

Curriculum Vitae

PERSONAL DETAILS

Full name: Mariano Fagre

Date of Birth: August 3rd, 1987

Place of Birth: San Miguel de Tucumán – Tucumán – Argentina

Nationality: Argentina

Passport number: AAA976906

Email: mfagre@herrera.unt.edu.ar

ACADEMIC DEGREE

(April 2015 – Present) PhD Student – “PhD in Sciences and Engineering” – Universidad Nacional de Tucumán – Facultad de Ciencias Exactas y Tecnología (FACET)

(2006 – 2013) Electronic Engineer - Universidad Nacional de Tucumán (UNT) - Facultad de Ciencias Exactas y Tecnología (FACET)

PROFESSIONAL EXPERIENCE

(April 2013 –April 2015) - IT Specialist – SECURIPOINT LLC – ALEX STEWART INTERNATIONAL – EE.UU (Washington DC) and West Africa.

(August 2011 – April 2013) Assistanship in “Electronic I” – Universidad Nacional de Tucumán (UNT).

(March 2012 – April 2013) Tasks Research and Development in Telecommunications Laboratory – Universidad Nacional de Tucumán (UNT).

MEMBERSHIP IN RESEARCH PROGRAMMES

"High Terrestrial Atmosphere Research and Remote Sensing Area Development by Radio Waves", PIUNT code: 26/E508. CIUNT, UNT-Argentina.

RESEARCH

I am doing research at the Laboratory of Atmospheric Physics (FACET, UNT) and at the Laboratory of Telecommunications (FACET,UNT). The main topic I work on is ionosphere study linked to telecommunications. This include statistical analysis of ionospheric data obtained from ionosondes (such as foF2, M(3000)F2, foE, h'F) from world databases, ionospheric data obtained from the Doppler Continuous Sounding System installed in Tucumán and developed by the Institute Atmospheric Physics of the Czech Republic, Prague, as well as solar and geomagnetic parameters (Rz, F10.7, Dst, Kp, Ap). I also work with models such as IRI2012. Statistical analysis includes filtering techniques, correlation analysis, Fourier and wavelet analysis to detect GWs, Spread F and trends detection methods. I usually work with MatLab, Origin, Mathematica.

PRESENTATIONS AT MEETINGS, WORKSHOP, SYMPOSIUMS

1. “Geomagnetic activity effect over continuous Doppler sounding records in Tucumán” Mariano Fagre, A.G. Elías, M.A. Cabrera, Jaroslav Chum, to be presented at the 7th Workshop "Solar Influences on the Magnetosphere, Ionosphere and Atmosphere", Sunny Beach, Bulgaria, June 1- 5, 2015.

2."High Stability Transmitter 4MHz frequency for measurement of Ionospheric Changes", presented at IX Meeting of Science and Technology, Santiago del Estero, Argentina, October 3 – 5,2013.

PROJECTS

"High Stability Transmitter 4MHz frequency for measurement of Ionospheric Changes"- Undergraduate Thesis – Telecommunications Laboratory - Facultad de Ciencias Exactas y Tecnología – Universidad Nacional de Tucumán

“Project Doppler Radar Installation to study Ionospheric changes in the Province of Tucumán”, Work done by Drs. Jaroslav Chum, Jiri Hruska, Frantisek Base - Institute of Atmospheric Physics of the Czech Republic

“Patch Antenna with Supply Network Construction and Measurement for use in Radar”– Telecommunications Laboratory - Facultad de Ciencias Exactas y Tecnología – Universidad Nacional de Tucumán

TRAINING COURSES AND SEMINARS

(September 2012) “Regional Meeting of IEEE Student Branches” – Universidad Nacional de San Juan - Argentina

(June 2012) “National Meeting of IEEE Student Branches” – Universidad Nacional de Córdoba - Argentina

(June 2012) “Biannual Meeting of the Argentina Section of the Institute of Electrical and Electronics Engineers (IEEE) – ARGENCON 2012”, Assistant – Universidad Nacional de Córdoba - Argentina

(August – November 2011) “Embedded System Design on FPGA”, Advanced Course - Facultad de Ciencias Exactas y Tecnología – Universidad Nacional de Tucumán – Argentina

FELLOWSHIP

“TIC’s de Finalización de Carrera” (2012 – 2013) – Ministerio de Ciencia y Tecnología e Innovación Productiva MINCyT - Argentina