



# Academics without Borders

## USF-AWB

### Universitaires sans Frontières

Quarterly Newsletter, 20, December 2015.

## Newsletter

In this issue of our newsletter, we present our new project in progress to set up training for the creation of research laboratories: in fact we know that demand is very high and for USF it will be a flagship action. Then we will give an outline of a work we are starting with the Ahmed Baba University of Bamako Mali. Then follow two announcements for Tunisia, one coming from the Association of Educators Without Borders (GREF) for various universities in this country and a second request for teachers in ophthalmology.

Then our colleague, Dr. Perez Gama of the San José Fundación Educación Superior in Bogota, Colombia asked us to insert a text about an original vision of higher education in Colombia, targeting the formation of 3 million students. And finally, our Canadian sister organization sends us some news.

Do not forget to pay your annual fees for 2016, at unchanged fee of € 30 per physical person and € 60 for legal persons.

On behalf of the USF-AWB board, please accept our best wishes for the coming Christmas and the year 2016. ■

Prof. Robert Laurini, president of USF-AWB

### Training in the creation of academic research laboratories

From our interventions in various universities around the world, the members of USF-AWB<sup>1</sup> have often heard the need to increase research capacity, but universities most do not know how to do. A recent meeting was made with the Agency for Francophone Universities (AUF) and the International Institute for Francophony (IIF) in order to organize a special training for that purpose.

Indeed, in many academic institutions the problem arises to increase the role of research not only to contribute to the improvement of education, but also to develop knowledge in order to improve the quality of life and sustainable development with other partners in the socio-economic world.

Facing this need, USF-AWB has decided to launch some training for the creation of the research laboratories, both from the scientific and administrative points of view.

The objective of this training will give participants solid elements to create research laboratories in universities, i.e. to regroup academic staff who will need to work together on 10-year-long research lines in.



The operation of setting up a laboratory looks like entrepreneurship because there are many similarities: the leader must be not only a carrier of innovation, a leader of men, but also a prudent manager. Indeed, this training will include among other things:

- a broad assessment of the context in order to identify needs,
- collective identification of research lines supposed to be innovative and adapted to the context,
- recruitment or regrouping of competent and complementary persons,
- identification of possibly interested economic and international partners,
- splitting the general research lines into various research projects,
- definition of the necessary equipment,
- finding of funds,

<sup>1</sup> For any contact: Pr. Robert Laurini, President of USF-AWB, Informatique, INSA de Lyon, F- 69621 Villeurbanne; Email: [Robert.Laurini@insa-lyon.fr](mailto:Robert.Laurini@insa-lyon.fr). Web site: <http://www.usf-awb.org>. Association according to French laws, established on January 2, 2010.

- establishing a business plan,
- etc.

Public: (future) Directors of laboratory and leaders for laboratory design projects.

This week-long training will be made in the form of tutorial with many examples in different sectors. It will be asked each participant to set a project that will be evaluated at the end of the training.

The speakers will be academics who have created research laboratories. A first experimentation, in the Spanish language, was held successfully in the Mexico.

Initially, only laboratories in technology facilities will be considered, because the analysis of needs and research opportunities is easier to do.

The preliminary program could be the following.

- 1 – Place of the research in the society - analysis of research needs.
- 2 – Methodology for the identification of research issues.
- 3 – Organization of laboratories (premises, equipment, personnel, accounting, roles of the Director, etc.).
- 4 – Establishment of economic and international partnerships.
- 5 – Business plan.
- 6 – Development of a research laboratory project.

At the moment, no date or places have been defined. The interested persons, either as future participants, or future stakeholders, are invited to contact USF-AWB.

A pilot project will be settled in West Africa next Spring. ■

Prof. Robert Laurini, president of USF-AWB

### Cooperation with the Ahmed Baba University of Bamako

The university Ahmed Baba, headquartered in Bamako, Mali, wishes to establish cooperation with USF. This private higher educational institution, which is at its development stage, wishes to establish or to strengthen partnership with professional sectors in West Africa and a coherent university management strategy with these professional links.



It sets up several branches: a School of Mines and Petroleum (Exploration / Mining, mining / Oil Economy, Metallurgy / Mineral processing, Geophysics, Operations

and Administration of minerals); a School of Journalism and Communication (Communication for Development, Institutional Communication, Political Communication, newspaper journalist, radio journalist, web journalist); an Institute of Economics and Management (Human Resource Management, Accounting Audit & Management Control, Banking & Insurance, Business & Finance, International Business, Marketing and Communication, Entrepreneurship and Management, Logistics & Transportation, Hospitality & Tourism) an Institute of Agricultural Engineering and Environment (Agricultural Engineering / Food processing, Sanitary Engineering / Environment, Industrial Computing) and Institute of Legal and Political Sciences (Business Law, International Relations, Private Law, Political Science). ■

Xavier Alphaize, Board Member of USF-AWB

### Looking for health teachers for Tunisia

Sup'Santé of Tunis is a private institution, devoted to health training, wishes to welcome academic skills to ensure, in the context of short missions, some specialized ad hoc courses (Theory and Practice) with indication on the following topics:

- Optical binocular vision (Physiological Optics, neurophysiology of vision)
- Malfunction of binocular vision and pathology of the visual field
- Exploration and additional information (partial sightedness)
- Rehabilitation of low vision.



The target population consists of students from the 2nd and the 3rd years of Applied Licenses Orthoptics, Optics and Optometry.

These missions will also give us the opportunity to conduct an evaluative reflection on the content of training and its adaptation to the evolution of the specialty.

It is noteworthy that our teaching team account in the specialty Ophthalmology:

- One full university professor
- Two associate professors
- Five Hospitalo-graduate assistants, coming from the Faculty of Medicine of Tunis.

It also has:

- A Specialist Physician, Former Associate Professor
- Three orthoptists
- Seven Specialists Contactology Opticians, Optometrists

eyewear and, working in the private sector.

We wish to program the teaching assignments in the second semester of the current academic year and outside the holiday of spring, or from 18/01 to 18/03 and / or from 04 to 04.29.2016.

Taking everything into account, we believe that the operation could start sooner than early February 2016.

Deadline for applications can be fixed to 15 January 2016.



Contact: Mr. Naceur Ouslati, our Secretary General, (oueslati.r.naceur@gmail.com) remains at your disposal for any further information.

Website: [www.supsat-univ.tn](http://www.supsat-univ.tn). ■

### ICT Education Model Based on Competencies and Architectures



We have suffered in Colombia a war for over half century, confrontation of civil society, guerrilla, paramilitary and our armed forces causing death and pain. Today we are *ad portas* of achieving a peace agreement. We are preparing for a post-conflict situation and so we

have to organize thousands of demobilized requiring labor re-qualification. Also we have to consider the deficit of 100,000 ICT engineers and the triple technologists and technicians (e.g. programers). Our proposal is intended as a disruptive innovation to address the digital divide post-conflict and human talent in this country as mentioned.

The quality of HE (Higher Education) and ME (Media Education) in Colombia has been strongly challenged among others: by TIMSS (Trends in International Mathematics and Science Study) and PISA (Programme for International Student Assessment) due to the poor results as many others The HE less than 10% of universities has quality accreditation which is an indicator of the low competitiveness. The dramatic problem of desertion in HE & ME reaches 50% and in the case of T and TP is much higher than 65%, a situation that represents a high volume of wasted resources by Government and the Families.

We propose a new education model based on the integration in an Intelligent Systems with 5 architectures that we are implementing in several Institutions of higher education (HEI). These hybrid software educational

architectures work as a space in order to respond to the solution of problems leading to get A Educative Competitiveness, observing specifically how you can include these technologies for evolving university in modernity, bringing together the Governability, the Student and Teacher Productivity, and also the HQ EDUCATION (HQE). The mentioned architectures are:

- 1 - Curricular Coherence Analysis and Management e.g. on ICT Competencies.
- 2 - Intelligent Coaching on ICT.
- 3 -Building the future: Roadmap for Student Permanence.
- 4 - Process Engineering for Governability.
- 5 - The HQE.

#### 1 - OBJECTIVES

Our goal is the integration of different architectures. Our educational system model, offers alternatives to young people and adults who wish to make a career but a significant readiness semesters (Coaching) skills and competencies certification, e. g. ICT. The strategic development is based on social innovation and Knowledge Engineering with intensive use of ICT.

The main Model Characteristics are:

- 1- Our approach: of type Bio-psycho-socio-techno-scientific.
- 2- Using upper: quality, technology, ICT and articulation
- 3- On Line learning
- 4- Knowledge and Competencies management.
- 5-Social importance: Reducing ICT talent gap and our model is personal Student driven.
- 6- Social Impact: Using in Post-conflict situation for peace sustainability and also for employment creation.
- 7- With a business model driven.

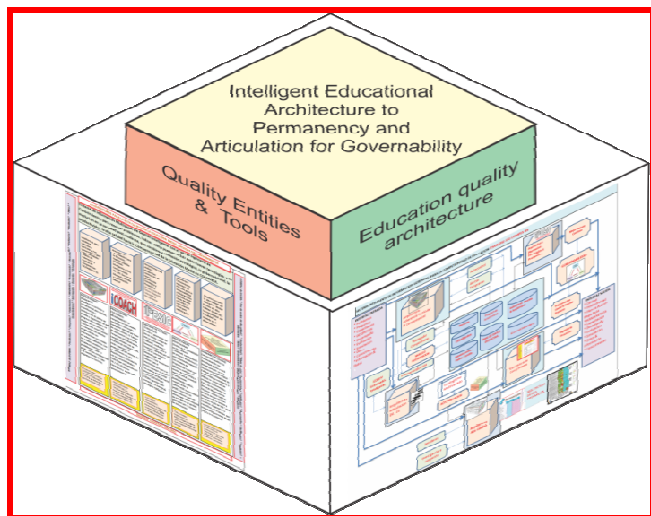
As mentioned we are looking to extend its application to retrain users: demobilized from conflict to labor re-qualification, increasing the supply of ICT talent.



#### II FUNCTIONAL FEATURES

- The architecture deployed in the Figure given below, illustrates complex whose components articulated coherently and consistently acting as a whole, organized and complex, to obtain new and better functionalities.
- The architectural approach leads to have systems analyzed and evaluated with large volume of academic and administrative information in a well structured way, with 360° visualization. Also it allows browse administrative and academic information

from the University (upward and downward levels) and also over the time (Prospective) for constructing future. The gathering of information at such different levels of aggregation will reduce the complexity of the analysis, design and implementation.



- The strategic alignment of the different components has to provide the ultimate aim: HQE. It has to provide the harmonization of academic and administrative processes, the establishment of common references to the community in accordance with ISO (International Organization for Standardization). Obviously we have also included the alignment of micro- Competences (exogenous variables) with the professional target Competences (endogenous variables) in the academic programs.
- Continuous improvement plans will provide coherently leaning mature subsystem academic and management indicators as inference for Strategic Planning and Prospective.
- The Self-Assessment as an organizational process has been facilitated by metrics inside the linear programming with the Leontief Input-Output model, which extended its value for optimization purposes, towards the governability. This model of governability is based on maintaining: the maximized number of students in good performance, and also by controlling the number of students at risk of dropping, and recuperating the former deserter students. The self-assessment model for HE is in accordance with NAC (National Accreditation Council), for which some tools for managing large

volumes of data and visualization will be used, through a multivariate Scale-gram: matrix with fuzzy values (qualitative variables).

For any additional information, contact me. ■

Alfonso PEREZ GAMA, Fundación Educación Superior San José de Bogota en Colombia, [japerezg@IEEE.org](mailto:japerezg@IEEE.org)

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### News from Canada

Our Canadian sister association (AWB) is pleased to announce that Concordia University in Montreal is generously providing it with an office and funding. AWB is also starting several new long-term projects. It is going to help Mekelle University's Medical School in Ethiopia create residency programs in cardiology and gastroenterology. In addition it is continuing its five year project at Santa Clara University in the Philippines for which it is helping it upgrade the ability of the mathematics education faculty how to teach teachers how to teach statistics in primary and secondary school. It is also continuing its work with Aga Khan University in East Africa where it has several projects.

Lastly, it is partnering with the Aga Khan Foundation Canada and the International Development Research Centre to organize a major conference on the importance of university education for development in low and medium income countries. The conference will take place in Ottawa, Ontario on April 12th and 13th at AKFC's headquarters.

For any information, please contact Steven Davis at [sdavis@awb-usf.org](mailto:sdavis@awb-usf.org). ■

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