THE NEED TO STRENGTHEN POSTGRADUATE EDUCATION IN ARGENTINE SURVEYING

- THE NEED OF THE INCORPORATION IN SOUTH AMERICA OF POSTGRADUATE DEGREE FORMATION IN SPECIFIC AREAS OF SURVEYING
- THE RECENT EXPERIENCE OF THE NATIONAL UNIVERSITY OF CATAMARCA (ARGENTINA) IN THE FOURTH LEVEL WITH SURVEYING DOCTORATE

REORGANIZATION OF THE ARGENTINE EDUCATIONAL SYSTEM
- FEDERAL EDUCATION ACT 24195 (1993)
- HIGHER EDUCATION ACT 24521 (1995)
- SECTION 43: PROFESSIONS REGULATED BY THE STATE
- THEY ARE SPECIFICALLY MENTIONED AND RESTRICTED BY THE MINISTRY OF EDUCATION ALONG WITH THE COUNCIL OF UNIVERSITIES (CIN)

PROFESSIONS REGULATED BY THE STATE MUST BE EVALUATED AND ACCREDITATED
- RESPECT THE MINIMUM TIME SCHEDULES DRAWN UP BY THE MINISTRY WITH C.I.N.
- INCLUDE THE BASIC CONTENTS
- FOLLOW QUALITY STANDARDS
- REGULATION N° 1054 - 2002
- SURVEYING ENGINEER

REGULATION N° 1054 – AMENDMENT 4: STANDARDS FOR THE ACCREDITATION
- THE TEACHING STAFF SHOULD HAVE A UNIVERSITY DEGREE AT LEAST EQUIVALENT TO THE DEGREE PROVIDED BY THE EDUCATIONAL OFFER
- THE FULL TIME TEACHERS SHOULD PROVE POSTGRADUATE DEGREE FORMATION
- THEY SHOULD PARTICIPATE IN RESEARCH WORKS, TECHNOLOGICAL DEVELOPMENT, OR INNOVATIVE PROFESSIONAL ACTIVITIES

EDUCATIONAL QUALITY
- TEACHERS QUALIFICATIONS
  - Methods
  - Techniques
  - Subjects they deal with

Postgraduate Degree Formation in Specific Areas of Surveying
LEVELS OF POSTGRADUATE STUDIES IN ARGENTINA

- DIPLOMA
- MASTER
- DOCTORATE

THEY MUST BE ACCREDITED BY THE NATIONAL COMMISSION OF EVALUATION AND UNIVERSITY ACCREDITATION

ARGENTINE EXPERIENCE IN POSTGRADUATE EDUCATION IN SURVEYING

SURVEYING DOCTORATE OF THE NATIONAL UNIVERSITY OF CATAMARCA

GENERAL OBJECTIVES:
- TO REACH EXCELLENT LEVELS OF TRAINING IN THE CHOSEN SPECIALTY
- TO ACQUIRE SCIENTIFIC FORMATION TO DRIVE SUCCESS RESEARCHES IN SURVEYING

CREATION OF THE DOCTORATE IN SURVEYING

ORDINANCE 16 OF THE NATIONAL UNIVERSITY OF CATAMARCA SUPERIOR COUNCIL, YEAR 1989

NATIONAL MINISTRY OF CULTURE AND EDUCATION

RESOLUTION 552, YEAR 1999

GIVES OFFICIAL RECOGNITION AND NATIONAL VALIDITY TO THE POSTGRADUATE DEGREE OF DOCTORATE IN SURVEYING

GENERAL OBJECTIVES:
- TO REACH EXCELLENT LEVELS OF TRAINING IN THE CHOSEN SPECIALTY
- TO ACQUIRE SCIENTIFIC FORMATION TO DRIVE SUCCESS RESEARCHES IN SURVEYING

SURVEYING DOCTORATE

IT IS EXCLUSIVELY DIRECTED TO

- SURVEYORS
- GEOGRAPHER
- ENGINEERS
- GEOPHYSICAL ENGINEERS

THE FORMATION OF SCIENTISTS AND ACADEMICIANS

TO FEEDBACK POSTGRADUATE EDUCATION

INSTITUTIONAL STRUCTURE

ACADEMIC DIRECTOR

COMMISSION OF DOCTORATE

SECRETARY OF RESEARCH AND POSTDEGREE -SCHOOL OF TECHNOLOGY AND APPLIED SCIENCES- THE NATIONAL UNIVERSITY OF CATAMARCA

ACADEMIC DIRECTOR FUNCTIONS:
- To organize the offer of post-graduate degree courses according to the specific branch of the different candidates
- To design the research programs that take into account the inclusion of these candidates
- To negotiate the necessary resources for the development of research programs
- To obtain co-operation agreements with other institutions to enlarge the academic and scientific perspective horizons
requirements to obtain the doctor's degree:

To accredit the cycles of both specialized and complementary formation

To pass an exam demonstrating his mastering in the comprehension of scientific texts of two foreign languages

To write a Doctoral Thesis that means an original research contributing to a chosen field of knowledge

To defend the Doctoral Thesis openly in front of a board of experts

registration of 36 candidates

• Argentina
• Brazil
• Uruguay
• Guatemala

only 4 candidates have been awarded the doctor's degree

candidates who have been awarded the doctor's degree

Dr Diego Erba (1998)
- resides in brazil -

Dr Analía Argerich (2000)

Dr Hilda Herrera (2001)

Dr Virginia Mackern (2003)

difficulties observed show diverse aspects to be overcome

the lack of economic support

the shortage of economic resources in the region

co-operation nets with other institutions

system of intermediate postgraduate level

postgraduate degrees in surveying

Diploma in Valuation
Diploma in Geo-referencing
Master in Geomatics

Argentina: Geographical Location of Postgraduate Degrees in Surveying

1 – Catamarca: Surveying Doctorate – National University of Catamarca
2 – Buenos Aires: Master in Geomatics - National University of La Plata
3 – San Juan: Diploma in Valuation and Diploma in Geo-referencing – National University of San Juan
IN THE LAST DECADE, SOME POSTGRADUATE DEGREE PROPOSALS IN AREAS OF INTEREST OF THE SURVEYING HAVE BEEN DEVELOPED IN ARGENTINA.

ALTHOUGH THEIR HISTORY IS VERY RECENT, THEY EXPECT TO MEET THE DEMANDS FOR HIGHLY QUALIFIED HUMAN RESOURCES IN THE PROFESSION, WITH GROWING PARTICIPATION IN INVESTIGATION SO AS TO GENERATE NEW KNOWLEDGE AND NEW TECHNOLOGIES.

"...WHEN THE OWN UNIVERSITY STRENGTHENS THE POSTGRADUATE DEGREE FORMATION, IT BEGINS TO DEMAND HIGHER CREDENTIALS FOR THE ENTRANCE TO THE EDUCATIONAL AND INVESTIGATION STAFF, THIS REQUIREMENT CONTRIBUTES TO THE INCREASE OF THE ACADEMIC LEVEL AND IT ALLOWS THE RECOVERY OF THE NORMAL ACADEMIC CIRCUITS"

ROBERTO RUIZ TORREALBA

THE SUCCESS OF THE SURVEYING DOCTORATE PROPOSAL

MAINLY DEPENDS ON THE CONVERGENCE OF HUMAN RESOURCES, INFRASTRUCTURE, FINANCING, AND CO-OPERATION AGREEMENTS TO ENLARGE THE ACADEMIC AND SCIENTIFIC HORIZONS.