

# **A NEW SERVICE FROM PIARC: THE DIRECTORY OF PROFESSIONAL TRAINING ORGANIZATIONS IN THE FIELDS OF ROADS AND ROAD TRANSPORTATION IN PIARC COUNTRIES**

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## **ABSTRACT**

In 2007, PIARC will post a new online information service that will be available to everyone: the directory of organizations offering professional training courses in the fields of roads and road transportation in its member countries.

This project will allow road practitioners who are seeking professional development opportunities to find organizations that are able to meet their needs, especially outside of their own country, and will be of use to administrations or institutions that are organizing training courses, because it will provide quick access to existing course programs. In addition, this directory will represent a unique opportunity for professional training organizations to be listed and easily found in a worldwide catalogue.

The directory will include a list of training organizations, along with information concerning each organization and a link to its website. A search tool will allow users to find the courses offered by country, by language, by theme, or by instructional approach (traditional or online).

## **1. THE CHALLENGE OF CONTINUING TRAINING IN ROAD TRANSPORTATION**

In their efforts to continue to offer high-quality services, transport organizations, road administrations, consulting engineering firms, and engineering companies must maintain and develop the competencies of their personnel. This is an increasingly important challenge in the current environment.

Continuous upgrading of employee competencies is required in response to the appearance of new techniques or processes, the expanding needs of clients, and the increasing diversification and specialization of expertises.

In addition, the mobility of the work force results in the hiring of new workers, who often require training in order to perform the tasks that are assigned to them. In this respect, the massive wave of retirement that is affecting some countries amplifies this phenomenon. Replacement workers, many of whom are young and recently graduated, generally require on-the-job training.

Courses must also be carefully designed to meet the specific needs of employees as efficiently as possible, because the time that is available for training is limited.

Most organizations do not have the resources required to meet all of these needs. Experienced workers who are capable of planning and organizing high-quality courses are an increasingly scarce resource, or they do not have the time required to prepare courses because of an ever-increasing workload.

In light of this, continuing training has become a serious human resources management issue for organizations. This applies to all areas of roads and road transportation, thanks to the increasingly numerous and narrowly defined specialties, and the diversity in types of work: studies and planning, construction, and maintenance. All occupational groups are affected, including engineers, professionals, technicians, and labourers.

Road transportation organizations are in need of a wide range of continuing training courses that are adapted to their requirements. These types of courses are currently offered in many PIARC member countries. Road administrations, universities, research centres, transport associations, and international organizations are among the institutions that organize courses that address every field of transportation.

While these organizations and courses are generally well known to practitioners in their own country, they are generally not well known to practitioners in other countries. On the other hand, courses that are offered in one country may well be of interest to a specialist from another continent, because travelling abroad has become easier and more commonplace. In addition, distance training has been experiencing rapid growth. Courses that are technical in content and less specific to the local context (regulatory, political, or other) can find a market beyond the boundaries of the country where the training organization is situated.

In light of this, it is increasingly useful to have access to information concerning all of the organizations that offer professional training courses in the field of transportation throughout the world.

## **2. ACTIONS TAKEN BY PIARC**

As the leading international forum for the exchange of knowledge in the fields of roads and road transportation, PIARC provides the best access to information and state-of-the-art expertise to its members and the international roads community. Beginning in the early 1990s, PIARC Technical Committees identified the issue of continuing training for road transportation practitioners, and PIARC responded by developing and publishing training catalogues [1], [2], and [3].

Through these documents, which were initially made available in print form and later in electronic form, PIARC sought to inform engineers, professionals, and decision-makers, and especially those in developing and emerging countries, of opportunities for continuing training in the field of transport management and roads engineering. These catalogues provided a listing of courses that were scheduled during the three years following publication.

In 2005, in response to a recommendation from its Commission on Technological Exchanges and Development, PIARC continued along this path by creating and posting on its website a directory of organizations in PIARC member countries that offer professional training courses in the fields of roads and road transportation.

The objectives of this new directory were similar to those of the former catalogues:

- To allow road practitioners who are seeking professional development opportunities to find organizations that are able to meet their needs, especially outside of their own country.
- To assist administrations and institutions that organize training courses by providing quick access to information respecting existing course programs.
- To provide visibility for continuing training organizations by means of a worldwide catalogue with easily retrievable listings.

The updated design of this directory is better adapted to the needs of practitioners and to today's information technologies.

### **3. STAGES IN THE DEVELOPMENT PROCESS**

During the first stage, which took place in 2006, the Commission on Technological Exchanges and Development compiled a list of training organizations in PIARC member countries that could be included in the directory. A number of sources were used to compile this list, including members of the various PIARC committees and commissions, resource persons in PIARC member countries, previous catalogues, and the Internet.

The second stage, which was launched during the fourth quarter of 2006, entailed sending a questionnaire to each of these organizations in order to confirm their interest in being listed in the directory, and inviting them to submit the information that would appear in it. The organizations were required to confirm that they meet the following conditions:

- Offer professional training (in-career or continuing) training.
- Offer this training to professionals from outside of the training organization or outside of the country.
- Are public or non-profit organizations.
- Offer training in the road and road transportation fields.
- Publish the list and schedule of courses on the Internet.
- Describe the courses on the Internet.

### **4. A NEW DIRECTORY THAT IS AVAILABLE ONLINE**

The directory of professional training organizations in the fields of roads and road transportation in PIARC countries is accessible to everyone through the PIARC website, and is available in English, Spanish, and French. Using the directory is simple and quick.

It consists mainly of a list of organizations, along with an information record pertaining to each organization (see Table 1).

Table 1 – Information record for each organization

- |  |
|--|
| <ul style="list-style-type: none"><li>- Name of the organization</li><li>- Mailing address</li><li>- Links to the professional training page(s) of the organization's website, where information concerning the courses is available</li><li>- Type of organization</li><li>- Fields in which courses are offered</li><li>- Languages in which courses are offered</li><li>- Whether or not tailored training is offered</li><li>- Teaching formats used</li></ul> |
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As was the case with previous PIARC catalogues, this directory covers only continuing training. Employment-related continuing training is aimed at active practitioners, who make up PIARC's main client base. This is distinct from basic education, which has an academic connotation.

On the other hand, although course lists were available in previous catalogues, this new directory focuses on the organizations that offer the courses. This approach has the advantage of ensuring more accurate content, because the list of organizations changes much less frequently than the course programs. This has been made possible by more widespread use of the Internet.

Professional training organizations have their own websites, and the addresses are provided in the information records that accompany their directory listings. All of the information pertaining to the courses offered can be found on the respective organizations' websites, and is updated independently of the directory itself.

The organizations that are listed in the directory consist mainly of educational institutions (universities or colleges), road administrations, training centres, research centres, and professional or technical associations.

Users receive guidance in their search for a course that is suited to their needs through a search engine that allows them to select organizations based on a variety of factors:

- Continent
- Country
- Fields in which courses are available
- Language of courses
- Tailored courses
- Teaching format

A search carried out on the website will generate a list of organizations in the selected country or continent that offer at least one course in the desired field, language, and teaching format. The user can then consult the websites of the listed organizations in order to obtain detailed information pertaining to their course programs and to each individual course, including course objectives, summary, target clientele, registration fees, duration, registration procedure, etc.

The organizations that are listed in the directory offer courses in all fields of roads and road transportation. An extensive list of fields is provided in order to help users to narrow the focus of their search (Table 2).

Table 2 – Fields in which courses are offered

|                                    |
|------------------------------------|
| Bridges and engineering structures |
| Economics and finance              |
| Environment                        |
| Geotechnics                        |
| Infrastructure management          |
| Intelligent transport systems      |
| Lighting and signalling            |
| Risk management                    |
| Road administrations               |
| Road construction (public works)   |
| Road geometry                      |
| Road materials                     |
| Road operations and maintenance    |
| Road pavements (design and repair) |
| Road safety                        |
| Road tunnels                       |
| Traffic engineering                |
| Urban and regional planning        |

English is currently the main language in which courses are offered by the various organizations, but some courses are also available in French, Spanish, and other languages.

The option of requesting that an organization develop a tailored training course is an attractive one for a company or administration that would like to offer specialized training to a group of employees. Most of the organizations that are currently listed in the directory offer this service.

The teaching formats that are available have become much more diverse in recent years, as information technologies have evolved. More and more courses offer a distance learning option using the Internet and/or the telephone, webcams, or videoconferencing.

The Internet has also facilitated the increased use of the self-directed learning option, with assistance from an instructor who can be contacted by e-mail when necessary.

In light of this, it was essential for a directory that provides worldwide coverage to distinguish between these new approaches, which greatly expand the range of courses available to practitioners from any country. Three teaching formats were identified:

- In-class learning with a teacher
- Distance learning with a teacher (by Internet, telephone, videoconference, etc.)
- Self-directed learning, with training materials and a guide

## **5. AN EVOLVING PRODUCT**

The directory of professional training organizations in the fields of roads and road transportation in PIARC countries will quickly become an indispensable reference tool for the ever-increasing numbers of professionals in this industry who are looking for the training that is best suited to their needs.

The directory will be updated on a regular basis in order to provide reliable information, and new organizations will be added as information becomes available.

## **REFERENCES**

1. PIARC Committee on Technological Exchanges and Development (1995). Catalogue of Training Courses in Transport Management and Road Engineering for Developing Countries and Those with Economies in Transition (1994 – 1995 – 1996 period), 1<sup>st</sup> edition. Permanent International Association of Road Congresses 03.04.B.
2. PIARC Committee on Technological Exchanges and Development (1996). Catalogue of Training Courses in Transport Management and Road Engineering for Developing Countries and Those with Economies in Transition (1996 – 1997 – 1998 period); 2<sup>nd</sup> revised and updated edition. World Road Association.
3. World Road Association (2000-2003). Training Activities in Transport Management and Road Engineering for Developing Countries and Those with Economies in Transition. Online catalogue on the PIARC website.