GreenVETAfrica

MODULE OUTLINE		
1	**Title:**	**Module3:. Remote Expert Solution for Vocational Technical Training Programmes**
2	**Abstract with aims & objectives**	Develop trainers' digital skills for enhanced learning experience in vocational training programmes. In this course we'll introduce the remote expert digital application available on Android and smart glasses devices. The remote expert solution (widely adopted in Industry 4.0) allows to train on-the-job, in real time, virtually and collaboratively through: - Remote experts' assistance (live video/audio) - Digital Workflow and checklists for work in the field - Technical Manuals in augmented reality available also offline
3	**Key words**	Digital, smart glasses, mobile application, remote assistance, AR
4	**Knowledge domain**	Adoption of advanced digital technologies for vocational training programmes. Develop customised learning experiences based on the technical skills the students need to acquire developing: - Digital workflow (instruction to complete a task) - Virtual reality based manuals and datasheets
5	**Contents**	**Module 3: Digital Tools for teaching, learning, assessment and validation (80 Hrs, AREA)**

	(with aims & objectives and n. of hours of each module)	Unit 1: Introduction to smart remote expert solution and the technologies which enable it (10hrs)	• What is a smart remote expert solution • What is augmented reality • What is cloud computing • Basic requirements for smart remote expert solution adoption • Case studies of smart remote expert applications in different fields • Technology evolution (i.e. Integration of artificial intelligence, geolocalisation etc)
		Unit 2: Practical Case – Identify and specify the most appropriate practical application of the smart remote expert solution in the context of GreenVETAFrica training (30hrs)	• Demo of the existing smart remote expert solution • Presentation of the framework, workflow and specifications for the development of the GreenVETAfrica practical case • Trainers present (based on their specific area of expertise: i.e. sorting waste material vs mechatronic) which subject/topic could be adopted for the practical case. • Class' Discussion and identification of the practical case/s to be developed (for example: the truck load elevator is stuck, how to identify the fault; hazardous waste safety measures) • Development, collection of all the materials (photo, video technical manuals, workflow etc) needed for the development of the app
		Unit 3: Practical Case – Develop the remote expert application for GreenVETAfrica training (20hr)	• Presentation of the application backend for the creator of the practical case • Creation of the practical cases
		Unit 4: Practical Case – Testing the remote expert solution between schools (train the trainers across schools) (20hr)	• Demo of the practical case • Analysis of the bugs, faults etc. • Revision and finalisation of the application

6	**Learning outcomes ([2-3 per each module](#))**	**Module 3 Outcomes** **LOut1:** participants will be introduced to an advanced new application widely used in the manufacturing, utilities for field work management and support with a theoretical background on the key technologies behind it. **LOut2**: participants will be guided through to identify the specific application workflow in their context / teaching subject to customise the remote expert solution. They will support the development of the specific application, acquiring therefore the methodology for future customisations **LOut3:** participants will acquire confidence in applying the remote expert application for GreenVETAfrica training **LOout4:** participants will introduce the RES practically in the classroom setting applied transversally to other sectors
7	**Learners' profile**	50 Teachers (25 Ghana, 25 Nigeria) with following profile: ● Teachers and trainers ● Training tutors ● ICT technicians/trainers
8	**Delivery mode (face2face, groups, online)**	Online Groups
9	**Tools and materials needed for implementation**	Smart mobile phone Smart glasses (will be used for demo)
10	**Related Urls and Online Resources**	
11	**Type of resource (video, lesson plan, etc.)**	Lessons plan Word-Powerpoint Mobile App