PERSONAL EXPERIENCE WORKING WITH
FOSS RESEARCH INSTITUTE, CYPRUS

by Farhan Ahmed, Pakistan – PPRE 2014/16

I am writing to share my experience working with FOSS research institute, University of Cyprus. I decided to join the institute for internship because they are working in the research fields of my interest.

The concept of PV-NET and Smart PV which incorporates Smart Metering was really fascinating to me. I did a lot of study in the areas of solar power forecasting, solar degradation and electric cars; read a lot of research papers, presentations and articles on internet. During the research I got knowledge of the subjects along with information about distributed generation, demand side management, storage technologies and their role in electricity system forming a smart grid.

Finally I decided to choose solar power forecasting in order to develop a model as FOSS was willing to produce a solar power prediction model for one of their ongoing projects.

For the building part of the solar power forecasting model; my prior knowledge of programming languages such as C/C++ and Java helped me a lot to regain confidence working with MATLAB after many years. The good thing is that I was given a lot of time to learn and practice MATLAB; the team assisted a lot.

I was given a chance to be a part of team working on the installation of two PV panels. It was such a nice learning to see things proceed right from the mounting and installation of the panels to data acquisition and finally the power being fed into the grid.

I was also introduced to software relating to design and optimization of the PV systems. There were also software to train the controllers for data acquisition; when and which type of data should be available to the supervisory control stations from each panel.

FOSS always encouraged us to take part in testing of the PV panels. Working with solar simulator, UV simulator and the climatic chamber was a new learning for me. I got familiar with apparatus and gained valuable knowledge on how to test a PV module. It was exciting to work with monocrystalline, polycrystalline, thin film and concentrated PV technologies and compare the results. The monthly testing of PV modules gives a good picture of rate of degradation and enables the team to compare results of different technologies.

I learned a lot during the tenure of my internship. There are a lot of possibilities to carry out a thesis as well at the institute. The environment is friendly and the team is very helpful. I have been offered for thesis here to continue the project which I am currently working on as two months were not enough to complete the task. However, I am glad that I have laid the foundation of the project which I was assigned a month before and could continue anytime.
Amin Kazimi (2nd from right) and Farhan Ahmed (3rd from right) together with the FOSS research team.