

Multidisciplinary Approach to Surveying from Geographic Information Systems

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SUMMARY

It is possible to increase the influence of Surveying in different multidisciplinary projects from the digital training of professionals covering multiple areas. Our career as a Surveyor Engineer is taught at the Faculty of Exact Sciences, Engineering and Surveying (FCEIA) of the National University of Rosario. The training includes a solid base in Mathematics and Physics, Topography, Global Positioning Systems, subjects related to legal aspects and several related to digital competence among others. In fact, almost all subjects require this digital competence.

I will present several research projects that involve areas far from traditional surveying, solve problems similar to those solved in other very diverse countries, which makes them global and allows the development of a pedagogy to think about the construction of the problem and not only to solve it.

The management of water on the north of Rosario in the delta of the Paraná River with the intervention of National Parks, the contamination of agrochemicals and other questions on the health of the population in seven cities of the province of Santa Fe, applications of archaeology and anthropology (Fort Peace) and the use of the multi-criteria theory for environmental evaluation compared to the use of this tool in other latitudes establish a diverse panorama to expand the projection of the Survey towards current areas.

One of the projects consists of the analysis of the spatial location of immigrant flows from regions of Spain in the city of Rosario with Geographic Information Systems (GIS). In another one it was possible to join the territorial information related to the archaeological works linked to the study of

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the urban and rural area of Santa Fe The Old for the period 1573-1660, establishing for the first time an approximate cartography of the rural parcels of the zone in its original time,

The production and systematization of territorial information linked to the archaeological works carried out in the Archaeological Regulatory Plan in the southern port area of the city of Rosario, by means of topographical surveys, determination of georeferenced positions, production of specific thematic cartography, all linked to a Geographical Information System.

Finally, in a sub-basin of the Pavón Stream, critical situations are visualized with respect to current or potential erosion processes. From this, a sustainable use of the soil will be proposed.

The breadth of this view clearly favors professional insertion.

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