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VISIT OF AGRICULTURE MACHINERY MANUFACTURING COMPANIES ASSOCIATED WITH VEHARI CHAMBER OF COMMERCE & INDUSTRY (VCCI) TO PCSIR LAHORE

Agriculture Machinery Manufacturing sector is a focus area for Ministry of Science and Technology for incorporating indigenous R&D for improving quality and productivity. In line with these directions STEDEC Technology Commercialization Corporation of Pakistan coordinated a visit of delegation of Agriculture Machinery manufacturers and member companies of Vehari Chamber of Commerce and Industry to PCSIR Laboratories Complex Lahore on 27th April, 2017.



The purpose of the visit was to familiarize the delegates with facilities at PCSIR Lahore relating to manufacturing of agriculture machinery as was requested by notable members of the Chamber earlier in the year when MD STEDEC visited the Vehari Chamber of Commerce & Industry.

The delegation was welcomed by DG PCSIR, Dr. Quratulain Syed; Engr. Muhammad Irfan, PCSIR Lahore; Engr. Rasheed Ahmed, PCSIR Lahore; Engr. Adnan Akram, PCSIR Lahore; Engr. Liaquat, PCSIR Lahore; Ms. Noreen Khan, Manager Commercialization, STEDEC and Managing Director STEDEC, Syed Raza Abbas Shah. Notable delegates from VCCI included Mr. Abdul Rauf

Chaudhary, President Vehari Chamber; Mr. Khurshid Anwar Secretary General, Vehari Chamber; Mr. Sagheer Ramay; Mr. Shahid Hussain; Mr. Sharafat Ali; Mr. Mirza Kashif; Mr. Hafiz Khalil; Mr. Mirza Shahid; Mr. Mirza Bilal; Mr. Mirza Husnain; Mr. Muhammad Saleem; Mr. Abdul Sattar; Mr. Ali Raza; Mr. Sheikh Zulfiqar and Mr. Hassan Abid. In her opening remarks DG PCSIR, Dr. Quratulain Syed warmly welcomed the guests and gave an overview of PCSIR Lahore covering departments which could support the agricultural machinery manufacturers. She further added that PCSIR is providing training in various industrial domains. President Vehari Chambers of Commerce and Industry, Mr. Abdul Rauf Chaudhary appreciated the opportunity provided to them and praised STEDEC's efforts in materializing the visit and meeting. He urged everyone to put in a unified effort towards enhancing Pakistani economy. Syed Raza Abbas Shah, Managing Director STEDEC briefed the manufacturers that Ministry of Science and Technology's main mandate is to help and support local industry and emphasized the importance of meeting the international standard in increasing the exports. He requested VCCI to submit indicated areas for cooperation between the Manufacturers and PCSIR after the delegated had visited and assessed the various facilities.



"Later the delegate visited PCSIR departments, Pakistan Institute Technology for Mineral Advance Engineering Material (PITMAEM), Mineral Processing Research Centre (MPRC) and other related facilities. The event ended with working lunch."

EXPLORATORY MEETING AT GUJRANWALA CHAMBER OF COMMERCE & INDUSTRY (GCCl)

An industry interaction session was held between STEDEC and Gujranwala Chamber of Commerce and Industry (GCCl) officials on 23rd May, 2017 at GCCl office. Notable participants of the meeting were Mr. Saeed Ahmed Taj, President GCCl; Mr Abdul Rauf, Senior Vice President GCCl; Mr Asfandiyar, Deputy Secretary, GCCl; and Syed Raza Abbas Shah, Managing Director STEDEC.

Managing Director STEDEC briefed the participants on STEDEC's mandate and efforts to bridge the gap between industry and Ministry of Science and Technology (MoST) R&D organizations. He informed that MoST through STEDEC and PCSIR would like to engage with key industry clusters around the Gujranwala region to enable them to incorporate indigenous R&D into their value chain and become internationally competitive.

Mr. Saeed Ahmed Taj, President GCCl applauded STEDEC and MoST's initiative to help and support Pakistan local industries. He informed that Gujranwala

was an important industrial region of the country with 32 different industrial clusters concentrated within it. He identified Metallurgy and Ceramics as the key industrial clusters for which the Chamber would like to initially solicit support from MoST R&D organizations. He suggested that a laboratory facility for metallurgy may be set up at Gujranwala, which would greatly facilitate the industry in creating better alloys for various products and industries. Other matters discussed were wastage of material in traditional rolling process (kothiali), finishing quality of the product and emission of nitric acid and other pollutant gases from the industry. Meeting ended with a vote of thanks.

STAKEHOLDER CONSULTATION WITH PAKISTAN AGRICULTURE MACHINERY MANUFACTURERS ASSOCIATION (PAMIMA) AT FAISALBAD CHAMBER OF COMMERCE & INDUSTRY

In line with the directions from Ministry of Science and Technology (MoST) to support the Agriculture Machinery Manufacturing sector in improving its products as well as productivity, STEDEC Technology Commercialization Corporation of Pakistan arranged a stakeholder consultation session with Pakistan Agriculture Machinery Manufacturers Associations (PAMIMA) at Faisalabad Chamber of Commerce & Industry on 24th May, 2017.

Notable members presents at the occasion were Mr. Amjad Ali Amjad, Chairman Pakistan Agriculture Machinery and Implements Manufacturer Association, Faisalabad; Mr. M. Afzal Tarar, General Secretary; Mr. Ameer Hussain, Representative Seth M. Tufail Foundry (Pvt) Ltd; Mr. Shahid Mahmood, representative of New Crown Industries Foundry and Engineering Industry Owners Association; Haji Abdul Raof, Representative Taiba Industries, Faisalabad; Mr. Sanaullah, office Secretary (PAMIMA). Ministry of Science and Technology was represented by Syed Raza Abbas Shah, Managing Director, STEDEC; and Mr. Rasheed Ahmad, Principal Engineer, PCSIR Lahore.

Managing Director STEDEC, Syed Raza Abbas Shah informed the members that STEDEC Technology



Commercialization Corporation of Pakistan facilitates linkages of MoST R&D organizations with various chambers that have direct interaction with the industrialists, and strives to guide MoST R&D organizations towards market driven research which could then lead to successful commercialization. He urged the manufacturers to adapt modern technologies and techniques in order to become competitive internationally. He further explained that it is STEDEC's mandate to bring R&D organizations and entrepreneurs on the same table so that maximum benefit could be achieved for the national economy. Principal Engineer Rasheed of PCSIR Lahore informed the members about PCSIR's capabilities. He informed that currently PCSIR is conducting 32 diploma courses of Precision System Training Centre (PSTC) PCSIR Lahore, and metal and foundry related courses are also offered at the organization. He further advised that industrialists and entrepreneurs need to get samples and materials tested before production in order to avoid wastage and losses. He further informed the members that government is



56TH BOARD OF DIRECTORS MEETING

funding private entrepreneurs for R&D on need based projects. MD STEDEC advised that PAMIMA may send their proposals for cooperation, including establishing testing facility at Faisalabad, to STEDEC.

Participants inquired about cost effective ways of minimizing cost and standardizing production. President PAMIMA proposed that PAMIMA members would pay a visit to PCSIR facilities at Lahore in order to familiarize themselves with techniques and technologies PCSIR can offer, which would enable them to better assess areas for mutual cooperation.

STEDEC Technology Commercialization Cooperation of Pakistan's 56th Board of Directors meeting was held at Lahore on 5th June, 2017. The meeting was chaired by Mr. Fazal Abbas Maken, Secretary Ministry of Science and Technology (MoST) and participated by Directors, namely; Dr Shahzad Alam, Chairman PCSIR, Islamabad; Dr. Quratulain Syed, DG PCSIR, Lahore; Ms. Nasira Taskeen, CEO Vision Consulting Ltd, Lahore; Mr. Ali Asrar Agha, CEO Ward Howell Int; Mr Mujeeb Rashid; Mr. Fuad Hashim Rabbani, CEO, SMEDA Lahore; Mr. Muhammad Khalil, Executive Director Sitara Chemicals; and Syed Raza Abbas Shah, Managing Director/Company Secretary STEDEC.

FOCUS GROUP STUDY FOR PCRWR GRAVITY WATER FILTER

A focus group survey was conducted by STEDEC commercialization Corporation of Pakistan from the urban population of Lahore to identify potential for gravity flow water filter solution developed by Pakistan Council of Research in Water Resources (PCRWR) on 25th May 2017. The study helped in getting an in-depth qualitative consumer insight towards filtration system, identifying product's value proposition, gap in the market and ways to cater to that gap.

A sample size of twelve participants from various professions was selected which included engineers, professors, editors, and doctors as well as a few housewives. These participants belonged from upper, middle and low socioeconomic classes. In addition, they were at the forefront of making major purchases in their homes.

Participants were asked about their perceptions, opinions, beliefs, and attitudes towards the filtration system. Furthermore, their lifestyle and demographics were studied to match with the current design and functionality of the water filter.



The Board took stock of the affairs of the Company, including review of the quarterly financial performance.

Managing director STEDEC presented various aspect of the Company covering commercialization and commercial activities, details regarding key policies and procedures, overview of Corporate Governance Rules 2013, control environment, financial management and performance indicators etc.

Amongst various other important decisions, the Board also constituted a special Committee for evaluation and short listing of R&D products/technologies of MoST R&D organizations for commercialization by STEDEC. The Board also recommended establishment of dedicated Pesticide Research Centre in Pakistan to promote agriculture sector, for which the Chairman directed that all stakeholders be consulted first as to the best location for said Centre.

FOCUS ON NATIONAL INSTITUTE OF ELECTRONICS SOLUTIONS FOR PAKISTAN RAILWAYS

The progress of any country heavily depends on its system of its transportation. Better transportation ensures better trading that leads to economic growth. A major part of transportation is railway that not only connects people but facilitates economic transportation of goods across the length and breadth of the country. Pakistan Railway is no different and its network is spread from one end to the other. However the Railway system requires to be made safe and smart in order to derive maximum benefits.

National Institute of Electronics (NIE) an autonomous organization under the administrative control of Ministry of Science & Technology (MoST). The Institute has highly trained/experienced pool of engineers, scientists and technicians, qualified from the leading universities/institutions of the world. The institute is a premier design and development organization in the field of electronics in Pakistan, having extensive expertise in the area of Digital Electronics, Power Electronics, Computer Hardware/Software and Computer Training. Prominent facilities available within NIE include:

- Integrated circuit design centre
- Automation & control engineering lab
- SMT production lab
- PCB fabrication lab
- Power electronic lab
- Communication engineering lab
- Software development lab



NIE has developed a number of solutions specifically targeted at Pakistan Railways.



1. Monitoring System for Railway Crossing:

The system can be installed where real time monitoring is required like Railway crossing, oil wells, security check posts etc. Monitoring System for Railway Crossing is designed to monitor video and position data from a distance of 8 to 10 kilometers. The control link is embedded in the system to operate the audio/visual alarm. The video data operates in L band and control data in the 400 MHz band. The system consists of two parts. One part of the system is installed in engine driver's cabin and other on railway crossing. With this system the engine driver can monitor the real time activity at the railway crossing well before approaching the crossing and can also initiate an audible and visual alarm to alert the people of the approaching train

2. Automatic Barrier for Railway Track Crossing:

The system comprises of sensors integrated with micro controller & audiovisual systems to indicate train status at such crossings. The sensors detect when a train is approaching a crossing and automatically close the barriers at the crossing point. The sensors at the train leaving side detect when the train has left the crossing and automatically lifts open the barrier. The system has the capability to control two parallel tracks for up & down Trains. The system is designed to operate on solar power source, with battery back-up to operate at night time.

3. Collision Avoidance System for Trains:

To avoid or minimize train accidents, NIE has developed an intelligent "Collision Avoidance System". This system uses GPS & other sensors integrated with Command & Control Unit (CCU) and customized software. The data exchanged between trains include current position, speed, driving direction & track used, which are transmitted via wireless communications link pinpointing the exact position on the network. The on-board computer monitors the track network situation for any danger of collision. In case of a risk of collision, an audiovisual alarm signal is given in good time enabling the train's driver to initiate braking maneuver or automatic application of brakes to bring train to a halt.



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