External Session of Mr. Alasdair Miller, Clean Energy Specialist International Finance Corporation World Bank Group (IFC WBG), with CAC Energy Sector Committee

A session of the Corporate Advisory Council (CAC) Energy Sector Committee was held on 9th January, 2013 at the School of Chemical and Materials Engineering (SCME). Attending the session was Mr. Alasdair Miller, Clean Energy Specialist from the International Finance Corporation World Bank Group (IFC WBG) and Mr. Khalid Aslam, Director Sapphire Textile Mills, who is also the Industry Co-Chair of the CAC Energy Sector Committee. Principal/Director Center for Energy Systems (CES), Dr. Muhammad Bilal Khan; Advisor NUST, Mr. Amer Hashmi; Director CAC, Ms. Rabia Shoaib Ahmad; senior faculty members from CES and the CAC team were present.

The objective of Mr. Miller’s visit to NUST was to formally meet the Project Team for the CAC-CES project titled “Survey on the Availability of Biomass in Pakistan”. This project was initiated in 2012. The objective of the meeting was to give details of the project to Mr. Miller and to agree on a road map for formalizing IFC’s association with NUST. NUST is now the Vendor-World Bank Group in terms of the Biomass Survey Project. USD 20,000 has been granted for this project which is an achievement for the CAC Energy Sector Committee. We would like to acknowledge the patronage of our Industry Co-Chair Mr. Khalid Aslam, without whose efforts this grant would not have been awarded.

Certified Energy Managers’ Training Programme

Mr. Javed Afzal, Manager Outreach Small & Medium Enterprises Development Authority (SMEDA) approached CAC notifying that SMEDA along with GIZ organizes awareness training programs for Energy Managers. It is a four days training programme. Thus, it was envisaged that from awareness mode, this training can be taken to the next step at a level of a certified training programme. This may be done in collaboration with a university as the universities have examination system in place.

Therefore CAC was approached to consider this proposition of offering the Certified Energy Managers’ Training Programme at NUST in collaboration with SMEDA and GIZ. With reference to this, CAC Energy Sector Committee NUST Co-Chair, Dr. M. Bilal Khan, suggested evolving a strategy to offer certified energy management training in collaboration with SMEDA and GIZ.

In continuity to this, a session was held on 18th January 2013 to envision an awareness mode where this training can be taken to the next step at a level of a Certified Training Programme. NUST along with SMEDA and GIZ will define objectives, and the relevant methodology to formalize a professional certification course for Industry & Academia.

Dr. Ehsan (HOD CES) & Dr. Adeel Waqas (Associate Professor CES) are the focal persons from CES working on the course outline for this program. In future a session will also be planned to discuss the Program for the MoU Singing Ceremony between NUST, GIZ and SMEDA.
External Session with Mr. Yasir Sakhi Butt, Executive Director Sakhi & Sons Group (SAS)

A session of the Corporate Advisory Council (CAC) Energy Sector Committee was held on 19th December 2012 in SCME. From the Industry, we had Mr. Yasir Sakhi Butt, Executive Director Sakhi & Sons Group (SAS). Principal & Director Center for Energy Systems (CES), Dr. Muhammad Bilal Khan, Director CAC, Ms. Rabia Shoaib Ahmad, senior faculty members from CES and the CAC Team was present. The purpose of the meeting was to discuss potential collaboration between NUST and the Industry in the field of Biodiesel Production. It was proposed to set up the Biodiesel Plant in collaboration with CES NUST. Various sources of Biodiesel production and latent areas for crop cultivation were discussed. It was mentioned that the First Photo Bio Reactor is operational at CES. Now CES is focusing to design the Industrial scale equipment in collaboration with the Industry.

Mr. Yasir Butt was assured that CES NUST would help and support the Industry at its best potential to achieve the positive outcomes in the field of Biodiesel. CES shall provide all necessary technical support to Mr. Yasir Sakhi Butt for this prospective endeavor.

Formula NUST from Pakistan Aspire to Conquer Silverstone UK (Formula-1 Car Racing Competition)

The CAC and NUST HQ is supporting an inspiring initiative by the Pakistan Naval Engineering College (PNEC), a NUST constituent institution. The initiative that showcases NUSTs core values of innovation and entrepreneurship; a group of students under the guidance and supervision of PNEC faculty, is participating in an internationally recognized competition the Formula Student (FS) http://www.formulastudent.com/. It is Europe’s most established educational motorsport competition, run by the Institution of Mechanical Engineers. The competition is sponsored by world renowned companies such as Shell, Mercedes, Audi, Lotus, Bentley, Jaguar, Rolls Royce, Airbus and Nissan, to name a few. This competition aims to inspire and develop enterprising and innovative young engineers. Universities from across the globe are challenged to design and build a single-seat racing car, which demonstrate their understanding and test the performance of the vehicle.

This competition is held with an aim to encourage youth to take up a career in engineering. It seeks to challenge university students to conceive, design, build, cost, present and compete as a team with a small single-seat racing car in a series of static and dynamic competitions. The event is planned in such a manner so as to provide an ideal opportunity for the students to demonstrate and improve their capabilities to deliver a complex and integrated product in the demanding environment of a motorsport competition.

Formula NUST student team from PNEC has the honor of being the first Pakistani team to participate in the event in July 2012 at UK. It was a very popular event of 2012,
with a very large number of participations from different countries. Formula NUST (PNEC-NUST) team was one of the 134 teams selected from 32 countries to compete in this prestigious event at Silverstone Circuit at United Kingdom. Their participation as the first ever and the only team from Pakistan was very much appreciated and encouraged by the organizers and the judges alike. It was also heartening to see that Pakistan’s flag printed on the Formula Student car picture that takes up the cover page of the Formula Student event book. The designing and fabrication of the formula car for the event was indigenously undertaken by a team of students under the able guidance of a faculty advisor. Selection of the team and the car for the mega event was a true reflection of the consistent hard work and dedication of the team in fabricating the formula racing car, with available limited resources. With the participation in the event, the team has learned tremendously and achieved a great deal of experience in terms of technical standards especially in the field of automotive engineering. This valuable experience shall also help future participating teams from Pakistan to go further in the competition in the coming years.

It is indeed a matter of pride for NUST that the students team from PNEC-NUST has been selected once again for year 2013, as the only team from Pakistan to participate in the global event at Silverstone, UK. It is not only showcasing the high intellect and innovative capabilities of NUST students, but also contributing towards a softer and more appealing image of Pakistan, about which many misperceptions abound in the West.

The CAC and NUST have provided patronage and support to the initiative by bringing CAC Industry partners on board. Several CAC partner companies have come forward with financial support for the initiative. We are extremely grateful to our internal and external partners for patronizing the event.

Interactive Group – CEO Mr, Shahid Mehmud, Industry Co-Chair CAC ICT Sector Committee
Crescent Steel
e-Ocean Pvt. Ltd.
NUST
PNEC

In terms of technology, currently, team is in designing and fabrication of the upgraded version of the formula car. Besides excellent NUST supervision, building a start-of-art technology requires guidance of experts/gurus of the field from industry as well. Under such needs, CAC has arranged international experts in the industry for supervision during designing and fabrication phase. From CAC and Industry, this shall indeed be an apt encouragement of budding talent, a valuable contribution towards the furtherance of S&T research, and presenting Pakistan Auto Sector as a progressive field of economy at global level.
Visit of His Excellency Ambassador of Italy, President Italian Development Committee

His Excellency Adriano Chioldi Cianfarani, the Ambassador of Italy, visited NUST on 19th March 2013. H.E is also the patron-in-chief of the Italian Development Committee (IDC). The IDC (Karachi) is a trade development association of professionals from different industries, committed to the expansion of trade, commerce, industries, ventures and investments between Italy and Pakistan. It was formed on 30th September 2009 by the Ambassador of Italy and works under the patronage of the Ambassador. The IDC enjoys full support from the Embassy of Italy in Islamabad.

President IDC Mr. Irfan H.A. Vazeer and Secretary General IDC Mr. Zuhair Vazir also accompanied the Ambassador of Italy. Mr. Irfan Vazeer is also the CEO of James Finlay Ltd Pakistan, and has recently joined the CAC on its Infrastructure Sector Committee. James Finlay Limited in Pakistan came into existence in 1890 and has been trading in the sub-continent for over a century. Finlays became a wholly owned subsidiary of Swire Group. Swire Group Comprises of companies dealing in Aviation, Marine Services, Beverages, Trading and Properties which include Cathay Pacific Airways, Swire Shipping, ICI Swire Paints and Swire Coco Cola Hong Kong Ltd. James Finlay Limited business in Pakistan comprises of Shipping, Protection & Indemnity Survey & Tally, Consultancy, Property and Tea Trading. James Finlay will work closely with CAC’s Infrastructure Sector Committee in various overlapping areas which will be confirmed later on.

The delegation was hosted by Rector NUST Engr. M. Asghar. Other participants from NUST included Engr. M. Shahid Pro Rector Planning and Resource (P&R), Dr. Asif Raza Pro Rector Academics, Dr. Abdul Ghafoor Principal School of Mechanical And Manufacturing Engineering (SMME), Engr. Salman Absar Director Innovation and Commercialization (I&C), Mr. Amer Hashmi Advisor NUST, Dr. Azad Akhter Siddiqui, Principal Center for Advanced Mathematics and Physics (CAMP), Ms. Rabia Shoaib Ahmad, Director Corporate Advisory Council, Mr. Ali Shah Senior Policy Analyst Global Think Tank Network (GTTN), Ms. Faiza Malik, Project Manager Advisor Office, Ms. Qandeel Nawaz, Sector In charge Infrastructure and Engineering, CAC.

The purpose of the session held with the Italian Ambassador was to tap into probable areas for collaboration between Italy and Pakistan. The session started with the comprehensive presentation of the NUST, and the Corporate Advisory Council (CAC) by Ms. Rabia Shoaib Ahmad, Director CAC. She explained how the CAC, GTTN and NSTP form part of the Knowledge Ecosystem, and how NUST is moving towards the development of the Ecosystem with the overall strategic objective of nation-building. She elaborated on the building blocks of the Ecosystem that are already in place at NUST, including RIC and its constituents, and the add-ons that are needed in order to take the initiative to the next level. This was followed by the presentation by Mr. Ali Shah, Senior Policy Analyst Global Think Tank Network (GTTN), on how they are developing linkages with other Think Tanks and Universities around the world for international policy research and analysis.

Rector NUST and Principal CAMP, Dr. Azad Akhter Siddiqui highlighted the already established collaborations with two of the Italian Universities - Universita del Salento, Lecce, Italy and Abdus Salam International Center for Theoretical Physics, Trieste, Italy with the NUST School of Center for Advanced Mathematics and Physics (CAMP). Dr.
Azad elaborated that there have been three workshops in Astrophysics as a result of this collaboration. He also mentioned that the other agreement signed with the Abdus Salam International Center for Theoretical Physics, Trieste, Italy allows for the exchange of 3 students and 3 faculty members every year.

Possible areas of collaboration between IDC and NUST were also discussed during the session. Rector NUST and the team envisioned IDC as a conduit for developing collaboration between Pakistan and Italy, and specifically between NUST and various institutions and organizations in Italy. IDC aims in facilitating and supporting Italian companies that want to work in Pakistan, the NSTP can be the perfect arena for such companies and entrepreneurs to set up their offices. R&D and HR support as well as advisory services and Venture Capital will be available in the NSTP ecosystem, including cost-effective rental space, secure surroundings, and facilities like internet and satellite connectivity. We can plan and execute projects, through the relevant CAC Sector Committees, in Infrastructure, Telecommunication, Information Technology, and Automotive (all are CAC Sectors).

a. It was proposed that academic collaboration between NUST and Italian Universities should be enhanced, taking help from IDC.

b. Corporate Advisory Council (CAC): Identifying & executing collaborative projects in overlapping Sectors of IDC and CAC - Infrastructure, Ports & Shipping, Energy, Telecommunications, Information Technology, and Automotive, Joint projects to be initiated in the above-mentioned Sectors.

c. Global Think Tank Network (GTTN): Facilitating knowledge collaboration & conduct policy research on areas of mutual interest by joining hands with notable Universities in Italy. GTTN aspires to partner with the research centers of the Universities of Pisa, Roma - La Sapienza, Milan, Padua, Bologna, Florence, Turin, and Politecnich Institute of Milan. It was also deliberated that Bilateral Policy White Papers on relevant areas of bilateral cooperation for the governments of Italy and Pakistan can be written from GTTN platform. This includes areas of Bilateral trade, Eurasian economic linkages and regional peace, Higher education collaboration, Cultural cooperation, Science-based urban development, Convergence of civilizations research and outreach.

d. NSTP: NUST can learn from Italian expertise & experience in Science and Technology Parks (STPs). A specific request to link up NSTP with the AREA Science Park, Trieste, was made to IDC, since the AREA Science Park is very similar to our NSTP. It was also elaborated that NSTP will be the ideal breeding ground for established concerns & entrepreneurs from Italy to start operations in Pakistan. Complete ecosystem support will be provided by the NSTP, including infrastructure, potential interns and employees in the form of NUST students and graduates, domain experts from Industry and Academia, business and legal advisory services, and access to funding.

The session was followed by the visit to Design and Manufacturing Resource Center (DMRC) at SMME followed by visit to CIE building where the delegation was introduced to various start-up companies housed at the building.

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**NSTP**

If you recall, in the Newsletter of July 2012, we mentioned a deliverable of CAC; The National Science & Technology Park (NSTP). Efforts for its existence have intensified recently. The Advisor’s Office formulated a Core Team comprising members from CAC, GTTN, Marketing & Communications Office (MCO) and Advisor’s Project Management team; Rector NUST tasked the Core Team to prepare a Prefeasibility for the first phase of NSTP. The Core Team, in consultation with internal and external stakeholders, prepared a comprehensive document that elaborated the efforts put in by NUST and the milestones achieved so far; it also benchmarked Science & Technology Parks around the world, and discussed reasons why similar initiatives in Pakistan have failed in the past. The report went on to highlight the Mission, Vision, Objectives, and Value Proposition of the NSTP; the governance and management structures, tenant composition in terms of Sectors, and the Infrastructure plans for the Park. Industry partners from various Sectors and Industries showed their interest in acquiring office space in the NSTP as tenants, and some Letters of Interest (LOIs) were also received by the team.

The Prefeasibility will lead to a full-scale Feasibility Study, which will be conducted by an external consultant. The infrastructure planning will commence soon, leading to the construction of Enterprise Buildings 1 and 2 for housing established business; start-up companies; legal, patent and business advisory services, Venture Capitalists with funding for start-ups, and support like auditoriums, conference rooms, data center, and many more facilities, that will form the complete Ecosystem.
NUST Science & Technology Park (NSTP)-External Session with Dr. Prof. Atta-ur-Rahman, President Pakistan Academy of Sciences (PAS)/President Network of Academies of Sciences of Islamic Countries (NASIC) and Dr. Anwar Nasim Patron in Chief, Pakistan Biological Safety Association

Dr. Professor Atta-ur-Rehman visited NUST on 25th March 2013. He was hosted by Co-Chairman Corporate Advisory Council (CAC) Dr. M. Akram Sheikh and Advisor NUST Mr. Amer Hashmi. Dr. Anwar Nasim, Patron in Chief, Pakistan Biological Safety Association also attended the meeting, in addition to the CAC and Advisor’s Office team.

The purpose of the session was to give Dr. Atta-ur-Rahman and Dr. Anwar Nasim a brief overview and introduction of CAC, GTTN and NSTP, and to explore avenues of collaboration. Dr. Atta-ur-Rehman is an institution in himself, and a national asset. NUST can benefit greatly from his experience; there are also opportunities to collaborate with PAS, of which Dr. Atta-ur-Rehman is the President.

During the presentation and discussion, Dr. Atta-ur-Rehman gave very valuable input on how to expand the CAC Sectors to include other important Sectors like Food Technology and Agriculture; he also suggested a few experts from the Industry and Academia to work on projects in Bio-Sciences, Robotics and Industrial Engineering.

It was discussed that the experts on the panel of PAS should be brought on board the various Committees and forums at NUST (namely GTTN and CAC) in order to promote collaborative efforts.

Dr. Akram Sheikh, Professor Emeritus, proposed to take Dr. Atta-ur-Rahman as Distinguished Fellow GTTN/Member Executive Committee NSTP and Dr. Anwar Nasim as Senior Fellow GTTN. Dr. Atta-ur-Rahman offered that the NSTP program of NUST can collaborate with the Technology Park that he has started in Karachi University.

We wish NUST all the best!