



# ***SEMINAR ANNOUNCEMENT***

## **“Building and Commissioning of a Setup to Study Ageing Phenomena in Gaseous Detectors”**

**Dr. Alhussain A. Abuhoza**

*King Abdulaziz City for Science and Technology (KACST),  
Riyadh, Saudi Arabia*

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In high-rate heavy-ion experiments, gaseous detectors encounter big challenges in terms of degradation of their performance due to a phenomenon called ageing. A setup for high precision ageing studies has been constructed and commissioned at the GSI detector laboratory. Several improvements of the setup design and the gas system have been implemented to achieve the required accuracy of the ageing measurements.

One of the important gaseous detectors is the Gas Electron Multiplier (GEM) detector. It will play a main role in Muon Chamber (MuCh) at the Compressed Baryonic Matter (CBM) experiment, Darmstadt, Germany. In MuCh station, a set of triple GEM detectors will be operated in a high rate environment of heavily ionizing particles. Therefore, the stability of these detectors needs to be tested carefully in the lab and in areal beams. In a dedicated beam time, double mask triple GEM detectors have been tested at CERNSPS/H4 using a pion beam of  $\sim 150$  GeV/c. The details of construction of the ageing setup and the test results will be presented.