

**CONTROLS**  
**for**  
**ACCELERATORS & DETECTORS**  
**with**  
**Industrial Applications**

HEPTech Event & Board, Athens, 3-5 December 2013



Science & Technology  
Facilities Council

12/2-3/2013

E Gazis/NTUA



# Organizing Committee

## International Committee

Evangelos Gazis, NTUA/  
Detectors/co-Chair  
Eugenia Hatziangeli,  
CERN/Accelerators/Co-Chair  
Jean-Marie LeGoff,  
CERN/HEPTech/Accelerators/co-Chair  
Giovanni Anelli, CERN-KT/HEPTech  
Stephan Aune, CEA/Detectors  
Antonio Gomes de Valladares Pacheco,  
CERN/HEPTech  
Venetios Polychronakos, BNL/Detectors  
Dorothee-Maria Rück, GSI/Accelerators  
Hermann Schmickler, CERN/Accelerators  
Ian Tracey, STFC/HEPTech  
Nick Ziogas, CERN-KT

## Local Committee

Theodoros Alexopoulos, NTUA/Detectors  
Theodoros Apostolopoulos,  
AUEB/Informatics for E&B  
Michele Barone, Demokritos/ILO Greek  
Industry  
Anastassios Charitonidis, NTUA  
Sotiris Harissopoulos,  
Demokritos/Accelerators  
Katerina Pramataris, AUEB/Informatics for  
E&B  
Eustathios Stiliaris, UoA-  
IASA/Accelerators  
Georgia Skoulaki, NTUA, Administrative



# Responsibilities

1. Logistics DEMO, NTUA, AUEB, CERN
2. Industry Contacts CEA, GSI, CERN, NTUA
3. Accelerators CERN, GSI, IASA
4. Detectors CERN, CEA BNL
5. Market & Business AUEB, GSI?, CERN
6. Outreach/Greek Industries NTUA, DEMO, CERN



# Subject for Presentation I

1. The presentations by the research-academic side and by the industrial side, should focus on **certain few innovative cases related** with possible industrial/commercial applications, coming from the R&D of the accelerator and detector controls, **beam instrumentation & RF**.
2. Those **innovative cases** to be presented should either be *products of the current research to find solutions for the problems appeared in the i.e. CERN full accelerator system and the large LHC experiments* (last 5 years work), OR *future proposals for the problems to be faced during the upgrading of LHC and the LHC experiments* (next 5 years expectations), **PLUS other accelerators or experiments**.
3. [The **radiation hardness** of the electronics for the controls is a major matter to be discussed and presented]???. **It should not be included.**
4. The organizing committee should define for time-depth (5 years, more?), in the past should be included the innovative cases for presentation.



# GOALS

1. How to implement controls initiatives in the industry
2. How the industries can participate to the next HEP projects
3. How MS can participate in-kind via the academia-industry cooperation in the future projects
4. What is the economic impact from the academia-industry cooperation on the certain domain



# MONDAY 2 DECEMBER 2013

Registration & Set-up, Coffee: (09:30-10:30)

Welcome Address, by FA HEAD, Demokritos Director (10:30-11:00)

## **A. Beam Instrumentation & RF (11:00-12:45)**

Proton/Hi Accelerators, 20'

Industrial talk, 15'

Electron/Positron Accelerators, 20'

Industrial talk, 15'

RF Technology, 20'

Industrial talk, 15'

Welcome Reception/Industry Stands Visit: (12:45-14:50)

## **B. Controls for Accelerators (14:50-15:30)**

CERN-BE-CO, 20'

Industrial talk, 15'

GSI-FAIR, 20'

Industrial talk, 15'

Coffee Break, 30' (15:00-15:30)



# MONDAY 2 DECEMBER 2013

## **B. Controls for Accelerators (14:50-17:35)**

CERN, 20' Evangelia Gousiou BE-CO

Industrial talk, 15'

GSI-FAIR, 20'

Industrial talk, 15'

Coffee Break, 30' (15:00-15:30)

ESS, 20'

DESY-XFEL, 20'

Industrial talk, 15'

ELI, 20'

## **C. Medical Accelerators & Detector for Medicine (17:35-18:25)**

Proton Therapy facility, 25'

Medipix for PET, 25'

## **D. CERN DG R. Heuer (19:00-19:40): CERN ACHIEVEMENTS & FUTURE PLANS**



# TUESDAY 3 DECEMBER 2013

## **E. Detector Control Systems - DCS (09:00-11:00)**

The ATLAS,CMS,ALICE,LHC\_B DCS, 30'

FAIR/EXPERIMENTS, 20'

Industrial talk, 15'

NEUTRON-N-TOF, 20'

CLIC-DETECTOR, 20'

XFEL\_PHOTON Detectors,20'

Industrial talk, 15'

Coffee Break, 30' (11:00-11:30)

## **F. Future Plans for Beam Instrumentation & Controls for Accelerators - Detectors at CERN (11:30-14:00)**

Accelerators, 30' H. Schmickler

Detectors, 30' L. Linssen

Lunch, 1h15: (12:30-13:15)

Open hardware, 30'

Industrial partner, 15'

## **G. Economic Impact of the Academia-Industry Synergy (14:00-14:30)**

1 talk, 30''





# Venue

## **NCSR “Demokritos”**

Amphitheatre + foyer for stands

**President Hotel,** 43, Kifissias Avenue (7km from Demokritos)

Guest Room Single            Euro 95.00 with breakfast (not confirmed)

Guest Room Double           Euro 105.00 with breakfast (not confirmed)

1. The Organizing Committee (Michele-Evangelos) will take care for the transportation of the participants with BUS from/to Hotel-Demokritos, Demokritos-Restaurant for Dinner-Hotel, for 2 and 3 Dec.
2. Organizing Committee (Michele-Evangelos) will take care for the coffee breaks and light lunches in the Demokritos Amphitheatre lobby.



# Excursion

1.	SOUNION Cape	77km, 1h05
2.	EPIDAUROS Theatre	138km, 1h50
3.	DELPHI	204km, 2h30
4.	OLYMPIA	263km, 3h04
5.	AGINA island	50km, 3h06

