



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

### UBORA DESIGN COMPETITION 2018 - First stage results

#	Institution	Consortium	Project's title	Project Leader	Results
1	University of Pisa	UBORA	Low cost spectacles: the 3D printing revolution	Rosa Lotano	eligible
2	Mbarara University of Science and Technology	ABEC	Use of Hot and Cold Water Therapy to Reduce Pain Caused by Knee Osteoarthritis in Elderly People	Patience Bwire	eligible
3	Cairo University	ABEC	Smart bed for heart failure patients	Aya Lithy	eligible
4	University of Porto	NA	Pill Dispenser with Alarm and Notification Via Smartphone	Filipa Leal	eligible
5	Colorado State University	NA	Surgical Simulation – Pulsating Organ Model	Anthony Behle	eligible
6	Jimma University	ABEC	Continuous Heart Rate, Cuffless Blood Pressure, and Breathing rate Monitoring Device for Aged People	Zelalem Adbar	eligible
7	Kyambogo University	ABEC	DESIGN AND CONSTRUCTION OF WIRELESS ELECTROCARDIOGRAM (ECG) FOR ELDERLY MONITORING	DANIEL ETUMU	eligible
8	Malawi University of Science and Technology	ABEC	Smart Wheelchair	Cyrus Zulu	eligible
9	Sant'Anna - University of Pisa	NA	Bracelet Alerting and monitoring Device for cardiovascular-related drugs (DrugBAND)	Matteo Lo Preti	eligible
10	Universidad Politécnica de Madrid (UPM)	UBORA	ChepOut	Andrea Hermida	eligible
11	University of Eldoret	ABEC	FurahiTech: A Self Blood Pressure Monitor linked with mobile application for Self-Management of Hypertension.	Benson Kagiri	eligible
12	University of Eldoret	ABEC	Powered Flexible Wheelchair	Brenda Chepngeno	eligible
13	Kenyatta University	UBORA	Design of a Simple Technique to Monitor the Location of People with Dementia	Nick Ipali	eligible
14	Kenyatta University	UBORA	Low Cost Hearing Aid with Rechargeable Battery and Adjustable Volume	Bazil Mlamba	eligible
15	Kenyatta University	UBORA	Ultraviolet B Radiation Treatment for Type 2 Diabetes	Marjorie Koimburi	eligible
16	Mbarara University of Science and Technology	ABEC	A Non Invasive Technology For Testing Kidney Functionality	Joas Agaba	eligible
17	University of Pisa	UBORA	An innovating walking frame made up of carbon fibre composite material	Ermes Botte	eligible
18	Malawi University of Science and Technology	ABEC	Heart rate monitoring device	Kingsley Gwesere	eligible
19	Universidad Politécnica de Madrid (UPM)	UBORA	StepBy: Fall Detection System	Beatriz Aviñó	eligible
20	University of Pisa	UBORA	Design of a SmartBall: device for hand rehabilitation and grip force control	Guglielmo Pacetta	eligible
21	University of Pisa	UBORA	Easy Seat	Simone Micalizzi	eligible
22	Jimma University	ABEC	Blood Glucose Monitoring Device for Old Diabetes Patients	Redeat Birhanu	eligible
23	Kenyatta University	UBORA	Rafiki-Smart Arm Splint	Kenneth Odongo	eligible
24	Malawi University of Science and Technology	ABEC	Loca	Tadala Mtimuni	eligible
25	Malawi University of Science and Technology	ABEC	Solar Powered Smart Wheelchair	Dominic Sandram	eligible
26	Mbarara University of Science and Technology	ABEC	An easier way to test for blood sugar levels without blood contact useful in treatment of diabetes in older people	Ntonde Usher Kirungi	eligible
27	University of Bologna	NA	An Adaptable Sensorized Seat for Elderly Posture Analysis and Fall Prevention	Caterina Giuliani	eligible
28	University of Pisa	UBORA	Smartwatch software for health monitoring	Elisa Valenti	eligible
29	University of Porto	NA	Structure for hands-free self-cleaning of teeth	Filipa Leal	eligible
30	Bangladesh University of Engineering and Technology	NA	A Smartphone App for Early Diagnosis and Cognitive Rehabilitation of Dementia Patients	Farhana Islam Oishi1	eligible
31	Jimma University	ABEC	Simple Multipurpose Walking Aid Stick	Elbetel Taye	eligible
32	Muhimbili University of Health and Allied Sciences	ABEC	RAFIKI PROJECT A SUSTAINABLE PROJECT FOR PREVENTING HYPERTENSION RELATED DISABILITIES	Deogratias Mtei	eligible
33	The School of Technology and Health (STH)-KTH	UBORA	Development of low-cost and easy-to-use home care medical device to monitor Breathing, ECG and Arterial pulse rate	Hugo Linder	eligible
34	Universidad Politécnica de Madrid (UPM)	UBORA	Hand Exercise Assistant Device for Healthy Ageing	Manuel Chamorro	eligible
35	University of Science and Technology of Yemen	NA	Solar Sterilization And Distillation Unit (SSDU)	Ibrahim Alhothily	eligible
36	Addis Ababa Institute of Technology	ABEC	An Early, Non-Invasive and Portable Malaria Detection Device in rate of vibration of Nano particle (Hemozoin) with Magnetic field and	Anatholly.A	eligible
37	Addis Ababa Institute of Technology	ABEC	Posture Correction For Lower Back Pain Relief Using Gyroscope	Kalkidan Asfaw	eligible
38	Bangladesh University of Engineering and Technology	NA	Urinary Incontinence of Aging Population	Nusrat Binta Nizam	eligible
39	Cairo University	ABEC	Smart Assistance for Elder Parkinson Disease	Merna Ashraf	eligible

40	Jimma University	ABEC	Automatic Pill Box Dispenser and Vital Sign Monitoring Device with Reminder for Elders (APDVMMD)	Nebyu Ahmed	eligible
41	Kenyatta University	UBORA	Design And Construction Of A Low-Cost And Affordable Hearing Aid	Atieno Dorothy	eligible
42	Kyambogo University	ABEC	Design and Construction of an Ultrasonic Smart Stick for Visually Impaired People	Sam Odong	eligible
43	Malawi University of Science and Technology	ABEC	Design of low cost smart hearing aid and its solar battery charger.	Omega Mitinda	eligible
44	Mbarara University of Science and Technology	ABEC	EARLY CATARACT DETECTION USING RAPID DIAGNOSTIC TEST TECHNIQUE (CARDTt)	Kalugu Julius	eligible
45	Muhimbili University of Health and Allied Sciences	ABEC	A NOVEL METHOD OF PREVENTING PRESSURE SORES	Atish Shaa	eligible
46	Addis Ababa Institute of Technology	ABEC	Body Fat, Body Mass Index, Basic Metabolic Rate and Caloric Maintenance Level Monitor	Henok Gebremedhin	eligible
47	Addis Ababa Institute of Technology	ABEC	Automatic IV administration set for Hypovolemic Shock Cases - HYPOCAM	Francori Mulugeta	eligible
48	Kenyatta University	UBORA	Switching Aider for the Elderly	Susan Gitau	eligible
49	Kenyatta University	UBORA	Using Organic Electronic Ink to Print ECG Circuits on Clothing for Monitoring and Diagnosing Atrial Fibrillation in Elderly Patients	Adam Yawe	eligible
50	Malawi University of Science and Technology	ABEC	Arthritis Vibration therapeutic Device	Isaac S Chisembe	eligible
51	Malawi University of Science and Technology	ABEC	Urinating Tube System for Elderly	Jonathan Mhango	eligible
52	Universidad Politécnica de Madrid (UPM)	UBORA	Automatic Portable Pillbox by Hampi Yachay	Natalia Béjar Ayllón	eligible
53	Addis Ababa Institute of Technology	ABEC	Prevention of pressure ulcers using electrical stimulating beds and mattresses for paraplegic patients in developing countries	Betelhem Higi	eligible
54	Jimma University	ABEC	Multilanguage Body Fat Analyzer for Aging Populations	Shimelis Nigusu	eligible
55	Kenyatta University	UBORA	IO Guard Cushion: Sensor based in-shower on-time injury protection for elderly	Susan Gitau	eligible
56	Kenyatta University	UBORA	ARTIFICIAL INTELLIGENCE HOME BASED STROKE MONITORING DEVICE	NOEL MAHIU WAITHAKA	eligible
57	Makerere University	ABEC	Early detection and monitoring of Atrial Fibrillation (AF)	Mercy Takuwa	eligible
58	Makerere University	ABEC	WEARABLE, SELF MANAGEMENT GLUCOSE TESTING MACHINE (GLUCOWATCH)	Justine Eilu	eligible
59	Mbarara University of Science and Technology	ABEC	Project Brief Flexi Glove Suzan	Suzan Mbabazi	eligible
60	Mbarara University of Science and Technology	ABEC	Use of Pace Reminder to Promote Healthy Ageing of the Elderly People Living With Dementia in Uganda	Patience Bwire	eligible
61	Muhimbili University of Health and Allied Sciences	ABEC	HEALTHYAGINGTOALL	Lulu Gabriel	eligible
62	Université des Montagnes	NA	Design of an Intelligent Walking Stick for the Elderly Population	Dongmo Tankeu Charlin	eligible
63	University of Eldoret	ABEC	Design and Fabrication of Self Driving Intelligent mobile robot (G –Robot)	David Givondo	eligible
64	University of Eldoret	ABEC	Design of a Spine Shock Absorber Band and Dietary Manual for Osteoporotic.	Francis wachira	eligible
65	University of Eldoret	ABEC	Dementia Hope Tech	Ephantus Wanyeki	eligible
66	University of Science and Technology of Yemen	NA	Auto Working Portable Defibrillator Based on ECG Monitoring	Khalid Ahmed	eligible
67	University of Science and Technology of Yemen	NA	Remote Monitoring Critical Physiological Parameters Using Smartphone (RMCPPS)	Al-Hammadi Husam1	eligible
68	Jimma University	ABEC	Device To Prediction Of Stroke	Mestawot Bogale	eligible
69	Jimma University	ABEC	Low Cost, Non-invasive Diabetic Mellitus and Blood Pressure Monitoring Device for Elder people	Kokeb Dese	eligible
70	Makerere University	ABEC	Blood Strip For Early Detection of Rheumatoid Arthritis.	Maureen Etuket	eligible
71	Universidad Politécnica de Madrid (UPM)	UBORA	Melanoma prevention by measurement of UV radiation	Marina Buezo Tordesillas	eligible
72	Universidad Politécnica de Madrid (UPM)	UBORA	Application for Health Care for the Elderly	César de las Casas	eligible
73	University of Lagos	ABEC	An electrically actuated walking Stick for the Elderly	Wilfred Dieke	eligible
74	University of Pisa	UBORA	Low-cost customizable knee orthosis	Florinda Coro	eligible
75	Addis Ababa Institute of Technology	ABEC	Design of Biocompatible Urinary Bladder Volume Controller	Duguma Teshome	eligible
76	Addis Ababa Institute of Technology	ABEC	Early Detection Of Breast Cancer Via The Design Of Smart Self-diagnosing Wearable Sensor To Elderly Women	Mastewal Mathiwos	eligible
77	Jimma University	ABEC	Smart Stick Friend for Aged	Nebiyu mulugeta	eligible
78	Malawi University of Science and Technology	ABEC	Walking Aid for the Blind	Cyrus Zulu	eligible
79	Mbarara University of Science and Technology	ABEC	Use Of Pace Reminder To Promote Healthy Ageing Of The Elderly People Living With Dementia	Patience Bwire	eligible
80	Mbarara University of Science and Technology	ABEC	Addressing healthcare problems faced by the ageing society.	Ntonde Usher Kirungi	eligible
81	Technical University of Mombasa	ABEC	WEARABLE LOW VISION GUIDER AND FALL DETECTION MODULE	Jim Gitonga	eligible
82	University of Eldoret	ABEC	SMART MEDICAL CONTAINERS	James Ochuka	eligible
83	University of Pisa	UBORA	Spinal Board Made In Carbon Fiber	Giovanni Battista Marongiu	eligible
84	Ashesi University College	NA	ReKULL TECHNOLOGY	Ishmael Ofori Aboagye	eligible
85	Bugema University	NA	On-Demand Service Smartphone Application for Elderly (ProKonect)	Alain Binamungu	eligible

86	University of Gondar	NA	Delivery monitoring device	Muhammed Erziku	eligible
87	University of Tartu	UBORA	Guide Robots for Senior Citizens and for People with Visual Impairment	Friedrich Kaasik	admitted as UBORA
88	Addis Ababa Institute of Technology	ABEC	Low cost smart power wheelchair.	Solomon Kindie	non eligible
89	Addis Ababa Institute of Technology	ABEC	Development of Low-Cost Six-Bar Prosthetic Leg	Diyawdin Menu	non eligible
90	Kenyatta University	UBORA	Rappel App Project	Njugi Bonface K.	non eligible
91	Kyambogo University	ABEC	Design and construction of solar suction machine for the elderly with Tuberculosis ( SSM )	Mahad Majid	non eligible
92	Malawi University of Science and Technology	ABEC	Project Care	Tadala Mtimuni	non eligible
93	Malawi University of Science and Technology	ABEC	Back Pain Preventer and Reliever	Mwayi Yelewa	non eligible
94	Malawi University of Science and Technology	ABEC	WEARABLE AIRBAG TO PREVENT FALL INJURIES	Peter Amosi	non eligible
95	Muhimbili University of Health and Allied Sciences	ABEC	Improved Management of Lower Back Pain (LBP)	Josephat S. Hema	non eligible
96	Universidad Politécnica de Madrid (UPM)	UBORA	Eye drop dispensing aid device	Nerea Carrera	non eligible
97	University of Lagos	ABEC	Digital Hearing Aid with Smartphone Interface And Solar Charging	Osugwu Charles	non eligible
98	Addis Ababa Institute of Technology	ABEC	Prevention of pressure ulcers using electrical stimulating beds and mattresses for paraplegic patients in developing countries	Betelhem Higi	non eligible
99	Addis Ababa Institute of Technology	ABEC	A mobile application alarm system for epileptic patients with focal aware seizures	Wubshet Shimels Negussie	non eligible
100	Addis Ababa Institute of Technology	ABEC	Smart Multipurpose Walking Stick	Muluken Ambaw	non eligible
101	Kenyatta University	UBORA	Rechargeable GSM based Insulin Pump	Tupokal P. Enos	non eligible
102	Kenyatta University	UBORA	TULIZO Self-Heating Back Pain Relief Vest	Rachel Murabula	non eligible
103	University of Eldoret	ABEC	Portable Powered Blood Pressure Monitoring Device	Adah Limo	non eligible
104	Kenyatta University	UBORA	Cost effective, Solar powered Self-regulating Warmer for the Aged	Tupokal P. Enos	non eligible
105	Muhimbili University of Health and Allied Sciences	ABEC	Dementia Companion Application	Joseph Paul	non eligible
106	University of Science and Technology of Yemen	NA	Non-Invasive Glucose, ECG and SPO2 Monitoring	Mohammed Saleh	non eligible
107	Cairo University	ABEC	Real-Time Wireless Patient Monitoring System	Bilal Hairab	non eligible
108	Jimma University	ABEC	Predication Of Environmental Condition For Asthma Patients	Mestawot Bogale	non eligible
109	Jimma University	ABEC	Project title-android and desktop application for better understanding of CKD and guideline for motivation toward positive attitude	Daniel Demeissie	non eligible
110	Addis Ababa Institute of Technology	ABEC	Sound Modulated Visual Alarm for Hearing Impaired Individuals	Mebrhin Mulu	non eligible
111	Kyambogo University	ABEC	Design And Construction Of Electronic Pain Reliever For Arthritis Treatment In Elderly Patients	JONATHAN ORIOKOT	non eligible
112	Mbarara University of Science and Technology	ABEC	Easing Movement Of The Elderly With Modern Day Technology,	Fredrick Achol	non eligible
113	Kenyatta University	UBORA	Wearable Human Joint Monitoring Device	Augustine Wekesa	non eligible
114	Kenyatta University	UBORA	Mobility Assistive Devices with Electrooculography Signal Controls, Cut Out and GPS	Eubrea Mitchy	non eligible
115	Kenyatta University	UBORA	Remote Monitoring System For The Aged.	Dorothy Rono	non eligible
116	Kenyatta University	UBORA	Developing a Medication Assistance Device to Reduce Noncompliance with Prescription Medication	Ogweno Elvis	non eligible
117	Kenyatta University	UBORA	EFFECTIVE AND AFFORDABLE BIOENGINEERING SOLUTIONS TO PROMOTE HEALTHY LIVING	LUKAS NYONGESA	non eligible
118	Malawi University of Science and Technology	ABEC	Elderly automated leg exercising machine	Leticia D. Chikaoneka	non eligible
119	Sant'Anna - University of Pisa	NA	Wearable Orthopaedic device for treating Forward Head Posture	Francesca Bentivoglio	non eligible
120	Jimma University	ABEC	Early detection of Heart attack and total Cholesterol test for elderly people	Yilma Mihiret	non eligible
121	Mbarara University of Science and Technology	ABEC	A Low Cost Histopolystainer For Histopathology Laboratories To Help In Staining Slides For Cancer Diagnosis In Elderly People Of Developing	Habert Tumwesigye	non eligible
122	University of Cape Town	ABEC	Ventilation in Minibus Taxis as a Means of Airborne Infection Control	Munyaradzi Matose	non eligible
123	Addis Ababa Institute of Technology	ABEC	Biomedical system to analyses medical vital symptoms using smartphones	Ibrahim Husen	non eligible
124	Addis Ababa Institute of Technology	ABEC	Wheelchairs for disables and patients	Yirga Bahta	non eligible
125	Muhimbili University of Health and Allied Sciences	ABEC	Access to Continuum of care for elderly	Ashabilan A Ebrahim	non eligible
126	Technical University of Mombasa	ABEC	Stem cell-based therapy for regeneration of cardiomyocytes	Arafat Mukasa	non eligible