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GEOGRAPHICAL INFORMATION SYSTEM FOR DROUGHT MONITORING AND FORECASTING IN ANDALUSIA, SPAIN : CLIMASIG.

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Abstract

The aim of this conference is to present the functional design of [Climasig](#), the climatic indicators system developed by the regional government of Andalusia, Spain. The purpose of this system is to monitor the status of climate behaviour in the whole region, being the track of the behaviour of drought, from rainfall drought indexes, one of its core elements. Drought is one of the natural phenomena that has sparked a growing concern of the agencies involved in its management. The last episodes occurred in the last two decades and them have affected increasingly vulnerable societies, highlighting the importance of establishing mechanisms, tools and protocols for monitoring and tracking the drought. In this regard, worth highlighting examples are the National Integrated Drought Information System in the United States or the Australian National Climatic Centre. Information systems on drought in the context of the European Union have also featured in the last two years by the European Drought Observatory or even by research organizations focused for example in monitoring processes in Africa, as the University of Princeton.

The Climasig system -just as these other systems- is based on three pillars: near real-time tracking, calculation of a Standardized Rainfall Drought Index and display of the geographical expression integrated within a web viewer. Climasig is a climate information system supported by a geographic database integrated with other geodatabases in the Environmental Information Network of Andalusia.

First, this conference presents the functional and process system design, the functional flows and processes applied to meteorological data from capturing information on daily rainfall to geographic interoperable services (WMS) shown in the web viewer, second the data model of entities and relationships that is implemented in PostGIS geographic database and thirdly the system architecture, mainly based on open source *software*.

Références

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