



# Newsletter

NFC Institute of Engineering & Technological Training  
P.O. Fertilizer Project, Khanewal Road, Mulkhan, Pakistan.

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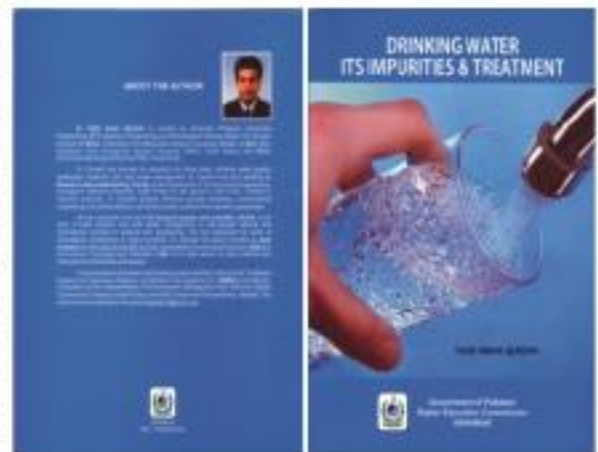
## DESIGN & GRAPHICS

Mr. Rashid Qayyum

## Honour of the Institute

It is a great pride of the Institute that Higher Education Commission (HEC) of Pakistan has published a book entitled "Drinking Water: Its Impurities & Treatment" ISBN: 978-969-417-157-9, Edit: 2011, written by Dr. Tahir Imran Qureshi, Associate Professor, Department of Chemical Engineering at IET. The book is written on drinking water quality issues particularly with the reference of Pakistan. The book also offers solutions/drinking water treatment strategies in explicit manners. This is a kind of reference book and a handy source of information for the students of Environmental Science, Chemical/Environmental Engineering and Public Health Engineering, researchers, and all of those

who are dealing in water business. It is hoped the book will serve understand People of Pakistan blessings of clean drinking water to enjoy good health in their life and conservation of this precious resource for present and future generations. HEC has sent copies of the book to the libraries of all public sector Universities and Degree Awarding Colleges & Institutes of Pakistan.



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## Launching of Machine Lab

Recently, a state of the art Machine Laboratory has been established in the Department of Electrical Engineering. The lab is equipped with motor control electric traction and electrical trainer, eighteen single phase and nine three phase transformers, speed, torque and mechanical power measurer meter, seven types of AC/DC motors, two types of AC/DC generators and fourteen types of modules which control all the AC/DC

motors and generators with variable AC/DC power. The lab was set up in December, 2011 by Rastek Technologies at the cost of around Rs. 5.0 Million. This lab would help students to learn all the basic and vast topics related to machines and their control. Engr. Furqan Ali (Lecturer) and Mr. Sabir (Lab Assistant) is getting training on the operations of the equipment and modules to get command over the usefulness of the lab.



Seminar on "Basic Building Block of Telecom Network"

### Seminar at IET

The Industrial Liaison Committee, Department of Electrical Engineering arranged a Seminar entitled "Basic Building Block of Telecom Network" Oct. 19<sup>th</sup>, 2011 for the students of Electronics and Computer System Engineering. The honourable Speaker, Mr. Shakeel, G.M. PTCL delivered the lecture and announced internships for the students of Electrical Department of the Institute.

### Thirst for Learning Opportunities of Higher Studies in USA

A presentation on education opportunities for higher learning in USA and prospects of availing scholarships was given by Miss. Mehreen Noor, the representative of US Education Foundation (USEFF) on Oct. 17<sup>th</sup>, 2011. The presentation made student aware of the requirements for admission in USA and financial assistance available and closing dates for admissions. The students of outgoing classes inquired about many questions of their interests.

### Inauguration Ceremony of BS Environmental Science Program

The Institute has started BS 4-Year Environmental Science Program from the academic year 2011. Inauguration ceremony of the first entry of 2K11 was arranged on November 18<sup>th</sup>, 2011 at the conference room of Chemical Engineering Block. Dr. Tahir Imran Qureshi gave a detailed presentation regarding curriculum and scope of Environmental Science Program in Pakistan and abroad as well. The ceremony was chaired by Syed Nasir Abbas Abdi, Acting Director of the Institute.

### Meeting of Strategic Development Committee of IET

A Meeting of Strategic Development Committee of IET was held at the Institute on December 28<sup>th</sup>, 2012. The Committee was comprised of Syed Yawar Ali, Member, Board of Directors of NFC, Miss Zahida Alvi, G.M. (Finance), NFC-Head Office, Mr. Sagheer Khan, Secretary, NFC and Dr. Nadeem Shaqique, Financial Advisor, Ministry of Finance, Islamabad. Dr. Muhammad Afzal Haque, Director of the Institute gave a detailed presentation of the Institute to the members. The Committee explored ways and means to address pertaining issues of the Institute so as to achieve high efficiency of the Institute. The Committee also visited laboratory infrastructure and Coal Research Centre at IET.



Workshop on "PEC Contract Documents & PICC Cost Data" arranged by PEC

### Workshop Arranged by Pakistan Engineering Council (PEC)

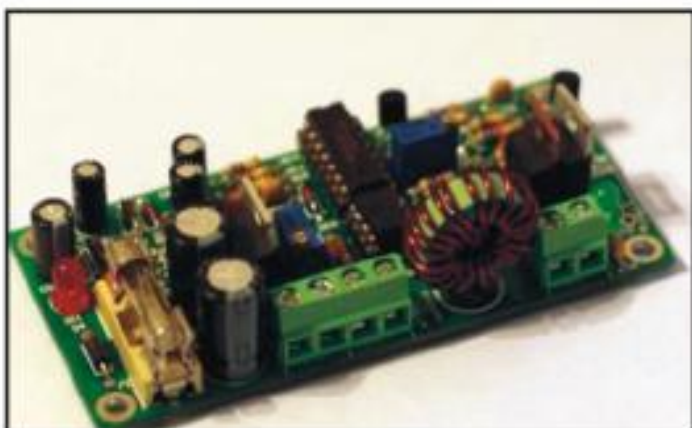
A 2-days training workshop on PEC Contract Documents and PICC Cost Data" was held at the Institute on November 15-16, 2011. Pakistan Institute of Cost and Contract (PICC) is a subsidiary of Pakistan Engineering Council and is a research institution to function for preparation and updating of web based cost of almost all construction inputs. Engr. Mazhar-ul-Islam, the Chief Executive Officer (CEO) of PICC and Convener PEC Act & Byelaws Committee was the Speaker and Resource Person of the Workshop. Professionals from various engineering organizations participated in the Workshop that was concluded with the award of certificates.

### PLC Trainers Manufactured by IETIANS - Utilization of Resources with Brains!

Industrial Electronics play a pivotal role in the field of Instrumentation and Control Engineering. Programmable Logic Controller, commonly known as PLC is the back bone of control systems in the industry and plays an important part in Industrial Electronics as well. Owing to the significance of PLC in the industry, practical implementation is required to be learned on the grass root level. Considering the higher cost of purchasing these trainers from the market, 2K8-Electronics have led from the front, under the supervision of Engr. Mohammad Siddique by designing four cost-effective PLC trainers including two Analogue & two Digital Trainers. 2K8-Electronics volunteered and willingly paid the expenditures of the whole set-up



Meeting of Strategic Development Committee



PLC Trainers Manufactured by IETIANS

which are merely 15% of the total cost of PLC trainers available in the market.

Analogue Trainers are designed and assembled by:

Faisal Shoukat (2K8-EE-234), Habib-ur-Rehman (2K8-EE-244), Umair Saleem and (2K8-EE-249).

While Digital Trainers are designed and assembled by:

Saifullah Manzoor (2K8-EE-203), Jalal Haidar Ali Awan (2K8-EE-224) and Rehan Baber (2K8-EE-215).

That is indeed the best gift a prospect engineer could present to his Almamater!!!

### Lecture Organized by Computer Science Department

Mr. Umar Qasim Qureshi, Associate Software Engineer Nextbridge (Pvt) Ltd., delivered a talk on the topic "Android" to the students of Computer Science Department on December 13<sup>th</sup>, 2011 at the Institute. Android is a Linux based operating system for mobile devices such as Smartphone and tablet computer. The event was organized to make students understand importance of this rising technology of software domain. Mr. Naeem Aslam, Assistant Professor of BSCS coordinated the event.

### Visit of Affiliation Committee of BZ-University

Affiliation Committee of BZ-University visited the Institute to consider grant of affiliation for BS Environmental Science Program along with extension in BS Computer Science Program on November 4<sup>th</sup>, 2011. The Committee was chaired by Prof. Dr. Ahmad Farooq Mashhadi, Chairman, Department of Education, Prof. Dr. Azra Asghar, Chairperson,



Affiliation Committee of BZU

Department of Pak. Studies, Prof. Dr. Saeed Ahmad Malik, Director, Institute of Pure & Applied Biology and Dr. Abdul Wahid, Chairman, Department of Environmental Science, BZ-University. The Inspection Committee showed its satisfaction over the facilities arranged for the running of proposed Environmental Science Program and working of Computer Science Program at the Institute.

### Start of B. Tech (Pass) Classes at IET

The Institute has started B.Tech (Pass) classes in Chemical, Mechanical & Electrical Technology from this year 2011. Classes of the first entry of B. Tech (Pass) course were opened on December 19<sup>th</sup>, 2011. B. Tech (Pass) course is an evening program and it is hoped that the learned faculty of IET will do its best to impart quality education to the technology students.

### Charge Controllers Manufactured By IETIANS

A Solar panel system was installed in Industrial Electronics lab, of the Institute in March this year but due to harsh weather conditions in Multan, solar charge controllers were not efficient with the installed panels. To solve this problem, a group of students worked on designing of Charge Controller under the supervision of Engr. Mohammad Siddique.

After a successful attempt, Maximum Power Point Tracking (MPPT), Charge Controller has been designed which is suitable with hot & randomly changing weather of Multan. Some of the terminating work is under progress. The charge controller has the following specifications: Maximum Power Tracking & Transfer, Under voltage protection, Over Voltage protection, Overload protection, & Temperature protection.

Members of the working group are: Faisal Shoukat (2K8-EE-234), Umair Saleem (2K8-EE-249), Bilal Saleem (2K8-EE-232), Hasnain Raza (2K8-EE-211).

### Return of Prof. Dr. Muhammad Afzal Haque and other Staff Members from Hajj

With the grace of Almighty Allah, Prof. Dr. Muhammad Afzal Haque, Director of the Institute, after performing Hajj 2011 has come back to the Institute and resumed his duties on December 1<sup>st</sup>, 2011. Staff of the Institute has organized a dinner party in his honour on Dec. 23<sup>rd</sup>, where at the end, prayers were made for the wellbeing of the Institute and the staff.

The Institute arranged another welcome party in the honour of other Staff Members including Engr. Nasrullah Nawaz Babar, Mr. Muhammad Bilal Khan, and Mr. Ikram Ullah Tariq who also performed Hajj this year.



Dinner Party in Honour of Dr. Afzal Haque

## Research & Publications

- ♦ Dr. Kamran Liaquat Bhatti and Engr. Muhammad Siddique presented their co-authored paper entitled "PC based SCADA implementation on circulatory Fluidized Bed Combustioner" in INMIC 2011 held on December 22-24, 2011 (14<sup>th</sup> IEEE Conference) at Sir Syed University of Engineering and Technology, Karachi.
- ♦ Engr. Qan Ali and Engr. Omer Ali of Electrical Department presented their co-authored paper "Analysis of OFDM parameters using Cyclostationary Spectrum Sensing in Cognitive Radio" in INMIC 2011 (14<sup>th</sup> IEEE Conference) held on December 22-24, 2011 at Sir Syed University of Engineering and Technology, Karachi.  
INMIC 2011 aims at providing an opportunity for national and international researchers and practitioners to present the most recent advances and future challenges in the fields of applied Information Technology, Computer Engineering, Electronics, Communication and Control. Conference proceedings are published by IEEE. The paper discusses cyclostationary spectrum sensing technique in order to increase the spectrum efficiency which will become indispensable part of future wireless networks. Author's primary goal is to develop efficient way of sensing holes for OFDM systems for spectrum sharing regime. Using cyclostationary features, it is possible to detect primary user through AWGN communication channel with various noise levels.  
Dr. Qan Ali Mubarak (President, ICT, R&D) who shares the same field of interest appreciated the presenters for their work and intended to assist their work in collaboration as well. A detailed proposal has been sent by the authors to pursue the offer.
- ♦ Dr. Adnan, Assistant Professor, Department of Electrical Engineering tendered a research paper entitled "Performance Analysis of Multicast Relay Network with LDPC and Convolutional codes" to be published in IEEE ICCTA held in Beijing from October 14-16, 2011.

## BONFIRE NIGHT 2011

Everyday student life at an engineering college is getting tougher and boredom as well. Extra-curricular activities break down momentum of this boredom and help students escape out of this monotony. "Bonfire Night" was such a dazzling party event observed at the Institute on December 29<sup>th</sup>, 2011. It was a get-together organized by the students of 2K8-CSE in the hostel premises.

The party was kicked off at 7:00 pm. with the night sky flooded with fluorescent spectacles of neon colour and smoke. The bonfire was accompanied by grilled barbeque and complemented by live music that turned the moment into a jovial night. Dr. Adnan (hostel warden) graces the occasion with his presence for some time too. The party ended in a gracious manner adding to the chain of memories of cherished moments in everyone's mind. Hope from this starting event, it would escalate to the level of a tradition by the next year.

## Sports Activities

- ♦ Inter-Departmental Football Tournament was played in October at Newland Hostel Ground. ChemicalA beat Computer System EngineeringA by 5-0 and won the final.
- ♦ Super-8 Cricket Hungama Tournament was played among the classes. 2K7 Chemical Engineering stood 1<sup>st</sup> in the tournament. Engr. Nasir Abbas Abdi, Acting Director presided the prize distribution ceremony and awarded prizes to the best players of the tournament. Jamil Haider was declared Man of the Match and Man of the Tournament as well.
- ♦ 3-Match Football Series was played from Dec. 12-15, 2011 between IET Football Team and Pakarab Fertilizers Football Club. The series ended by 2-1.
- ♦ Keeping the tradition of Inter-Departmental Engineering Cricket League (ECL) Tournament in recent times, ECL-III was organized by the students of 2K8-CSE started from December 17-22, 2011. Three Teams named Gladiators, Predators and Tigers from 2K8 and 2K9 (EE & CSE) participated in the event where Uzair Qureshi, Captain of the winning team, from 2K8-CSE held the trophy. Among the Chief Guests were Engr. Abdul Mannan and Mr. Sikandar Raza of Mathematics.

## News in Brief

- ♦ Dr. Kamran Liaquat Bhatti, Head, EE&CSE Department has been nominated as an expert for "Thermal Power Related Projects" by Pakistan Engineering Council.
- ♦ Fatmeed Blood Camp was arranged at the Institute on October 5-6, 2011.
- ♦ Planning Commission has approved PC-1 for "Up-gradation of NFC-IET Facilities" (Rs. 100 Millions) in its CDWP Meeting held on October 21<sup>st</sup>, 2011.
- ♦ 54<sup>th</sup> Meeting of Board of Directors was held at NFC Head Office, Lahore on November 23<sup>rd</sup>, 2011.

