Süleyman Cenk YILDIZ

Date of Birth: 23.03.1983
Nationality: Turkish

Mobile Phone: (0041) 76 7583287
Office Phone: (0041) 22 7674948
Email: cenk.yildiz@cern.ch
Work Address: CERN CH-1211 Geneve 23, Switzerland

Summary

I am a Doctor of physics with several years experience in experimental particle physics, with focus on the following areas: particle detectors(commissioning, installation, hardware maintenance, data acquisition, performance tests and analysis), physics analysis and data acquisition/readout systems.

Professional Experience

Dec 2014 - now *University of California, Irvine*, Post Doctoral Scholar at the ATLAS Experiment
In my current post, I carry responsibilities in Muon Spectrometer and Trigger and Data Acquisition of the ATLAS Experiment.

Muon Spectrometer - CSC Run-II Readout System:
• **Commisioning and Integration**: Commisioning of the CSC off-detector readout system, integration with the TDAQ infrastructure, implementation of recovery and monitoring systems, performance tests.
• **Operations**: Day-to-day operation of the CSC Run-II off detector readout system.
• **Hardware**: Setting up a test stand of the readout system, hardware installation and optical power measurements.
• **On-call responsibilities**: CSC DAQ on-call, MDT/CSC primary on-call duties.
• **Documentation/Training**: Prepared extensive documentation on various parts of the readout system,
• **Coordination**: Carrying out Muon DAQ Coordination task since 2016, coordinating muon sub-systems on DAQ related issues

Trigger and Data Acquisition System:
• **HLT Monitoring**: Developed tools to archive HLT rates and access them in Athena framework.
• **ATLAS Event Monitoring**: Improved event monitoring in terms of efficiency and network optimization.

Other:
• **Other**: ATLAS Run Manager shifts in 2016, organizing the general scheduling of ATLAS

Feb - Dec 2014 *CERN - Beam Line for Schools*, Project Associate (http://cern.ch/bl4s)
I worked as a Project Scientist in the first year of Beam Line For Schools as part of a small team.

• **Detector Responsible**: Main responsible of the detectors that is used in the beam line, such as Delay Wire Chambers, Lead Glass Calorimeters, Scintillators, Cherenkov Counters. The responsibility consists of testing, calibration, commissioning, installation and analysis of detectors.

• **DAQ:** Implemented a modular acquisition and monitoring software using NIM and VME systems on hardware, and ATLAS TDAQ Framework on the software side.
• **Analysis:** Developed a C++ and ROOT based analysis software.
• **Organization:** Took care of organizing meetings with experts/technicians, handled gas installation for detectors, radioactive source loans and mechanical/electrical work.
• **Installation and running of the experiment:** The experimental setup is installed at East Area, T9 beamline and 2 different experiments was run for a week
• **Documentation:** Prepared detailed documentation and Twiki pages about every aspect of the project to ensure the knowledge transfer for next years.

2009 - 2014 *CERN - CERN Axion Solar Telescope*, Doctoral Researcher
As part of my doctoral studies, I worked in the CAST experiment, spending most of my time in CERN. My responsibilities consisted of:
• **Micromegas detectors:** Responsible of 2 micromegas detectors for installation and maintenance, data analysis, data acquisition system, upgrades and vacuum system. Did the full analysis of the detectors for the data taken in 2008, and the results are used in all CAST papers.
• **Analysis:** Developed new methods for interpreting CAST data.
• **Shift/Run Coordination:** Shift coordination during 2012, and run coordination during several periods of data taking as the on-call responsible of the experiment.
• **CAST Slow Control System:** Main responsible of the Labview based acquisition system for hardware maintenance, installation of new sensors and software upgrades.
• **Magnet movement system:** Organized and analysed Grid/Survey measurements which assure the CAST magnets solar tracking accuracy, developed new analysis methods, assisted the Solar Filming.
• **CAST Contact person:** Trained official CERN guides at CAST, maintained the visitor area, updated CAST posters, maintained the CAST official website.

2009 - 2012 *Bogazici University*, Teaching Assistant, Part-time
Taught laboratory courses on introductory physics and electronics.

2003 - 2005 *Koc University*, Laboratory Research Assistant
Assisted laboratory experiments in the electronics laboratory.

2003 *Koc University*, Laboratory Assistant
Assisted laboratory courses on introductory physics.

Education and Qualifications

2009 - 2013 *PhD. in Physics, Bogazici University & CERN Axion Solar Telescope*
Thesis Title: Search for Axions with Micromegas Detectors in the CERN CAST Experiment [CERN-THESIS-2013-205]
Supervisor: Prof. Metin Arık

2005 - 2008 *M.S. in Physics, Bogazici University*
Thesis Title: Unitary Matrix Hopf Algebras and Theta-Deformed Fermion Algebra
Supervisor: Prof. Metin Arık

2000 - 2005 *B.S. in Physics, Koc University* Graduated as top ranking student.

Technical Skills

Programming : *C++, Python, ROOT, HTML, Bash*
Data Acquisition : *NIM, VME, Labview, ATLAS TDAQ Framework*
Operating Systems: *Linux, Windows*
Office Software : *MS. Office, Libreoffice, Openoffice*
Other : *Doxygen, Git, CMake, Django, LaTeX*

Trainings and Courses

2013 June	tCSC - Thematic CERN School of Computing on High Performance Computing, Split
2012 August	Euroscipy - European Conference for Scientists Using Python - Advanced Tutorial, Brussels
2011 January	ISTAPP - International School of Theory and Analysis in Particle Physics, Istanbul
2010 July	Euroscipy - European Conference for Scientists Using Python - Basic Tutorial, Paris
2010 January	ISOTDAQ - International School on Trigger and Data Acquisition, Ankara
2009 September	LabVIEW Basics I-II Course, CERN, Geneva

Talks/Posters

A New ATLAS Muon CSC Readout System with System on Chip Technology on ATCA Platform
Topical Workshop on Electronics for Particle Physics, Lisbon, 2015

X-Ray Detectors of the CAST Experiment
13th Topical Seminar on Innovative Particle and Radiation Detectors, Siena, 2013

Performance of micromegas detectors in the CAST Experiment
2nd International Conference on Particle Physics, Istanbul, 2011

Language Skills

Turkish, *Native*
English, *Fluent*
French, *Intermediate*
Spanish, *Intermediate*

Awards and Honors

2012	Berkol Doğan Award - Bogazici University Physics Department
2005-2007	TUBITAK Domestic Scholarship for Masters
2005	Top Ranking Student Award - Koc University Physics Department
2000-2005	Vehbi Koc Scholarship - Koc University

Personal

A1 and B driving licence.
Official CERN guide since 2011.