



6th PYPT

How AYIMI, as a Scientific - Research Institute has been succeeded to develop scientific activities among young generation in Iran

Physics Education Research is research into the learning, understanding and teaching of physics and the application of physics knowledge. Teaching should be viewed as an art to motivate students to look around themselves carefully in order to find the reason of each phenomenon happens in nature. Research has identified many serious conceptual and reasoning difficulties that are common among students majoring in physics and other sciences, prospective and practicing teachers and physics graduate students. In order to be able to solve the problems faced by modern societies, students should learn how to apply science they learn in the classroom to the world around them. So new approaches to teaching based on active learning and data analysis can help them overcome learning difficulties.

In Active Learning by Innovation in Teaching (ALIT) (D. Izadi & M. M. Bolotin, book published by Springer 2014) the traditional learning has been compared with this new model and it shows the scientific activities in AYIMI institute during several years has caused the improvement of physics grades for both boys and girls .



Female and Male Average physics Scores
(AYIMI activities 2010-2012)

Students in Iran have been engaged in our several physics tournaments such as Persian Young Physicists' Tournament (PYPT) as the Country Physics Cup (CPC), IYPT and AYPT from 2008. These activities have been published in ICPE 2009 Bangkok and GIREP 2010 France.

Every year the selected team members find the chance to compete and challenge with students from other countries. AYIMI succeeded to hold 24th IYPT and then IYPT 2010-2011 proceeding was published. It was a common work with Ilya Martchenko who is the main responsible of IYPT archive. To prevent making copy from presented papers and to support our student, AYIMI publishes printed or online PYPT proceedings.

The next physics tournament in AYIMI is Iran Physics Tournament (IPT) which Bsc. And Msc. students have been involved from 2015 with cooperation of Shahid Beheshti University Student Scientific Society of Physics. Selected team members attend each year in International Physicists' Tournament (IPT) to present their theoretical or experimental approach in several problems which are not solved in their usual physics class.

AYIMI with the idea of entrepreneurship tries to involve graduated students in several parts such as organizing workshops and tournaments and training or education in various ranges. By hosting international tournaments AYIMI is going to build a friendly atmosphere among students from



Iran Physics Tournament, IPT 2015, Tehran

several countries and to introduce Iranian cultures too. So after two successive hosting, IYPT 2011 and IJSO 2012, the next one is IYNT 2016. This is one of the best tournaments among junior and senior students in natural sciences.

We should all try “ To Learn Science & Enjoy It”.

Dina graduated in Solid state physics from University of Tehran, Feb. 1987, Msc. in Physical Oceanography (2002-2005) from Islamic Azad University, North Tehran Branch and PhD in Physics Education (2010-2014) from IPN University in Mexico.

Dina worked as physics teacher more than 25 years then to promote active learning in basic sciences.



SOLUTIONS TO IYPT PROBLEMS

Articles recording details of experiments, and solutions to IYPT problems are collected from talents worldwide.