Resource Recovery from MBRs - From Laboratory to Pilot Scale”

An international Workshop on “Resource Recovery from Membrane Biological Reactors (MBRs) - From Laboratory to Pilot Scale” was organized at the Institute of Environmental Sciences & Engineering (IESE-SCEE), National University of Sciences & Technology from March 31 to April 1, 2016.

Three of the international speakers were well-known researchers in membrane-based technologies. Professor Chung Hak Lee from Seoul National University (South Korea), Professor C. Visvanathan from Asian Institute of Technology (Thailand), and Professor Ismail Koyuncu from Istanbul Technical University (Turkey) along with local speakers delivered key lectures on current and future technologies for membrane-based water and wastewater treatment. The workshop brought together professionals from various sectors including government, consultancies, development sector, NGOs



and academia. During this two day international workshop, the most significant developments in Membrane Bioreactor technology were thoroughly shared and discussed.

Key topics discussed during the two-day event included use of membranes as an emerging technology for the wastewater treatment and various advancements

in this field for minimum energy consumption and better and safe water usage according to internationally accepted standards.

Among the local speakers, Dr Sher Jamal Khan and Dr Zeeshan from IESE-SCEE, NUST, presented their ideas and work pertinent to application and resource recovery from MBRs.



A PhD student of IESE-SCEE, NUST presenting a bouquet to Professor C. Visvanathan.



Chief Guest of the international workshop Mr Siddique Khan (Country Representative, WaterAid-Pakistan) receiving an honorary shield from Dr Sher Jamal Khan (HoD Environmental Engineering, IESE-SCEE, NUST).

Workshop on "Molecular Basis of Behaviour"

The second IBRO-APRC Associate School of Neuroscience workshop was a great success, establishing an important foundation for the future of advanced neuroscience training and research in Pakistan. The workshop on "Molecular Basis of Behaviour" took place at Atta-Ur-Rahman School of Applied Biosciences (ASAB), NUST from March 14 to 18, 2016. It was sponsored by IBRO-APRC through a competitive grant which was won by Dr Touqeer Ahmed at the ASAB NUST.

Participants included 23 students from different universities of Pakistan, and 6 international participants from Iran, Nepal, Qatar and Thailand. As many as 16 national and international invited speakers from Pakistan, Iran, South Korea, Spain and UAE de-

livered lectures on advanced neuroscience topics and introduced recent techniques. Two lab sessions were also conducted for hands on training of different molecular techniques. The workshop was tailored to the needs and concerns of emerging techniques in neuroscience and provided the highest quality teaching and training. The participants were also given chance to explore mesmerizing beauty of Islamabad through an excursion trip.

The efforts of the organizing secretary Dr Touqeer Ahmed and his team for their commitment, expertise and enthusiasm were appreciated by all the participants and guests for the successful conductance of the event.



Workshop on "Entry Into Corporate World"

Internship and Placement Office-Military College of Signals (MCS) in collaboration with Department of Computer Software Engineering organized a one-day workshop on "Entry into Corporate World" on April 27, 2016. The target audience were over two hundred 3rd and final year students from Telecommunication Engineering and Computer Science Departments. A total of 8 guest speakers / interviewers and approx 200 students from both departments attended in the workshop. The diverse topics of talk session varied from "resume writing to art of appearing in an interview, and overview of industry expectations from new entrants to higher educa-



Seminar on “Teaching and Learning Focused on Outcome-based Education”- MCE

Dr Shahid Iqbal, Dean Civil Engineering Wing at MCE, conducted a seminar titled “Teaching and Learning Focused on Outcome-based Education (OBE)” on March 5, 2016 at the college. Pakistan Engineering Council (PEC) has recently introduced Outcome-based Education (OBE) System that focuses on graduates’ attributes such as: ability to solve real world problems; group effectiveness and team work; communication skills; and



ability to solve new and complex problems not dealt during formal education. These kinds of attributes can only be achieved through development of higher order thinking skills in students by creating classroom environments where effective (means quality) teaching and learning could happen.

During his talk, Dr Shahid Iqbal talked about cognitive skills, effectiveness of different pedagogical techniques (such as subject-based learning, problem-based learning, cooperative learning etc.) on students learning and in development of higher level thinking skills, use of correct assessment techniques (such as summative assessments and formative assessments) for evaluating teaching and students’ learning and achievement of course learning outcomes, and design of syllabus in view of OBE.

A total of 53 professionals and postgraduate students benefited from the workshop.

Seminar on “Protection against Harassment of Women at Workplace Act 2010”

Center for Counselling and Career advisory (C3A) organized a seminar on “protection against harassment of women at workplace act 2010” for NUST faculty and officers on March 17, 2016.

Ms Maliha Husain, executive director Mehergarh: a non-government institution working with women and youth was invited as a guest speaker to give awareness about this issue.

She shared that the law “Protection against Harassment of Women at the workplace Act, 2010”, passed by Government of Pakistan in 2010

was for both men and women and the purpose of this Act was to provide safe and secure working environment to the working women in the public and private sectors.

Ms Ayesha of C³A highlighted the formal and informal procedures of lodging a complaint of harassment for faculty and students at NUST.

The chief guest, Pro-Rector Academics, Dr Asif Raza shared that NUST had developed its own code of



conduct and constituted an inquiry committee and a harassment complaint cell within NUST to deal with harassment cases and that all employees and students were well-protected.

The chief guest appreciated C³A for arranging a seminar on a very sensitive and important issue.

A large number of faculty/officers from different departments of NUST attended the seminar.

Session on gateway to CSS

NUST Bioreach Society organized a meet-and-greet with four accomplished CSS officers: Mr Aashij Luqman Hafiz, Dr Asad Naeem, Mr Rameez Azam and Ms Shahbano Khan, at Atta-ur-Rehman School of Applied Biosciences' Auditorium. The four distinguished guest speakers, who passed their CSS examination in the year 2013, had very valuable and helpful guidance to give for future CSS aspirants. The event was attended by more than 200 eager students who came with the hopes of decoding the mysteries of the process one has to go through in order to become a CSS officer.

Lecture on “Emerging Trends in Software Engineering” at MCS



Associate Prof Dr Awais Majeed, former faculty member at MCS now serving at Bahria University, Islamabad, delivered a lecture on “Emerging trends in Software Engineering” on May 10, 2016. The talk consisted of three parts including Software Engineering as a career, emerging trends in Software Engineering and Service-oriented Computing (SOC). The speaker in the first portion explained the prospective directions which a software engineer could pick including Developer, Software Quality Engineering, Technical Writer, Content Developer, Sales, Marketing and Technical Support Staff and becoming an entrepreneur. In the second part, the speaker highlighted the emerging trends in software engineering like Service Oriented Computing, Cloud Computing, Big Data / Data Science and Mobile Computing. Finally the speaker covered the service oriented computing which include introduction, its architecture, protocol and some requirements of service oriented computing like provision of ubiquitous services, interoperability between services and different related tools. The lecture was attended by large number of students and faculty.

Lecture on Plagiarism at MCS

MCS in collaboration with HEC recently organized a lecture on plagiarism by Mr Munir Ahmed, Dy Dir Quality Assurance HEC.

Mr Munir Ahmad has vast experience in conducting such lectures at various universities and institutions. Faculty members and masters and PhD students of MCS attended the lecture. The lecture consisted of two sessions. First session covered the important aspects of plagiarism, reasons of plagiarism, its prevention road-map, HEC policy on plagiarism, responsibilities of institution, faculty and students. Different puni-



itive measures and penalties for defaulting students and faculty were covered in the lecture. In the second part of the lecture, hands on practice on plagiarism checking tool TURNITIN was carried out, different features of the tool were

explained. Students and faculty members keenly participated by asking questions covering different aspects of plagiarism. It was an informative and interesting lecture which kept all the audience engaged throughout.

Lecture by Prof Dr Norman Reid at MCS

MCS arranged a guest lecture by Professor Dr Norman Reid for the faculty and students on March 4, 2016. Professor Dr Norman Reid is from University of Glasgow, Scotland, and has visited MCS in 2009, 2011 and 2014. Dr Reid's professional career of teaching, research and administration is spread over 5 decades. This time around, he delivered a lecture on "Developing Critical Thinking Skills among Students" to faculty and postgraduate students. Prior to the lecture, Commandant MCS Maj Gen Amjad Ahmad Butt met Dr Reid and presented him a souvenir. The lecture was attended by all faculty members and a large number of postgraduate students. A detailed QA session followed the talk in which audience participated enthusiastically.

UN Military Observer Course (UNMOC-11) & UN Staff Officer Course (UNSOC-10)

UN Military Observer Course-11 and UN Staff Officer Course were organized by Centre for International Peace & Stability (CIPS) at NUST main Campus from March 7 to 18 and April 4 to 15, 2016, respectively. Diplomats, defence attachés and representatives of UN agencies attended the opening and closing ceremonies of the courses. Collectively, 30 officers from Pakistan Army and 11 foreign officers from China, Germany, Malaysia, Nepal, Nigeria and Sri Lanka attended the two weeks courses.



UN Military Observer's Course (UNMOC-11) Participants



UN Staff Officer's Course (UNSOC-10) Participants

C³A faculty presents papers at int'l conferences

Dr Aamna Saleem Khan from the Centre for Counseling and Career Advisory presented two papers on "Instructional Technology: A Way of Better Learning and Computer Science Algorithms in Education" in 14th International Conference on Statistical Science at Jinnah Sindh Medical University, Karachi, March 14-16, 2016. She served as a session chair and also presented two papers on "Concept Formation Teaching Model: An Innovative Way of Transformative Learning and Classroom Management through Computer" in 1st International Conference on "Innovation in Teaching and Learning (ICITL-2016)", April 25-26, 2016 at International Islamic University, Islamabad.



Dr Aamna Saleem Khan from the Centre for Counseling and Career Advisory presented two papers on "Instructional Technology: A Way of Better Learning and Computer Science Algorithms in Education" in 14th International Conference on Statistical Science at Jinnah Sindh Medical University, Karachi, March 14-16, 2016. She served as a session chair and also presented two papers on "Concept Formation Teaching Model: An Innovative Way of Transformative Learning and Classroom Management through Computer" in 1st International Conference on "Innovation in Teaching and Learning (ICITL-2016)", April 25-26, 2016 at International Islamic University, Islamabad.

Guidance Teachers' Training at C³A

A five-day "Guidance Teachers' Training" was held from April 4 to 8, 2016 at Center for Counseling and Career Advisory (C³A), NUST. The training was organized to impart career education and guidance to Sir Syed Ideal School System (SSISS) teachers and management. A total of 11 participants, including teachers and principals of various branches of SSISS, were engaged in this training to learn about the basic concepts of Career Counselling, Careers Education and Psychological Counselling. Interactive and experiential activities were designed to inform the participant about the role and responsibilities of Guidance Teachers working at school level. The training was highly appreciated by the participants and continuation of similar kind of learning activities by NUST was requested for future.



Course on disaster management to have “long-lasting effects”, says Dr Shahzad of MCE

Following the 2005 earthquake and 2010 flooding in Pakistan, which killed tens of thousands of people, National University of Sciences and Technology (NUST) developed a graduate-level program on disaster management, the first-of-its-kind in the country. Dr Naeem Shahzad, Assistant Professor at MCE, signed up for United Nations Environment Program (UNEP) course to broaden his view of disaster management. “Interactions with international experts [in] this course helped me gain knowledge and experience,” he says. “We learned how disaster risk reduction, climate change adaptation and ecosystem[s] are interrelated.” The course is going to have “long-lasting effects”, Dr Shahzad says, because the measures it advocates are economical, effective, and easy to implement. He is working to have the course included as an elective in the curriculum of the university's master's program.



Paper publication by MCE faculty

A research paper, titled “First principles study of the adsorption and dissociation mechanisms of H₂S on TiO₂ anatase (001) surface” authored by Dr Naeem Shahzad of Military College of Engineering (MCE/NUST), has been published online in one of the pinnacle journals in the area of Computational Modeling with an ISI impact factor of 3.84 i.e., RSC Advances, Royal Society of Chemistry, UK. DOI:10.1039/c5ra20857k.

4 CO-CURRICULARS

NEC organizes “Plant a Green Hope”

In connection with International Women’s Day celebrations, NUST Environment Club (NEC), in collaboration with Development Communications Network (DEVCOM-Pakistan) and Capital Development Authority (CDA), organized the event “Plant a Green Hope” on March 6, 2016. The special feature of the event was tree plantation next to IESE building. This year, the theme of International Women’s Day was “Planet 50-50 by 2030: Step It Up for Gender Equality”. The distinguished guests included esteemed, successful female personalities such as Senator Najma Hameed, Senator Nuzhat Sadiq and Senator Sitara Ayaz. Mr Munir Ahmed from DEVCOM-Pakistan also attended the plantation campaign.

Ms Erum Aamir, lecturer IESE, commenced the event followed by a speech of Senator Sitara Ayaz, a member of several Standing Committees including one on Climate Change. Senator Najma Hameed talked about her 20-year experience working in the government and how loyalty was a key element



for being successful in life. She encouraged the women folk to take a stand and confidently pursue their ambitions.

Senator Nuzhat Sadiq recalled her experience of giving a speech to the political science class of Harvard and how she credited her mother-in-law for being an inspiration to her and supporting her in her endeavors.

Closing remarks by Zara Khan, President of NEC, highlighted the work done by NEC and the efforts

that would be made in the future to organize similar events. Souvenirs were then presented to the senators by Dr Imran Hashmi and Mr Munir Ahmed on behalf of IESE and DEVCOM-Pakistan, respectively.

The trees were then planted next to IESE by the Senators and girls participating in the ceremony. To say the event was a success would be an understatement and NEC continues to organize events highlighting the environment.

MCS teams win at entrepreneurship competition at HITEC Olympiad 2016

HITEC University Taxila recently organized a three-day national event, HITEC Olympiad’16. Two teams from Military College of Signals (MCS-NUST) participated and presented their business ideas in front of the industrialists and both marked a tremendous victory in this event.

NC Reem Javed and NC kinza Behram (TE-49) won 1st prize, and also received an award from SMEDA (Government of Pakistan). The title of their project was CAMon. It is an inexpensive, easy-to-use and



Continued on next page

portable technique which can magnify minute details such as pulsation in wrist, color changes on face due to blood perfusion, motion of head due to breathing using real time image processing techniques.

Other team of two members NC Tasmiya Sheikh and NC Areej Shahid (TE-49) won 2nd prize and also received honorary shield. The name of their project was Vision-Pi. Vision-Pi is a multifunctional aiding device designed especially for visually impaired people which detects obstacles, recognize various objects and monitors healthcare through digital image processing, circuit designing, programming and prototyping.



MCS teams shine at “CREATE’16” at PIEAS

Pakistan Institute of Engineering and Applied Sciences (PIEAS) organized CREATE’16, an entrepreneurship competition, on April 30, 2016, in which teams from all over the country participated. 25 out of 80 teams made it to the final round. Two teams from Military College of Signals (MCS-NUST) participated and presented their business ideas in front of the industrialists and both marked a tremendous victory in this event.



First team of two members, NC Tasmiya Sheikh and NC Areej Shahid (Course TE-49), won 1st prize in Social Enterprises category. The name of their project was Vision-Pi. The other team consisting of NC Kinza Behram and NC Reem Javed (Course TE-49) won honorary mention 3rd prize in Women Enterprises category. The name of their project was CAMon.

Spring Festival, Flower Show – 2016, MCE

Spring Festival / Flower Show was conducted at Risalpur Garrison on April 14, 2016. It was a carnival for the faculty, students and local population. Flower Show Competition was also held during the festival. Besides various other organizations, MCE and CAE also took part in it.

Major General Akhtar Jamil Rao, HI (M), Director General Engineers, graced the occasion as chief guest. After distribution of prizes among the winners, he was conducted to the beautifully decorated stalls. Besides flowers’ stall, MCE had also set up various information and entertainment stalls at the festival.



SPORTS

SCEE Sports Gala

The SCEE Sports Gala was held between March 21 to 30, 2016 by NICE Student Council. Students from NICE, IGIS and IESE took part in the event. The gala aimed to build and improve relations between students of different departments of SCEE. The opening ceremony was held at NICE Cricket Ground on March 22. A total of 225 matches were played during the activity in which over 200 students from the institutions participated with full vigor in sports such as futsal, cricket, badminton, squash, basketball, e-gaming, Volleyball, athletics, tug of war, arm wrestling, dart, etc.



MCE Tennis Championship 2016

Tennis is one of the favorite sports for many students and faculty at Military College of Engineering (MCE), Risalpur. MCE Tennis Championship 2016 was held in April 2016 at MCE Tennis Courts. A number of students and faculty participated in the championship. Finals of the championship for various categories were held on April 5, 2016. Major General Muhammad Ajmal Iqbal, HI (M), Commandant MCE, graced the finals as chief guest and gave away prizes and medals to the winning players and coaching / support staff.



5 COMMUNITY SERVICE

NCSC, Streetstore Islamabad distribute clothes on Labor Day

With a view to distributing clothes on Labor Day among the needy, NUST Community Service Club (NCSC) lately collaborated with Streetstore Islamabad. NCSC volunteers and team from Streetstore worked together to make the event successful.

The team comprised over 100 volunteers from NUST, Comsats and Air University. These volunteers being students showed great perseverance in tackling both their studies and volunteer work. They showed up in every processing session and helped tirelessly in gathering donations. Also helping along the way were collaborators which included House of Light, Helping Desk PIMS, Robin Hood Army, Mount Hira School, Akhuwat Clothes bank and Green Volunteers. The preparations for the event began about three months ago. Donations were collected from various cities but majority of them were from Islamabad. Collection points were set up at Naan Stop, Little Athens and Chaye Khana (Bahria Town).

The charitable nature of people prevailed and over 5000 articles of clothes and other utility items were collected in donations. After that the team started

the grueling processing sessions which spanned several weeks. The clothes were thoroughly scrutinized, then ironed and packed properly, ready to be put on stalls to give people a proper shopping experience.

The event was targeted towards several villages in the Pind Bhagwal region. The people of that place are hardworking farmers who strive each day to provide a better life to their families. The aim was to keep alive the spirit of Labor Day and assist those families in some way and spread smiles on their faces. Over 650 families were invited to collect clothes. The venue also had a proper medical camp with volunteer doctors from The Helping Desk who gave free medical check-up to around 500 people.

The volunteers also mingled with the children by doing face-painting and handing out 400 goodie bags. The children formed a quick bond with members of the team and happily played around with them. The final wrap came with the distribution of food among the visiting families.

The weather was excruciatingly tough but smiles and love was all that prevailed that day.



NCSC organizes “Experience NUST 2016” for high-school students

NUST Community Service Club (NCSC) executed its long anticipated event-Experience NUST 2016 on March 21. High school students from various colleges of Islamabad and Rawalpindi were invited to the NUST H-12 campus for an exclusive tour of the campus. Among those who visited included students from Model College for Boys(G10/4), Beacon House Margalla campus, Science Vision College, Punjab college (Blue area) as well as students from various other schools who registered individually. Each college team was accompanied by two faculty members.



Blood donation drive

NUST Community Service Club (NCSC) organized a blood donation drive in collaboration with Jami-la Sultana Foundation, a charity organization that aims to eradicate thalassemia in Pakistan, from April 5 to 7, 2016. The major aim of the event was to awaken the altruist in every NUSTian and to have each of them come to donate blood to the ill.



NCSC holds free eye camp

NUST Community Services Club (NCSC), in collaboration with Al-Shifa Eye Trust, held its annual free eye camp 2016 from April 13 to 14, 2016. NUST administration played a key role for the smooth conduct of the two-day activity. A total of 8 doctors and 2 technicians made up the Al-Shifa Eye Trust team. Whereas, around 1300 people were checked through the camp.



Footy Mania '16 raises funds for scholarship endowment

The third edition of NCSC's signature event "Footy Mania '16" was held from March 21 to 24, 2016. From the onset, the organizing team of NCSC made their intentions clear by securing fitin.pk as the sponsor and FootballPakistan.com (FPDC) as the media partners. Fitin.pk is an online clothing store headed by the students of various top universities. Their aim and ambition is to provide an un-

paralleled shopping experience in Pakistan that rivals anyone in the world. On the other hand, FPDC is the number one online source of all things football in Pakistan.

The turnout of the matches was great and grew day by day as the tournament reached its climax. One reason for people showing up in large numbers was the overall electrifying atmosphere. The music system along with the

commentary created great excitement and kept everyone on the edge of their seats.

The proceeds of the tournament went to the student endowment fund which provides financial assistance to deserving students of NUST. The event would not have been possible without the cooperation of the NUST administration and the hard work of NCSC team.



Workshop on sponsorship proposals

Sponsorship proposals are a work of creativity, an art in itself and one who acs this art not only bags some big budget monetary sponsorships but manages to create direct linkages into the corporate sector. NCSC organized an exclusive and one-of-its-kind event on April 8 for its council, pertaining sponsorship proposal writing. The guest speaker for this seminar was Mr Daniyal from the renowned School of Leadership.

As the session progressed the speaker told about the importance of Search, Work, Assess and Generate or simply SWAG. While writing a proposal, one needs to do a thorough research on the company's policy, its vision and its target audience before pitching the proposal to the sponsor and make the most of it. Some other key points that the speaker shared were the importance of media and marketing. What company's look for these days is sound marketing and media is the best platform for this so many a company's towards a lucrative marketing strategy.

At the end of seminar, there was a fun filled activity in which the attendees were divided in groups of four where each group had to pitch a unique project with sound sponsorship proposal.



Workshop on Social Entrepreneurship

NUST Community Service Club (NCSC) arranged a workshop for the CSL- 401 (community service learning) course participants on “Social Entrepreneurship” from March 15 to 25, 2016 at SCEE seminar hall. The workshop was conducted by Assistant Manager Community Service Ms Maheen Mumtaz. It started with the explanation of the importance of social entrepreneurship especially as societies continued to face a myriad of challenges. Social entrepreneurs were therefore in turn motivated to understand the adaptive capacity and life changing potential their work carried.

The workshop ended with a few pointers for the participants that would guide them on how to start and compose an enterprise for themselves. The workshop was very informative and gave the participants the push they might need to go out and change the world around them.



Lecture on “Rise of the Courageous”

NUST Community Service Club (NCSC) Character Building team invited Raja Zia ul Haq to give a motivational lecture at ASAB seminar hall on April 27, 2016. The lecture was attended by students and faculty. During his lecture, he drew attention to the confusions of the contemporary era, misinformation that surrounds the people and how lives revolved around unimportant things. He used the analogy of a person in a coma, oblivious to what was happening around him. He took the students through the story of the People of the Cave, terming them role-models for the youth of today. Later, there was a brief question and answer session wherein students raised many queries with the esteemed guest.

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