



Technical assistance and training for TVET Smart Classrooms Project

Client: Ministry of Education Science and Technology Project value: 400.000 euro

Funding: Government of Kenya

Duration: December 2015- December 2017

Lead firm: Devotra Partners: LJ Create

The Smart Classroom project is designed to improve traditional TVET teaching and learning at 10 Technical Training Institutes (TTIs) through further introduction of student-centred learning, interdisciplinary work, Competence Based Education and Training (CBET), and problem-solving based learning. In the Smart Classroom teachers and students can upgrade their practical skills up to the standards of the latest technology, which will better prepare the students for the labour market.

The overall project objective is in line with the National ICT strategy for Education and Training which focusses on "the use of ICT in schools, colleges, universities and other educational and training institutions in the country, to improve the quality of teaching and learning".

The objective of the technical assistance and training component implemented by Cadena is to embed long-term sustainability in the project design and implementation stages, and to provide training for the smart classroom managers and TTI lecturers.

The Smart Classroom consists of a teacher demonstration room and a state-of-the-art-ICT lab where, amongst others, design, programming and production skills are encouraged through;

- Presentations
- Digital lessons
- Investigations
- On-screen simulations
- Virtual experiments
- Practical exercises
- Project and group work

Technical Assistance and Training Deliverables

- Inception report
- Final project design and implementation document
- Design of training programmes
- Implementation of train-the-trainer programme for key project staff
- Assessment and selection of Smart Classroom managers
- Implementation of Smart Classroom managers training programme
- In-service training for lecturers on pedagogy and use of the Smart Classroom and new technologies
- Continuous training support











Smart Classroom ICT lab topics

- Automotive
- Electrical / electronics
- Renewable energy
- Materials and processes
- Hydraulics
- Pneumatics
- CNC simulation
- 3D printing
- Laser cutting
- 2D/ 3D design software
- Transportation
- Industrial controls
- Mechanical systems
- Robotics
- Engineering construction
- Telecommunications

The teacher demonstration room

includes the Digital Learning Resources Library which contains a huge collection of engineering resources. Here teachers and students have access to a wide variety of learning content for engineering published by LJ Create.

The Digital Learning Resources Library can be operated both by teachers and by students, operating in two different domains.

The teacher can select the topics, based on the curricula, and lessons plans and support materials become available. For the different lessons a wealth of information is provided in the form of presentations, questions and answers investigations, practical's and/ or assessments.

Business Development - Turn-Key Project Development - Consultancy - Project Management - Training