

THE TEACHING OF REMOTE SENSING IN SOUTH AMERICA

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Abstract

This paper presents an overview about the remote sensing teaching in South America, as well as to trends for the coming years. The remote sensing teaching in South America began in April, 1971 with the installation of the remote Sensing Master Course in the National Institute of Space Research-INPE, in São José dos Campos, São Paulo state, Brazil. This was the first world's master course in this area and for more than 15 years it was the only one. It was created with the purpose of qualifying Brazilian professionals, from natural resources area, to form the research team of INPE Remote Sensing Division. This came shortly after the beginning of the activities of remote sensing in Brazil and in Argentina, that were the first two countries of South America to work with this technology. Despite this near-simultaneous beginning the development of personnel's qualification and research activities was totally different. While in Brazil people were devoted more and more to remote sensing, in Argentina there was a progress for certain time, later there was a period of stagnation and in the last five years recovery was undertaken. While Brazil qualified people in the master course, around 250 students, among Brazilians and Latin-American that already obtained theirs master degree in remote sensing in INPE, Argentina never created regular courses in this area. Existing courses were short terms one, that is to say training courses. Theirs professionals are qualified in Brazil, United States and Europe. Now there is a very big interest from National Commission of Space Activities-CONAE of Argentina and some universities in the creation of specialization courses. Brazil, after 1971, has created a specialization course (1985) in INPE dedicated to Latin-American students, where already more than 104 students has graduated, a specialization course in remote sensing to agriculture and cartography in Santa Maria's Federal University (South of the country), a specialization course in the São Paulo State University-UNESP, Rio Claro Campus (in the Southeast of the country) today already extinct, one more master course (1990) in the Rio Grande do Sul Federal University (South of the country, close Argentina and Uruguay) and a doctorate course (1997) in INPE. Since 1996, together with ITC of Holland it was created in Cochabamba city, Bolivia, the Center of Aerospace Survey and Applications of GIS for Sustainable Development of Natural Resources-CLAS, that offers specialization courses in remote sensing and GIS. The Institute Agustin Codazzi-IAC, located in Bogota, Colombia, for a long time developed activities with ITC to offer courses in the photogrammetry and natural resources areas. This partnership no longer exists, but IAC continues offering courses in these two areas, and short term and specialization courses in the remote sensing and GIS areas. Since 1996 a growing concern about fundamental, secondary and undergraduate students qualification in the remote sensing area in South America has been observed. This concern was first addressed in 1997 when the I Workshop on Remote Sensing Teaching on Mercosul was held in Brazil. In this workshop was discussed the state-of-the-art of remote sensing teaching in Argentina, Bolivia, Brazil, Chile,

