UIRI Participates in UBORA

UBORA: Euro-African Open Biomedical Engineering e-platform for Innovation through Education

Uganda Industrial Research Institute (UIRI) has partnered with Researchers from University of Pisa, Italy (project coordinator), Universidad Politecnica de Madrid, Spain, KTH School of Technology and Health, Sweden, University of Tartu, Estonia, Kenyatta University and an Estonian custom software development company, Agileworks to participate in the "**UBORA: Euro-African Open Biomedical Engineering e-Platform for Innovation through Education**" project. This project is funded by the EU under the Horizon 2020 Research and Innovation Programme which aims at creating an **e-Infrastructure, UBORA**, for open source co-design of new solutions to face current and future healthcare challenges of Europe and Africa. The project will exploit networking, knowledge on rapid prototyping of new ideas and sharing of safety criteria and performance data. The e-Infrastructure will be implemented to foster advances in education and the development of innovative solutions in Biomedical Engineering, both of which are flywheels for emerging and developed economies. It is conceived as a virtual platform for generating, exchanging, improving and implementing creative ideas in Biomedical Engineering underpinned by a solid safety assessment framework. Besides the provision of resources with designs, blueprints and support on safety assessment and harmonization, specific sections for needs identification, project management, repositories and fund raising are also foreseen.

UBORA ("excellence" in Swahili) brings together European and African universities, under the lead of Prof. Arti Ahluwalia (University of Pisa), and their associated technological hubs, biomedical prototyping laboratories and incubators, national and international policymakers and committed stakeholders propelled by a series of summer schools and competitions.

"The project's focus is on innovation through biomedical engineering education, as the technological hub for the African partners we hope to design and develop open-source medical devices that are compliant with European standards whose designs are freely shared," says Philippa Makobore, the project lead for UIRI in an interview with the New Vision.

Through the **UBORA e-Infrastructure**, the biomedical community can generate and share open data and blueprints of biomedical devices, accompanied by the required procedures for respecting quality assurance, and for assessing performance and safety. When properly implemented, as guaranteed by authorized Notified Bodies, these medical devices can safely be used in hospitals and on patients. In a nutshell, **UBORA** couples the open design philosophy with Europe's leadership in quality control and safety assurance, guaranteeing better health and opportunities for sustainable growth.

UBORA partners at the project's kick-off meeting in Pisa, Italy (17th Jan. 2017)

"Every year we train a cohort of biomedical, electrical and computer engineering undergraduate students from universities and vocational institutes across Uganda. The UBORA platform will be an extremely valuable tool for these students who need hands on skills for the design and development of their projects," observes Makobore.

2017 UBORA DESIGN COMPETITION

The first design competition of the **UBORA project** will focus on innovative biomedical engineering solutions to reduce child mortality. The winners of the design competition will be invited to attend the **2017 UBORA Summer School**, which will take place at Kenyatta University in Nairobi and in which the co-design of biomedical devices will be promoted by applying the CDIO ("Conceive-Design-Implement-Operate") project-based learning and product development approach. The **UBORA e-Infrastructure** is being constructed and provided with real open-access cases of study linked to the development of real medical devices connected to global health concerns. The **UBORA e-Infrastructure** will be officially presented and actively used in the mentioned summer school, which is open to students from the members of the consortium and from ABEC: The African Biomedical Engineering Consortium. For additional information, please visit the UBORA website: **http://ubora-biomedical.org** or contact UBORA at: **info@UBORA-biomedical.org.**

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