

**"I am working on another research project, so that I can participate in Intel Olympiads once more"**

When 13-year old Kulsum Bilal of Government Kinnaird High School (Lahore) got a chance to participate at the Intel ISEF in 2007, it was like a dream come true for the young scientist. Winning 2<sup>nd</sup> position at the prestigious competition made not only her parents, but her school teachers, peers, principal as well as the entire country proud.

When Kulsum looked around her old city community in Swami Nagar - Lahore, she grew concerned about the health of her neighbors and well being of the entire planet. ***"Many people in my country throw garbage at the road sides, they are not aware of the damages they are causing to their own community"***, the 13-year-old explains. ***"On the other hand forests are disappearing so fast which is not good for us or the environment;"*** says Kulsum.

Kulsum was faced with the opportunity to help her country and other developing nations find a better and economical alternative to this problem. This opportunity was presented to her in the form of the Intel® ISEF and its research orientation workshops. The research workshops not only encouraged her, but also her teachers in going beyond book knowledge and immersing their energies in practical research and experiments. Kulsum along with her teachers set out to design a simple, environmentally-friendly paper using recycled chicken feathers of different colors. Chicken feathers, she realized, could be converted into a useful form of product instead of ending up in a landfill or burned as waste or just dumped in heaps of garbage at road sides.

Participating in the Intel ISEF gave Kulsum so much confidence that she can do anything if she takes it seriously, she believes. It created curiosity in her to know more and more about scientific facts that not only boost her thirst to explore new things in the related technologies but also introduced her to the world of science in the international community.

Kulsum is researching further and improving the quality of Chicken Feather Paper, so that it can be used as general writing or printing paper and be made available in market. It is cheap and feasible as compared to paper made from wood pulp and rice husk. Kulsum expresses her desire to participate again in these words, ***"I am working on another research project, so that I can participate in Intel Science Olympiads once more"***.

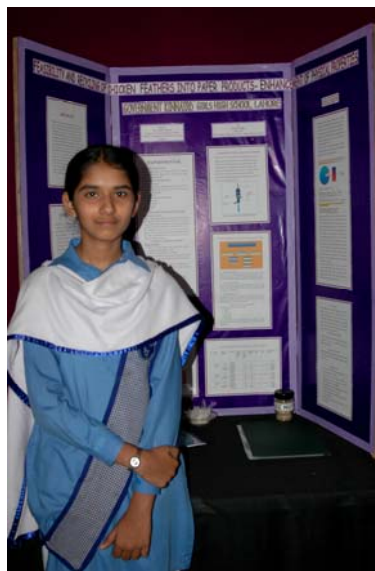
Her mother Mrs. Shamim Akhtar, a school teacher talks about changes in her daughter's personality and attitude, ***"She is now taking her studies very seriously and has developed outstanding confidence. She's now ready to lead in anything"***

*and everything and has also developed a wider sense of vision, performs her duties with more responsibility. There is a visible urge in her to prove herself. I am hopeful that she will further win laurels in her studies and other activities”.*

The institution is the key towards success for every individual. ***“If we prepare educated humans in our society in advance by providing proper education facilities to our younger generation, then only we can move towards the path of success”***, said Mrs. Rizawana Khalil, Principal of Government Kinnaird High School, Lahore. She informed that the administration of the school believes in not only imparting knowledge but also in creating an atmosphere for the students to come with new ideas, they are given freedom to work in science laboratories when ever they want to.

***“Kulsum is an asset for the school, motivated by her success all the students of our grade 9 are approaching their teachers, as they also want to participate in Intel Science Olympiads”***, says Mrs. Khalil. The schools is increasingly giving more and more importance to research and training making it an integral part of education. This is increasingly helping in inculcating critical thinking and reasoning skills bringing about a positive change in the attitudes of teachers and students.

Kulsum with her chemistry teacher Mrs. Riffat Khan



Kulsum in front of her award winning project last year