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On-line learning modules for renewable energy resources for landscape development

2008-1-SK1-LEO05-00227

http://www.adam-europe.eu/adam/project/view.htm?prj=3881

Information sur le projet

Titre: On-line learning modules for renewable energy resources for landscape development

Code Projet: 2008-1-SK1-LEO05-00227

Année: 2008

Type de Projet: Projets de transfert d'innovation

Statut: Accordé

Pays: SK-Slovaquie

Accroche marketing: Main objective of the project is to create “Institute of Lifelong Learning” for agri-sector employees and to create on-line learning modules focused on landscape development in area of renewable energy resources. It will open the space for human resources development in agricultural resort. We plan to complete 5 online modules (Solar, Water, Wind and Geothermal Energy and Energy of Biomass) and other study materials in the form of CD-ROM multimedia textbook. E-learning methods and ICT devices will be used as educational methods. Project duration is 24 months – from October 1, 2008 till September 30, 2010.

Résumé: The main aim of the project is to create “Institute of Lifelong Learning” for agrisector employees. Hand in hand with this aim going creation on-line learning course with five modules focused on landscape development in area of renewable energy resources. Each of the modules will be multi-lingual – in Slovak, English and German languages. We will also prepare other study materials, in the form of CD-ROM but available from Internet too, multimedia textbook with animations, hyperlink, graphics, audio and video sequences. Last aim is to prepare “Education Guide for Tutors” and ”Education Guide for Students” – manuals how to use, create and study in online courses.

Description: Main objective of the project is to create “Institute of Lifelong Learning” for agri-sector employees. Particular aim of the project is to create on-line learning modules focused on landscape development in area of renewable energy resources (RES). It can open the space for human resources development in agricultural resort. We plan complete 5 online modules – Solar Energy, Water Energy, Wind Energy, Geothermal Energy and Energy of Biomass and prepare other study materials in the form of CD-ROM multimedia textbook with animations, hyperlink, graphics etc. E learning methods, ICT devices, LMS system and virtual study space (e.g EVO system) are used as educational methods and devices. At the same time, there will be advisory service for application RES in the agricultural sector.
The modules are prepared in cooperation with partners who are actively involved in education in the area of agricultural and renewable energy resources (RES). The project is based on the study program from Slovak Agricultural University “Techniques for renewable energy resources”. Six project’s partners have different position in the project depending on their experiences. The partners are oriented on:
agricultural and renewable energy resources (Slovak Agricultural University, Slovakia and MultiMedia SunShine Ltd., United Kingdom),
e-learning and webhosting (Infoart, Bulgaria),
technical sciences (FH Johanneum - University of Applied Science, Austria).
telematics, multimedia and e-learning (Swedish Telepedagogic Knowledge Centre, Sweden)
development of lifelong learning strategies and concepts in agri-food sector (Agroinstitut Nitra, Slovakia).
Project is the transfer of international multilanguage study materials published on virtual study space and e-books. Project transferred the innovation, knowledge and experience from the previous EU funded projects ELEVATE and EDUET. It also exploits existing materials (e books): Building for Energy Conservation and Energy Management and Renewable Energy Sources Graphical Database.
The main aim of the project RESNET is creation of Institute of Lifelong Learning for agrisector employees. Hand in hand with this aim going creation on-line learning course with five modules focused on landscape development in area of renewable energy resources. Each of the modules will be multi-lingual – in Slovak, English and German languages. We will also prepare other study materials, in the form of CD-ROM but available from Internet too, multimedia textbook with animations,

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hyperlinks, graphics, audio and video sequences.
For online courses will be prepare “Education guide for Tutors” and “Education Guide for Students”. It will be manuals how to use, create and study in online courses in LMS Moodle. Target group of the project are employees of agrisector – farmers, agricultural engineering or consultants. Complete of online course give them knowledge who can upraise their competences and application of them into praxis bring economical and ecological rural development. We expected that in longtime perspective created pilot course, and consequently other courses, will be implemented into study programs not only on Technical Faculty of Slovak University of Agricultural but in other traditional and distance forms of lifelong learning.

Thèmes:
*** Formation tout au long de la vie
*** Formation ouverte et à distance
** TIC
** Enseignement supérieur
* Marché du travail
* Écologie
* Égalité des chances
* Formation continue

Sectors:
* Activités Spécialisées, Scientifiques Et Techniques
* Information et Communication
* Agriculture, Sylviculture et Pêche

Types de Produit:
Enseignement à distance
Modules
CD-ROM
Site Internet
Matériel d'apprentissage

Information sur le produit:
Results of the RESNET project:
Institute of Lifelong Learning (www.agroinstitut.sk/ill):
- has been created January 1, 2009
- advisory services in the agriculture sector including RES application
- optimalization of the possibilities to bring the education into the area of agro-sector
- “service centre” for lifelong learning of the farmers and employees in the green sector

On-line modules (www.resnet-project.org/e-edu):
- 6 modules using e-learning methods (General, Biomass, Geothermal, Solar, Water, Wind)
- based on the principles of RES and possibilities of their use in the area of agro-sector with the main emphasis on the landscape development

Multimedia study book (www.resnet-project.org/ebook):
- offline form as CD-ROM or SD cards and online form
- six modules – solar, biomass, wind, water, geothermal, general and various quizzes
-multimedia and ICT devices are used for the creation of multimedia contents - videos, animation, text, graphics, stereo sound and computer software.

Education Guide for Tutors (http://www.resnet-project.org/guides)
- practical manual for developing valuable e-learning course in LMS Moodle environment
- principle of E-learning;
- a guide of how to prepare text for online modules;
- a guide of how to prepare interactive tools;
- a guide of how to prepare self-tests;
- how to manage time for the course.

Education Guide for Students (http://www.resnet-project.org/guides)
- practical manual for students how to study in the LMS Moodle environment
- principle of distance learning and programming education;

Information sur le projet

- how to access the course;
- definition of activities and how to use them;
- a guide of how to manage the study time;
- a guide of how to do self-tests; a guide of how to use multimedia and interactive tools.

Page Web du projet: www.resnet-project.org

Contractant du projet

Nom:	Slovak University of Agriculture
Ville:	Nitra
Pays/Région:	Západné Slovensko
Pays:	SK-Slovaquie
Type d'organisation:	Université/école supérieure spécialisée/academie
Site Internet:	http://www.uniag.sk

Personne de contact

Nom:	Zuzana Palkova
Adresse:	Tr. A. Hlinku 2
Ville:	Nitra
Pays:	SK-Slovaquie
Téléphone:	+421 905 206 963
Fax:	
E-mail:	Zuzana.Palkova@uniag.sk
Site internet:	http://www.keai.tf.uniag.sk

Coordinateur

Nom:	Slovak University of Agriculture
Ville:	Nitra
Pays/Région:	Západné Slovensko
Pays:	SK-Slovaquie
Type d'organisation:	Université/école supérieure spécialisée/academie
Site Internet:	http://www.uniag.sk

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Nom:	Zuzana Palkova
Adresse:	Tr. A. Hlinku 2
Ville:	Nitra
Pays:	SK-Slovaquie
Téléphone:	+421 905 206 963
Fax:	
E-mail:	Zuzana.Palkova@uniag.sk
Site internet:	http://www.keai.tf.uniag.sk

Partenaire

Partner 1

Nom: ET Infoart – Tinko Stoyanov
Ville: Plovdiv
Pays/Région:
Pays:
Type d'organisation: Entreprise de petite et de moyenne taille (jusqu'à 250 employés)
Site Internet: http://www.infoart-bg.com

Partner 2

Nom: MultiMedia SunShine Ltd.
Ville: MILTON KEYNES
Pays/Région:
Pays:
Type d'organisation: Entreprise de petite et de moyenne taille (jusqu'à 250 employés)
Site Internet: http://www.mmsunshine.com

Partner 3

Nom: Agroinstitut Nitra
Ville: Nitra
Pays/Région: Západné Slovensko
Pays: SK-Slovaquie
Type d'organisation: Institution publique
Site Internet: http://www.agroinstitut.sk

Partner 4

Nom: FH JOANNEUM University of Applied Sciences
Ville: Graz
Pays/Région:
Pays:
Type d'organisation: Université/école supérieure spécialisée/academie
Site Internet: http://www.fh-joanneum.at

Partenaire

Partner 5

Nom:	Swedish TelePedagogic Knowledge Center
Ville:	Nyköping
Pays/Région:	Extra Regio
Pays:	SE-Suède
Type d'organisation:	Entreprise de petite et de moyenne taille (jusqu'à 250 employés)
Site Internet:	http://www.pedagogic.com

Données du projet

Flyer_RESNET.pdf

http://www.adam-europe.eu/prj/3881/prj/Flyer_RESNET.pdf

Basic information about RESNET consortium and aims of the RESNET project

Institut_LL_brochure.doc

http://www.adam-europe.eu/prj/3881/prj/Institut_LL_brochure.doc

Produits

1 Institute of Lifelong Learning

2 Renewable Energy Resources on-line modules

3 Guides for Tutors and Students

4 Multimedia study book

Produit 'Institute of Lifelong Learning'

Titre: Institute of Lifelong Learning

Type de Produit: Autres

Texte marketing:

Description: Main role of Institute of Lifelong Learning is to optimize the possibilities to bring education into the area of the agro-sector. Especially the use of and e-Learning educational platform facilitates much easier access to the concrete themes for large scale of end-users. The ILL also enables the exchange the information between the tutor and participants of education themselves. As a part of the educational institution of the Ministry of Agriculture in Slovakia, it is involved in the development of continual educational strategies and concepts in the agro-food sector. It will also perform the tasks connected with the professional education of secondary schools focused on agriculture and the food processing industry. The project's consortium have long-time experiences with lifelong learning in the area of RES, counseling services in the agricultural area, using ICT and multimedia for education, the development of virtual study space and distance learning. Putting together all these skills, the Institute of Lifelong Learning is able to enhance the qualifications of employees in the area of agriculture and also give opportunities for economic and ecological landscape development.
From this point of view, the main role of Institute of Lifelong Learning is defined as follows:
• to optimize the possibilities to bring novel education into the area of the agro-sector;
• to provide advisory services in the agricultural sector including RES applications.

Cible: - employees of "green" sectors
- unemployees
- people interested about requalification

Résultat:

Domaine d'application:

Adresse du site Internet: www.agroinstitut.sk/ill

Langues de produit: anglais
slovaque
allemand

Produit 'Renewable Energy Resources on-line modules'

Titre: Renewable Energy Resources on-line modules

Type de Produit: Enseignement à distance

Texte marketing:

Description: For farmers, as a target group, there are not eligible study materials and the forms of study. Using e-learning methods for lifelong education enables to take into account specific conditions into this type of education. The content of RESNET modules is based on the principles of renewable energy types and possibilities of their use in the area of agro-sector with the main emphasis on the landscape development. The main points of contents can be summarized into these points:

• Solar energy
- Principles;
- Insulation measurements – methods and instruments;
- Possibilities of use;
- Thermosolar technology;
- Photovoltaics;
- Practical applications in the agro-sector.

• Water energy
- Principles;
- Hydroenergetic potential;
- Flow measuring and the power of water evaluation;
- Water engines – summary;
- Small water power stations;
- Exploitation in the landscape development and agricultural implementation.

• Wind energy
- Principles;
- Measurements and scoring speed of air stream;
- Wind engines – summary;
- Wind electric power stations – turbines, generators, accessories;
- Wind parks in landscape.

• Biomass
- Principles;
- Biomass forms – summary;
- Biomass exploitation – biofuels, wood, biogas;
- Biogas stations;
- Farmer as a grower of energy-biomass and the producer of electric power.

• Geothermal energy
- Principles;
- Ways of exploitation of geothermal energy – conventional and modern;
- Geothermal electric power station;
- Combined exploitation of thermal energy;
- Landscape development – energy production, growing of vegetable, agro-tourism.

Each module consists from 5 topics:

• 3 lessons:
- “Principle and measurement”,
- “Technologies, constructions,…”
- “Possibilities of using in the agricultural conditions”.

• final test and assignments “Using RES for landscape development”,
• another study materials and interesting web links concerning the theme of the module.

Cible:
- employees of "green" sectors
- unemployees
- people interested about requalification
- students of the VET schools, lifelong learning participants

Résultat:

Domaine d'application:

Produit 'Renewable Energy Resources on-line modules'

Adresse du site Internet: www.resnet-project.org/e-edu

Langues de produit: slovaque
anglais
allemand

Produit 'Guides for Tutors and Students'

Titre:	Guides for Tutors and Students
Type de Produit:	CD-ROM
Texte marketing:	
Description:	Guides consist from two parts, which depend on the user group – for tutors or students and obtain basic information how to using and creating online courses. The contents of the Guide for tutors will be as follows: - principle of E-learning; - a guide of how to prepare text for online modules; - a guide of how to prepare interactive tools; - a guide of how to prepare self-tests; - how to manage time for the course. The contents of the Guide for students will be: - principle of distance learning; - how to access the course; - definition of activities and how to use them; - a guide of how to manage the study time; - a guide of how to do self-tests; - a guide of how to use multimedia and interactive tools.
Cible:	- employees of "green" sectors - unemployees - people interested about requalification - people interested about LMS Moodle - students of the VET schools, lifelong learning participants
Résultat:	
Domaine d'application:	
Adresse du site Internet:	www.resnet-project.org/guides
Langues de produit:	slovaque anglais allemand

Produit 'Multimedia study book'

Titre: Multimedia study book

Type de Produit: CD-ROM

Texte marketing:

Description: The Renewable Energy Sources in Agriculture e-Book (http://www.resnet-resources.org/renewablesystems/framestw.htm) contains six modules:
- solar,
- biomass,
- wind,
- water,
- geothermal,
- general.

The e-Book contains all the elements of multimedia: videos, animation, text, graphics, stereo sound and computer software.
The Solar module deals with The Sun, Terrestrial Solar Energy Interception, Solar Angles, The Measurement of Insolation, Thermal Rectifiers, Active Concentrating Solar Collectors, Active Flat Plate Solar Collectors, Energy Storage, Solar Heat, Work, Electricity, Cold, Passive Solar Collection, Photovoltaic Systems, Thermoelectric Devices, and considers Practical Applications in the Agro-sector.
The Biomass module covers Principles, Solar Efficiencies of Crops, Photosynthesis, Respiration, Decay and Decomposition, Composting, Forms of Biofuels, Calorific Values of Organic Materials, Combustion of Organic Materials and Practical Applications in the Agro-sector.
The Wind module covers Winds, the Measurement of Air Velocities and Flow Rates, Wind Power, Wind Engines and Practical Applications in the Agro-sector.
The Water module covers Measurements of Water Flow, Water Power, Water Engines and Practical Applications in the Agro-sector.
The Geothermal module covers Geothermal Energy and Practical Applications in the Agro-sector.
The General module contains wider information recomended for advanced users only - The Rankine Cycle - Energy to Power and Electricity, Vapour Compression and Absorption Systems, Vapour Compression and Absorption Heat Pumps, Combined Heat and Power, Organic Chemistry, Osmosis and Reverse Osmosis.
By the reason limited data transfer in some kind of Internet connections has been created “less multimedia” version of eBook.

Cible:
- employees of "green" sectors
- unemployees
- people interested about requalification
- people interested about LMS Moodle
- students of the VET schools, lifelong learning participants

Résultat:

Domaine d'application:

Adresse du site Internet: http://www.resnet-project.org/ebook/

Langues de produit: slovaque
allemand
anglais