

Aprend.E—Electronic Integrated System for Learning and Training

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Abstract

This abstract presents Aprend.E—Electronic Integrated System for Learning and Training of High School Aveiro Norte, a new challenge of the University of Aveiro for professional training and long life training. It describes the motivation that induced its implementation, advantages for students, teachers and for all those whom the system serves.

1 Aprend.E Platform

Based on a net of five specialized training units in the north region of the Aveiro district, Aprend.E is an open wide system with a vocation for dispersed learning communities with diversified needs for learning and professional training, since initial training till lifelong training.

Oriented for the use in training programs to workers, the most remarkable issue of Aprend.E is the possibility, with a considered flexibility, to complement the training in the classroom as also to redeem situations where the student—typically a worker—which had no possibility to attend the presential component of training due to limitations in his professional life.

The electronic integrated system for training and learning, beyond the fact of integrating a learning roadmap (for conception and management of lessons) and materials for presential and long-distance education, it constitutes as a class memory, susceptible to be used in a self-learning mode within a lifelong learning context.

2 Description

Based on Web technologies, the Aprend.E platform, being used as a remote tool, enables its use in telematic activities like teleworking and collaborative work, establishes a way of interaction between students and teachers that can go beyond the training, like maintaining the contact with colleagues and teachers and the search for new training activities related with their expectations and interests. In this way, the actors of Aprend.E can promote best practices by making use of technologies in the information society.

Having reached a data level segmentation oriented to students and teachers, was developed tools to enable the complementation of training sessions using electronic publishing techniques such as the association of learning materials to lessons, to disciplines, course issues and other resource tools.

After defining the conceptualization models of Aprend.E, and enabling the association of learning resources to courses and disciplines, new challenges are arising after three years of professional training. The need to improve searches of resources to lifelong learning induces the analysis and development for indexation and classification content, not only by the traditional international standards, but also for new standards like SCORM.

Aprend.E platform is an integrated instrument for blended learning that enables adaptability and flexibility of the system to improve professional learning communities.

courses	type	year	city	*tee	**ter	year	city	*tee	**ter	year	city	*tee	**ter
Mechanics Technology	TSC	2002/03	Oliveira de Azeméis	12	18	2003/04	Oliveira de Azeméis	21	16	2004/05	Oliveira de Azeméis	23	7
Multimedia Products Development	TSC	2002/03	Ovar	24	17	2003/04	Ovar	20	17	2004/05	São João da Madeira	22	16
Multimedia Products Development	TSC	2002/03	Oliveira de Azeméis	25	19	2003/04	Santa Maria da Feira	20	17	2004/05	Santa Maria da Feira	8	17
Multimedia Products Development	TSC	-----	-----	---	---	2003/04	Oliveira de Azeméis	25	18	-----	-----	---	---
Networks and Information Systems Installation and Maintenance	TSC	2002/03	São João da Madeira	22	14	2003/04	São João da Madeira	24	13	2004/05	Oliveira de Azeméis	26	13
Shoe Design and Good	TSC	-----	-----	---	---	2003/04	São João da Madeira	19	16	2004/05	São João da Madeira	17	5
Information Systems Technologies and Programming	TSC	-----	-----	---	---	2003/04	Ovar	---	---	2004/05	Ovar	20	13
Information Systems Technologies and Programming	TSC	-----	-----	---	---	-----	-----	---	---	2004/05	Oliveira de Azeméis	10	13
Work Planning and Organization	TSC	-----	-----	---	---	-----	-----	---	---	2004/05	Oliveira de Azeméis	26	18
Molds Design and Project	TSC	-----	-----	---	---	-----	-----	---	---	2004/05	Oliveira de Azeméis	25	7
Logistics and Industrial Management	SAC	-----	-----	---	---	2003/04	Aveiro	57	13	2004/05	Aveiro	86	13
Mobile Communications Networks - Operation and Maintenance	SAC	-----	-----	---	---	-----	-----	---	---	2004/05	Aveiro	51	3
Mobile Communications Networks - Client Assistance and Support	SAC	-----	-----	---	---	-----	-----	---	---	2004/05	Aveiro	50	3
Information and Communication Technologies	CC	-----	-----	---	---	-----	-----	---	---	2004/05	Oliveira de Azeméis	12	7
Mechanical Constructions Design	CC	-----	-----	---	---	-----	-----	---	---	2004/05	São João da Madeira	11	7
Maintenance Technician	CC	-----	-----	---	---	-----	-----	---	---	2004/05	São João da Madeira	16	9
Total effective users				83	68					186	123	403	151

TSC Technological Specialization Course | SAC Specialization and Actualization Course | CC Complement Course

*tee trainees | **ter trainers

Fig. 1. Apend.E total effective users list

2.1 Trainer

The trainer module enables tools for management trainer activities:

- Management
 - Personal Info
 - CV
 - Book request
- Training
 - Session management
 - Class presences
 - Session resources management
 - Module guide
- Information board
 - Community pool of interaction

2.2 Trainee

The trainer module enables tools for management trainer activities:

- Course range
 - Courses
 - Curricula programmes
 - Related document access
- Disciplines
 - Session summaries
 - Learning roadmaps
- Activities
 - Community e-journal
 - Discussion forums

References

A Practical Approach to Design, Implementation, and Management

Connolly, T., Begg, C., Database Systems, Addison-Wesley, 3rd Edition, 2002.

An Introduction to Database Systems

Date, C., VI Ed., Addison-Wesley Systems Programming Series, 1996.

E-learning Tools and Techniques

Horton, Wiley, 2003