19th Meeting of Comsats Coordinating Council
17 – 18 May 2016, Islamabad, PAKISTAN
PLAN

I. PRESENTATION OF UCAD

   1. History
   2. Educational and research structures

II. PRESENTATION OF CENTERS OF EXCELLENCE

   1. Governance
   2. Components
   3. Research activities

III. Areas of Needs for Cooperation and Collaboration
Created February 24, 1957, the University of Dakar was officially inaugurated December 9, 1959.

The change of name of the University of Dakar, which becomes University Cheikh Anta Diop in Dakar March 30, 1987.
Educational and research structures

- RECTORAT
- 6 FACULTES
  - FST
  - FMPOS
  - FLSH
  - FSJP
  - FASEG
  - FASTEF

9 Instituts de Facultés
- IST
- IOS
- CRBL
- CREA
- IFACE
- ISG

19 Ecoles et instituts d’université
- ESP
- IREMPT
- IFE
- IUPA
- CLAD
- SCD
- CERE
- INSEPS
- IMTA
- EBAD
- IDHP
- IPS
- IFRPDSR
- ITNA
- CESTI
- ISED
- IREP
- IFAN-CAD
UCAD Research organization

Around a Directorate of Research

• Scientific Council,

• Directorate of Cooperation,

• Intellectual Property Service and exploitation of research results,

• Research Ethics Committee.
College of Graduate Schools : 7 Units

- Graduate School Water Quality and Water Uses (EDEQUE)
- Graduate School of Life Sciences, Health and Environment (ED-SEV)
- Graduate School Physics, Chemistry, Earth Sciences and Engineering (ED-PCSTUI)
- Graduate School of Human and Society (ED-ETHOS)
- Graduate School Mathematics and Computing (ED-mathinfo)
- Graduate School Arts, Cultures and Civilizations (ED-ARCIV)
- Graduate School Legal Science, Policy, Economics and Management (ED-JPEG)
ICT Facilities

- Free internet on Social campus
- Free internet on Educational campus
- One Student – One Computer
II. PRESENTATION CENTRE D’EXCELLENCE

1. Gouvernance

Approved by COMSATS in July 2012

Administered by:

- Director : Prof. Ibrahima THIOUB
- Focal point : Prof. Tahir DIOP
- Steering Committee : 10 Members
II. UNITS of the COMSATS – UCAD Center

- Renewable Energy
  - Plant and microbial biotechnologies
- Public Health (Bacteriology / Virology)
Research activities

- Conversion and Energy Storage, Thermal, Wind, Solar
- Thermal comfort in housing and energy efficiency
- Modeling Systems Renewables and design of static converters

- Monitoring and control of power systems
- Electrochemical Deposit n-Type CdTe
- Study of cells produced by electrochemical doping
- Electrical properties of SnTe

- Tabled CdTeSe and electrochemical characterization
- Models for the spectral response of photo-electrochemical cells
- Properties of Condensed Matter
- Behavior of functional materials
## Unit: Renewable Energy Statistics

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Professor</td>
<td>58</td>
</tr>
<tr>
<td>PhD</td>
<td>63</td>
</tr>
<tr>
<td>Master degree</td>
<td>92</td>
</tr>
<tr>
<td>Publications 2014 - 2015</td>
<td>123</td>
</tr>
</tbody>
</table>
Unit: Renewable Energy: /Equipements

Photoluminescence

Module cylindro-parabolique

Wind turbine
Unit 2: Plant and Microbial Biotechnologies

- Laboratory of Plant biotechnologies
- Joint Laboratory of Microbiology IRD / ISRA / UCAD (LCM)
- Laboratory of Fungal Biotechnologies

- Tissue cultures
- Phytopatology
- Molecular biology
- Biochemistry
- Experimental Station
- Microbiology
Research Activities

- Development of methods for micropropagation and in vitro cloning
- Ecophysiology of mycorrizal fungi and nitrogen fixing bacteria
- Production and valorization of biofertilizers
- Biological control
- Integration of biotechnology in agriculture and forestry routes
- Determination of the genetic variability of sources for a rational management of plant genetic resources
- Introduction of genes of interest (resistance to pathogens) in tropical species
- Study of the reproductive system and mode of transmission of genes in natural populations
- Development of axes of research for food security and sustainability
### Unit Biotechnology Vegetal and Microbiology /Statistics

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Professor</td>
<td>33</td>
</tr>
<tr>
<td>PhD</td>
<td>17</td>
</tr>
<tr>
<td>Master degree</td>
<td>23</td>
</tr>
<tr>
<td>Technician</td>
<td>14</td>
</tr>
<tr>
<td>Publications 2014-2015</td>
<td>35</td>
</tr>
</tbody>
</table>
Unit: Public Health

Bacteriology-Virology laboratory
Hôpital Aristide Le Dantec - Dakar - Sénégal

Headed by
Professor Souleymane Mboup
Organization

• **Technical Units** (6)
  – The Bacteriology unit
  – The Molecular Biology unit
  – The immunology unit
  – The Virology unit
  – Clinical trials unit
  – Quality management and Accreditation

• **Administration, finances and social**
Bacteriology Unit

Pioneer Unit of the Laboratory of Bacteriology Virology

• Diagnosis of bacterial infections by processing the bacteriological samples of hospitalized and external patients.

• Sub-unit of myco bacteriology that performs tuberculosis diagnosis

• BL3 facility
Virology Unit

- Reference laboratory for HIV infection
- Organization of the quality control of HIV infection serological diagnosis throughout the country
Molecular Biology Unit

The unit is accredited by WHO for the surveillance of the HIV 1 drug resistances in 2009

• Training centre for students, trainees and other young researchers of the sub-region
Networking of UCAD-COMSATS Center (1)

- Member of the National Committee to Fight nosocomial infections (CONALIN in French)
- African AIDS Research Network (Western and central zone) - AARN
- African Society for Laboratory Medicine (ASLM)
  - WHO-AFRO, CDC, PEPFAR, UNAIDS, World Bank, the Clinton Health Access Initiative, American Society for Clinical Pathology (ASCP), the African Union Commission, Biomerieux
Networking of UCAD-COMSATS Center (2)

• National laboratory of Biosecurity
• African Laboratory of Renewable Energy
• National project on sustainable agriculture financed by IAEA
• International Master on Tropical Biotechnologies.
Areas of Needs for Cooperation and Collaboration

- To Organize International training on:
  - Renewable energy
  - Plant and microbial biotechnologies.

- To Integrate Comsats Thematic Research Groups on:
  - Agriculture and Biotechnology
  - Renewable energy

- To be Head Leader on Thematic Research on Public Health

- To host Comsats Training on maintenance of equipments

- To benefit mobility through Comsats networking
  - Researchers
  - Ph D students
THANK YOU FOR ATTENTION