NEW TRAINING CONCEPT FOR ECODESIGNERS IN ELECTRONICS SECTOR

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Abstract

European Designers from the main sectors with production-consumption systems with globalised supply chains and large shares of imports to the EU economy: Food (Packaging), Electrical and electronic goods and Clothing are facing skills' gaps in eco-innovation. In order to reduce gaps in those sectors an Eco-Innovation Skills Alliance in four European countries (Slovenia, Spain, Romania and Italy) was created. The main results of this alliance will be a new joint curriculum and a training course for European Ecodesigners that will add skills and competences to the designers regarding environmental technologies [1].

In this paper a structure of training course for European Ecodesigners that will add skills and competences to the designers regarding environmental technologies for the electronic module is described.

Based on the identification of main needs and requirements in Slovenia regarding concepts of the learning pillars applied to the electrical and electronic sector on ecodesign, there have been defined 13 units of the training content in the module "Ecodesign for Electronics". The training material consist of video, text and presentations, in the sum of 40 hours. There are two training paths; for students the "Ecodesign in electronic" module will be integrated within subjects by the University of Maribor, Faculty of Electrical Engineering and Computer Science. Second training path will be prepared for employees and other adult learners who have interest in getting new knowledge on ecodesign. In module Ecodesign in electronic training courses will contain following topics: Life Cycle Assessment (LCA), ECO lighting, management system, future trends, recycling, ECO certification, labeling... [2]

After the successful completion of training courses on ecodesign, participants will be able to get a certificate of Supplementary qualification on Ecodesign. Supplementary qualification in Slovenia is defined by Slovenian Qualification Framework (SQF) Act (adopted in July 2016) and can be after the procedure of accreditation placed in National Qualifications framework. In this way transparency of the qualification and skills for ecodesign comprising ensuring the compliance of electrical and electronic devices and production with prescribed national, European and international legislation in the field of environmental protection will be achieved. Moreover, sustainable development paths for electrical and electronic devices, observance of prescribed standards in the field of environmental protection and implementation of good practices will be also considered [3]. The new training course will be formed by Open Educational Resources protected by open licenses and available in Massive Open Online Course platforms [1].

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References:

- [1] ECOSIGN Eco-innovation Skills for European Designers, 2015, Erasmus+, Project Full Proposal, http://www.ecosign-project.eu/
- [2] Sarjaš, Andrej, Content Electronics, WP3, 2017
- [3] Mustar, Nika, Marentič, Urška, Sarjaš, Andrej, Deliverable 1.2, WP1, 2016

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