Name: Bilel NEJI

**Date of Birth:** 05-16-1983

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## Personal Information:

Resident of: Sfax-TUNISIA

Nationality: Tunisian
Marital Status: Married

### Education:

2009-2010: Second year, PhD in Electrical Engineering, National Engineering School of Sfax, TUNISIA.

<u>2008-2009:</u> First year, PhD in Electrical Engineering, National Engineering School of Sfax, TUNISIA.

<u>2007-2008:</u> Second year Master of Science, New Technologies in Computer Systems, National Engineering School of Sfax, TUNISIA.

2006-2007: -Third year, Undergraduate in Electrical Engineering (Informatics System Engineering), National Engineering School of Sfax, TUNISIA.

School Rank: 2<sup>nd</sup> out of 120 students in Electrical Engineering.

Class Rank: 1<sup>st</sup> out of 30.

-First year Master of Science, New Technologies in Computer Systems, National Engineering School of Sfax, TUNISIA.

Rank: 2<sup>nd</sup> out of 75.

2005-2006: -Second year, Undergraduate in Electrical Engineering (Informatics System Engineering), National Engineering School of Sfax, TUNISIA.
 School Rank: - 3<sup>rd</sup> out of 122 students in Electrical Engineering.
 Class Rank: 2<sup>nd</sup> out of 30.

2004-2005: -First year, Undergraduate in Electrical Engineering, National Engineering School of Sfax, TUNISIA.

School Rank: - 9th out of 146 students in Electrical Engineering. Class Rank: 3rd out of 32.

<u>2002-2004:</u> -Second year Pre-Engineering in Math-Physics, IPEIS, Sfax, TUNISIA. -First year Pre-Engineering in Math-Physics, IPEIS, Sfax, TUNISIA.

1998-2002: Baccalauréat of Mathematics, Majida Boulila High School, Sfax, TUNISIA.

# Degrees:

Master of Science: New Technologies in Computer Systems, 2008 (Very Good).

Engineering Diploma: Electrical Engineering, 2007 (Very Good)

Baccalauréat: Mathematics, 23-06-2002 (Good)

# Training:

<u>July and August 2009:</u> Robotics and Telematics Research Laboratory, Julius Maximilians, University of Wurzburg, GERMANY.

- Topic: Simulator of UWE-3 Pico Satellite Solar Cells Panel in Space Environment.

<u>June 2009:</u> Regional Center for Remote Sensing of North Africa Countries, CRTEAN, Tunis, TUNISIA.

- Topic: Very High Resolution Images and Geographical Identification Systems.

October 2008: Turkish Air Force Academy, Aeronautics and Space Technologies Institute, Istanbul, TURKEY.

- Topic: Micro, Nano and Pico Satellites, Mission Technologies and Design Issues.

October 2007 to June 2008: INRIA Research Laboratory, Lille University, FRANCE.

- Topic: Study and Implementation of Networks on Chip and Performance Evaluation.

April 2007 to July 2007: LAMIH Research Laboratory, University of Valenciennes, FRANCE.

- Topic: Study and Design of Vehicles Detecting and Tracking System on a Reconfigurable Platform (FPGA) with Software and Hardware Solutions.

July 2006: CES Research Laboratory, Sfax University, Tunisia.

Topic: FPGAS Developments.

August 2006: Piva Software Society, TUNISIA-FRANCE.

- Topic: Study and Design of H/S Interface of a Rotor Control System.

Mars 2006: CES Research Laboratory CES, Sfax University, Tunisia.

- Topic: Study and Design of an Automatic Car Parking Prototype.

<u>July 2005:</u> Tunisian Telecom, Sfax, Tunisia.

- Topic: Study of Energy Transformers.

### Research Activities:

<u>Project:</u> Cooperation between the Research Group on Intelligent Machines Laboratory at Sfax University, TUNISIA, and the Robotics and Telematics Laboratory in Wurzburg university, GERMANY.

Topic: Contribution in Studying and Designing an Educational Tunisian Pico Satellite ERPSat-1.

#### Publications:

- 4 Papers in International Conferences:
- B. Neji, C. Hamrouni, A. M. Alimi, K. Schiling, R. A. Alim, "ERPSat-1 Scientific Pico Satellite Development". IEEE International Systems Conference, April 2010,San Diego, CA.
- B. Neji, C. Hamrouni, A. M. Alimi, K. Schiling, "Design and Prototype of an Image Capturing and Processing System for ERPSat-1 Pico Satellite". 4th International Conference on Recent Advances in Space Technologies, RAST, 2009, Istanbul.
- C. Hamrouni, B. Neji, A. M. Alimi, K. Schilling, "Design and Prototype of a Flight Microstrip Antennas for the Pico Satellite ERPSat-1". 4th International Conference on Recent Advances in Space Technologies, RAST, 2009, Istanbul.
- B. Neji, Y. Aydi, R. Ben-atitallah, S. Meftaly, M. Abid, J. L. Dykeyser, "Multisatege Interconnection Network for MPSoC: Performances Study and Prototyping on FPGA". Proc. 3th International Design and Test Workshop, pp 11-16, December 2008, Monastir, Tunisia.

### • 1 Paper in a Journal

- B. Neji, Y. Aydi, M. Abid, J. L. Dykeyser, "Etude et Conception d'un réseau multi étages reconfigurable pour les architectures MPSoC", 2008, Tunisia.

#### • <u>1 National Patent</u>

- "Pico Stellite ERPSat-1", Innorpi, Tunisia.

### Pedagogical Training:

- New Pedagogical Methods for Teaching, December 2008 and April 2009.
- Spring Pedagogical University, June 2008.
- English for Research Purposes, How to Read Research Articles, January 2008.

#### Scientific Associations:

- Institute of Electrical and Electronics Engineers, IEEE: Student Member since 2008.
- IEEE Signal Processing Society: Student Member since 2008.
- IEEE Aerospace and Electronics Society: Student Member since 2008.
- IEEE Aerospace and Electronics Tunisian Chapter: Treasurer since 2009.
- IEEE Aerospace and Electronics Student Branch Tunisian Chapter: Chair since 2010.
- Tunisian Association of Communication and Space Sciences, ATUCOM: President of the Research Team since 2008.

#### Workshop Organization:

- SSS: Seminar on Small Satellites, Monastir, TUNISIA, March 2010: President of the Organization Community.
- WNTST: Workshop on New trends in Space Technologies, Sfax, Tunisia in November 2009: Member of the Organization Community.

- Space Exploration with ACHEHED System by Prof. AYARI from NASA, Sfax, Tunisia in March 2008: Member of the Organization Community.

#### Others:

- Contractual Assistant, Sfax University, since September 2008.
- Vice President of the Pico Satellite Team at REGIM Laboratory since 2008.

## Skills:

<u>Space Technologies</u>: Small Satellites: Missions, Power Subsystems, Data handling Subsystems, Communication Subsystems, Remote Sensing Subsystems, Antennas, Frameworks, Orbits, launch...

<u>Embedded Systems:</u> Microprocessor, Microcontroller, Advanced Processor, Multiprocessor, Co-Design, FPGA, ASIC, ASIP, System on Chip, Multi Processor System on Chip, MPPSoC, NoCs...

Programming languages: VHDL, C, VB, Java ...

<u>CAO Tools:</u> Solcite for orbit and launch simulations, Quartus II, Matlab, Eagle, ISIS, ARES, AutoCAD, Solid Works, Code Composer Studio...

Operating Systems: Windows, Linux, Real Time Systems (RTOS)...

Softwares: Microsoft Office, Front Page, Photoshop, Internet, Data Base (Access)...

# Language Background:

Arab: Mother tongue.

French: Excellent. English: Very good.

-TOFEL (ITP), February 2009.

- English Diploma, Bourguiba Institute, July 2009.

## Interests:

• Space News, Robotics, Informatics and Electronics

• Sport: Football and Swimming

• Voyage: Mobility