



DEDALO

Expert Management System of Airport Pavements

PAVEMENT EXPERT MANAGEMENT

PAVEMENTS

Registration of existing pavement structural sections (lists and graphs), as well as different rehabilitation works carried out on the pavement, including: execution date, type of materials, construction company, among others. This information is georeferenced and can be displayed year by year or according to the type of rehabilitation work.

CONDITION SURVEY

Structural and functional parameters of the pavements, collected either visually or through high performance devices, are uploaded to the system. These data are displayed using graphs, histograms, thematics and tables. Additionally, different technical parameters (PCN, PCI, etc.) can be represented, and DEDALO calculates automatically the PCI from the collected data.

TRAFFIC

Airport traffic data can be easily displayed or edited, and therefore, DEDALO allows to analyse and display the evolution of departures by aircraft type, graphic representation of departures and arrivals, type of aircraft and number of registered landings, distinguishing between commercial and / or general aviation. DEDALO uses these data to study pavement evolution and to obtain the ACN-PCN comparative, required by OACI.

QUERIES / PARAMETERS / REPORTS

Module allows queries and generation of reports on any data contained in the system database, so information can be visualised on the cartography or in tables, exportable in multiple formats.

SEGMENTATION

Segmentation can be established and displayed according to the homogeneous behaviour of the available information, including: pavement structural section, traffic, condition survey, etc.

PMS

This module estimates the future behaviour of pavements (structural and functional parameters) and defines the rehabilitation works that will be necessary in the following years, depending on required quality levels, expected traffic and available budget. It allows for economic adjustment and redistribution of works depending on budget constraints.

APP

Mobile application for georeferenced recording of pavement degradation detected during visual inspections. This information is used for the automatic calculation of PCI Index.

AIRSIDE-ASSETS MANAGEMENT

GEOMETRY / INVENTORY

Geometry information of each selected area can be displayed, including UTM coordinates. Additionally, DEDALO collects information of each element (beacons, signs, luminaires, etc.) in a georeferenced way. Each asset is described through a data sheet specifying its characteristics, associated documents, inspection information and performed rehabilitation works.

OPERATION AND MAINTENANCE

DEDALO allows to plan and record the required conservation and maintenance activities on the pavement and inventoried assets, so economic analytics can be developed regarding materials, machinery and workers, can be developed.

