

# **Advances in Land Administration Research in Spain: Current Situation and Prospects**

**Angel COLLADO, Spain**

**Key words:** Cadastre, Land Registry, Geomatics Engineering, Young Surveyor, FIG Commission 7

## **SUMMARY**

The aim of this paper is to present the current situation of university research in land administration in Spain, as well as proposals, trends and future prospects. It will introduce and show the current situation of the Spanish dual system of land administration, Cadastre and Land Registry. Likewise, the trends, research and projects that are being carried out for its improvement will be shown within the framework of the development of the only doctoral thesis in Spain on cadastre and property from the field of Geomatics Engineering. All this with the intention of establishing international collaborations around the development of research projects for the improvement of the Spanish land administration system.

## **RESUMEN**

La presente ponencia tiene por objetivo dar a conocer la situación actual de la investigación universitaria en la administración de tierras en España, así como las propuestas, tendencias y perspectivas de futuro. Se introducirá y mostrará la situación actual del sistema dual de administración de tierras español, Catastro y Registro de la Propiedad. Del mismo modo, se mostrarán las tendencias, investigaciones y proyectos que se están llevando a cabo para su mejora en el marco del desarrollo de la única tesis doctoral en España sobre catastro y propiedad desde el ámbito de la Ingeniería Geomática. Todo ello con la intención de establecer colaboraciones internacionales en torno al desarrollo de proyectos de investigación para la mejora del sistema de administración de tierras español.

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## **1. INTRODUCTION**

The bicephalous system of Spanish land administration with one institution in charge of the fiscal field, Cadastre, and another one in charge of the legal field, Land Registry, has brought a series of challenges, problems and opportunities to coordinate both institutions over the years (Collado & Buchón-Moragues, 2022). The greatest coordination between both institutions has been taking place since 2015 at the cartographic/graphic level with the law 13/2015 which, despite all its efforts, is not free of problems that need to be solved.

The aim of this paper is to present the current situation of university research in land administration in Spain, as well as proposals, trends and future prospects. All this with the intention of establishing international collaborations around the development of research projects for the improvement of the Spanish land administration system.

## **2. METHODOLOGY**

First of all, the dual system of Spanish Land Administration will be briefly presented. The Cadastre, understood as an administrative registry of plots of land for tax purposes where the physical descriptions and ownership of the land were communicated verbally, was the only existing land management system until 1861, when the Mortgage Law was enacted and thus the creation of the Land Registry, a descriptive registry of ownership and other real rights over land, which to this day continues to be the legal guarantor of these registered real estate rights.

The professional work of the today's geomatics engineers for decades or even centuries has been to locate and delimit estates or plots according to the Cadastre and the Land Registry by carrying out geodetic, topographic and cartographic work, but also to improve this dual land administration system.

A brief analysis of the technological and technical advances in the cadastral institution and also in the land registry one will allow to understand the different actions that are being carried out from the only doctoral thesis in development in Spain on Land Administration from the perspective of Geomatics Engineering. The research and projects carried out refer, especially, to the digital transformation and georeferencing of old cadastral maps (Collado et al., 2023b), for example; public access to cadastral and registry information; as well as the search for and improvement of legal security of land tenure (Collado et al., 2022; Collado et al., 2023a) or the implementation of the 3D Cadastre, among others.

### 3. CONCLUSIONS

The projects and actions being carried out for the improvement and modernization of the Spanish dual system of land administration are being transcendental at the state level. Research from the academy on the lack of updating of cadastral titleholders at rural level or the georeferencing and vectorization of old cadastral cartography are of great interest and usefulness to the cadastral administration and to the professionals of the sector. Similarly, the geolocation of registered properties by means of genealogical and geodemographic studies and the implementation of a census of inhabitants georeferenced by means of 3D cadastre are having a great impact on municipal management and land registry administration.

Undoubtedly, the efforts carried out in university research for the advancement and improvement of the Spanish dual system of land administration are being fruitful. International collaboration in these actions and research is open and we are looking forward to working together on these issues.

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## **BIOGRAPHICAL NOTES**

PROF. ANGEL COLLADO. Bachelor's and Master's Degree in Geomatics Engineering and Geoinformation from the Universitat Politècnica de Catalunya (UPC) and the Universitat Politècnica de València (UPV), respectively. He is currently pursuing his PhD in Geomatics Engineering at the UPV with the doctoral thesis "Geolocation of registry properties through genealogical and geodemographic studies at municipal scale".

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He is currently Representative of the YSN (Young Surveyors Network) in Commission 2 of FIG (International Federation of Surveyors) and also Social Media Officer of Commission 7. He is also an active member of the FIG Academic Forum, a Spanish Representative in the Youth Commission of APPAT (Pan-American Association of Professionals in Land Surveying and Topography) and a member of the Steering Committee of the Doctoral School and the University Senate of the UPV.

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