Electrical Engineering

New Mexico Institute of Mining and Technology

January 30th, 2008

RE: Recommendation letter for Joseph Fernandez for Engineering Student of the Year

Dear Selection Committee

I am writing this recommendation letter nominating Mr. Joseph Fernandez for Tech Engineering Student of the Year award. My knowledge of Mr. Fernandez comes from being his instructor in Introduction to Design and Digital Signal Processing over a period of two semesters. Currently, he is taking my graduate level course in digital communications.

During Joseph's course of study at New Mexico Tech, he has shown great **leadership** and enthusiasm. He enjoys learning and strives to enhance his knowledge as well as sharing that knowledge with his fellow students. He is of the polite, cheerful, quite and hard working type making it **very easy** to get along with his fellow students who admire him, and his professors who respect him.
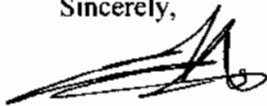
Joseph is **able** to work both **individually** as well as a member of a team. I have observed his interactions with his team members during the junior design course, and he was able interact with the team members with good spirit and enthusiasm and get the job done with great success. He loves to **learn** and apply what he has learned. Because of that he has taken many of the electrical engineering electives beyond what is required to compete his **degree** while maintaining a **high GPA of** 4.0.

In addition to excelling in his academic career, Joseph is also active in a variety of societies such as Tau Beta Pi, IEEE, New Mexico Tech Automotive Club, and New Mexico Tech Catholic Newman Center. Furthermore, he also worked as an intern for four summers at Sandia National Laboratories.

From my experience with Joseph and the motivational drive that I have seen from him, I believe he is a good example of a successful student that is excelling academically, has good social skills and a balance of extracurricular activities as well as work experience. Consequently, I strongly nominate him to this award.

If you would like additional information, please do not hesitate to contact me at (505) 835-6432 or via email at elosery@cc.nmt.edu.

Sincerely,

Aly El-Osery, Ph.D.
Assistant Professor
Electrical Engineering Dept.
New Mexico Tech

Joseph A. Fernandez

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Albuquerque, NM 87122

(505) 856-1910
jferna00@nmt.edu

Education	New Mexico Tech, Socorro, NM GPA: 4.0/4.0

BS in electrical engineering   Expected date of graduation: May 2008

Current and completed coursework:

Digital Signal Processing	Microcontrollers
Junior & Senior Design	C Programming
Electricity and Magnetism I&II	Circuit Analysis I & II
Analog Electronics I&II	Digital Electronics
Time Signals & Systems	Technical Writing

St. Pius X High School, Albuquerque, NM
Graduated May 2004; GPA of 4.6/4.0; Class Valedictorian.

Employment

Student Intern
Sandia National Laboratories - Telemetry and Data Systems
Albuquerque, NM, USA
5/2007-8/2007

- Testing support for telemetry components group
- General lab support
- Design of basic signal manipulation circuit for testing purpose
- Diagnosed failed power supplies and determined reason for failure
- Repaired power supplies and performed general maintenance on a satellite ground station
- Documented a complete test procedure for repairing power supplies
- Dreamweaver software training
- Website development

Student Intern
Sandia National Laboratories - Component Information and Models
Albuquerque, NM, USA
5/2006-8/2006

- Performed electrical measurements for semiconductor components
- Developed custom component models
- Fabricated test fixtures, adaptors, and sockets
- Became familiar with laboratory instrumentation
- Documented test procedures and delivered documented data to customers
- Radiological worker training

Student Intern
Sandia National Laboratories - Component Information and Models
Albuquerque, NM, USA
5/2005-8/2005

- Tested custom electrical CAD software package extensively
- Found, classified, and reported bugs in each release of the software
- Interfaced with users to maximize compatibility with current software

Student Intern
Sandia National Laboratories - Component Information and Models
Albuquerque, NM, USA
6/2004-8/2004

- Tested custom electrical CAD software package extensively
- Found, classified, and reported bugs in each release of the software
- Performed quality assurance test procedures
- Authored web pages documenting software and created software tutorials

Skills   C Programming Language
Visual Basic
Altera AHDL
Labview
Microcontrollers
PSpice and general electrical CAD software
Dreamweaver
Soldering
Machine shop skills

Honors   New Mexico Tech Honor Roll
New Mexico Tech Silver Scholarship
New Mexico Tech Macey Scholarship
Lottery Success Scholarship
Tau Beta Pi National Scholarship

Activities   Corresponding Secretary, Tau Beta Pi New Mexico Gamma Chapter
Former President and current Webmaster, New Mexico Tech Automotive Racing Club
Communications Coordinator, New Mexico Tech Catholic Newman Center

Professional   Vice Chair, IEEE NMT Chapter
Associations   National IEEE Student Member

References available upon request

Circuits I & II
E & M I & II
Digital