

IEEE PAKISTAN WIE NEWSLETTER

PAKISTAN WIE REPRESENTATION AT R10 STUDENTS CONGRESS

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Eight delegates from Pakistan attended the IEEE Region 10 Student/GOLD/WIE Congress that was held from 7-10 July 2011 at the University of Auckland, Auckland, New Zealand.

Pakistani delegates proved to be among the most active participants of the congress, standing out with nearly every delegate delivering presentations at this prestigious event.

IEEE geographic and GOLD/WIE Forums were held on the 2nd day i.e., Friday July 8th, 2011. The delegates were divided into groups to hold discussions specific to their geographic areas. These discussions were conducted by Takako Hashimoto, Professor Susmita Sur-Kolay, Dr. Rachana Garg, and Zuhaina. There Ms Mehvish Zahoor shared the success story of Pakistani WIE Forum and explained the structure of this forum to the WIE members of R10. Some projects which are related to WIE Activities in Pakistan were also shared.

Employers (and other parties) presented stalls in the atrium. R10 WIE had also arranged a stall in which Pakistan WIE Forum contributed through posters, videos displayed on the stall and Ms Mehvish Zahoor, Chairperson IEEE Pakistan WIE Forum presented WIE benefits to visitors as well as distributed "Pakistan WIE Newsletter." The Pakistan WIE Newsletter was printed out with the support of Om Parkash Batra and Madam Takako and was distributed among all

operational networks on pre-university, university and professional level. Through the platform of IEEE, Pakistan WIE Forum will create links between students and the industry. These groups will provide guidance at that specific level and also educate the community about opportunities and challenges will young female face. Not only this, these networks will include new potential and use them to work for the best solutions of the problems.



On 3rd Day 9th July 2011 Ms Mehvish Zahoor presented on the topic "Female Empowerment in our Culture." She explained that Pakistan WIE Forum, with its ex-

panded network all over the country, envisions conducting surveys in Pakistan, and working on the appropriate solutions to those problems. She also said that we envisage changing the rigidity of our culture and converting our country into a progressive nation. This can be replicated in many Asian countries like India, Bangladesh etc.

She explained the attendees that we've planned to establish three operational networks on pre-university, university and professional level. Through the platform of IEEE, Pakistan WIE Forum will create links between students and the industry. These groups will provide guidance at that specific level and also educate the community about opportunities and challenges will young female face. Not only this, these networks will include new potential and use them to work for the best solutions of the problems.

PAKISTAN WIE FORUM SESSION AT NEDUET

On June 27 2011, Pakistan WIE Forum held a session at NEDUET with the WIE members of NED, Pakistan Navy Engineering College and Usman Institute of Technology. Mehvish Zahoor, Chairperson Pakistan WIE Forum, spoke about the structure of the Pakistan WIE Forum and the vision with which it was initiated. She explained the WIE members of the Karachi Section how can they be a part of the Pakistan WIE Forum and the nationwide opportunities this forum offers for the female engineers of Pakistan. She also discussed the various projects initiated by the Pakistan WIE Forum and their progress. The event was concluded with small prizes given out to the winners of the activities conducted during the session.



WIE PNEC—BAKE SALE

Bake sales have long been one of the most popular ways of raising funds. They can be great money makers because there is little or no actual capital required. These can also be referred to as 'community social events' to raise for those in need. One similar endeavour was made by the students of NUST PNEC to prop up our brethren who have been the victims of rain and flood for so long now.

The bake sale was organized to make our sweet tooth even sweeter and the best part of it was that all the money went to charity. The event was held on 4th Octo-

ber, 2011 in the university ground. All of the food items were prepared by the female students themselves which became a major selling point. There was an entire variety of edibles, from toffee balls to chocolate cakes and lasagnes so the students spent amiably and more so, because it was for a noble cause. Bake sales are indeed one of the quickest and easiest ways to raise money for whatsoever cause. And people always enjoy getting together for a common aspiration. Whether it's the people behind or in front of the table, they both are equally implicated for the overall success of the fundraiser. Likewise, this

bake sale turned out to be a sensation too as the students participation and donations was able to generate quite enough funds.

Rabia Jamal

General Secretary WIE IEEE PNEC



WIE UIT LAUNCHING CEREMONY

Ms. Aisha Ansari, Chairperson WIE AG UIT welcomed the guests and speakers to the launching ceremony of IEEE WIE UIT (AFFINITY GROUP). She discussed the challenges of the present era faced by women and explained the role of women in the engineering field. Dr. Manzoor Ahmed, Chairman Usman Institute of Technology (UIT) gave his welcome note to the Guest of Honor MADAM RUKHSANA ZUBERI and appreciated her efforts in the field of engineering. Wasim akhtar, Director UIT shared his views regarding passion and hard work of IEEE WIE UIT team and discussed the importance of women in imparting education, their professional ethics, research and improvement in curricular and co-curricular activities. Engr. Tahir Saleem, Chairman IEEE P Karachi Center shared the history of IEEE P and talked about career

guidance and counseling for female engineers. He discussed the steps that how to develop yourself, how to develop skills and how to move into the Professional life. He told the benefits of working for WIE body and encouraged women that how we can build the nation. He conveyed his message to women that they should contribute in every field and develop the country. After this the ribbon cutting ceremony took place in which the Senator Rukhsana Zuberi, Chairperson Women in Energy Pakistan, Ex-Chairperson Pakistan Engineering Council along with the speak-

ers and the WIE UIT Members cut the ribbon for the official inauguration of WIE Affinity Group UIT. Senator Rukhsana Zuberi in her speech pointed out the challenges faced by women in social networking, social interaction and sharing of knowledge among societies and communities. She delivered the message of encouragement to the female engineers and told them to be visible, be visionary and be bold to face challenges. Women can't be



successful until and unless they work together. Next, Ms. Dania Hanif, RF Optimization Engineer at Motorola, Chair IEEE GOLD Karachi Section shared with the attendees KiranBedi's video as an inspirational personality for women and talked about women empowerment in Engineering and shared her opinion that education is by two ways, first by heart and secondly by head. After this, Ms. Rabia Khalid, Chairperson IEEE PNEC, Newsletter Coordinator IEEE Pakistan WIE Forum shared with the attendees the working of the Pakistan WIE Forum and how Pakistan WIE Forum provides the females opportunities for

networking and volunteering at national levels. Appreciating the efforts of WIE UIT she wished them all the best for future endeavors and provided them ideas through which they can emerge as an active affinity group in Pakistan. Next, Mr. Hassaan Idrees, GINI Pakistan Coordinator, Outreach officer IEEE PNEC, and also WIE member, cherished and encouraged the efforts of WIE UIT Members. He explained the working of the Global Integrated Network of IEEE and shared with them the opportunities offered by GINI for IEEE members relating to networking, collaboration and industrial relations. Then, Ms. Nimrah Hashmi, IEEE Karachi Section Student Representative 2011, Chair NED WIE 2010, shared her working experience with IEEE and WIE. She discussed how by conducting sessions in different colleges we can encourage young female students to study and work in the field of Engineering. This was followed by a motivational session by Ms. Sheeren Naqvi, CEO School of Leadership. Ms. Sheeren talked about the reasons why a person should not depend on appreciation and must not say no to opportunities. She said that appreciation is a good feeling, but it makes you dependent. In her opinion, successful is a person who, irrespective of the circumstances, is optimistic that there are many opportunities, abundant resources. After this, mementos were distributed with a token of thanks by Ms. Hafsa Asif, Vice Chair WIE UIT.

Maria Rana

Secretary WIE UIT

PAKISTAN WIE FORUM INTERVIEWS RAMALTA MARIMUTHU

Ramaltha began her journey as an IEEE member in 1983, volunteering to organize a couple of lectures, workshops and seminars. As an IEEE student branch counselor in 2001 in Easwari Engineering College she organized events that were innovative and sustain a student's interest in IEEE. In 2005 she started the first Women in Engineering SB affinity group of Easwari Engineering College under Madras Section, on encouragement from the executive committee of Madras. The humanitarian projects, she introduced under WIE gathered positive acclaim and was awarded "Honorable Mention Award" for both the SB affinity group and the Section affinity group, followed by the "Affinity Group of the year Award", the next year. She was made the Region 10 WIE Coordinator for 2008 and within the three years that she remained as the coordinator (2008 - 2010), she was able to enhance the activities, membership and the image of WIE in Region 10 and in other regions too and is currently the Global Women In Engineering Chair.

Q) While working for WIE/IEEE what hurdles did u face and how u overcame them?

The major hurdle was the availability of funds. I think this has been a major issue in whatever we do. But I learnt to manage my funds better by organizing fund generation events like workshops and conferences. At least one fund generation event every year keeps you from going insolvent. And I learnt to plead my case effectively to the college authorities so as to convince them about the impact of the activities on the students and get them fund the event.

The second hurdle I always face is the lack of professional volunteers. Though I find the numbers have considerably increased for the past two years, it was difficult to get sustained volunteer support in many places. But I am blessed that there are always students who are willing to give me a hand in any work that is needed to be done. Madras WIE website and Region 10 WIE website were developed by enterprising students from Easwari Engineering College and NITK, Suratkal. And when I needed help in reaching out to other countries for the International WIE Congress in 2009 in Bangalore, it was the Pakistan WIE members who did a wonderful job of creating the latest database.

The third one is more of a social thing where to reach out to the society, we need to jump a lot of social red tape. For example when we organize the sangamam project in a village, we needed the correct approach to hit it off with the community there. And almost always the first reaction is opposition from the village leaders. Patience is the only answer if you wish to succeed.

Q) How do u manage to keep balance between professional and personal life?

I do not consider them separately and worry about balancing them. Both are part of me and my life. One does not exist without the other. Though my children may not agree with me, I am trying to devote my time to both equally, taking life as it comes. At times, when I find that I am unable to be there for my children my parents step in and help me. My parents have been a big help to me throughout my career. I feel that we have to make some sacrifices in order to realize our dreams. I try to be always there when my family needs me but I have taught my children to adjust if it is impossible for me to make it. They in fact help me out now if necessary.

Q) What are your greatest achievements to date, that you contributed for WIE in general?

I consider the fact that I have managed to make the networking of

women engineers alive and useful in Region 10 as my greatest achievement. The steady increase in total number of WIE groups and WIE membership during the three years I have been R10 WIE Coordinator is a living proof. Sangamam Project introduced under Region 10 Women in Engineering formulated the programs for educating the rural women, children and youth. Under it various need based programs like Rural Electrification, Women Entrepreneurship, Women and Eco Development, Study centers for Tribal Children and much more have been implemented.

My next achievement is recognition of the women gems by introducing the Inspiring Engineer of the year award in Region 10. The nominations bring the women achievers who dedicate their technical knowledge to the betterment of society to limelight and this encourages the other women to achieve more.

The third is enhancing the technical image of WIE by introducing WIE tracks in the IEEE International conferences and R10 Flagship conference Tencon from 2009 onwards. WIE conferences are being planned in different regions for the next year to encourage the research instincts of women.

Q) Your future plans for R10 WIE and the way you want it to bloom.

My dream for WIE is to bring the global network of women together to share the expertise and enthusiasm of old and young respectively. This will create an effective mentoring and guidance resource from which the young can benefit and it will also prove to be a tool resource for the elder to achieve their dreams- not only in career but in everything like health, family and financial fronts.

Q) Any message for the female engineers of the future?

Fight for your rights but do not forget your gender. Be proud that you are a woman and be firm in your outlook and gentle in your approach. A lot can be achieved by reasoning and persuasion rather than by screaming and fighting. Above all, remember that your morals and ethics are the most valued possessions in your life. Whatever you lose, do not lose them because you are the ones who are going to rear, teach and guide the next generation.

Q) Any event organized by WIE students that strengthened your belief that the next generation of engineers will truly be able to uphold their title with pride?

I have been attending many student organized events and whenever I do, I am overwhelmed by their determination to uphold standards and quality in those events. And I am proud to say that each of the humanitarian projects organized under Sangamam has been the brainchild of my students. This shows that the children are extremely socially responsible and it is the job of teachers to properly support, encourage and guide them.

Interviewee—*Hudaisa Afzal*
Karachi Coordinator Pakistan WIE Forum



DISCOVER WIE—EPISODE 3 WIE UIT KARACHI

The Third Episode of DISCOVER WIE –Membership Drive was conducted at the Usman Institute of Technology. It was a two hour session conducted by representatives of the Pakistan WIE Forum. The main objective of the session was to create awareness among the students of the institute regarding the benefits of IEEE membership. The speakers for the event were Ms. Rabia Khalid, Chairperson IEEE PNEC Student Branch and Executive Member of the Pakistan WIE Forum and Ms. Sana Syed, Website Development Officer, Pakistan WIE Forum. They started off the session by sharing their experiences and giving reasons to why we become IEEE member, what advantages have they been availing from their memberships. Then they moved on to the discussion of how IEEE can serve as the missing piece of puzzle that you need to complete in order to get to your goals. They also mentioned various offers of IEEE that are especially for the UG students. They talked about various IEEE platforms that can help us improve our networking, personal and social skills. The projects and volunteering opportunities offered by IEEE Pakistan WIE Forum were also discussed. A fruitful debate between the students was done on the importance of female engineer and the problems that a

female engineer faces in the industry. The session was concluded by an activity in which each student was asked to write down their fears and failures on a piece of paper, then a paper plane was made out of it and it was thrown away with as much force as possible. This was to make them realize that throwing away your fears is really doable and makes you feel better. Chairman Karachi Section, Engr. Parkash Lohana presided the session and awarded certificates to the speakers and organizers of the event.

Ayesha Ansari
Chairperson WIE UIT



INSPIRE THE NEXT GENERATION OF ENGINEERS!!

WIE PNEC NUST Karachi started off with a mission to increase awareness regarding the field of engineering among the younger generations. In this regard they arranged a trip to PN Model School Karsaz aiming to hold an interactive session with the students of matriculation and above and brief them about the vast field of engineering, our college and of course, about WIE. Our WIE Volunteers, along with other girls of PNEC, went to the school on 25 November 2011. We were accorded a warm welcome by the administration and faculty. Zenab Ali, the IEEE PNEC WIE Chairperson began the proceedings with a presentation about the IEEE Women in Engineering, how women are making a difference in Pakistan, and in the world alongside men in the field of engineering and most importantly why is it essential for bright women to choose engineering and how those present at the session are living proof that women in engineering is not a myth originated during the ancient times. This was followed by a brief intro of the life of female students at PNEC, NUST by Ms Kinza Shafique who told the attendees about the life of young

women engineering students at PNEC, how their needs are catered to and how they excel in both studies and extra-curricular activities at a prestigious college like ours. We discussed the basic mindset of the girls in high-schools and that how they perceive the idea of getting a job and what they expect from the professional world. We tried our best to provide a fresh set of thoughts and give a new dimension to the ideas of the young women and eliminate the stereotypes regarding females in engineering amongst the future generation of professionals.

Rabia Jamal
General Secretary WIE PNEC



TOKEN OF THANKS FOR WIE PAKISTAN BY R10 WIE COORDINATOR

Thank you WIE Pakistan for participating in the R10 Student/GOLD/WIE Congress. Your activities planned and exhibited by your representatives, as the delegate of Pakistan, were splendid. The presentation presented by Mehvish Zahoor about the female engineers' situation in Pakistan was great, is-

issues about managing WIE Affinity Group raised by her at the WIE geographic forum were useful, and the stall arranged by the delegates of Pakistan at the Employer's forum were very impressive! In addition, the report and summarized the questionnaire for the Congress

presented by the WIE Pakistan representative, Mehvish Zahoor was very well appreciated by everyone. I hope WIE Pakistan continues spreading their activities globally.

*With warm regards,
Takako Hashimoto*



Pakistan WIE Representative Mehvish Zahoor with Takako Hashimoto

R10 CONGRESS DELEGATES SHARE EXPERIENCE AT NED



A meeting was held at WIE NED, Karachi that gathered the delegates of R10 Congress 2011. Main speakers were Mehvish Zahoor and Muhammad Saad, who shared the success of their participation in the Congress as well as the WIE events. They appreciated and congratulated by the IEEE Gold and IEEE Karachi Sections present at the meeting.

BELIEVE IN YOUR DREAMS- IEEE DAY CELEBRATIONS IEEE WIE GCUF

"Just Believe in Your Dreams" was conducted on 6th October'11 during the celebrations of "IEEE Day with GCUF" with collaboration of IEEE Pakistan WIE Forum. More than 75 people participated in this event from four different universities of Faisalabad.

The event started off with the name of Allah and after that, an introduction to the Pakistan WIE Forum by Ms Mehvish Zahoor, Chairperson IEEE PWF. She proceeded with the video conferencing session with Muhammad Saad on the topic of "Making dreams come true". Muhammad Saad is pursuing Masters in Communications Engineering and research at University of Massachusetts Amherst USA and has completed his under-grad in telecommunications from FAST NUCES Karachi, associated with IEEE since 2007 and has served as SAC Chair IEEE Karachi section for 2010-2011, having the honor of being the youngest SAC in IEEE ever.



He started with the concepts of dreams and asked everyone to write their dreams on paper and visualize your dreams. He explained this in steps like love what you do (step 1), keep the fire burning (step 2), Trust in ALLAH (step 3) and most importantly Say good bye to your negativity.

Muhammad Saad also inspired the attendees by sharing his life experience of how he joined IEEE and how his dream to study at USA turned to reality. A session was also conducted by Ms. Mehvish Khan on the topic of "Women Inspiration and Empowerment". Mehvish Khan is currently pursuing her BTech degree in Electronics & Communication from Jamia Millia Islamia University, India. She is WIE Delhi Section Member, Executive Committee and PR and Communications Team, GINI Provisional Working Committee. She also represented the Engineering for Change at the Region 10 Student Congress in Auckland, New Zealand, 2011. She explained about the mission and vision of WIE. Her presentation included some important stats about WIE membership growth which

helped the attendees to understand the ratio of membership of WIE on yearly basis with R10 having highest number of female members. She further continued by explaining the word



"Inspiration" and mentioned that WIE has been her inspiration. She also mentioned some role models of her life in life including Helen Keller (the angel of the Blind), Marie Curie (renowned scientist), Indira Gandhi (ex- PM, INDIA), Prof. Mini S. Thomas (Branch Counselor IEEE JMI and Vice Chair, MGA), Prof. Ramalatha Marimuthu (IEEE WIE Chair) and Pakistan WIE Forum! She concluded the session by presenting a brief introduction about IEEE Humanitarian technology, some successful stories of it, its most important SIGHT and how it involves and engages students. She ended with a note "Think Globally, Act Locally".

Nafisa Mazhar, Vice Chair WIE GCUF

ARFA KARIM—THE PRIDE OF PAKISTAN

The Enchantment of our nation, Ms. Arfa Karim Randhawa was born in Faisalabad, Punjab. Arfa Karim at the age of nine, was entitled as a Microsoft Certified Professional. Arfa, till 2008, happened to be the youngest Microsoft Certified Professional in the world and of course is still spoken of as the first youngest child to be associated with Microsoft.

There had been numerous achievements of Arfa Karim, perhaps the very astonishing for all of us to now to what heights did the young princess flew up to. In an interview Arfa Karim said "i never knew that by qualifying as a Microsoft Certified Professional would be such an achievement for me or bring me so many honors. A teacher of mine had the idea that this is an unusual thing and by doing this i'll become the youngest ever Microsoft Certified Professional, but really none of us knew how big it actually was."

About her meeting with Bill Gates, she said that "i was very happy and too much excited at that at time that i'm going to America and i'll be meeting Bill Gates, because it has always been like a dream for me to meet him. On my flight to America i also wrote a poem for him because i was way too excited. And it felt really great that he actually gave me ten minutes out of his busy schedule."



In the year 2005, Arfa Karim received the "Salaam Pakistan Youth Award." Impressed by her performance and brilliance, General Pervez Musharraf invited her to his house. Upon her meeting with him, he asked her about her journey becoming the youngest Microsoft Certified Professional. He took keen interest in knowing about her meeting with Bill Gates and gave her autograph promising his support with her. Arfa Karim has also been the recipient of the President's Award for Pride of Performance, a civil award usually granted to people who have shown excellence in their respective fields over a long period of time.

She was a very humble and a gem of a person. In an interview with a private TV channel, she once said that "when i'm with my class fellows i feel no difference. I never feel that i'm a Microsoft Certified Professional or a word record setter so i'm something different or high above them. I enjoy with my classmates, have fun with them and the fame achieved by me makes no difference to it." She told that considering my keen interest towards Software Development, an uncle of mine provided me space in his office of Networks in Islamabad where i can come after my school hours and contribute my ideas for future projects.

About the under developed status of Pakistan in the Silicon Valley, she said

that "we have not been able to progress up to the level so far because it is not our first priority. No doubt we're focusing on

higher education, but we're ignoring the base. Other countries are far ahead of us in this regard, because they from the very beginning accept

the standards of quality education." She also said that "I have this future aim of mine that i, just like the Silicon Valley, create a Digicon Valley in Pakistan. The purpose of this Digicon Vallet won't be commercial; it'll be for the betterment and progress and of Pakistan. I have supports like General Pervez Musharraf and of course Bill Gates. I plan that it'll be more of an institute, inaugurated by Bill Gates, and

will surely be for the students all over the world. We'll provide them free education and living facilities there."

Arfa Karim was a living message to the world that the future of Pakistan is bright and the youth of Pakistan is talented. She died due to a cardiac arrest in Lahore on January 14, 2012. Indeed it is a great sorrow for us that she left us a quite such a young age. Gems like her are not born every day.



On the death of Arfa Karim, Bill Gates said:
"Today is the black day of my life and same for Pakistan because I lost my princess colleague and Pakistan lost her Pakistani."



KANZA BASIT—REPRESENTS PNEC AT SHELL ECO MARATHON

I am a student of Mechanical Engineering at PNEC-NUST. Shell Eco Marathon Asia is an event hosted by Shell annually during summers in which teams of student engineers participate by designing and fabricating a fuel efficient car. As a mechanical engineer, I believe, it is our duty to think of ways that can give us fuel efficient cars and SEM is all about that. I have been associated with SEM in year 2011 as well when I worked as a team member of the urban concept car. An urban concept car is a 4 wheeled car similar to those usually seen on the roads but in Shell Eco Marathon, we have to design it so that it is fuel efficient and has some specific dimensions set up by Shell itself. I worked on the technical as well as sponsorship department that included calling up every link related to industry and their not-so-interested attitude as nobody easily gives you money for a project. HEC was kind enough to support us as we showed them our car in running condition that impressed them. This year I am the Team Leader of the URBAN category. I have 5 more members in my team, all males. I am going to make everyone work since they are working under my supervision. This time we're just making modifications in the car that we made last

3D RECONSTRUCTION

Three dimensional objects always suffer from the loss of depth information whenever captured from camera. Sidra Farooq, Aiman Majid and Arooj Arshad, students of UET Peshawar, work on 3D reconstruction process of capturing the shape and appearance of real objects and converting it into a 3D image. They plan to implement this software as a mobile application using methodologies of digital signal processing Java language.

After the collection of images, feature extraction is done to retrieve small and important information from large data, like corners or edges. This can be done through various techniques like through Harris corner detector, canny edge detector or through Hough transform. After feature extraction, image mapping (also called correspondences matching) is carried out. Then though reconstruction, the 3D coordinates of the matched points that came from mapping step are computed. Once this is done, reconstruction technique is

year so that we save time and energy. The modifications include the dimensional changes set up for the marathon.

The body of the car has been designed aerodynamically on solid works (a designing software) . In spite of being



less in number, female engineers are excelling in their field. Being a female, it is a great opportunity for me to show the world that a Pakistani female can lead a team in an international event. I believe I'm doing my role to create an image of Pakistan as a progressing nation to the world.

Kanza Basit

Chairperson WIE PNEC NUST

applied on the obtained point cloud to generate the 3D model.

There can be a number of techniques for reconstruction. One possibly can be 3D reconstruction through graph-cuts where stereo algorithm is used. Evaluations of stereo algorithms using real images for which true dense depth information is known, indicate that minimization algorithms based on graph cuts yield very good results. In this technique all input images are treated symmetrically, visibility is handled properly, and spatial smoothness is imposed.

3D reconstruction can also be done through image based slicing technique. This technique is used for 3D surface reconstruction of a real object. The idea is inspired by surface reconstruction method using a series of parallel contours. It has low cost and easy to implement. Many other techniques like triangulation, incomplete (I3D) technique etc. can also be used for the purpose.

SALIHA KIRAN WRITES IN BIFX AFRICA-INDIA CONFERENCE

Ms. Saliha Kiran of Bioinformatics department, Government College University Faisalabad, along with her fellows Mr. M. Ilyas, Abida Shehzadi and Ayma Aftab writes a research paper over analysis of gp41 antigenic epitopes of HIV 1a: an “in silico approach.” The following was published in the Bifx Africa-India—Joint Virtual Conference.

Background: HIV infected individuals in Pakistan is about 80,000, i.e. 0.1% in comparison to the 38.6 million infected patients worldwide. HIV viral glycoprotein, gp41 assists the viral entry into host cell. Hence, viral gp41 of Pakistani population was analyzed for the CD4 and CD8 T cells binding epitopes as effective candidate of vaccine.

Immunoinformatics tools were applied for the study of variant region of HIV envelope protein, i.e. gp41. The protein nature was analyzed using freely accessible computational software. About 90 gp41 sequences of Pakistani origin were aligned and variable and conserved regions were found. Four segments

were found to be conserved in gp41 viral protein. A method was developed, involving the secondary structure, surface accessibility, hydrophobicity, antigenicity and molecular docking for the prediction and location of epitopes in the viral glycoprotein. Some highly conserved CD4 and CD8 binding epitopes were also found using multiple parameters and docking analysis with HIV binding ligand (enfuvirtide) at minimum energies -302.369 KJ. The predicted epitopes mostly fall in the conserved region of 1-12; 14-22 and 25-46 and hence we believe they can be used as continuous peptides as effective vaccine candidates.

The study revealed potential HIV subtype a derived CTL epitopes from viral proteome of Pakistani origin. The conserved epitopes are highly useful for the diagnosis of the HIV 1 subtype a. This study will also help scientists to promote research for vaccine development against HIV 1 subtype A to save Pakistani population from potential disease.

RESOURCE ALLOCATOR & SCHEDULING MANAGEMENT SYSTEM

Nearly all firms and corporations for better management need to keep track of their human resources and the amount of work they are doing. To achieve efficiency of a corporate environment it is essential that the human resources of a work place are deployed in such a way that they return maximum productivity. To attain this maximum productivity, their allocation needs to be systemized. How to do so? The answer to this is by using Resource Allocator and Scheduling Management System. Ambreen Darjaat along with her fellows Anam Ashraf Ali and Syed Haris Hassan, students of NED University of Engineering and Technology worked on this system to provide a web-based inter-

face to Folio3 Co., It provides the Project Managers an interface to send resource requests to Allocators. The respective allocators can approve/disapprove these requests thereby allocating particular Human Resources on approval of the resources requests. The resources are notified by the system on their allocation to a particular project as well as de-allocation from a project. Moreover the system displays tabular reports aiding allocation tasks for the allocator. These reports can be used to determine skill-set of human resources as well as their billing of work. Overall this system helps plan allocation of human resources to particular com-

Folio3 Software Inc evolved out of a tier-one venture-funded Silicon Valley start-up that is focused on helping entrepreneurs & enterprises successfully build & manage offshore software development presence

pany projects according to criteria and scenarios of the firm.



Ms. Ammara Ghani, a UET Peshawar graduate, is the first member of the Pakistan WIE Forum

from Pakistan's Sub-section. She joined Pak WIE Forum on Oct 23,'11 & is appointed as the Peshawar Subsection Coordinator. Ammara Ghani is currently working on an IEEE Pakistan Professional's Network with the name of “SiT” (She in Technology). Her project idea was also presented at the Annual General Meeting Lahore'12 and was very much appreciated. SiT will soon be launched from the Peshawar Sub-section, under Ammara' Ghani's supervision.



The vision behind this project is to make female engineers technically sound, connect the women working in the fields of engineering and their linkage with the female students for strong collaboration and bonding.

SiT aims to provide the female engineers with opportunities of career guidance that'll help them in choosing their professions and carrying them along.

Pakistan WIE Forum warmly welcomes Ammara Ghani and thanks her for her devotion and contribution to IEEE Pak WIE Forum.

Mehvish Zahoor

Chair IEEE Pakistan WIE Forum

PAKISTAN WIE FORUM VISITS KINDERGARTEN SCHOOL FAISALABAD

On the 2nd of December 2011, Pakistan WIE Forum along with IEEE WIE GCUF representatives visited Government Kindergarten School (GKS) Faisalabad, with the aim to motivate sense of responsibility, to enhance self-reliability and to increase the technical awareness among the young unacquainted female students. This event was supervised by Ms. Mehvish Zahoor, Chairperson IEEE Pakistan WIE Forum & Consultant IEEE WIE GCUF. Counseling sessions were conducted for those young ladies. And motivational stories were told out to them. And some activities were also conducted with the aim to enhance the self confidence and self reliability.



OM PARKASH BATRA—R10 STUDENT REPRESENTATIVE

Greetings Female IEEE Volunteers of Pakistan,

I feel delighted and honored to be asked to express my views at second newsletter edition of Pakistan WIE Forum. This forum is an excellent opportunity for women to project innovative ideas, enhance their intrapersonal skills, get ideas on how to progress in career and is a platform for young leaders to learn from experienced female leaders for a better future.

I am glad to know that Pakistan WIE Forum has been successful in encouraging female students of IEEE Student Branches and has succeeded in being the right hand for the establishment of a couple of Affinity Groups and activating a few dormant ones.



Women have been contributing equally to the development of this world and especially in Pakistan, but it is unfortunate that in Pakistan

not many women choose to work but are forced / choose to stay home. In Pakistan, we seriously lack the women presence in engineering. Please encourage the women you know to get education to be empowered and share the lessons from your experience / experience of other forum members. Education

is necessary for the development and better future of Pakistan and women have to play an equally important role in this regard.

IEEE has been actively playing its role to em-

power women with entities like Women in Engineering (WIE) that are focused on empowering and guiding women in general and encouraging them to choose engineering as their career. There are several activities being conducted by WIE throughout the world to encourage women to pursue education and be self-sufficient.

I encourage all the members of the forum to take full advantage of this extraordinary opportunity and build network, share information and help other women to know the strengths and opportunities, which will work towards a better IEEE and Pakistan. I congratulate the founders of the forum. I wish you all the best and I assure you of my full support.

Regards,
Om Parkash

R10 Student Representative 2011
Australian Capital Territory Section

Amir Zahoor
Founder. Pakistan WIE Forum
Chairman IEEE GOLD
Sweden Affinity Group

The dream, clear vision, passionate team, crazy action; these are the four steps to make a successful story & PWF team make this dream true in a very short span of time. They started with very less resources and now their activities are appreciating across globe. IEEE PWF team is showing great team work and create amazing creditably at all IEEE levels from student branches to regional activities. IEEE Lahore, Karachi & Islamabad sections are well coordinated for WIE & IEEE activities by inspiring young team.

I would like to thank Ma'am Durdana, Ma'am Ramalatha, Shafay Shumail, Parkash Lohana, Amir Jelani, Rafaeel Akbar & Om Parkash for their support and encouragement. I also appreciate the working of executive committee members; Mehvish, Maryam, Rabia, Anum, Sana & Ammara for their inspirational work. Now, its time to move on for higher level of excellence. I'm sure PWF team will continue their pace and deliver more to nation as well as delegate more female volunteers to become the part of this forum. I wish good luck for future technical & educational activities.



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