



# **Bursa gas laboratory**

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# Bursa & Uludağ University



- ❖ 4th biggest city, 2.5 million people
- ❖ 1.5 hours from İstanbul by ferry
- ❖ Massive automotive industry
  - ❖ Renault, Fiat etc.
- ❖ Historical place, the first ottoman capital



- ❖ 50000 students, 8 faculty
- ❖ 11 faculties
- ❖ More than 2000 academicians
- ❖ Main campus (Görükle) is 20 km away from the city center

# Science Faculty

## Present Science Faculty:

- ❖ Physics, Chemistry, Biology and Mathematics, 5000 students
- ❖ Offices, research laboratories and classrooms
- ❖ NO sufficient places to put any equipment to research labs

## New Science Faculty:

- ❖ Only offices and research labs at first stage
- ❖ Later, another building for classrooms and students labs will be established, much bigger space for education



Current building (since 1983)



New building ( being established)



# Usage Plan of New Building



Chemistry

Biology

Mathematics

Physics

**The building is expected to be completed on May 2013 !**

# Proposal

- ❖ Gas detector lab
- ❖ Research and Development Studies of New Generation Gas Detectors
- ❖ The proposal has given to Uludağ University, June 2012
- ❖ Budget: 80 kCHF
- ❖ Start: from October 2013 for 3 years
- ❖ Equipment list: prepared with RD51 collaboration
  - ❖ Leszek Ropelewski & Eraldo Oliveri

# Working Plan

- ❖ GEM & Micromegas
- ❖ Ar – CO<sub>2</sub> premixed mixtures at 1 atm
  - ❖ GEM: Ar/CO<sub>2</sub> 70/30
  - ❖ Micromegas: Ar/CO<sub>2</sub> 97/3
- ❖ Continue with other gas mixtures at different pressures and concentrations
  
- ❖ First half of 2013:
  - ❖ buy equipments
  - ❖ CERN visit to learn building the detectors we want to take some test measurements with Eraldo to get experience
- ❖ Second half of 2013:
  - ❖ Installation of the equipments into the new building (after May)
    - ❖ Invitation of the experts in RD51 for the last minute checking
  - ❖ Starting to the first measurements at Uludağ Lab

# Status of the Gas Detector Laboratory Project

- ❖ Proposal reviewed by scientific projects council of Uludağ University !
  - ❖ Revision needed
  - ❖ A mechanical engineer from automotive department invited our working group
  - ❖ Revised version of the proposal will given on Friday !
  - ❖ And most probably will be accepted in 2 weeks 😊

## Working Team

Özkan Şahin, İlhan Tapan, Yalçın Kalkan (PhD student)

and

**İhsan Karamangil** (Associate Professor Dr., Mechanical engineer )

# Future plans

- ❖ **November 2012:** proposal to **TAEK** (Turkish Atomic Energy Authority) for financial support in order to continue our scientific visits to CERN
  - ❖ 60 kCHF, for 3 years
  - ❖ The first visit for the next year, 11th RD51 collaboration meeting

## Team

Özkan Şahin, İlhan Tapan, Yalçın Kalkan (PhD student)

and

**Ali Kara** (Associate Professor Dr., Chemist)

- ❖ Bigger budget project proposal 180 kCHF from **TÜBİTAK** (The Scientific and Technological Council of Turkey)
- ❖ More expensive equipments and people = more serious works





**Thanks & ???**